

Approaches to Alternative Entrepreneurship Opportunities



José Guilherme Leitão Dantas and Luísa Cagica Carvalho



Handbook of Research on Approaches to Alternative Entrepreneurship Opportunities

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This chapter presents a reflection on the trends of the role assumed by entrepreneurship and entrepreneurship education over the last decades, namely from the seventies of the twentieth century until today. The evolution of the concept, the adopted theories, and the change on entrepreneurship concept are analysed in the light of institutional theory. The authors begin with a brief review on institutional theory as a way to conceptualize the role of entrepreneurship in the near future. Then they present a brief systematization of the perspectives in which entrepreneurship is currently framed. Finally, they address the main possible lines of future developments for entrepreneurship, in particular as regards the aforementioned role of public policy promoter.

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This chapter focuses on entrepreneurship having students as actors. Students were engaged in the development of a business project. They turned ideas into action in a creative and innovative process. The academic study was conducted at a Polytechnic Health school. They used the management common tools to develop the idea and they experienced the role of an entrepreneur. Conversely, one of the aspects that contributed to the motivation for this work lies into the existing gap concerning project management applied to entrepreneurship. The current literature focuses on the definition of the business plan, a static component of entrepreneurship, which is fundamental for financing domains, but it neglects the dynamic component essential for the development of a business idea. The student majors' rewards were related with the teamwork environment: collaboration, communication, and creativity. This chapter provides to entrepreneurship educators, valuable insights on how to improve the effectiveness of the business project requirements in entrepreneurship education curriculum.

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The potential of academic entrepreneurship towards achieving sustainable development has been established. Likewise, sustainability is an inherent characteristic of the bioeconomy. Academics are expected to play significant roles in the successful implementation of bioeconomy through scientific research and entrepreneurship. This chapter takes academic entrepreneurship as a process that creates value from research and technology commercialisation in a bioeconomy towards achieving sustainable development in the society. The chapter employs a systematic literature review approach to identify the opportunities at the intersection of academic entrepreneurship, bioeconomy, and sustainable development. The framework of technological innovation systems (TIS) will guide this study. The chapter will conclude that the future of sustainable development in our resources-constrained planet lies in plethora of academic entrepreneurial opportunities and embracing such in the implementation of bioeconomy, an economic system that is viable for the future.

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Academic business incubators (ABI) are an important tool to support entrepreneurship awareness among higher education institutions communities, as well as to promote new and high-value companies' creation by fostering regional competitiveness. The present chapter aims to explore a Portuguese ABI implementation and development process, attending identified success critical factors on previews literature and analyzing the incubator processes and some incubatees' statements. In addition, and in line with a no "fit all" incubation practices, it draws some possible strategies that can be followed by other institutions with similar implementations and presents some results linked to the way dissemination is made and support is provided.

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There is significant research on entrepreneurs, but little on financed entrepreneurial project programs at the regional level. This chapter attempts to identify which of the several activities developed in the "Leiria Entrepreneurial Project Program" helped to promote business acceleration and to identify successful and

unsuccessful routes for the stimulus of the entrepreneurship activity. Secondary and primary data were collected. The results reveal that “Mentoring,” “Participation in Workshops,” and “Conferences” activities are the most important to stimulate the spirit of entrepreneurship. The entrepreneurs’ success route lies on the competencies of the business promoters, on multidisciplinary teams capable of creating a product/service, and on the maturity of the business idea planning in all its phases. The entrepreneur’s failure path lies on the inability to clearly identify the business idea, its development, and its implementation. The findings provide an important theoretical and managerial contributions.

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This chapter focusses on the influence of the local ecosystem on entrepreneurial intentions (EI) of entrepreneurs and potential entrepreneurs (in specific, higher education management students) of Beja (Portugal) and Huelva (Spain). The study explored the influence and support of the surrounding ecosystem on entrepreneurial initiative. Data were collected through a questionnaire from two samples of 184 entrepreneurs (100 from Huelva and 84 from Beja) and 205 business management students (107 from Huelva and 98 from Beja). In spite of the diversity of the existing structures and support, the evidence showed that, contrary to the needs of the socioeconomic sustainability of Beja and Huelva, the local ecosystems are not recognized as favourable or encouraging the EI. There are no articulated strategies between the different institutional supporting actors and the creation of a new business is perceived as a very difficult path.

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The territory of Beira Interior Norte in Portugal with the province of Salamanca in Spain have low demographic densities and populations in deep regression and aging as a result of migration movements, economic disarticulation, and specific context costs, given the different administrative framework and public policies. Promoting entrepreneurship in peripheral border regions is a key strategy for their sustainability, as part of the Europe 2020 goals for smart, sustainable, and inclusive growth. The chapter aims to provide guidelines for greater interaction between the results from the statistical analysis and its interpretation by local actors. In addition, indicate vectors that will help to design and develop the natural entrepreneurship dynamics for the Portugal/Spain border region, reinforce cooperation in the articulation of strategies, and the development of collaborative networks between entrepreneurs, training entities, business associations, and administrative entities have been explored.

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There are few studies that provide empirical evidence of the use of crowdsourcing initiatives within public organizations as an element that favors an innovative culture where employees are able to acquire a sense of accomplishment and recognition by presenting new ideas and innovative possibilities and, consequently, help to improve public sector efficiency and deliver new and better-quality services. Through a single case study, the purpose of this chapter is to assess how an internal ideation contest initiative (internal crowdsourcing) in a local government institution—Madrid City Hall (Spain)—can promote intrapreneurship and be a lever for a culture of innovation in public organizations, for which the authors have used the innovation culture model of Rao and Weintraub as a theoretical framework. The results show that through that initiative, Madrid City Hall was able to enable employees' participation, leverage collective intelligence, and definitely stimulate an entrepreneurial spirit within their organization.

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Admission of students in academic degree programs in a university fluctuates over time due to economic and global trends impacting and shifting the job opportunities from one field to another. In the absence of any government funding, revenues of private sector universities are more sensitive to these shifts. Designing and launching of new programs needs to be undertaken much before the intake dries up because there is a time-lapse of several years before the impact on admission numbers becomes visible. This chapter presents a sustainable readiness strategy for implementing intrapreneurship in a university that rewards faculty innovation and creativity in designing and launching new programs before the intake starts declining precipitously. The process of the discovery of this strategy with its implementation challenges and rewards is described through the use of autoethnographic methodology. The results show that the proposed strategy induces many benefits, such as faculty ownership, responsiveness, and motivation.

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The dynamism of the knowledge society's technological complexity and the speed with which data are processed to obtain information relevant to the firm and to generate new knowledge are making it especially important to research big data and the application of artificial intelligence to business (business intelligence) through strategic interactive processes that enable exploration and analysis of structured information on areas of the firm. Then, the chapter will examine how strategic use of tools and strategic technological variables can help firms to improve the development of their entrepreneurial processes to promote the competitive advantage of businesses. The goals of this research are to strengthen and advance the literature on corporate entrepreneurship, technology management, and business intelligence; to theoretically promote the integration of firms into the digital environment; and to research the technological connections that enable exploitation of current knowledge and entrepreneurship in order to draw conclusions to improve organizational performance.

Chapter 11

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Motivations play a critical role in setting up new organizations. Traditionally, the reasons to start a new business are mainly economic in nature. More recently, some researchers argue that some people, designated lifestyle entrepreneurs, decide to create new businesses on the grounds of personal fulfilment. This chapter aims to identify the most important motivations of lifestyle entrepreneurs and their relation with the factors that this type of entrepreneurs use to measure the success of their businesses. In order to achieve these objectives a qualitative methodology was adopted, based on the case study approach. The analysis of the cases suggests that this type of entrepreneurs are, first of all, motivated by a desire to live in a certain way and they measure their success according to the achievement of their goal, without neglecting the economic, environmental, and social sustainability of their businesses.

Chapter 12

Social Entrepreneurship: What People Are Looking for When They Talk About It 243

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This chapter seeks to understand what motivates an investment in a social entrepreneurial initiative (SEI), in order to easy the fit between investors goals and the SEI proposals. It provides a benchmark for investors and a guide for entrepreneurs through the identification of the most valued investment criteria. Data were collected online between March and May 2019 from Schawb foundation, Skoll foundation, Ashoka and Yunus Social Business. It was analyzed by content analysis. The results obtained corroborate previous literature review as well as highlighted different perspectives, suggesting further research for a better understanding where theory can improve practice. This study contributes to a theoretical consolidation of social entrepreneurship research field by means of the identification of common points among the practice of global organizations and the theory. Exploring social entrepreneurship is important because it is a new way of doing business and delivering social value and maybe the better bet to achieving a more sustainable society.

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The seriousness of current social and environmental problems implies that a real transition towards sustainable development is only possible through collaborative actions between actors and organizations. However, most of the research continues to focus on the actions of individual sustainable entrepreneurs with little evidence on business models triggered by collective entrepreneurship. This chapter aims to analyze the role of emerging pro-social collective organizations that aim to offer alternatives to capitalism, that is, an alternative to organizations that only seek to maximize economic revenues at the expense of social and environmental deterioration. Specifically, the chapter analyzes the business models of three sustainable cooperatives in Spain that have initiated a movement that promotes social well-being and environmental concern through collective business models that rely heavily on social media to gain exposure and attract followers to their cause in different strategic sectors. The cooperatives subject of this study are Som Energia, Som Conexió, and Som Mobilitat.

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The extent of internationalization by early-stage entrepreneurial firms may depend upon home country institutional conditions. Using insights from institutional theory, this chapter suggests that national-level institutional conditions facilitate or constrain the efforts made by early-stage entrepreneurs to internationalize. Given the strong linkages between entrepreneurs and the enterprises they drive, the multi-level framework proposed in this study suggests that a strong national system of innovation and better regulatory quality, which supports early internationalization by new entrepreneurial firms. Smaller domestic markets induce such firms to explore overseas markets for their products. The framework also suggests that a strong regulatory environment positively moderates the effects of national innovation systems and domestic market size on the extent of early internationalization. While implications for the internationalization process are discussed, specific reference to the importance of policy to support internationalization by early entrepreneurial firms is made.

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In recent years, emerging trends in entrepreneurial activity have been changing constantly, and new entrepreneurship types are developing in the global world. Especially, a number of studies have drawn attention to the alternative entrepreneurship approaches. This chapter reviews an alternative entrepreneurship opportunity called portfolio entrepreneurship, also known as multiple business ownership. The main purpose of this chapter is to investigate the importance of strategic decision-making of portfolio entrepreneurs. This chapter also aims to provide a framework that is three-box solution for portfolio entrepreneurs to improve their decision-making performance. The results of the study are expected to be a source for researchers and practitioners in the areas of entrepreneurship and decision making.

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Women are increasingly taking part in the business market, especially in the case of tourism. However, studies reveal that entrepreneurial women, besides the business, have other tasks, such as domestic and family obligations, being the majority responsible for the family management. The main purpose of this chapter is to investigate the contribution of entrepreneurial women in tourism companies in rural areas. A survey was applied, through a semi-structured interview, to a total of 13 tourism companies located in the municipality of Sever do Vouga (Portugal). The results indicate that although women are fewer and working together with their husbands, they are already retired, which facilitates dedication and commitment to the business on a full-time basis. Younger women with children may encounter barriers that make it harder for them to dedicate themselves to the enterprise. This research contributes to a better definition of the profile and behaviour of entrepreneurial women in rural areas, as well as identifying the motivations and barriers to invest in rural tourism.

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Crowdsourcing platforms are being used to increase citizen engagement with the development and implementation of new projects that can improve the community's wellbeing. The use of civic crowdsourcing has also been extended to the younger segments of the population, such as the Youth Participatory Budgeting in Portugal. This research aims to study the ideas developed by young citizens in order to understand whether gender is able or not to influence the ideas generated by the applicants. The study uses a quantitative approach to explore the database of proposals made to this crowdsourcing program. The results show that young men are more involved in the submission of new ideas than women. Also, some differences were found concerning the territory where the opportunities are seized, in accordance with gender. No other significant differences were found in the ideas generated, such as the number of proponents, geographical scope, theme, or budget involved.

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The figure of the woman, in the business context, has been gaining strength and space, being perceptible its rise in the entrepreneurship, over the last decades. However, this space is still predominantly male, making it harder for women to join this environment. With this in view, several researches propose to study the entrepreneurship of women, however, with a lack of feminist perspective. In this sense, this chapter aims to analyze the self-perception of female students of the course of business administration on their possibilities and challenges of acting as entrepreneurs. This research uses interviews with young women students of a course of business administration as a data, under a qualitative approach and analytical treatment. As a result, it was found that, from the interviewees' perspective, women still have their entrepreneurial ascendancy restricted mainly by prejudice and male discrimination still in force, although they believe that little by little this reality has changed.

Chapter 19

May That Nothing Limit Us, May That Nothing Define Us: The Context of Women Entrepreneurs in Startups 395

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The act of undertaking entrepreneurial activity comprises taking advantage of market opportunities, but this does not occur indiscriminately in relation to the gender of the entrepreneur. This chapter aims to analyze the context of the development of startups from the perspective of the women participation in this scenario. Thus, an overview of the development of startups in an international context and their relationship with the characteristics of entrepreneurship as a theoretical background involving this panorama is presented as results. In addition, specifically in relation to the purpose of the study, the text of the chapter deals with the issue of women in the development of startups, the theoretical discussions about women entrepreneurship, and how the experience of female participation in the development of startups is characterized in the academic literature. The chapter situates Brazilian contextual information but brings it to a broader discussion of entrepreneurship under the gender bias.

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Official data in Spain show that women's activity rate is increasing, and women's unemployment rate is decreasing during the last years. Nevertheless, both of these indicators continue being higher in men, although this difference is reduced over time because the women's participation in the labour market continues growing. In this chapter, the main objective is to analyse the added value that women bring to organisations. A qualitative study is carried out, based in an in-depth interview conducted for women that work in the Autonomous Community of Madrid (Spain). Results show the women's perception about their added value in the organisations that is mainly manifest in aspects such as commitment, equanimity, work organisation, creativity, collaboration, and empathy (called "velvet management"). Women bring innovation and creativity in an environment of diversity. Nevertheless, there are still some cultural barriers that affect the family and professional life of women that limit their professional career.

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Preface

Over the last years we have witnessed the enormous success of quite demanding ventures all over the world. We are particularly talking about technology-based projects which, in some cases, have revolutionized the way we live. Their impact on the national and international level has been unequivocal concerning jobs and wealth creation, the new solutions their development have enabled, etc.

That kind of ventures, regardless of their outstanding relevance, is the exception rather than the norm, *i.e.*, they are only the visible tip of the iceberg, in that they only account for a very small percentage of the entrepreneurial activity. Nevertheless, they belong to the so-called mainstream entrepreneurship, are the dream of every economy, and deserve the attention of many researchers.

While not ignoring those important ventures, our main goal is to fully unleash the wide potential of the entrepreneurial activity, exploring and highlighting the somewhat hidden part of the iceberg, which is the ultimate responsible for the largest part of new businesses and, as a consequence, for the wellbeing of millions of people virtually everywhere.

It must be admitted that when viewed in isolation many of these projects are nothing more than small grains of sand. However, their combined effect makes the “beach” to which we aspire (a more balanced social, economic, and environmental society) much more attractive, thus making a decisive contribution to the implementation of the United Nations’ proposed Agenda for Sustainable Development.

With this publication, therefore, the editors intend to expand entrepreneurship research in order to exploit new avenues regarding such a relevant and current subject for our collective development.

The book consists of twenty chapters which the editors decided to organize in four sections: Multidimensional Perspectives about Entrepreneurial Education, Entrepreneurial Ecosystems, Entrepreneurship Types and Theoretical Approaches, and Perspectives on Gender Entrepreneurship. It can be said that the boundaries between each of these sections are rather blurred as the chapters are to a greater or lesser extent interrelated. It is considered, however, that this structure will render the book’s consultation more effective insofar as the first two sections focus mainly on activities upstream of the entrepreneurial activity, while the last two deal specifically with different types of entrepreneurship. The last part, which is perhaps more controversial, is merely aimed at grouping together the chapters which cover the gender issue, given the specificities which are usually attributed to this subject.

In the first chapter, “Entrepreneurship Education: Background and Future”, Helena Saraiva and Teresa Paiva start by referring to the evolution of the concept of entrepreneurship, highlighting the new roles entrepreneurship should play in light of the most recent societal problems (such as depopulation of disadvantaged areas, environmental pressures, migration). In this context, the authors argue that entrepreneurship education, in addition to emphasizing opportunities/projects which generate profit, must increasingly focus on projects which might create social value in order to improve the living conditions

of the entire community, in line with what is being advocated by major international organizations (*e.g.*, EU, OECD).

In the next chapter, entitled “Entrepreneurship Learning: A Case Study”, Arminda Lopes and Eurico Lopes present distinct approaches to entrepreneurship and the characteristics of the entrepreneur, and then focus their chapter on entrepreneurship education in higher education. In this context, they discuss a set of tools which they use in their entrepreneurship classes, in the area of Health Technologies.

Section 1 closes with the chapter “Academic Entrepreneurship, Bioeconomy, and Sustainable Development” in which Oluwaseun Oguntuase introduces the bioeconomy as a path to sustainable development. The author presents several examples of companies in the field of bioeconomy (*e.g.* GF Biochemicals, Zymergen, Lumen Bioscience, AFYREN), mostly led by PhD holders who often maintain links with academia, underlining the importance of introducing the subject of entrepreneurship into the curricula of these programs, since sustainable development is itself a source of entrepreneurial opportunity that must be seized in the face of current challenges.

Section 2 incorporates four chapters more concerned with the entrepreneurial ecosystem. Thus, the fourth chapter, “Implementing Academic Business Incubators: Reflections and Best Practices of a Portuguese Case Study”, authored by Sandra Pinto, Ellis Ossmane and Luísa Carvalho, starts by stressing the role of SMEs (and therefore also entrepreneurial ventures) as the main pillars of socio-economic development and, consequently, the need to provide them with a supportive environment aimed at their emergence and success in the market, a role which HEIs might perform. The chapter then explores the concept of business incubators and, specifically, academic business incubators, to focus on IPStartUp, a young incubator led by the Polytechnic Institute of Setúbal, in Portugal, giving us an insight into its genesis, management model, the constraints it has undergone and also its first achievements.

In the fifth chapter, “Successful and Unsuccessful Routes for Entrepreneurs: Lessons From an Entrepreneurial Regional Project Program”, Susana Rodrigues, Vítor Hugo Ferreira and Gabriel Silva deal with the “Leiria Entrepreneurial Project Program - Innovate and Empower” which aimed to promote the entrepreneurial spirit and to support business acceleration, with the goal of identifying the most critical activities to stimulate the entrepreneurial activity. Their research focused on the participants in the business ideas/projects contest (included in the aforementioned program) and the results indicated that among the activities proposed in the program, mentoring, participation in workshops and conferences are the most appreciated by entrepreneurs; in turn, the most relevant success factors are the business-related promoters’ skills, the multidisciplinary nature of the team as well as the maturity of the business idea planning, while the factors causing failure included the inability to clearly identify the business idea, its development and its implementation.

Section 2 concludes with two chapters (sixth and seventh) on cross-border (Iberian Peninsula) entrepreneurship, both covering low density territories. In the first case, “The Influence of The Local Ecosystem on Entrepreneurial Intentions: A Study With Entrepreneurs and Potential Entrepreneurs of Beja (Portugal) and Huelva (Spain)”, Sandra Saúde, Patrícia Hermozilla, and Juan Diego Borrero analyze the impact of the ecosystem on entrepreneurship, interviewing higher education students (management degree) and new entrepreneurs (businesses up to 5 years) from Beja and Huelva. The authors conclude that respondents consider the existing ecosystem (public support, support structures for creating new business ideas and an entrepreneurial spirit) to be insufficient and, in particular, highlight a lack of coordination among the actors that compose it. In spite of this, the research points to high levels of entrepreneurial intention, *i.e.*, the results show the existence of an inverse relationship between the ecosystem image that the interviewees have and their entrepreneurial intention.

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In turn, the seventh chapter, “Entrepreneurship in Border Territories: Context Costs, Resilience, and Logics of Action the Companies and Entrepreneurs – Study of the Border Municipalities of Beira Interior in Portugal and Salamanca in Spain”, developed by Gonçalo Poeta Fernandes and Maria Manuela Natário, focuses on the northern border region of the Iberian Peninsula, and seeks to identify factors that may influence the renewal and consolidation of companies and entrepreneurial spirit in those peripheral regions. The authors reviewed the literature regarding cross-border areas, surveyed the region’s entrepreneurs and presented, to conclude, a set of measures aimed at reversing the situation of depopulation, population ageing, and even some apathy which characterizes this region.

Section 3 addresses specific forms of entrepreneurship and is therefore at the heart of this publication (this also applies to Section 4, although this one more gender-centered). Thus, in Chapter 8, “Intrapreneurship Initiative Based on an Internal Ideation Contest in the Public Sector: The Case of Madrid City Hall (Spain)”, Juan Ramon Campos, Patricio Morcillo, Luis Rubio-Andrada, and Marisol Celemin Pedroche introduce us to a double reality: on the one hand, intrapreneurship as an important way of renewing organizations and, on the other, its presence in the public sector whose services almost always fall short of the expectations of the citizens. The process, which is described in the chapter, is based on internal crowdsourcing. Nevertheless, the authors want to go further: taking into account that public organizations usually have a somewhat “crystallized” culture, they want to measure the impact of the initiative on the organization’s (innovation) culture. The authors conclude by underlining the success of the internal ideation contest and its contribution to making the organization’s culture more innovation-friendly.

In the ninth chapter, “A Sustainable Strategy to Handle Resource Crunch by Launching New Academic Programs”, by Muhammad Khalid Khan and Syed Irfan Hyder, intrapreneurship is addressed again, but now aimed at regenerating a private university whose enrollments were in decline due to the growing lack of employment that occurred in the region following the attack on the Twin Towers. The university’s first option was to reduce costs/investment. However, it quickly concluded that the path led to a vicious circle: lower investment, lower quality, even fewer applications. The solution which worked well was to empower their teaching staff, enabling them to develop new programs and, hence, attract more students again.

What follows is the chapter entitled “May Business Intelligence Enhance Organizational Performance Through Corporate Entrepreneurship?” in which Rodrigo Martin-Rojas, Víctor García Morales, Aurora Garrido-Moreno, and Encarnación García-Sánchez also deal with corporate entrepreneurship, although somewhat focused on business intelligence and technological skills. Nevertheless, through a set of propositions, the authors manage to establish the relationship between technological competencies, characteristics inherent to corporate entrepreneurship and organizational performance.

In the eleventh chapter, “Lifestyle Entrepreneurs: An Alternative Approach to the Entrepreneurial Activity”, José Guilherme Dantas and Fernando Valente start by clarifying the unusual concept of lifestyle entrepreneurship, concluding that a key characteristic is to prioritize the project’s contribution to the type of life entrepreneurs want to achieve rather than the economic objectives. Through a study that includes three cases, the authors also determined (without any ambition to draw general conclusions) that in this specific sector (hospitality industry), lifestyle entrepreneurs are not the “bad guys” of the sector, as some literature states. Actually, the analyzed cases are successful examples for the sector, in that they contribute to broadening the tourist offer, meet the interests of more demanding tourists and, therefore, deserve greater attention from public authorities.

In the next chapter, “Social Entrepreneurship: What People Are Looking for When They Talk About It”, by Irene Dobarrio Ciccarino and Susana Fernandes Rodrigues, the authors review the literature on

the concept of social entrepreneurship - which is far from consensual – and intend, based on the analysis of the respective websites and published case studies, to identify the criteria used by four global social entrepreneurship support organizations (Ashoka, Skoll Foundation, Schwab Foundation, and Yunus Social Business) to provide support to social entrepreneurship initiatives.

In Chapter 13, “Alternatives to Capitalism: Learning From Pro-Social Collective Business Models,” Raquel Antolin-Lopez and Ana Lopez-Cruz address collective entrepreneurship as a path to sustainable development. Thus, the authors present three Spanish (from Catalonia) cooperatives (Som Energia, Som Mobilitat and Som Connexió) which operate in the fields of renewable energy, mobility and communications, and discuss their sustainable business models. To conclude, the chapter highlights the importance of cooperatives and partnerships as a route for development and dissemination of transformational projects.

The subsequent chapter, “Home Country Institutions and International Entrepreneurship: A Multi-Level Framework”, by Etayankara Muralidharan and Saurav Pathak, has a conceptual nature and deals with the role of local institutional conditions in the internationalization of entrepreneurial projects. Throughout the chapter, the authors discuss five propositions regarding early-stage entrepreneurial ventures.

Section 3 ends with the chapter entitled “Portfolio Entrepreneurship and Strategic Decision Making in the Global Context”, where Nermin Kişi explores the portfolio entrepreneur concept and its strategic decision making process, to advocate the adoption of a methodology which the author calls a “three-box solution” in order to improve that process.

Chapter 16, “Perspectives on Female Entrepreneurship in Rural Areas: The Role of Women in Tourism Companies in Sever do Vouga, Portugal”, opens Section 4, and is authored by Ofélia Tavares, Zelia Breda, Rui Costa and Gorete Dinis. Although this last part involves more the gender issue, this chapter relies on three pillars: entrepreneurship in the field of tourism, in a rural context, and the role played by gender in these ventures. The authors emphasize the importance of rural tourism as a mean to take advantage of endogenous resources and to reverse the rural areas’ constraints. Nevertheless, given a very small and mostly male sample, they did not find major differences in the motivations and barriers to undertake stemming from gender.

In the next chapter, entitled “Gender Differences and Generation of Ideas on Civic Crowdsourcing”, Susana Bernardino and J. Freitas Santos focus on a public crowdsourcing program (the Youth Participatory Budgeting, in Portugal) to understand the possible influence of gender on the submitted proposals (such as geographical scope, team composition). The authors concluded that the proposals were mostly individual and had a regional or national impact; the participation of men and women were somewhat similar (slight prevalence of men), although women’s ideas were geographically more concentrated (North and Centre Coast) while those of men’s were more widespread.

In Chapter 18, “Women’s Self-Perception of Opportunities and Challenges for Entrepreneurship”, Jannielton de Sousa Santos, Johannes de Lima Júnior, Rafael Fernandes de Mesquita, and Vera Lúcia Cruz interview a group of young women, bachelor’s degree students in business administration, to understand how they envisage entrepreneurial activity. Whether due to the interviewees’ youth or their sociocultural context, the results are not encouraging. In addition to emphasizing sexism, which is undesirable but seems to have been gradually overcome, the interviewees show a great aversion to risk and consequently a preference for salaried work, a concern with the lack of free time, with the funding access and even with the family support among other constraints.

Maria Kélvia Araújo, Raul Luiz Silva, Rafael Fernandes de Mesquita, and Fátima Ney Matos, are the authors of the Chapter 19, “May That Nothing Limit Us, May That Nothing Define Us: The Context of Women Entrepreneurs in Startups”. The authors make an extensive literature review, focusing

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on multiple countries, to conclude that women are in a mostly unfavorable position vis-à-vis men as far as entrepreneurial activity is concerned. First of all, because of the greater social pressure to reconcile work and family life, and because of their image of being less identified with the business world. The greatest constraint, however, arises from their greater conservatism (not losing money as first goal) and risk-aversion, which hinders the attraction of more demanding investors, thus limiting their aspirations for entrepreneurship.

The publication ends with the twentieth chapter, “Innovative Contribution of Women in Spanish Companies”, by Beatriz Corchuelo and Alfonso del Horno-García. The authors mention some initiatives that have been taken with a view to gender equality, make a brief review of the literature on the incorporation of women into the world of work, and then present the evolution in Spain in recent years. Through a qualitative and exploratory study (14 in-depth interviews), focused on the Autonomous Community of Madrid, they intend to demonstrate that women (with their “velvet management”, as they call it) can be a particular added value for the organizations where they work, so that companies must be aware of this fact, and educational programs, government bodies and civil society must contribute to gender balance both in sectoral and hierarchical terms.

In short, the book starts by covering a set of activities upstream of the entrepreneurial activity, and then addresses a significant, though not exhaustive, set of different types of entrepreneurship, often paving the way for more in-depth investigations which will allow us to continue expanding such a relevant theme for our collective future.

To conclude, we would like to thank the authors whose collaboration has made this project possible and express our hope that readers will find this publication inspiring and useful.

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Section 1

Multidimensional Perspectives About Entrepreneurial Education

Chapter 1

Entrepreneurship Education: Background and Future

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ABSTRACT

This chapter presents a reflection on the trends of the role assumed by entrepreneurship and entrepreneurship education over the last decades, namely from the seventies of the twentieth century until today. The evolution of the concept, the adopted theories, and the change on entrepreneurship concept are analysed in the light of institutional theory. The authors begin with a brief review on institutional theory as a way to conceptualize the role of entrepreneurship in the near future. Then they present a brief systematization of the perspectives in which entrepreneurship is currently framed. Finally, they address the main possible lines of future developments for entrepreneurship, in particular as regards the aforementioned role of public policy promoter.

INTRODUCTION

This chapter presents a reflection on the trends assumed by the phenomenon of entrepreneurship education, over the last decades, notably from the first years of the 20th century.

The role assumed by entrepreneurship in terms of economic development has been recognized by several theorists over time, including Leibenstein (1968), Kirzner (1997) and Acs *et al.* (2004).

In a not too distant past, the study of entrepreneurship, in theoretical and empirical terms, resurfaced with some intensity in the 70's of the 20th century. At this point the importance of the phenomenon in national economies is emphasised. This vision emerges in the path of the understanding assumed earlier

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by Schumpeter (1911), which highlighted the figure and function of the entrepreneur, conceiving the concept of entrepreneurship to explain economic development and economic cycles.

Thus, for Schumpeter (1934), economic development is the consequence of new combinations of resources that can take the following forms: (a) The introduction of a new good or an existing good with a new quality; (b) The introduction of a new production method or a new form of marketing; (c) The discovery of new markets; (d) The opening of new sources of raw materials or semi-finished products; (e) The development of new forms of Organisation of the industry or of a specific sector of the economy.

In this way the main function of the entrepreneur is, through innovation, to produce imbalances to the situation of stationary equilibrium. The entrepreneur is an agent that initiates changes in a balanced system, identifies and generates new opportunities.

Until the years 90 of the last century the entrepreneur was defined in the manner previously described. However, during the decade of 90 of the 20th century the issue of the introduction of innovation as an essential aspect to evolve the economy, assumes a preponderant role. Then, starting to point the phenomenon of entrepreneurship as a way of creating innovation and introducing this innovation into society. In this sense, from the nineties onward, innovation is not only assumed to be defined in the way that Schumpeter presented it, but also includes the incorporation of technology and information technologies in the products and in production processes. At this point the issue of innovation is essential to the creation of wealth and the basis for economic development, particularly in the most developed countries.

Another strand of analysis of the phenomenon of entrepreneurship arises in association with the Global Entrepreneurship Monitor (GEM), which in the early 21st century defines entrepreneurship as a way of thinking and acting, obsessed with opportunities, with a holistic approach and balanced in terms of leadership, with the aim of creating wealth and as “any attempt to create a new business or a new initiative, such as self-employment, a new business organization or the expansion of an existing business, by an individual, team of individuals or business established” (GEM, 2004, p. 3). Here are already considered the personal characteristics of entrepreneurs. These last features govern another research agenda centred on them.

Since the beginning of the 21st century, the definition of entrepreneurship is almost always due to the reference to attitudes towards the environment and the capacity to respond to this environment, in order to construct solutions that add value to society.

This trend is growing, notably for reference institutions such as the European Union (EU) and the OECD (OECD 2019a), among others, like the United Nations, for instance (UNCTAD, 2012). In fact, these entities, apparently assume in a majority way the phenomenon of entrepreneurship as a tool of public policies to achieve certain social, environmental, economic and even cultural objectives.

The reflection that is intended in this chapter is precisely related to this last aspect and the evolution that apparently seems to exist regarding the manipulation of the phenomenon of entrepreneurship by certain entities, framing the outcome of this, in an application of institutional theory. This is intended to be the main contribution of this chapter, along with the consequences that the change that is occurring in the concept of entrepreneurship will have consequences on entrepreneurship education.

Thus, we will try to substantiate the idea that the notion of entrepreneurship has changed in the last years and it will continue to evolve, in the following points of this work, and that this change is related to the need to solve not only economic, but also social, environmental and cultural problems, by public policy makers in global terms. Necessarily, the objectives of these decision-makers and the entities where they are inserted will influence and affect the way in which entrepreneurship has evolved and

will continue to evolve. This evolution of the concept will necessarily have an impact to the researchers, academics, society and entrepreneurs and on the teaching and learning of entrepreneurship.

We begin by present some considerations about institutional theory, to conceptually frame the issue of the role of entrepreneurship, in the near future, at a first point. We will then present a brief systematization of the perspectives in which entrepreneurship is currently framed. Finally, the main foreseeable lines of future evolution will be identified and discussed for the phenomenon of entrepreneurship, particularly regarding the aforementioned role of public policy promoter. We will close with the main conclusions.

BRIEF THEORETICAL FRAMEWORK

We usually find the question of the definition of the concept of entrepreneurship addressed from the point of view of the institutions that have revealed the most intervening protagonists in the monitoring and promotion of this phenomenon.

According to March & Olsen (2008), the various areas and modalities of institutionalization affect what organizations are motivated to do and what they are capable of doing: political actors organize and act in accordance with rules and practices that are socially constructed, publicly known, expected and accepted. Because of these rules and practices, political institutions define basic rights and duties, regulating the way opportunities, costs and benefits are attributed in society, thus creating authority to resolve conflicts (March & Olsen, 2008, p. 7).

In this way, the institutions make the ordination of social relations, reducing flexibility and restricting the possibilities of a unilateral search of self-interest (Nee & Ingram, 1998). Some examples of organizations that have contributed to the definition of the process of appreciation and promotion of entrepreneurship are those of international organizations such as the OECD (Organisation for Economic Cooperation and Development) and the European Union (EU).

These entities, among others, assume themselves as milestones of the current international relationship and constitute important political forces on the world. We consider that the approach pursued, in which it is evidenced the role of the two, aforementioned, entities, in the question of how the phenomenon under study has evolved, is essential to explain this same evolution and its future perspectives.

In other words, the fact that the organisations involved in the process of evolving the phenomenon, which we point out, are a relevant aspect in relation to:

- *The way* the process evolved, and
- *In which direction* has evolved, or *for what* has evolved, because these questions lead to the definition of *who*, or in the case, which institutions should or should not develop and supervise the process.

We will follow this approach, but now to highlight the relevance of the role of the OECD and the EU in this process.

According to Nee & Ingram (1998), the existence of institutions is important because they contribute to the reduction of uncertainty in human intersections and help to solve the problem of coordination, especially in modern economies in which specialization and the division of labour gave rise to the need to sustain complex exchanges over time and through space (Nee & Ingram, 1998, p. 20-21).

This comes to meet what some authors of the New Institutional Theory advocate: the discovery of explanations in the way institutional structures respond to the conflict between government and economics, in order to privilege some interests while demobilizing other. Thus, they reveal an ancient tradition in political science that attaches importance to formal political institutions but develops a broader conception in order to assess which institutions are important and how important they are (Hall & Taylor, 1996, p. 6). In our view this has happened both in relation to the EU and the OECD, and each of them has taken a complementary role as a promoter of the process of building the entrepreneurial phenomenon at international level.

INSTITUTIONAL ROLES UNDERTAKEN IN PROMOTING AND ENHANCING ENTREPRENEURSHIP BY THE EU AND THE OECD

Analysing the roles undertaken, through the time, by EU and OECD, we can find a path in which has happened the division mentioned in the previous section in what concerns to entrepreneurship: both of them are global players in the field, concerning to the issue of planning and developing public policies in entrepreneurship. Both are focused on entrepreneurship education (Wilson, 2008). However, each one of them assumed a different role in the way of working the theme of entrepreneurship.

On the one hand, the EU has taken a role as a transmitting vehicle to the entrepreneurial phenomenon, channelling and communicating initiatives to promote entrepreneurship, such as education and training policies in the area (EC, 2012; EC, 2016). In this context, Saraiva & Paiva (2014), refer to a series of initiatives undertaken by the Union to harmonize the entrepreneurship education process in its region of influence. On the other hand, it also assumes relevance, the whole question of research on the phenomenon, which arises associated with entrepreneurial education: the Classification of categories of entrepreneurs (Sánchez-García *et al.*, 2017, p. 70); their personal characteristics; the difficulties associated with the process of undertakings; the outputs or results of the education process (Saraiva & Gabriel, 2016; Raposo & do Paço, 2011), among other topics.

The issue of entrepreneurship education support and development is clearly endorsed, also, by OECD in several documents (OECD, 2015; OECD, 2016; OECD, 2017; OECD, 2018; OECD, 2019b).

All these questions are developed and researched by professionals from different areas in order to converge to understand the entrepreneurial phenomenon, with the ultimate goal of developing and strengthening this same process or phenomenon.

On the other hand, the OECD, in the pursuit of its mission, which relates to support for sustained economic growth and the promotion of policies that improve social and economic well-being in global terms, has essentially taken a role in measuring and assessing the results of the entrepreneurial phenomenon. This is evident in several documents such as (OECD, 2015; OECD, 2015; OECD, 2016:18; OECD, 2017; OECD, 2018; OECD, 2019b).

Both entities act as identifiers or issuers of public policies that contribute to achieve their objectives of improving the conditions of the population's life, one at a global level (OECD), and the other at a regional level (EU).

Thus, for the European Union (EC, 2012), entrepreneurship respects the individual capacity to transform ideas into actions, involving this ability to creativity, innovation and risk-taking, as well as the capacity to plan and manage projects in order to achieve objectives. The same source considers that this supports the daily activities, both at a personal level and at a social level, takes the workers more aware

of the context of their work and more apt to seize opportunities, providing a basis for entrepreneurs to establish a social or commercial activity.

In this sense, it converges with the vision of Heinonen & Poikkijoki (2006), as they affirm that entrepreneurial behaviour is widespread, which is related to the call for greater and better entrepreneurial skills in order to face increasing challenges and the uncertainty of future. According to these authors, attributes related to entrepreneurial activity contribute to the objective of establishing viable platforms for the development of societies, to the high availability for change, to self-confidence and creativity, as well as to an innovative approach to problem solving.

The idea of innovation has been a constant, linked to the different aspects of entrepreneurship-in the most developed economies: long-term economic growth is essentially based on the creation of businesses and the fact that they generate innovation in products, services and processes. Thus, the creation of companies assumes high relevance and importance. The new companies support the mechanisms for increasing competitiveness and the growth of the economy. So, the EU has enhanced support for public administrations for the creation of innovative businesses and activities, and this is the main objective of Europe 2020 strategy (EC, 2015).

One of the ways in which public administrations have been working to achieve this goal is through the teaching of entrepreneurship, a practice extended to most countries in the European Union. Thus, education and training for entrepreneurship have been the most used means to leverage business activity (Levie & Autio, 2008).

The educational, teaching and training activities undertaken specifically for entrepreneurship usually have the objective of increasing the supply through different mechanisms, which usually go through the transmission of instrumental competences necessary to start and grow a new company (Honig, 2004), as well as to strengthen the cognitive capacity to manage the complexity involved in the recognition and evaluation of business opportunities (DeTienne & Chandler, 2004), and also by cultural effects on people, for example, attitudes and behavioural dispositions (Peterman & Kennedy, 2003).

As for the models that have been followed to frame the idea of entrepreneurship, education and their results, one of the most publicized and accepted is that of Heinonen & Poikkijoki (2006), which has been used by the European entity for Education, Audio-visual and Culture Executive Agency (EACEA). This model uses three perspectives as anchors of what an entrepreneurial activity should assume: attitudes, knowledge and capacity to act. This system is clear in defining the kind of entrepreneurship education that is currently held in our institutions, despite the issue of the introduction of the entrepreneurship issue is not yet sufficiently rooted in some educational degrees, especially in the earliest ones (Saraiva & Paiva, 2014).

SOME FUTURE PERSPECTIVES OF THE PHENOMENON OF ENTREPRENEURSHIP EDUCATION

Arriving at this point, and assessing the path that has been developed, both in terms of the EU's activity and the OECD, in the context of the phenomenon we are dealing with, we can envisage some areas where the entrepreneurial movement may have a preponderant role.

In our view, entrepreneurship will have, in the near future, a central place in the development of initiatives related to some of the new trends in terms of public policies, namely:

- Local development policies - the EU's bet on the valorisation of endogenous productions, the initiatives to maintain indigenous cultures and races in each region will only be possible if entrepreneurs, at a local level, participate in the reinforcement of these activities;
- The use of innovation to address global and local social challenges: these challenges are characterised by the greater international competition, local realities, environmental pressures and the ageing of the world's population;
- The promotion of innovation partnerships at global, national and local level;
- The social integration of disadvantaged groups and the contribution of what is designated by the social economy for job creation;
- The question of reducing the social, cultural and economic inequalities of disadvantaged populations, in particular, of migrant populations;
- The theme of the development and governance of cities, notably in more peripheral regions;
- The introduction of change in public administration services, in order to improve the living conditions of the populations.

In this way, we are going to see involved the phenomenon of entrepreneurship with much greater intensity than until now in solutions related to the type of themes described above. For instance, the theme of resilience of local communities to economic shocks (OECD, 2016:26-27), as for local economic development policies related to a set of aspects such as: economic, environmental, historical and cultural.

In our view this will imply that entrepreneurship is associated with the need to identify opportunities related to the problems of local communities, the maintenance of environmental conditions and the endogenous cultural characteristics and solutions that satisfies all stakeholders in the community.

The social and leadership issues of the communities will also be an extremely relevant aspect in promoting the new types of entrepreneurship that will have to emerge associated with the answers to these issues and the problems linked with them (EUROCITIES, 2019).

In this sense, we are convinced that entrepreneurship education will have to encompass aspects of economic literacy as well as the objectives of creating new companies to increase economic potential, and also aspects related to the maintenance, dissemination and development of the historical, environmental and cultural heritage of regions and its populations.

This last aspects are clearly addressed in documents originating from both entities and related to the definition of public policies (OECD, 2016; OECD 2019a; EC, 2013; EC, 2015), giving emphasis on themes like adapting the societies to major transformations, such as digitalization, globalization, ageing and environmental pressures.

CONCLUSION

According to Levie & Autio (2008), the essential question from the point of view of Entrepreneurship Research is not *who* entrepreneurs are, but rather *what their action is*, under what conditions and with what consequences.

This approach will continue to take on a high preponderance, because apparently the creation of solutions to society problems, will assume in the medium term one of the main functions of entrepreneurial activity.

In this sense, the entrepreneurship education will have to be especially attentive to this kind of needs.

Apparently there is a process of change on the finalities in which the public policies envisage the way entrepreneurship is designed: from solutions to bring a perspective focused mainly on economic growth (Bosma *et al.*, 2018; Bruns *et al.*, 2017), to another kind of societal solutions such as *National Entrepreneurship and Innovation Plan* (NEIP), in Ghana (UNCTAD, 2018a), or *Entrepreneurship Strategy of Ethiopia* (UNCTAD, 2018b), in Ethiopia, or even such as contributing to obtain inclusive and Sustainable Development Goals (SGD's), by 2030, as stated by United Nations (2019). All these aspects will have an impact either on society, entrepreneurs, research and academia; and by extension, managerial implications in the sense that dealing with such purposes require different management methods, not based on making profits or maximizing financial results, but on improving the standard of living to the people.

Although some authors, such as B  chard & Gr  goire (2005), highlight the fact that even though education is one of the most discussed topics in entrepreneurship literature, its effects in terms of the entrepreneurial activity of populations are not still clearly demonstrated, others have, however, stated precisely the opposite (Levie & Autio, 2008): the real impact of the training and teaching of entrepreneurship is either through the influence exerted on the population of a country, at the level of capacity to recognise and seize entrepreneurial economic opportunities, either through the fact that this kind of training infuses the skills and technical skills required to support the start-up phase of the companies.

Other authors (Audretsch *et al.*, 2007) considers that there is a general consensus on the fact that entrepreneurship is a phenomenon that is capable at national and regional level to be influenced by policy makers, in which the attention and knowledge conferred by those responsible is positively associated with the allocation of efforts devoted to the increase of entrepreneurship.

In this sense, it should be taken into account at this level, not only the barriers to entrepreneurial activity, but also that policies must be stabbed in strengthening the efficiency of the solutions found for the problems of the communities, as well as in the promotion of an environment capable of enhancing and motivating entrepreneurs.

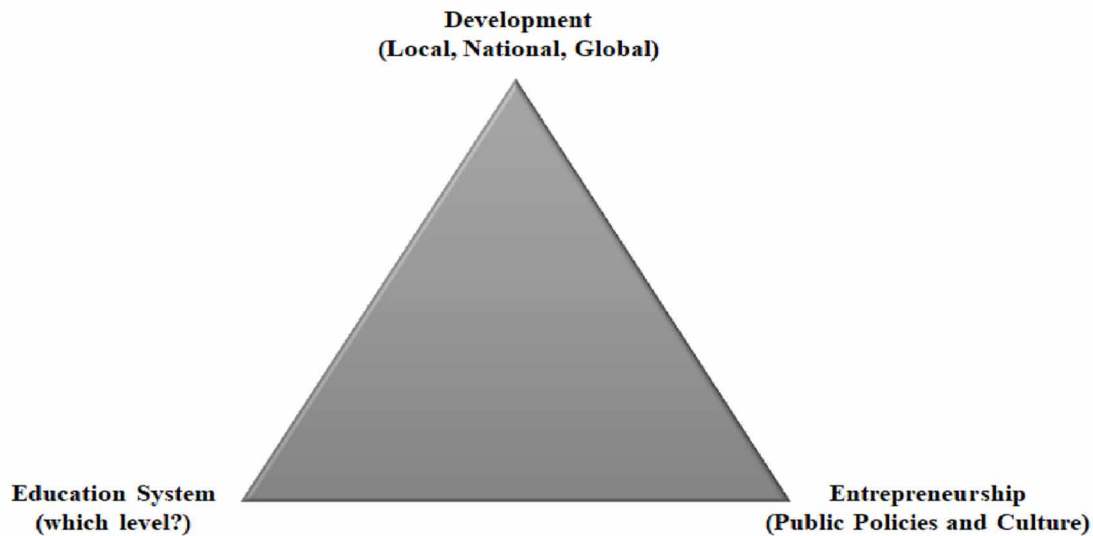
Thus, in our opinion, it will be essential, in addition to the creation of the necessary conditions to promote entrepreneurship, the creation of an entrepreneurial culture, that is, to enhance the development of individual capacities to recognise and seize opportunities. The educational system will be determinant in providing to individuals the information needed to identify these opportunities and, also, the cognitive properties necessary to value them.

In this way, we will have to continue to work on topics such as risk and uncertainty, leadership, creativity, personal characteristics, the ability to implement an idea, innovation to solve a problem by adding value, but now and in the near future, also using ways like the Social entrepreneurship, entrepreneurship by necessity, intrapreneurship, entrepreneurship developed by groups of migrants and immigrants or other disadvantaged groups. These factors also imply that management methodologies need to adapt to these special circumstances, as the objective to be achieved is more important than just the creation of financial wealth, with the necessary change in terms of managerial implications.

Institutional theory can here give us some clues as to what will become entrepreneurship in the future: we just need to look at the main measures of public policy globally, so we can uncover some trends that the education sector needs to follow.

What will become entrepreneurship and how will it evolve? If we consider the general lines drawn in public policies both from the EU and the OECD, we can conclude that the issue of entrepreneurship will be in the very near future directly integrated into a triangle consisting of three vertices, or perspectives:

Figure 1. Triangle representative of public policy components



- Entrepreneurship (public Policy and culture)
- Education (what levels?)
- Development (Local; National Global).

This triangle now proposed can be represented in the way shown in the following Figure 1 and presents the various components in which public policies are based globally and that involve, in order to develop society, the performance and participation of the system. Entrepreneurship is assumed as a mean to enable most of these issues to be implemented.

This triangle will be the engine of society's development in global terms, not only in the economic aspect, but also in the political, environmental, cultural and social aspects, among many others.

Apparently, this development will have a basis that starts from what is local, with all its specifics and idiosyncrasies, being nevertheless necessary:

- Political will and decision (at the Global and national level, to act at the local level;
- Local entities with capacity for intervention and motivation;
- Acceleration of cultural change/paradigm shift;
- Why create "out there" and not locally?

Based on the resolution of local problems, in an integrated manner and contributing to sustained global development, it will have to be taken into account both the entrepreneurial activity in all its previously mentioned variants, in the sense of effectively being achieved the implementation of the solutions advocated by the policies, along with the capacity of the educational system to develop in an early manner the entrepreneurial potential of the populations. On the other hand, in societies increasingly developed

and with better living conditions, it will be more and more necessary to promote and provide the basis of action for entrepreneurial activity, in the sense of stimulating creativity and combating risk aversion and the fear of failing, so often associated with the main barriers to promote an entrepreneurial attitude.

In short, it will have to be evaluated:

- What has changed?
- What can and must improve?
- What are the next steps to be taken to build an efficient entrepreneurial ecosystem?

These and other issues will be increasingly addressed by institutional leaders of organizations with intervention at international, national and local level.

In fact, in a near future, the environmental and social challenges will lead to changes in entrepreneurship education and will guide to a sustainable perspective that will entail an indispensable connection to innovation and technology.

LIMITATIONS AND FUTURE RESEARCH

The main limitations of the present work are those related with the fact that is a continuing research in its nature, so the analysis must be assessed in the future, and by upcoming events. Since this work is a reflection on the trends assumed by the phenomenon of entrepreneurship education, future research has to be held in all the highlighted aspects and will have to be proven, or not, in a near and in a not so near future. This can be done by conducting studies on the issue of societal solutions, their effects on the way entrepreneurship education is affected by these different kind of purposes, as well as the effects on management and managerial practices of both the initiatives themselves and the measurement of the results to be obtained, as this last will be essentially non-financial in its nature.

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KEY TERMS AND DEFINITIONS

Entrepreneurship: Entrepreneurship is commonly known as the process of designing, launching, and running a business, but nowadays as a broader definition since is consider a transversal competence that is related to the individual ability to turn ideas into actions, in the sense that this ability is linked to creativity, innovation and risk acceptance and also to the capacity of planning and project management to achieve previous defined goals.

Entrepreneurship Education: Entrepreneurship education pursues the development on students of the knowledge, skills and motivation to encourage entrepreneurial success in a diversity of settings. Each level of education, from primary school until graduate university level variations of entrepreneurship education are offered since the competences and abilities to be developed are in tune with the main pedagogical goals to be pursued in each age and maturity level of education. In the European Union the currently accepted and implemented model of entrepreneurship education is based on Heinonen and Poikkijoki (2006) that has the main objective to provide students with the attitudes, knowledge and skills for entrepreneurial action, having the different dimensions of education for entrepreneurship to be deployed in multiple categories, which constitute the framework of the various learning outcomes implemented and achieved by the countries of the European Union.

Public Policies of Education: Education public policies are the government principles of the educational themes to be pursued by the education institutions and the set of laws and rules of the government education operational system.

Chapter 2

Entrepreneurship Learning: A Case Study

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ABSTRACT

This chapter focuses on entrepreneurship having students as actors. Students were engaged in the development of a business project. They turned ideas into action in a creative and innovative process. The academic study was conducted at a Polytechnic Health school. They used the management common tools to develop the idea and they experienced the role of an entrepreneur. Conversely, one of the aspects that contributed to the motivation for this work lies into the existing gap concerning project management applied to entrepreneurship. The current literature focuses on the definition of the business plan, a static component of entrepreneurship, which is fundamental for financing domains, but it neglects the dynamic component essential for the development of a business idea. The student majors' rewards were related with the teamwork environment: collaboration, communication, and creativity. This chapter provides to entrepreneurship educators, valuable insights on how to improve the effectiveness of the business project requirements in entrepreneurship education curriculum.

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INTRODUCTION

Entrepreneurship education began in Europe in the early 1970s (Watkins, 1977; Morris and Watkins, 1982; Watkins and Stone, 1999). Then, across Europe, many European business schools have been running programs for the past decade. The European technical universities have been effective in turning out new enterprises to commercialize cutting edge technology and science.

Universities have different and multiple entrepreneurship programs. Fjeld (2016) presented a study comparing seven programs (at American Universities) in order to build a solid foundation in a framework and vocabulary for describing and comparing the programs. He argued that entrepreneurship education falls into three categories: theory-driven, case-based and experiential or learning-by-doing. The case described in this chapter follows the last category.

The entrepreneurship focus, in this chapter refers to an individual's ability to turn ideas into action, which includes creativity, innovation and risk taking, as well as the ability to plan and manage projects in order to achieve objectives.

Authors present an academic study conducted at a university level with students studying entrepreneurship course at a Polytechnic Health school. The context was settled in the understanding about the essential factors entrepreneurs should have to succeed and on the project management skills, as well as, on the suitable tools to use in order to achieve the better results on a project learning skills.

The major contribution of this chapter is to demonstrate that students in health care degrees learn entrepreneurship. They do not expect to be business/managers professionals or start up business leaders. They learn by doing the theoretical concepts and practical business analysis tools, and they experience how to create a new service or new product necessary to health technicians, doctors and nurses to improve their work conditions and the safety either of these users or for the patients who will benefit with it. The fundamental idea is to insert the learning capacity of self-organization in the creative process that leads to the success of the business project, typical of new start-ups. The better and consistent outputs of the students' projects have been presented either for patent registration or for companies' development in the market of healthcare.

This paper is organised as follows: Background section describing entrepreneur characteristics, entrepreneurship concept and learning skills and project management skills (an overview about the key knowledge areas and competencies identified in the literature); then, the methodology and approach focusing on the idea generation; and on it the practices to teach the entrepreneurship course. In development of a case section, a business project example in the area of Health Technologies in the curricular program of Bioentrepreneurship named ICA-Imunocorpantigen is presented, as well as, the design process and the business analysis tools that students followed during the project development.

BACKGROUND

This section presents the conceptual background taken into consideration to teach entrepreneurship course for health students' degrees: entrepreneur characteristics, entrepreneurship concept and learning skills, and project management learning skills. Authors did not find consistent definition of entrepreneur since an entrepreneur reflects the dominant values of his/her national culture. Our decision was to start from the classical authors' opinions, afterwards, the European Commission and the Organization for Economic Co-operation and Development (OECD) considerations about the theme, then, the focus

is on the literature concerning the entrepreneurship learning skills thoughts. Finally, a portrait about entrepreneurship education is described.

The classic contributors on the subject, Joseph Schumpeter, Frank Knight, and Israel Kirzner classify an entrepreneur as follows: Schumpeter (2000) suggested that entrepreneurs – not just companies – were responsible for the creation of new things in the search of profit. He considers that the chief characteristics of the entrepreneur are identified, one of which is the ability to combine already existing resources in creative ways. Knight (1971) focused on entrepreneurs as the bearers of uncertainty and believed they were responsible for risk premiums in financial markets. For him the motivations and characteristics needed to become a successful entrepreneur are mainly being an uncertainty-bearer and judgmental decision maker. Entrepreneurs assume the uncertainty of changing consumer wants or changing purchasing power. The savings resulting from reducing uncertainty accrue to society. He considers that the ability to deal with uncertainty: self-confidence, foresight, and intellectual capacity. Kirzner refers to alertness, creativeness and leadership to exploit profit opportunities. Kirzner assumed of entrepreneurship as a process that led to the discovery. For him the entrepreneurs are alert to new opportunities (Kirzner, 1982).

Clifton et al., (2014) considered that innate talents seem to make some people better at noticing new business opportunities. They indicated ten talents of successful entrepreneurs: business focus, confidence, creative thinker, delegator, determination, independent, knowledge-seeker, promoter, relationship-builder and risk taker. However, the idea that successful entrepreneurs have to have innate qualities has distressed significantly. These traits do not fall into any sensible pattern for start-up successes (Garavan & O’Cinneide, 1994).

The European Commission defines Entrepreneurship as: “The mindset and process [needed] to create and develop economic activity by blending risk-taking, creativity and/or innovation with sound management, within a new or an existing organisation” (ECE, 2003).

At the European Union (EU) level it is accepted that economic development and a higher life quality depends on the creation of practicable local businesses. This can be achieved by enhancing local entrepreneurial potential to set-up, develop and manage new ventures (Welsh & Drăgușin, 2011). The European Commission is committed to encouraging entrepreneurship through education. Entrepreneurship is considered one of the key competencies to be provided through lifelong learning. EU named entrepreneurial skills and abilities through the right mindset and awareness of career opportunities as an entrepreneur, as goals and methods for the European education system to achieve (European Commission, 2003; Small Business Act, 2008). As stated by Welsh & Drăgușin (2011) on the EU website (<http://ec.europa.eu/enterprise/entrepreneurship>):

Young people should be equipped with the skills they will need to be successful in a complex world. Creativity, innovation, independence, initiative, all are essential attributes for personal fulfilment and success.

This objective relates to the implicit assumption embedded in the use of business project as the more effective ways to transfer experiential learning across teams within an organization. In fact, project managers and team members may learn better through other avenues that have yet to be fully exploited by successful start-up organizations.

In the OECD book it is stated that there are numerous different definitions of entrepreneurship however, these definitions have four central concepts: the entrepreneur who is the creator of a new organisations, the buyer of an existing one or even an employee developing new projects within the organisation; the

resources that will be used; the value creation which implies the creation of any form of wealth not only for a stakeholder of the organisation, but also for the entrepreneur himself or the society as a whole; and the opportunity, the concept that the entrepreneur will try to seize according to his/her motivations and expectations (OECD 2017: 99). Moreover, the nature of entrepreneurship implies that it needs to be clearly differentiated from general management. Entrepreneurship needs to be recognised and understood as a separate academic discipline.

In Information Communications Technologies (ICT) Entrepreneurship, several researchers have looked at how design methods are adapted and appropriated in different cultural contexts (Irani *et al.*, 2010; Christensen *et al.*, 2006). According to Hazel & Jill (2009) entrepreneurship learning skills traditionally includes management development initiatives such as formal training programs, performance appraisals, 360-degree feedback, and management coaching. Additionally, in the project context, post project reviews provide a significant occasion for an organization to facilitate the learning of project managers and team members from their business project experiences (Busby, 1999).

Adequate instruction, work experience, and part models are essential factors to succeed (Gursel, 2013; Kroon 2001; Wach, 2010; Kerr et al. 2017; Windapo 2018). However, there is a need for training a major role in achieving desired behavioural outcomes, such as Project Management skills especially in terms of reinforcing ability to respond to the implementation of business models in different situations with creativity, innovation, autonomy and self-direction (Langley, 2018; Khamaksorn, 2016; Moura, 2017). These prerequisites are essential to start and grow a successful business that is sustainable (Welsh & Drăgușin, 2011). There has been a great deal of work about innovation factors (Christensen *et al.*, 2006), and some research that has related to the Silicon Valley ecosystem and attempts to replicate it or develop similar start-up ecosystems elsewhere (Wadhwa *et al.*, 2012; Cervantes & Nardi, 2012). Alternative techniques for requirements engineering when developing start-up's business plans have been looked, for example by (Ramingwong, 2012; Melegati et al, 2016; Kirikova 2017; Inflectra, 2018).

Entrepreneurship Education

A literature search on entrepreneurship education reveals a number of papers, published in the last few years, which are dedicated to explain best practices in entrepreneurship education in higher education institutions. However, most of the activities are traditionally carried out in business schools.

According to Watkins (2006) there are no well-established standards for teaching entrepreneurship. Universities have their own policies to favor these activities. Entrepreneurship education is commonly described as a way to build a bridge between the academic institutions and firms, by allowing students to get in touch with real entrepreneurs and investors.

The main common objectives of the universities' courses are to develop entrepreneurial attitudes towards entrepreneurship, to show students that entrepreneurship may constitute a viable career option for themselves or those with whom they will interact in their professional lives, and to provide students with the necessary skills to create a business.

Authors searched by best practices teaching entrepreneurship at European universities. The majority of the available curricula description is from Management or Business degrees. The methods and techniques to teach entrepreneurship courses have a common ground, the business plan development. However, they are different in a way or another. As a sample, authors chose three examples. At university 'A', the course teaches management-know-how and current methods and techniques to start up and manage businesses. The course is organized into six general management modules and four concentration

modules. At university 'B' the education is based on the elaboration of real assignments where students assume their responsibilities faced in the business world. At university 'C' the course program consists of several modules and students have to develop a business case or business plan undertaken in teams of two people. Participants can choose to take their own idea as a basis for the business case/plan, to by a third university affiliated company.

In the presented case, entrepreneurship learning is taught in the health domain, instead of management/business field. The actors are students who have to practice their skills on health field and apply it to the theoretical and practical concepts, theories and methods borrowed from management and business field in order to present a new service or product.

Project Management Learning Skills

According to literature review, authors found different definitions and discussions about the topic. Some of the authors' arguments are described in this chapter in order to support, refute, or demonstrate other positions on the topic. In this sub-section, an overview about the key knowledge areas and competencies identified, in the literature, as important for project-learning skills are presented, and then, the general tools used are discussed.

There is an extensive professional literature providing guidelines and frameworks for best practice in project management. Authors highlight the Project Management Institute (PMI, 2017) which provides a series of professional certifications based on the standards set out in its Project Management Body of Knowledge (PMBOK). The PMBOK is a detailed framework of nine knowledge areas, broken down into activities across five stages or process groups of the project life cycle, that are claimed to encompass the sum of knowledge generally recognized as good practice in the project management profession. In addition to these detailed knowledge areas, PMBOK tools and techniques are efficient.

Bassellier and Benbasat's (2004) encompass an understanding of organizational structure and the business plan and project impact on start-up projects. Since start-up project management work typically on significant interaction with unknown clients and other stakeholders in the new organizations, this broader view of organizational awareness is likely to be an important aspect of the knowledge and competencies needed by entrepreneurship project managers.

Based on the PMI and organizational structure of the business plan, the goal is to show how to link these subjects to complement the entrepreneurship teaching. The linkage of the creativity, innovation and business plan components add a dynamic component.

In business incubators or company nests are reported numerous examples of start-up's that have excellent business ideas and present good business plans. However, to start up is very difficult, leading to the failure of a vast majority. Different authors discuss several factors about start-ups failures (Feinleib, 2011; Akhmadeev and Manakhov, 2015; Mohoutand Lucas, 2017). The common cause is the lack of definition of the set of tasks to be carried out and the management of the team of entrepreneurs. The definition of the multiple tasks to perform is in the definition of project manager, the Work Breakdown Structure. There is a work trees to accomplish, that entrepreneurs have to perform, to drive their business project to success. The management of the team corresponds to the definition and sharing of responsibilities in the execution of the tasks. In Project Management, the tool RAM-Responsibility Assigning Matrix translates these responsibilities.

METHODOLOGY AND APPROACH

The teaching method described in this chapter was used in recent years in the undergraduate courses of Computer Engineering in the curricular program of (Entrepreneurship) and in the curricula of the area of Health Technologies (curricular program of Bioentrepreneurship). The obtained results about the teaching method were already published and discussed (Lopes, 2015; Lopes & Coelho, 2016; Lopes & Barata, 2016; Lopes et al., 2017). The goal was to ask students to develop a business project, following the Agile Lean Development methodology (Poppendieck and Poppendieck, 2003; Fowler, 2008).

The case described is an example from a project developed by students on the third and four level degree course. They never had any notion about business projects and they are concerned with health subjects. The students' background is the same in both degrees their specialties are different. Projects were developed during a semester (4 months).

Students developed creative skills in creating an innovative business idea within their undergraduate degree. In a second phase, they developed a business model of support, and in the third phase, they used social networks, in particular, to develop a sales forecast and product / service profile, which allows them, in a later stage, to develop the Plan and the Business Project (Eurico, 2015, Eurico & Luís, 2016).

The approach followed to teach/learn entrepreneurship was the one considered by Gibbs (2013) i.e., how students linked theory and practice through engaging in a cyclical sequence of activities: describing, feeling, evaluating, analyzing, concluding and action planning. The goal was to motivate them to learn from experience, instead of explaining the theoretical concepts first. The role of the teacher was to help students to reflect on their experience without depending from him.

Conversely, students presented their creativity along the project development. Creativity is becoming an intrinsic part of working life. It is a quality that is highly regarded, but not always well understood (Florida, 2012). Creativity denotes a person's capacity to produce new or original ideas, insights, inventions, or artistic products, which are accepted by experts as being scientific, aesthetic, social or technical value (Eysenck 1994). Creative activity grows out of the relationship between an individual and the context of his or her work, as well as out of the relations between an individual and the other human being. "Creativity isn't just a property of individuals; it is also a property of social groups" (Sawyer 2012). And the more divergent the thinking of a group, the more creative the group be considered. Other approaches about creativity reflect on creativity as the tendency to generate or recognize ideas, alternatives, or possibilities that may be useful in solving problems, communicating with others, and entertaining ourselves and others (Franken 2006). Creativity can occur through any mode of thought, most often pursued through intentional, relational and formative thought. However, creativity often results from relating cognitive objects in such a way as to generate new interpretations or expressions (Burnette 2014).

Idea Generation

The first step to arrive to the business project was the idea generation. Students were challenged to get an idea which would be developed and generate a product or service in healthcare domain. After each team discussion and settlement about the decision of which idea would be developed, they presented it to the class – teachers and other students – in a pitch session. During this session the whole participants made suggestions and critiques. Then, each team got information to re-analyze the idea and in the second pitch session they presented the final idea. From this moment they started the business plan applying the theoretical concepts of management and using the most common tools, as described below. This

phase was very interesting since they show their creative skills. In this case study, four essential stages are outlined concerning creativity: the process of getting the idea; the discussion until team members agreed with the most creative one; the challenge of the distribution tasks per members; the excitement during the output presentation to the class and to the teacher.

Project Management Tools

The project management component is described in some detail. This component complies the entrepreneurship teaching, putting the students on the dynamics of their own business plan management. Students used some project management tools such as: the Work Breakdown Structure (WBS) combined with Resources Assignment Matrix (RAM) variants. Both approaches are also a project executing judgment and team workgroup responsibilities. The WBS into a Gantt Diagram, using computational tools such as Microsoft Project or Smartsheet samples was also used.

Work Breakdown Structure Design

The scope of the project work was an iterative process that was commonly complete by the project team with the use of a Work Breakdown Structure (WBS). With this tool the team captured and then decomposed all of the effort of the project. All of the defined work was planned, assessed and approved with the use of combined management control plans (Sérgio & Eurico, 2015; Turner, 2015; PMI, 2013). Consequently, the project team organized and presented the project plan, which included the following items:

- Project Charter;
- Summary project management strategy;
- Scope statement, e.g. objectives and deliveries;
- WBS to the level of which control may be exercised;
- Cost estimates with schedules start and finish dates;
- Responsibility assignments for each deliverable within WBS;
- Major milestones;
- Risk management;
- Other management plans.

Nevertheless, the teamwork or the entrepreneurs do not need to have all the necessary skills to implement the methodology. They had items and included the main tasks from start to finish.

The WBS used by students follows the Rolling Wave Project Planning (RWPP) since this approaches to project development. Rolling wave planning is a project management technique that involves progressive elaboration to add detail to the Work Breakdown Structure (WBS) on an ongoing basis. This tool is an iterative model applicable to new business development including several technical development environments. It is an excellent formal project development approach for creative work (Gregory, 1998). When well accomplished, it balances structured process with flexibility. The WBS was divided into work packages: Business Plans, Registrations, Prototypes, Investment, Marketing and Business Overture, not necessarily in this order, however the entrepreneurship team should adequate the WBS sample to the particular business project. These work packages develop a good WBS design, since a well-designed WBS is crucial to the success of the methodology proposed, and consequently to the business project success.

Figure 1. RAM sample to explain the methodology (Source: from one team of students)

WBS Item \ Role	CEO	CFO	CHRO	CPO	COO	PM	Contractor 1	Contractor 2	Contractor 3	Contractor 4	Contractor 5	Contractor 6	Contractor 7	...	Contractor i
1. Business Plan	D				C	P			X						
1.1. Business Idea		X	C		D	P									
1.2. Business Model		D	X	d	d	P					C				
1.2.1. ---				X	D	P					C				
1.2.2. ---		D	P	P	P	P									
1.3. Sales Forecasting	D	P	X	P	P	P					C				
1.3.1. ---			D	P	C	P					C				
1.3.2. ---		P	X	P	D	P					C				
2. Registrations						P									
2.1. Patent/Brand					D	P				C	R				
2.1.1. ---	D	P	X			P	C			R					
2.1.2. ---					D	P	C			X	R				
2.2. Company name		D	P			P		C	C	C	C				
2.2.1. ---			D			P			C						
2.2.2. ---		D				P		C		C	C				
2.3. Headquarters	D	P	P	P	P	P					C				
2.3.1. ---		P		P		P									
2.3.2. ---			P		P	P		C							
3. Prototype			D	P		P		R	C	C	C				
....						P									
5.4. Overture	D	P	P	P	P	P									
5.4.1. ---			P	P	P	P									
5.4.2. ---		P			P	P				C		C			

Responsibility Assignment Matrix

Project responsibilities roles were assigned to project participants. In practice, participants can vary over time, however the authors recommend that the strategic level should be used against the operational level, where this variation occurs more frequently. Project manager's responsibilities and functions are generally critical; however they may vary according to the application area of the project (Cleland, 2004; Young, 2007; Turner, 2008; PMI, 2013). The Responsibility Assignment Matrix (RAM) should be strategic and is used to ensure that each project management component is assigned to a responsible staff. Figure 1 shows a generic RAM, which will be used to explain the methodology. The first column represents work packages indicated in the WBS. Levels of responsibility were assigned to this column. In the case example, a team of 5 elements is indicated at start-up foundation, then a CEO, CFO, will be assigned to it, and so on. The last columns refer to the group of subcontractors that were the set of suppliers of goods and services required to the start-up.

The terms CEO, CFO etc. refers namely to: Chief Executive Office, Chief Finance Officer, Chief Human Resources Office, Chief Production Office and Chief Information Office. These roles were assigned to members of the Entrepreneur group, sometimes they are contracted, for example, an accountant for the role of CFO. In terms of run or execution time, "X" is the overall implementation. There are other assigned letters to indicate, for example, a meeting, or someone to be heard, or an approval, which means, that the rule was assimilated to meetings, to communication channels, or other task. In this chapter, the authors used the nomenclature indicated by the PMI (2013). Other forms may be more useful to the entrepreneurship team manager, according to their experience, for example, the Cleland & King (1988) terminology. The main goal was to guide the entrepreneurship team to organize the "To Do" list of tasks and to distribute the responsibility of execution between teamwork and, finally, to help dealing with contractors. Generally, the entrepreneurship team organized themselves as classical old fashion companies by departments, losing their agility to adapt and facing the problems during the

business project implementation. If the start-up succeeds it will become a star and, in their position, the entrepreneurship team will decide what departments or organization, they should have.

Gantt Chart

Clark and Gantt (1923) published their work on Gantt charts in 1923. This early work is significantly important not only because it introduced Gantt charts, but also because it described several variants of the basic Gantt chart that uses additional symbols and annotations to encode extra information for decision-making (Szekely et al. 2012). So, Gantt chart is an indispensable tool for the team to manage their projects. It permitted to visualize and chaining the tasks they had to perform. In this way, the entrepreneurial team could organize their work by controlling the adversities that they encountered and thus, they were able to successfully implement their business project.

Several tools are available to pass from WBS to a Gantt chart. Experienced entrepreneurship teams may use Microsoft Project, which is a very powerful tool. Another tool available is, for example, Smartsheet (2018). There are other tools to compose the Gantt diagram from the WBS, see for example: Wrike (2018) and Bitrix24 (2018).

DEVELOPMENT OF A CASE

The business project example, named ICA-Imunocorpantigen, is in the area of Health Technologies and was developed in the curricular program of Bioentrepreneurship. The idea was based on an immunochromatographic test where most of the antibodies and antigens of great clinical significance are detected. These tests are easy and quick to perform, being the ideal tests to be performed in an emergency.

In the first stage, the 3 years undergraduate students developed the business idea, extensively utilizing the brainstorming technique within the group. They searched about patents and similar companies and products, in order to find an opportunity that motivated them in the development of the business project over the semester. In the second stage, the group defined the business model, performing a SWOT analysis using the Porter model and the value chain that allowed them to determine the organizational model and its costs. In this way, they created a Vision and Mission for their business model and established the objectives. In the third stage, a survey was conducted to obtain information on acceptance of the product under development to respond to the 4P's of marketing and product sales prevision. Figure 2 presents the design process.

The objectives of this third stage were presented on figure 3: to forecast sales for a period of five years, to identify the first customers and the target market, to create business and marketing strategies, to search sales growth perspectives and future investors. In the last step, the financial statements were developed using the IAPMEI (2016) worksheet and finally, the business project.

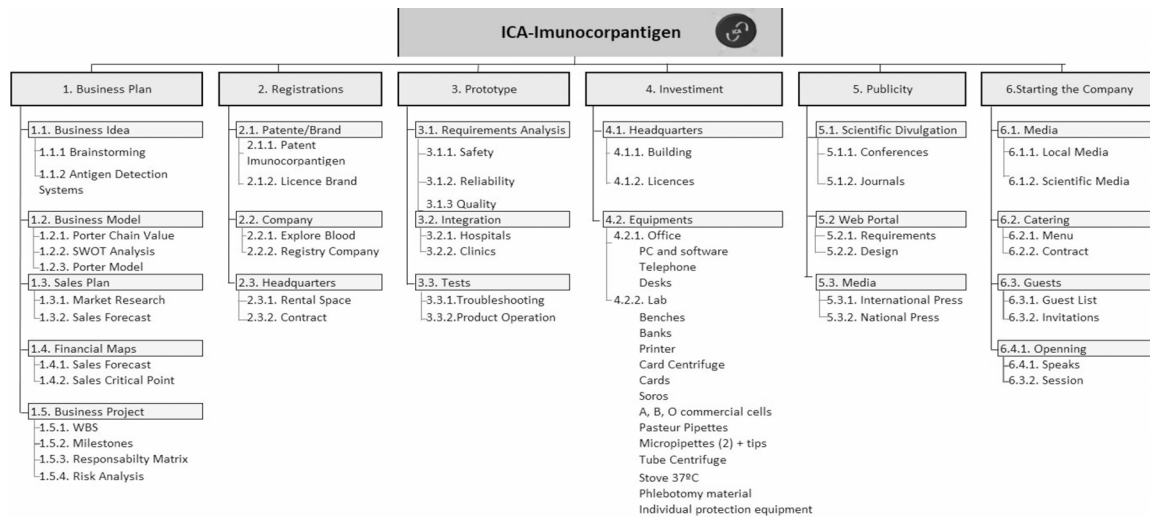
Having obtained the business plan, the group of entrepreneurs faced the problem of organizing themselves in a way that will lead to their successful start-up.

The group consisted of 5 students who have defined their roles in the project. Given that, they planned to form a start-up. One of them took the place of CEO, another one the role of project manager, another one was in charge of the financial control and so on, in order to organize themselves in the best way they could to succeed. Next, the proposal of responsibilities that the group defined among them is indicated and that allows the definition of the matrix of responsibilities.

Figure 2. Design process



Figure 3. WBS for ICA Imunocorpantigen, (Source: one team of students)



- In the business plan, the business idea was regulated by the CEO, Inês and by the project manager Filipa, Cristiana, Viktoriya and Nelson.
- Filipa always evaluated the progress, sometimes in conjunction with other partners.
- The CEO, Inês, was responsible for the decision about the business plan, financial statements, business project, patent, company, and integration of the equipment in the labour market. Everything concerning the start-up of the company. She also carried out some consultancy concerning the equipment in the value chain.

Entrepreneurship Learning

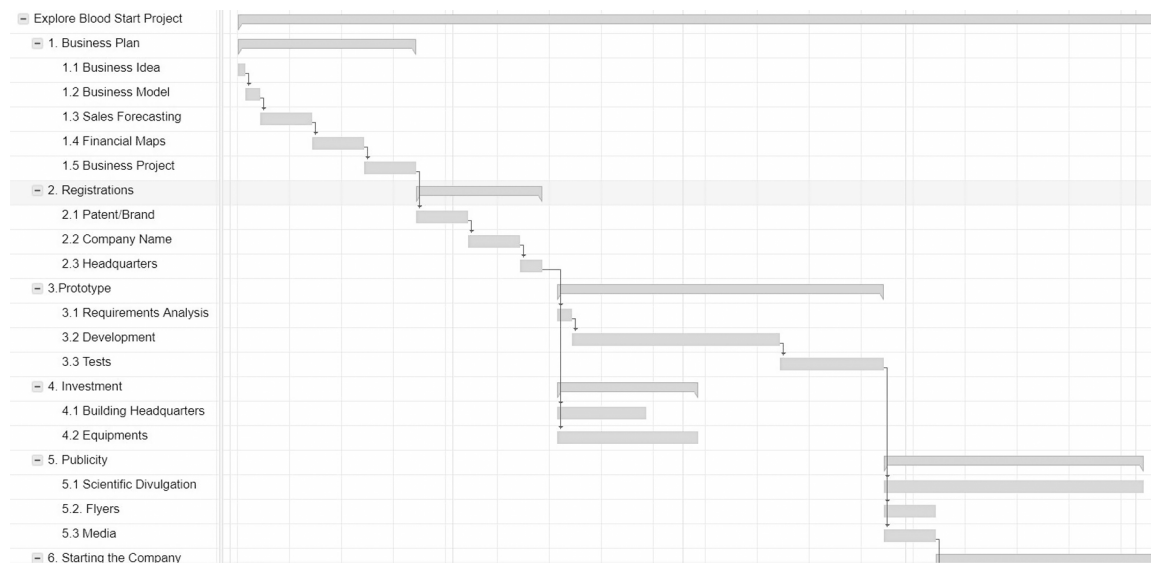
- Partner Viktoriya was responsible for the executive work i.e. things like the parameters of the business idea, the verification of the operation of the equipment, the acquisition of laboratory items and technological equipment. She took part on decisions making about the company.
- The partner Cristiana was in charge of the maintenance work, definition of rules, and on its implementation. She took several decisions, together with the CEO, and the other partners of the company. She was also responsible for monitoring the progress of the business idea, the patent, and the catering service.
- The partner Nelson was responsible for the counselling services regarding, for example, the business idea in the SWOT analysis. He also performed control services for various stages, such as catering, business model and business plan. He could give his opinion in a number of other matters, together with the other partners.
- The project manager, and also partner of the company, Filipa, checked the progress of all the necessary parameters for the company opening. She took decisions in several stages, such as in the business plan, financial statements, patent and company records, as well as, on the integration of equipment into hospitals and clinics and the dissemination of the product to the market.

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There was a transposition of the tasks indicated in the WBS to the responsibility matrix. At that moment, they were indicated on the left column. The group had to define their responsibilities. And there were situations where the whole group participated, holding meetings. The participation was checked with several “d’s” in the tasks where this happened. In the indicated example, since that the group did not have experience: often they decided together, reducing their agility in making decisions.

The group, used the responsibilities matrix, using the Smartsheet tool to produce the Gantt Diagram indicated in figure 4. In order to obtain the diagram, they had to indicate the start date of the project, to set precedence and duration for tasks.

Figure 4. Gantt chart for ICA Imunocorantigen, (Source: one team of students)



As seen in figure 4 the project duration is controlled using the Gantt chart. Time duration and tasks are aligned, as time goes on; the tasks were carried out or not. However, there were others that, eventually, suffered delays and others that did not started for various reasons. These are the most common situations when a project starts, whether they are start-ups or not. What was intended to demonstrate with this case was how, using a WBS, the group could conduct their project, following the standards of Project Management (PMI, 2013).

The methodology presented here allows additional definition of project implementation costs, as well as, determination of an estimate of the business project duration (Sérgio & Eurico, 2015), these variables are never considered in the most completed business plan.

Typically, a group of entrepreneurs has difficulty to estimate the time required to perform tasks, organizing their own additional work, and finding costs. In general, teaching entrepreneurship focus on the business plan, which subsequently allows a financial assessment of the presented values. Business incubators, normally, present various cases of business plans; many of them are extremely well funded. However, the entrepreneurial group has a hard time to organize themselves and to develop their business project. Consequently, there is a need to incorporate into the learning or development process the whole activities associated with the Business Project, which goes far beyond the static component of the Business Plan numbers.

The presented case is a sample example chosen among other projects. The procedures in others examples are the same. In the last three academic years 64 business projects involving 303 students were developed, of which 32 projects were in the area of Life Sciences in Bio-Entrepreneurship curricular program (Eurico et al, 2017; Eurico and Patricia, 2016), with the participation of 148 students. In the Entrepreneurship curricular program in Informatics Engineering and Information Technology degrees 32 projects were developed, with the participation of 155 students. The teacher's background is in Informatics engineer, and PhD on decision support systems, he has business and work experience in several companies, which lead to richer practices.

The results with the application of the learning by doing entrepreneurship, regarding the teacher performance were, for example: the interactive experience instead of a static means of business education, knowledge was constructed through practice of knowing, objectives were settled by teacher and students in a cooperative mode,

Considering the students' performance the main benefits were: communication skills improvement, the continuous formative feedback and the process of continual monitoring enriched student skills for practice, the work experience, which enhanced students' confidence. They learned from their own mistakes, which enabled students to appreciate the theory and its application. Working in-group with the same objective empowered students' commitment. Students 'motivation was observed on the way they reviewed their performance and progress and that of their peers, at every stage, this exposed their active involvement and responsibility.

Moreover, the proposed challenge considering that best projects could be presented to market professionals in the healthcare technical domain, and that the project could be submitted to an entrepreneurship contest gave students the opportunity to improve their competitive skills.

The main non-positive aspects were: those students that inhibited creativity had poor ideas to be developed and to obtain enough data for the project development, some students undertook the practical tasks very slowly, which had repercussion on the concretisation of the other project phases. The wrong definition of the problem, at the initial phase, influenced the whole project. Some students missed teaching sections to discuss about their work tasks and how the project groups had gone, which conducted them

to disinterest. The wrong roles played attribution and bad instruction, from the project team leader, had consequences on the project organisation and phases' sequences. Some students just followed instructions without applying their experience and creativity. Additionally, we found that some students were unreflective about what they were doing and why and what was going wrong.

FUTURE RESEARCH DIRECTIONS

Future work should be focused on the application of the proposed methodology to identify opportunities for improvement, as well as, to detect their weaknesses, which certainly exist. The use of information systems for the historical business project data management can and should also be studied, since it will facilitate the collection of elements such as duration estimates and average costs and risk analysis.

CONCLUSION

The major contribution of the presented learning by doing case study were the demonstrations that even students with a healthcare background, who are interested to learn subjects related with their future health professional careers, are engaged to learn entrepreneurship programs. They mainly, enjoyed the clue that they had the responsibility to present an idea for a product or a service, which could be developed and applied on their field in order to contribute to a better professional performance and users' quality of life improvement. Conversely, the learning capacity of self-organization, in the creative process that leads to the success of the business project, typical of new start-ups, was included.

The described example of an accurately and proficient business project management construction was explained. It started from the composition of project WBS, which allows the development of the Responsibility Assigning Matrix and finally, the design of the Gantt chart; all these tools are linked to the WBS business project.

A simple method that reduces uncertainty in implementing business plans via WBS correlated with the responsibility assignment matrix projects was presented. The overall main contributions of this study were: firstly, the authors developed and showed an appropriate method for the initial phase organization and they proposed of a WBS sample for a general business project that attempts to overcome the limitations oriented tasks on the existing approaches, in general the complex ones. Secondly, the proposed methodology allows project managers to sequence tasks over the WBS, which will allow the design of a Gantt chart. Thirdly, it was shown a simple method to organize the initial responsibilities against classical attempts on a start-up over departments. This is done using an assigning responsibility matrix. This approach also helps to improve the learning of organizational management. Finally, the use of the responsibility matrix, where the roles and functions are adapted, either to the actors or to the processes, shown how to streamline the relationship with suppliers and contract management. It was verified that this is a good tool for students to share responsibilities.

The authors verified, in occasional meetings, in incubators of companies, that the majority of the start-up's houses did not follow the techniques of project management described here. Entrepreneurs describe easily their business ideas, but they have a hard time to explain the tasks ahead to successfully prelaunch their business, which is different in the presented case as already explained.

The importance of the applied method lies in the ability of the group of entrepreneurs to self-organize, experimenting forms of organization with which they felt more comfortable, in order to evolve and to transform an idea into a business project. Placed in a business situation, groups tend to use the departmental organization of the company, which has already gone through the start-up phase (BCG Matrix), eventually finding themselves in the comfortable Star or even Cash Cow area. The organizational learning process is lost, focusing only on the cognitive experimentation where they were inserted. This loses all the experimental component of self-organization, typical on complex systems. The self-organization characterizes many of the big new companies like Google, Apple, etc. In summary, the fundamental idea, in this case, was the insertion into the creative process of the self-organization learning capacity that leads to the success of the business project, typical of new start-ups.

Students had the opportunity to practice the concept of learning by doing during the whole process of the project development. They learned how to present a project management in the entrepreneurship context using different tools, based on their own idea, which was the key element to start, until they arrived to the complete business plan.

Other achievements with this case were the students' capacities to communicate, collaborate with others and present their creativity. Creativity had to do more with the process than with the product or service, it focused on the development of thinking and cognitive skills. Students were committed to the process of exploring and learning: learning with mistakes and from experience. After this experience, i.e. after the curricular unit completed, students shared their experiences during the whole process. For some of them, the majors' rewards were related with the teamwork environment: collaboration, communication and creativity. Moreover, they indicated that their teamwork skills were enriched since they had to work with colleagues, teacher and other people: managers, accountants, and marketing specialists, among others. Furthermore, students referred that they developed their communication abilities during conversations and meetings and they felt more responsible, efficient, pragmatic, after the experience. Finally, students underlined the importance of be involved in finding an idea to be achieved, as for service or as a product in order to sort a problem in the healthcare field.

However, some less positive aspects were found, as stated before, namely the problems that arrive from team members' disagreement with the idea to be generated and with unstructured discussion during idea presentation.

The better and consistent outputs of the students' projects have been presented either for patent registration or for companies' development in the market of healthcare. It is also relevant to mention that some students, who are already in their professional career, keep asking the authors for suggestions and assistance in the elaboration of some of their business projects.

The methodology described in this study will be applied in the context of informatics engineers' students. Authors are interested to understand how these students behave as entrepreneurs and then, the data will be compared with that from the health school students.

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KEY TERMS AND DEFINITIONS

Business Idea: It is the idea that results from a group discussion that can be materialized into a product or service and used by the defined target user.

Business Model: Defines the product or service that a team or organization will produce or deliver, its target audience, the method of creation, and its sources of income.

Creativity: The process used on the development of thinking and cognitive skills.

Design Process: Is a series of steps to be followed in order to come up with a solution to a problem.

Interaction Design: A goal-oriented problem-solving activity informed by projected use, target domain, materials, cost, and feasibility; a creative activity; a decision-making activity.

Learning by Experience: Is the learning people achieve by reflecting on the experiences they face.

Product Acceptance: Means any product or service designed to be used by the defined user and/or by the target market.

Chapter 3

Academic Entrepreneurship, Bioeconomy, and Sustainable Development

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ABSTRACT

The potential of academic entrepreneurship towards achieving sustainable development has been established. Likewise, sustainability is an inherent characteristic of the bioeconomy. Academics are expected to play significant roles in the successful implementation of bioeconomy through scientific research and entrepreneurship. This chapter takes academic entrepreneurship as a process that creates value from research and technology commercialisation in a bioeconomy towards achieving sustainable development in the society. The chapter employs a systematic literature review approach to identify the opportunities at the intersection of academic entrepreneurship, bioeconomy, and sustainable development. The framework of technological innovation systems (TIS) will guide this study. The chapter will conclude that the future of sustainable development in our resources-constrained planet lies in plethora of academic entrepreneurial opportunities and embracing such in the implementation of bioeconomy, an economic system that is viable for the future.

INTRODUCTION

Bioeconomy has gained scientific and political attention in recent years to shape developmental efforts in many countries. Bioeconomy is a knowledge-based innovative economy (Kargytė, Värnik, & Aleknevičienė, 2018; Lainez, González, Aguilar, & Vela, 2018; van Lancker, Waulters, & van Huylenbroeck, 2016; Morris & Ecuru, 2016; Pyka & Prettnner, 2018), in which sustainably produced biological resources replace fossil fuels in the production of various products for final and intermediate consumption in several economic sectors.

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Academic entrepreneurship (AE) is becoming an increasingly important engine in technological development and economic growth for both developed and developing countries (Meng, Li, & Rong, 2019). It has evolved in recent years to encompass activities beyond academics' traditional roles of teaching and basic research to include any activity which recognizes opportunity, is innovative, comprises an element of risk and leads to financial rewards for the individual, group or institution (Huyghe & Knockaert, 2015). Academics are expected to play significant roles in emerging bioeconomy through scientific research, innovation and entrepreneurship (Bonge, Preschitschek, & Bröring, 2016; Gómez-Garay et al., 2015; Pipirigeanu, Zaman, Strasser, Aramă, & Strasser, 2014).

A large continuing body of works has highlighted the importance of bioeconomy in achieving sustainable development (Ipate, David, Ipate, & Bogdan, 2015; Oguntuase, 2018; Pfau, Hagens, Dankbaar, & Smits, 2014; Philippidis, Shutes, van Meijl, M'barek, Ronzon, & Moghayer, 2018; Ramcilovic-Suominen & Pülzl, 2018), and the crucial role of entrepreneurship in the success of a bioeconomy (Hansen, 2016; Jernström, Karvonen, Kässi, Kraslawski, & Hallikas, 2017; Kircher, 2019; Kuckertz, Berger, & Morales Reyes, 2018; Vargas-Hernández, Pallagst, & Hammer, 2018).

Furthermore, the demands for high-skilled professionals are growing in the bioeconomy sectors (Lask, Maier, Tchouga, & Vargas-Carpintero, 2018; Patermann & Aguiler, 2017). Jonsson (2017) as well as Kangas, Tikkanen, Leskinen, Kurtila & Kajanus, 2016) opined that these demands will have an impact on modes and agendas of education, training and research.

From the foregoing discussions, it is important to examine the existing notions of academic entrepreneurship, bioeconomy and sustainable development, paying specific attention to the triangular relationship between the three notions, practices of academic entrepreneurship in bioeconomy and education for academic entrepreneurship in a bioeconomy. These are the objectives of this chapter. The chapter will also identify entrepreneurial opportunities in the bioeconomy sectors and make recommendations that will serve as basis for next discussions and research.

BACKGROUND

The combination of a changing global climate, environmental concerns, natural resource shortages, fossil resource limitation, geopolitical tensions and the need to exploit the economic opportunities inherent in biotechnological advancements has projected bioeconomy as the new economic model (Leitão, 2016; Staffas, Gustavsson, & McCormick, 2013).

Bioeconomy is a relatively new phenomenon, an alternative to our present fossil-dependent economy (Ionescu, 2013), therefore meeting the radicalness or discontinuity criterion of innovation (Driessen & Hillebrand, 2002; Oguntuase, Adu & Obayori, 2018). Bioeconomy like other emerging applications of biotechnology operates at the threshold of technological innovation (Starkbaum, Braun, & Dabrock, 2015).

This chapter takes bioeconomy as biobased technological innovation offering a plethora of entrepreneurial opportunities and academic entrepreneurship as a process that creates value from commercialization of innovation within technological innovation system framework, in obtaining information that answers the research objectives.

Table 1. Traditional and emerging perspectives on academic entrepreneurship

Theme	Traditional Perspective	Emerging Perspective
Why	To generate direct financial returns	To provide a wider social and economic benefit to the university ecosystem
What	Academic Spin-offs; licensing; patents	Student and Alumni start-ups; Entrepreneurially-equipped students; Job creation in the local region or state
Who	Academic faculty and post docs	Students; Alumni; on-campus industry collaborations; surrogate entrepreneurs
How	Technology transfer offices; science parks	Accelerators; Entrepreneurship garages; student business plan competitions; collaborative networks with industry and alumni; employee mobility; public-private 'incubators'

(Siegel & Wright, 2015)

EMERGING PERSPECTIVES IN ACADEMIC ENTREPRENEURSHIP

The increasing global recognition of the role of academics as the hotbed of new knowledge, ideas and innovation catalyzing technological advancement and economic growth has expanded the strategic scope of higher education institutions (henceforth, institutions or universities) across the globe (Kalar & Antoncic, 2015). Siegel and Wright (2015) noted that universities have become more strategic in their approach as to academic entrepreneurship and more stakeholders have become involved in this activity. The authors enumerated the themes of traditional and emerging perspectives of academic entrepreneurship as shown in Table 1.

Today, universities' so-called third mission goes beyond the traditional scientific dissemination mechanisms, such as publications, university spin-offs, patenting and licensing activities to include contract research and consulting, being part of management teams, earning of supplemental income, trade secret generation, contract research, sales and testing, external teaching, expanding industrial relations, launching interdisciplinary research center, and rewriting university incentives to favour commercialization at the expense of scientific publication (Erdős & Varga, 2013; Hsu, Shen, Yuan, & Chou, 2015; Huyghe, Knockaert, & Foo, 2013; Qian, Xia, Liu, & Tsai, 2018).

University ecosystem is important in academic entrepreneurship (De Jager, Mthembu, Ngowi, & Chipunza, 2017; Liu, 2016; Meng, Li, & Rong, 2019). The key elements of the university ecosystem facilitating entrepreneurship now includes incubators and science parks to support technology transfer and entrepreneurship, entrepreneurship garages for students, substantial growth in the number of entrepreneurship courses and programs on campus, establishment and growth of entrepreneurship centers, creation of transdisciplinary research programs and centers boundaries, reforms of teaching and educational curricula, a rise in the number of surrogate entrepreneurs on campus to stimulate commercialization, development of industrial consortia and university centers to fund specific research, and start-up creation, collaborative networks with industry and alumni, faculty mobility e.g., specific programs to lure star scientists with strong commercial orientations (Siegel & Wright, 2015; Wadhwani, Galvez-Behar, Mercelis, & Guagnini, 2017).

THE CONCEPT AND ESSENCE OF BIOECONOMY

The definition, vision, understanding and implementation principles of bioeconomy are evolving and vary depending on the actors, their motivations and objectives. How bioeconomy is defined matters because the approach and components of the definition are directly translated into the formulation of the policies and strategies for economic development (Maciejczak & Hofreiter, 2013). Different definitions emphasize various technological, economic and social aspects and priorities, and relate to various conditions and developmental concepts such as sustainable development and innovative development, both at national and regional levels (Mieczysław, 2017).

Meyer (2017) identified technology-driven bioeconomy concept and resource-driven bioeconomy concept as two basic approaches to defining bioeconomy. The technology-driven concept focuses on the methods of conversion of raw material into value added products, and in particular on biotechnology as a conversion technology, while the resource-driven concept focuses on the raw material rather than the conversion process (Hausknost, Schriebl, Lauk, & Kalt 2017; Staffas et al., 2013). These approaches are widely reflected in national bioeconomy strategies as highlighted in Table 2.

Like definition, the vision is also important in bioeconomy. The vision upon which bioeconomy policy is based will determine the direction of the development. Bugge, Hansen and Klitkou (2016) proposed three ideal visions of bioeconomy: bio-technology vision, bio-resource vision and bio-ecology vision, which Meyer (2017) believed are not mutually exclusive and can overlap. The bio-technology vision highlights the importance of biotechnology research and its application across different sectors, the bio-resource vision focuses on the development of new value chains that process and upgrade biological raw material, while the bio-ecology vision highlights sustainability and ecological processes.

Leitão (2016) submitted that bioeconomy embraces three elements to unlock the value hidden in bio-resources and bio-processes to address societal challenges in a sustainable manner. These are advanced knowledge of genes and complex cell processes to develop new processes and products, efficient bioprocesses to support sustainable production, and integration of biotechnology knowledge and applications across sectors. Operationally, bioeconomy replaces non-renewable resources with resources derived from biomass to produce food, fuel, fine chemicals, and other substances while sequestering carbon and achieving sustainable economic growth (Palatnik & Zilberman, 2017; Pasculea, 2015).

THE FRAMEWORK OF TECHNOLOGICAL INNOVATION SYSTEM (TIS) FOR ACADEMIC ENTREPRENEURSHIP IN A BIOECONOMY

An innovation system is a network of organizations within an economic system involved in the creation, diffusion and use of scientific and technological knowledge, as well as the organizations responsible for the coordination and support of these processes (Dosi, 1988). The innovation systems approach is suitable one for analyzing and improving the conditions for the development of new technologies in transitions towards sustainability (Farla, Markard, Raven, & Coenen, 2012). Such transitions usually build on an innovation system of entrepreneurial actors and are generally initiated by radically new products, services or business models (Planko, Cramer, Hekkert, & Chappin, 2017). This is applicable to bioeconomy which demands product, technology, societal, systemic and operational innovations, and fundamental socio-economic transition and must comprise changes in markets, user practices, values, beliefs, policies, configurations of actor groups, networks and institutions to ensure the development

Table 2. Selected definitions of bioeconomy (compilation of the author)

	Jurisdiction	Policy	Definition
Technology-driven	USA	National Bioeconomy Blueprint 2012	All activities associated with the production of renewable biological resources and the use of those resources and residual streams in the valuable products such as food, animal feed, (biobased) products and bioenergy
	India	Biotechnology Strategy II 2014	Translating life sciences knowledge into relevant eco-friendly and competitive products
	Malaysia	Bioeconomy Transformation Programme 2013	Production of renewable resources and their conversion into food, feed, chemicals, energy and healthcare products by applying biotechnology and combining innovative technologies
Resource-driven	OECD	The Bioeconomy to 2030: designing a policy agenda 2009	The set of economic activities relating to the invention, development, production and use of biological products and processes
	EU	Innovating for Sustainable Growth: A Bioeconomy for Europe 2012	The production of renewable biological resources and the conversion of these resources and waste streams into value added products, such as food, feed, biobased products and bioenergy
	Belgium	Bioeconomy in Flanders 2013	The production of renewable biological resources and the conversion of these resources and waste streams into value added products, such as food, feed, biobased products and bioenergy
	Austria	The Austrian Bioeconomy Strategy 2013	The knowledge-based production and use of renewable resources, in order to provide products, processes and services in all areas of the economy, within the framework of an economic system that is viable for the future
	Denmark	Bioeconomy Statement 2014	An economy in which the basic building blocks used for the production of energy, chemicals and materials originate from renewable biological resources, including plants and animals
	Finland	The Finnish Bioeconomy Strategy 2014	An economy that relies on renewable natural resources to produce food, energy, products and services
	Ireland	Delivering our Green Potential 2012	The sustainable production of renewable biological resources and their conversion – and that of waste streams – into feed, food and biobased products
	The Netherlands	Framework Memorandum on the Biobased Economy 2012	Green or sustainable economy which uses resources from living nature (including biomass and renewable resources)
	Norway	Research Programme on Sustainable Innovation in Food and Biobased Industries 2012	All sustainable production and processing of biological resources for food, health and fiber products, industrial products and energy
	Sweden	Swedish Research and Innovation Strategy for a Biobased Economy 2012	An economy based on the sustainable production of biomass and the creation of added value for biomass materials

of renewable resource-based technologies that are environmentally sustainable, socially acceptable and economically competitive (Devaney & Henchion, 2017; Purkus, Hagemann, Bedtke, & Gawel, 2018; Rönnlund et al., 2014; Urmetzer & Pyka, 2014).

A Technological Innovation System (TIS) can be analyzed in terms of its structural components and in terms of its functions. Structural components are actors, networks and institutions (Bergek, Jacobsoon,

Carlsson, Lindmark, & Rickne, 2008). Actors, networks and institutions in academic entrepreneurship in a bioeconomy include academic staff, alumni, biomass producers, trade organizations, focus groups, markets university leadership and public agencies amongst others (Table 4).

The functions of innovations are the key processes that are important in building an innovation system. The functions are the dynamic processes between the structural components (actors, networks and institutions) of the system contributing to building a favorable ecosystem around the new technology. The interaction between system functions accelerates the uptake of the technology and increases its chance of market success (Planko et al., 2017).

Table 3. Key characteristics of the bioeconomy visions

	The Bio-Technology Vision	The Bio-Resource Vision	The Bio-Ecology Vision
Aims and objectives	Economic growth and job creation	Economic growth and sustainability	Sustainability, biodiversity, conservation of ecosystems, avoiding soil degradation
Value creation	Application of biotechnology, commercialization of research & technology	Conversion and upgrading of bio-resources (process oriented)	Development of integrated production systems and high-quality products with territorial identity
Drivers and mediators of innovation	R & D, patents, TTOs, Research councils and funders (Science push, linear model)	Interdisciplinary, optimization of land use, include degraded land in the production of biofuels, use and availability of bio-resources, waste management, engineering, science & market (Interactive & networked production mode)	Identification of favorable organic agro-ecological practices, ethics, risk, transdisciplinary sustainability, ecological interactions, re-use & recycling of waste, land use, (Circular and self-sustained production mode)
Spatial focus	Global clusters/ Central regions	Rural/Peripheral regions	Rural/Peripheral regions

Source: (Bugge et al., 2016)

Table 4. Actors, networks and institutions in academic entrepreneurship in a bioeconomy (compilation of the author)

Actors	Networks	Institutions
• Academic staff (professors, lecturers, doctoral students, research assistants) • Individual researchers • Pracademics • Alumni • Universities and other public research Institutions • Practicing entrepreneurs • Biomass producers • Manufacturers • Technology transfer organizations • Science and technology parks • Incubator or business support staff • Industry experts • Business professionals (lawyers, consultants, accountants, financiers) • Governments agencies and regulators	• Trade, business, and commercial organizations • Professional bodies • Informal networks - Religious, avocational, and social linkages • Consumers and civil societies • Focus groups • Citizens' juries and panels • Knowledge institutes and expertise centers	• Markets • Laws and regulations • Policies and rules • Institutional support settings • University leadership • Public agencies • Media • Users' values, expectations, beliefs, traditions and practices

The TIS framework is a suitable approach for exploring academic entrepreneurship in bioeconomy for four reasons. First, the TIS framework is concerned with emerging technologies (Jacobsson & Bergek, 2011) and bioeconomy is an emerging concept (Devaney, Henschion, & Regan, 2017; Giurca & Metz, 2018; Imbert, Ladu, Morone, & Quitzow, 2017). Second, the analysis can be conducted during the formative phase (as opposed to ex-post), which is crucial because bioeconomy remains a controversial concept (Duca & Trupiano, 2017; Hedlund-de Witt, 2013; Peltomaa & Kolehmainen, 2017). Three, the approach has been empirically proven to be a valid framework to analyse processes of technological change (Hekkert and Negro 2009) and bioeconomy like other emerging applications of biotechnology operates at the threshold of technological innovation (Meyer, 2017). Finally, academic entrepreneurship is multifaceted phenomenon like bioeconomy, involving many actors operating at different levels and engaging in processes that unfold over extended period of time (Fini & Grimaldi, 2017).

Researchers have listed entrepreneurial experimentation, knowledge development, knowledge diffusion, guidance of the search, market formation, resource mobilization, and creation of legitimacy as TIS framework activities required to develop or sustain a well-functioning innovation system necessary for propelling the results from academic activities into a next phase of technological development (Bergek et al., 2008; Hekkert, Suurs, Negro, Kuhlmann, & Smits, 2007; Perez Vico, 2014; Planko et al., 2017). Similar activities like increasing multi-disciplinary research and innovation; enhancement of markets and competitiveness; reinforcement of policy interaction and stakeholder engagement; forming and reforming regulations; adapting training and aligning institutional incentives; supporting public-private partnerships; creating markets for biobased products and initiatives through standards and labels; and establishing a bioeconomy panel to increase cross-sectorial collaboration and policy coherence are important pillars of bioeconomy development (De Besi, & McCormick, 2015; Staffas et al., 2013). These pillars of bioeconomy development and TIS framework activities are interwoven and interchangeable (Table 5)

Table 5. Application of TIS framework activities to academic entrepreneurship in a bioeconomy (compilation of the author)

Entrepreneurial experimentation	Knowledge development	Knowledge diffusion	Guidance of the search	Market formation	Resource mobilization	Creation legitimacy
• Development of new product • Testing new technologies • Launch of a new product • Applications and markets • New entrants • Start-ups • Social learning processes • Diversification activities	• Learning by searching • Learning in doing (practical context) • Multidisciplinary R&D projects • Demonstration projects • Patents, journal publications and reports • Prototypes	• Network activities • Workshops and conferences • Collaborations between universities and the industry • Inter firm collaboration networks	• Expressed visions and missions • Government policies • Long-term targets of industries • Expectations of relevant actors • Demand by leading customers • Research outcomes	• Creating niche markets • Standards and labels • Forming and reforming regulation • Guaranteed consumption • Consumption quotas • Tax regimes • Government procurement policies	• Human capital development • Specialized training • Biomass optimization • Financial capital • Infrastructural investments • Public-private partnerships	• Stakeholder engagements • Ethical technology assessment • Codes of conduct • User-centered design • Open innovation • Voluntary industry agreements and initiatives • Advocacy coalitions

THE TRIANGULAR RELATIONSHIP BETWEEN ACADEMIC ENTREPRENEURSHIP, BIOECONOMY AND SUSTAINABLE DEVELOPMENT

It is arguable that the emergence of the bioeconomy agenda started with the publication of the Brundtland Report which called for a new era of economic growth – growth that is forceful and at the same time socially and environmentally sustainable (World Commission on Environment and Development [WCED], 1987).

Sustainability serves as a basis for a more interdisciplinary way of approaching bioeconomy (Pfau et al., 2014). Ramcilovic-Suominen and Pölzl (2018) believed that the way bioeconomy policies perceive sustainability and sustainable development will have profound implications not only on a practical level for policy implementation, but also on a conceptual level and for theoretical discourse surrounding sustainability and sustainable development.

Twenty years after Martinez (1998) opined that bioeconomy stands for business activities based on academic research into the mechanisms and processes at the molecular (genetic) level to be implemented and used in industrial processes, Kuckertz et al. (2018) added that bioeconomy offers a plethora of entrepreneurial opportunities. Bonge et al. (2016), Gómez-Garay et al. (2015), McMillan, Narin and Deeds (2000), and Pipirigeanu et al. (2014) expects academics to play significant roles in successful implementation of bioeconomy through scientific research and entrepreneurship.

The European Commission (2005) has defined the Knowledge-Based Bioeconomy (KBBE) as the process of transforming life science knowledge into new, sustainable, eco-efficient and competitive products. Lewandowski, Gaudet, Lask, Maier, Tchouga and Vargas-Carpintero (2018) submitted that knowledge-based bioeconomy builds on sustainable development through the application of biological and systems knowledge and the generation of innovations to develop a sustainable economy.

Maciejczak (2015), as well as Talavyria, Lyman, Baidala and Holub (2016) listed sources of biomass, investment in research and development, people in research and development, and institutional arrangement as the four primary production determinants of knowledge-based bioeconomy. Academic entrepreneurship is very relevant to three of the production determinants, namely, sources of biomass, investment in research and development, and people in research and development. The biomass (biological resources) is the substitute for other fossil resources. Investment in R&D focuses on the development and commercialization of products and processes within the bioeconomy system. The people in R&D encompass people employed within the bioeconomy system, who have obtained sufficient knowledge to add value across the bioeconomy value chain. Institutional arrangement is connected to the organization of the system which enables implementation of solutions that ensure competitiveness under dynamic changes.

Entrepreneurship has a great potential to contribute to sustainable development (Cohen & Winn, 2007; Hall, Daneke & Lenox, 2010; Iyigun, 2015; Majid & Koe, 2012; Senge, Lichtenstein, Kaeufer, Bradbury & Carroll, 2007; York & Venkataraman, 2010). Likewise, attainment of sustainable development through academic entrepreneurship is a model recognized worldwide as the driving engine of sustainable development (Rohani, 2013). Furthermore, sustainable development itself forms a source of entrepreneurial opportunity (Pless & Appel, 2012) while Dhahri and Omri (2018) found that entrepreneurship positively contributes to the three pillars of sustainable development (economy, society, and ecology) and the future development of the whole society.

ACADEMIC ENTREPRENEURSHIP IN BIOECONOMY IN PRACTICE

The Forerunners

In order to diffuse innovation from Stanford University's laboratories to the larger society, Stanford Research Park was created in 1951 as joint initiative between the university and the City of Palo Alto. The Stanford Research Park initial objective was not to create new businesses but to research on innovation. In the park, for the first time, university professors, researchers and alumni could translate their research results into industrial products (Tola & Contini, 2015).

In the late 1970s, the unique worldview that advances in molecular biology could be easily adapted to the profit motive led entrepreneurs to capitalize on the commercial potential of the discoveries at the Stanford University and University of California at San Francisco (UCSF) that DNA (deoxyribonucleic acid) could be cut, recombined and inserted into foreign bacteria that would express the new gene (Gottinger, 2010).

As biotechnology research proliferated in university laboratories, new companies were formed by faculties from Stanford University, University of California, San Francisco, Massachusetts Institute of Technology, University of Minnesota, University of Washington, and George Washington University. Many of these early companies - Amgen, Chiron, Genetic Systems, Genex, Hybritech, Immunex, Integrated Genetics and Molecular Genetics - had one or more corporate executives who simultaneously held professorships (Kenney, 1986). The benefits from these university-industrial relations are powerful drivers for the initiation and growth of the biotechnology industry (Alagbaoso, Myres & Carmichael, 2014).

The Quest to Replace Petrol in All Forms

Levulinic acid, previously named by the United States Department of Energy as one of 12 chemical building blocks of the future (Werpy & Petersen, 2004), has the potential to replace petrol in all forms. As an environmentally-friendly raw material with a large number of potential uses, producing levulinic acid on a large scale could transform the way fuel, pharmaceuticals, plastics, cosmetics and food preservatives are produced, and reduce the burning of fossil fuels and help fight global warming.

GF Biochemicals, co-founded in 2008 by Pasquale Granata and Mathieu Flamini, is the first company to produce levulinic acid at a commercial scale directly from biomass. The company in partnership with University of Pisa and the Polytechnic University of Milan developed breakthrough technology to commercialize levulinic acid for replacing petroleum-based products across a range of market sectors, with a one-step process directly from a wide range of cellulosic feedstock at its Caserta production plant. The company has since patented the cost-effective method in a market potentially worth an estimated £20 billion (Christou, 2018). Together with Novamont, and Science Park of Lodi and the Italian leading banking Group Intesa Sanpaolo, GFBiochemicals have awarded a prize for BIOCIRCE, the first European Master in Bioeconomy in the Circular Economy.

Increasing its investment in the biochemical industry, GFBiochemicals acquired the assets and intellectual property of Segetis in 2016. Prior to the takeover, Segetis was the leading producer of levulinic acid derivatives in the United States market and held over 250 patents, including fragrances, plastics, biopolymers, personal care products, household & industrial cleaners, agriculture chemicals and adhesive strippers. In 2017, GFBiochemicals and American Process Inc entered into a joint development agreement to create the largest integrated cellulosic bio-refinery in the world to expand their production

of levulinic acid from roughly 10,000 tonnes a year to as much as 200,000 tonnes a year. The Chief Executive Officer of American Process Inc is Theodora Retsina. Retsina received a BSc and PhD in Chemical Engineering from Imperial College, University of London (UK) and the author of over 200 scientific publications, patents, and patents pending.

The involvement of the University of Pisa and the Polytechnic University of Milan in developing GF Biochemicals' levulinic acid production method ensures that Professor Anna Maria Raspolli Galleti combines her academic role at University of Pisa, Italy with her function as head of GF Biochemical chemistry department. Galleti obtained her PhD in Chemical sciences in 1986 and she is one of Italy's top scientists in levulinic acid research. She has co-authored more than 100 papers in peer review journals, 16 patents, and 3 books and made more than 100 symposium presentations. The Director of Technology and Applications Development at GF Biochemicals, Rudy Parton, is an experienced chemist with a doctorate degree from Catholic University of Leuven who has presented his project *Levulinic acid: a versatile chemical from virgin/waste biomass up to a chemical end of pipe solution for biomass derived products* at several workshops, written several scientific publications and served at the thesis reading committee at University of Groningen, Groningen, Netherlands. Aris de Rijke, the Director of Technology and Engineering, is a PhD Chemical Engineering holder from Delft University of Technology, Delft, Netherlands.

Manufacturing Green Chemistry

EcoSynthetix was founded in 1996 by university friends Steven Bloembergen and John van Leeuwen based on the fundamental belief that the world needs to reduce its dependence on oil, and naturally derived products can be developed to match or exceed the performance characteristics of traditional petroleum-based chemicals. EcoSynthetix' environmentally sustainable biopolymers made from crop-based starches can be used in the manufacturing process for a range of applications in the paper, paperboard, building products, adhesives and personal care markets. EcoSynthetix products allow customers to significantly reduce their carbon footprints, while offering equal or superior performance, often at a reduced cost relative to incumbent petroleum-based products. EcoSphere, its first product patented in 2001, is a biolatem binder that's used as an alternative to styrene butadiene latex in the coated paper and paperboard industry. Upgraded product offerings include the first new monomer in the chemical industry in 20 years called EcoMer, a biobased building block for developing waterborne sugar-acrylic adhesives and resins. The sugar used to produce the product is derived from the glucose or dextrose found in cornstarch. EcoStix, a pressure sensitive adhesive product, can be customized to wash-off at specific temperatures so that the adhesive doesn't interfere with paper or plastic recycling processes.

Bloembergen and Van Leeuwen studied chemistry at the University of Waterloo in Ontario, Canada in the mid-1970s. Bloembergen completed a PhD in Polymer Science and Engineering, while Van Leeuwen opted for industry experience. Bloembergen spent time working for Polysar Rubber, the Xerox Research Centre of Canada and the Michigan Biotechnology Institute, before reuniting with van Leeuwen in 1996. Bloembergen is the inventor of over 25 patent families related to biomaterials and has over 30 years of leadership experience in the development and commercialization of biomaterials.

Two-thirds of EcoSynthetix' 60 employees' work at its innovation centre in Burlington, driving new product innovations. Ten per cent of them hold PhDs in chemistry or chemical engineering. The company Burlington headquarters is about an hour's drive to the University of Waterloo, one of Canada's top

engineering faculties and the company has collaboration agreement with the Institute of Nanotechnology which includes professors, PhD holders and graduate students.

Engineering Sustainable Molecules to Petroleum-Based Products

Zymergen manufactures molecules, entirely new products that are untethered to traditional petroleum-based manufacturing, for a wide array of uses across the pharmaceutical, food and agricultural, specialty chemical and electronics industries. Zymergen's biobased approach reduces footprints in these industries by engineering novel specialty chemicals or brings valuable natural products to serve business needs. The company says that it is now working with many of the largest chemical, agricultural, pharmaceutical and food companies in the world, including a number of undisclosed *Fortune* 100 companies to create more efficient, and renewable industrial chemicals. The idea is to use reprogrammed genetic DNA of microorganisms to ferment carbon from biomass in "bio factories" to make the building blocks of many products more sustainable and to create new kinds of chemicals that would otherwise be difficult or impossible to develop.

Joshua Hoffman co-founded Zymergen in 2013 alongside Joshua Hoffman and Zach Serber and Jed Dean. Prior to Zymergen, Hoffman was an investment banker, while Serber and Dean have doctorate degree in Biophysics and Biochemistry respectively. Serber is the Chief Science Officer and VP of Development at Zymergen. He has over 15 peer-reviewed publications in journals including *Cell*, *Science* and *JACS*, four issued patents, and worked as a research fellow at Stanford University Medical School. Dean is responsible for building and operating the robotic workflows for genome engineering and high throughput screening. Prior to Zymergen, he was a postdoctoral fellow at Stanford Genome Technology Centre where he developed technology and automation for life sciences.

The Engineers' Take on Biology

Tom Knight, a world-renowned computer scientists spent many years as a senior research scientist at the MIT Computer Science and Artificial Intelligence Laboratory, before playing a major role in creating the field of synthetic biology. In 2008, he co-founded Ginkgo Bioworks, where he now remains a full time researcher, with four Massachusetts Institute of Technology Biological Engineering PhDs Jason Kelly, Reshma Shetty, Barry Canton and Austin Che.

Working with partners and growing ecosystem, Ginkgo Bioworks designs custom organisms that bring new products to life for countless applications. The company employs engineered microorganisms to improve efficiency and sustainability where fermentation is already used in bioindustrial applications from cheese making to pharmaceuticals to stone washed jeans.

Biological Answers for Better Life

Novozymes is the world leader in biological solutions to preserve the planet's resources and help to build better lives. The company claimed that its customers saved an estimated 88 million tons of carbon emissions by applying Novozymes' products. The savings achieved are equivalent to taking approximately 37 million cars off the road.

Novozymes' board could be mistaken for a top-tier university academic board. Jørgen Buhl Rasmussen, the Chairman of the Board since 2017, is an Adjunct Professor at Copenhagen Business School,

Denmark. President & CEO Peder Holk Nielsen and COO & Executive Vice President, Research, Innovation & Supply Thomas Videbæk both hold PhD in Chemical Engineering from the Technical University of Denmark (DTU) while Executive Vice President, Food & Beverages Andrew Fordyce holds a PhD in Chemical Engineering from the University of Texas at Austin, USA. Mathias Uhlén, a member since 2007, is a Professor at the Royal Institute of Technology (Sweden) and at the Technical University of Denmark (DTU).

SCALING BLUE-GREEN ALGAE TECHNOLOGY

Lumen Bioscience is the first company to successfully use modern biotechnology tools in *Spirulina*, a blue-green algae that is widely grown for use in food, cosmetics and nutritional supplements. Lumen's tools and methods use *Spirulina* to make high-value proteins and other molecules for the healthcare, food and cosmetics industries.

James Roberts is the Founder and Chief Scientific Officer at Lumen Bioscience. Roberts is an Affiliate Professor, Department of Biochemistry, at the University of Washington and consultant to biotechnology and pharmaceutical companies that are developing cancer therapeutics. Since 1997, he has been honored as an Appointed Investigator for the Howard Hughes Medical Institute. He serves on the editorial board of three leading scientific publications: *Cell*, *Cell Growth and Differentiation* and the *Journal of Biological Chemistry*.

Roberts hired Craig Behnke who earned a PhD in Biochemistry from University of Washington as Senior Vice President, Production and Development to lead Lumen's production and development teams, scale up production capacity and biological systems, and drive continuous improvements in growth and extraction efficiencies.

Applying Inspired Science to Deliver Sustainable Solutions

Amyris is a leading renewable products company with Roundtable on Sustainable Biomaterials (RSB) certification. Amyris's expertise lies in selecting and optimizing microorganisms, such as yeasts, in order to transform sugar into various molecules of interest for fuels and specialty chemicals. Amyris produces environmentally friendly chemicals for a variety of consumer products and industrial applications currently dependent on petrochemical components. The company is developing renewable fuels that reduce lifecycle (GHG) emissions by 80%. The fuel source is special in that it is compatible with current gasoline engines, and can be distributed with existing petroleum infrastructure.

Dr. Joel Cherry leads Amyris' research and development, including various ongoing collaborations. Dr. Cherry is R&D 100, Scientific American Top 50, and a Frost and Sullivan Emerging Technology Awards winner. He is also an inventor on more than 20 issued patents, author of three book chapters and more than 30 scientific publications, and an invited speaker at numerous international conferences on biofuels. He received his B.A. from Carleton College in Chemistry, and a Ph.D. in Biochemistry from the University of New Hampshire.

Sustainable Alternative to the Use of Petroleum and Food-Biomass

AFYREN specialized in biobased molecules production; as a petro-based substitution solution. The cleantech French startup founded in 2012 produces high-value biobased building blocks from valorization of non-food biomass and more especially the by-products of the agriculture and the agro-industry. This approach also takes place in a sustainable and environment-friendly process, with the use of fully natural micro-organisms and the return-to-earth of fermentation residues.

In order to meet the growing needs of industrial firms to reduce the use of petroleum-based derivatives across their production chains, AFYREN produces bio-molecules, derived from the recovery of non-food biomass, that are widely used in the cosmetics, flavors and fragrances, human and animal nutrition, and fine chemicals sectors. This renewable carbon production, aligned with the circular economy, is achieved using fermentation and downstream proprietary technologies, built up through seven years of research and development led by Régis Nouaille and Jérémy Pessiot. Nouaille and Pessiot studied for doctorate at Blaise Pascal University (Clermont-II) in Clermont-Ferrand, France graduating in Biology, Organic Chemistry and Microbiology & Bioprocesses respectively.

Consulting for Sustainability

Since 1997, E4tech has worked with companies, governments, and investors to help them understand the global opportunities in clean energy. These services include strategy development, investor services, techno-economic analysis, sustainability, policy support and review, and market analysis in sectors such as energy systems and storage, energy innovation and policy, low carbon vehicles, biofuels and biochemicals, biomass systems, fuel cells and hydrogen, and sustainability and resources.

The highly skilled consultants at the international strategic consultancy firm include David Hart, Ausilio Bauen, Tom Houghton, Luca Bertuccioli, Pragna Kiri, Stuart Jones and James Nicolle. In addition to his work as a Director of E4tech, Hart is also a visiting Professor of Imperial College London's Centre for Environmental Policy, and chairs the Steering Committee of the Grove Fuel Cell Symposium, one of the leading global fora for fuel cell experts. Bauen with a PhD on techno-economic and environmental aspects of biomass energy from King's College London, is a Senior Research Fellow at Imperial College London's Centre for Energy Policy and Technology. Houghton worked in academia and held a tenured position with Curtin University in Australia where he led, until recently, the specialist energy MBA. Bertuccioli, Kiri, Jones and Nicolle have doctorates in Mechanical Engineering, Chemistry, Automotive Exhaust Catalysis and Molecular Microbiology respectively.

EDUCATION FOR ACADEMIC ENTREPRENEURSHIP IN BIOECONOMY

The major challenge in aligning science and innovation with societal needs is that most science graduate students are unfamiliar with the discipline of business, while business graduate students are frequently unfamiliar with the levels of science needed for product breakthrough. This challenge is critical in bioeconomy where entrepreneurship is central, and science and business are inextricably linked (Gunn, 2016).

Leading universities around the world are addressing the demand for science-business skilled professionals with a variety of novel programmes. In the United States, this has been achieved typically

Table 6. Academic entrepreneurship in practice (compilation of the author)

Company	Business focus	Academic entrepreneurship component
GF Biochemicals	Production of intermediate chemical – levulinic acid to replace petroleum-based products across a range of market sectors	• Partnership with University of Pisa and the Polytechnic University of Milan for technology development • Dr Anna Maria Raspoli Galletti, the company head of Chemistry Department is a Full Professor in the Department of Chemistry and Industrial Chemistry of University of Pisa • Dr Rudy Parton, the Director of Technology and Applications Development is an experienced chemist with a doctorate degree from Catholic University of Leuven has several scientific publications and served at the thesis reading committee at University of Groningen, Groningen, Netherlands
EcoSynthetix	Production of environmentally sustainable polymers for use in several manufacturing process	• Founded by university friends Steven Bloembergen and John van Leeuwen • Bloembergen completed a PhD in Polymer Science and Engineering • Ten per cent of the employees are PhD holders • Collaboration with Institute of Nanotechnology, University of Waterloo
Zymergen	Manufacture molecules for a wide array of uses across the pharmaceutical, food and agricultural, specialty chemical and electronics industries	• Two of the cofounders – Zach Seber and Jed Dean have doctorate degree in Biophysics and Biochemistry respectively • Serber worked as a research fellow at Stanford University Medical School • Dean was a postdoctoral fellow at Stanford Genome Technology Centre
Gingko Bioworks	Customize organisms for production of new products	• Co-founded by world-renowned computer scientist Tom Knight and four Biological engineering PhDs
Novozymes	World leader in biological solutions to preserve the planet's resources	• The board is comprised of Professor, Adjunct Professor, and PhD holders.
Lumen Bioscience	Use Spirulina, a blue-green algae, to make high-value proteins and other molecules for the healthcare, food and cosmetics industries	• Founder and Chief Scientific Officer James Roberts is an Affiliate Professor, Department of Biochemistry, at the University of Washington • Craig Behnke, the Senior Vice President, Production and Development earned a PhD in Biochemistry from University of Washington
Amyris	Optimizing microorganisms for a variety of consumer products and industrial applications	• Joel Cherry (PhD, Biochemistry) leading Amyris' research and development, including various ongoing collaborations is R&D 100, Scientific American Top 50, and a Frost and Sullivan Emerging Technology Awards winner with more than 20 issued patents, author of three book chapters and more than 30 scientific publications
AFYREN	Biobased molecules production as substitution to petro-based solutions	• Fermentation and downstream proprietary technologies, built up through seven years of research and development led by Régis Nouaille and Jérémy Pessiot • Nouaille and Pessiot studied for doctorate at Blaise Pascal University (Clermont-II) in Clermont-Ferrand, France graduating in Biology, Organic Chemistry and Microbiology & Bioprocesses respectively
E4tech	Consultancy	• Highly skilled consultants include a visiting Professor of Imperial College London's Centre for Environmental Policy, a Senior Research Fellow at Imperial College London's Centre for Energy Policy and Technology, former tenured lecturer and PhD holders

by adding industry specific and research commercialization options to existing MBA programmes or offering business modules in professional Master's degree programmes (Meyers & Hurley, 2008).

The University of Cambridge (the United Kingdom) and University of Auckland (New Zealand) have each developed a Master's in Bioscience Enterprise programme providing specialist business and legal skills relevant to employment in the bioeconomy (Allan, Kistler, Lowe, Dunn, McGowan, & Whitcher, 2009). There is collaboration among Faculty of Biosciences, Fisheries, and Economics (BFE), the Norwegian College of Fisheries Science (NCFS) and Department of Arctic and Marine Biology, all of The Arctic University of Norway to develop a Master's Degree Program in Business Creation and Entrepreneurship to enhance the research institutions' competence on entrepreneurial education through securing skills and learning outcomes embedding entrepreneurship within an industrial environment (Foss, Oftedal, Coates, Espiritu, Lozano, & Antonsen, 2015). The Business of Biotechnology (BoB) program is a part of the School of Management at the University of San Francisco. Case Western Reserve University offers Masters in Entrepreneurial Biotechnology while the Copenhagen Business School offers an MSc in Business Administration and Bioentrepreneurship. Karolinska Institutet's Master's Programme in Bioentrepreneurship is tailored for students with a background in biomedicine, pharmaceuticals, biotechnology, healthcare or medicine with courses addressing the central themes of how to manage and develop life science companies (Gunn, 2016).

Bioeconomy is an example of an interdisciplinary research field requiring interdisciplinary education programs. Bioeconomy professionals are expected to be specialized in one field but also be able to understand the scientific language of associated disciplines (Lask et al., 2018). The nascent field of bioeconomy education is also evolving with academic programmes to respond to the demands for high-skilled professionals are growing in the bioeconomy sectors (Table 7).

In addition, PhD positions are available at the Norwegian Institute of Bioeconomy Research (NIBIO), BEACON Bioeconomy Research Centre in Ireland, University of Nottingham's Rothamsted Research, University of British Columbia's Department of Forest Resources Management, the Bioeconomics Division of Katholieke Universiteit Leuven, the Forest Biomaterial Department at North Carolina State University, and the Nordic Forestry, Veterinary and Agricultural University Network. The Summer School of Bioeconomy of the Euroleague for Life Sciences (ELLS) addresses bioeconomy issues in interdisciplinary views and bring students and teachers from various countries and fields to work together in order to discuss and talk about actual topics and problems of bioeconomy.

These programmes are largely interdisciplinary, combining knowledge from heterogeneous scientific fields. They aim to equip students and researchers with a dynamic set of competencies, skills, and knowledge in modern and innovative developments in life sciences, biotechnology, bioresources development, industrial bioprocesses and technologies, and biobased value chain optimization. The curricula also placed attention on fundamental business, project management and interpersonal skills needed to advance the graduates' career, and there is usually research collaboration with industry and industry experts.

FUTURE RESEARCH DIRECTIONS

From the conducted literature overview some emergent issues pertaining to efficient utilization of production determinants of bioeconomy (namely sources of biomass, investment in research and development, and people in research and development to create value across value chains by entrepreneurs) appear. How can academics and their institutions continue the development of specific production determinants?

Table 7. Selected academic programmes in bioeconomy (compilation by the author)

University	Course	Level	Aim
Rzeszow University of Technology, Poland	Bioeconomy	Undergraduate	Preparation to work in the broadly understood bioeconomy, including production enterprises using renewable natural resources, businesses involved in the production, storage, transport and distribution and processing of bio-products
Häme University of Applied Sciences (HAMK), Finland	Bioeconomy Engineering	Undergraduate	Building competencies for producing smart information and data-based solutions for the management of bioeconomy, the production and processing industry and supply chains
Finland Polytechnic University of Madrid, Spain	Agricultural Sciences and Bioeconomy	Undergraduate	Sustainable agricultural production and in the application of life and earth sciences, of biotechnology and the bioeconomy to food production
Polytechnic University of Madrid, Spain	Agricultural Sciences and Bioeconomy	Undergraduate	Sustainable agricultural production and in the application of life and earth sciences, of biotechnology and the bioeconomy to food production
University of British Columbia, Canada	Forest Bioeconomy Sciences and Technology	Undergraduate	Solid foundation in science and technology for innovative design and development of renewable materials and energy and sustainable land use strategies
Technical University of Munich, Germany	Bioeconomics	Undergraduate	Understanding of environmental economics and economics towards the transition from fossil to biogenic raw materials
University of Hohenheim, Germany	Bioeconomy	Masters	The inter- and transdisciplinary approach of the study program encourages critical thinking, and graduates have the skills necessary to develop and execute diverse activities within a biobased economy
University of British Columbia, Canada	Leadership in Green Bio-Products	Masters	unique combination of technical and business classes to excel and drive innovation in the green bioeconomy and for leading role in forward-thinking organizations
The International Hellenic University, Greece	Bioeconomy: Biotechnology and Law	Masters	Designed to develop technological, financial, legal, and managerial expertise and real world skills in dealing with the studies, consultation, management, regulation and development of biotechnological products
The University of Edinburgh, United Kingdom	Management of Bioeconomy, Innovation & Governance	Masters	Responding to the rapid growth in the global bioeconomy by providing the core knowledge and skills needed to compete in a rapidly evolving, highly skilled workforce
Wageningen University, the Netherlands	Biobased Sciences	Masters	Interdisciplinary programme focusing on the transition from a petrochemical to a <i>biobased</i> economy – biobased production chains, and assessing opportunities in biobased economy
Maastricht University, the Netherlands	Biobased Materials	Masters	Preparation for career in the research, development, production and application of biobased materials
University of Twente, the Netherlands	Bio-resource Value Chain Management	Masters	Educating professionals to analyze, develop, manage and innovate existing and new bioresource value chains in an European regional context.
Graz University of Technology, Austria	Biorefinery Engineering	Masters	Building the engineering sciences knowledge and skills necessary for the construction and operation of technical systems for the use of biogenic resources.
Four Italian universities - University of Turin, University of Milan Bicocca, University of Bologna and University of Naples Federico II with the support of three of the main Italian bioeconomy players (Novamont, GFBiochemicals and Science Park of Lodi) and the Italian leading banking group Intesa Sanpaolo	Bioeconomy in the Circular Economy	Masters	Extensive training for professionals within the biobased goods and services industry using biological resources and bio-technological processes
University of Giessen, Germany	Agricultural Economics, Bioeconomy and Rural Development	Doctorate	Training candidates to become researchers and teachers, who are then able to analyze problems and develop solutions to developmental challenges in developing countries
Lund University, Sweden	Bioeconomy	Doctorate	Innovative inter/trans-disciplinary research and education for a sustainable bioeconomy
University of Bonn, Germany	Bioeconomy	Doctorate	Focusing on institutional innovations as well as on ecological, social and economic sustainability in the field of water and land use
Catholic University of Leuven, Belgium	Bioeconomy	Doctorate	Making an important contribution to the scientific understanding of societal issues through the development of more sustainable agricultural and food systems, and promotion of ecosystems services and values.
North Carolina State University	Bioproducts/ Bioeconomy Development	Doctorate	Advancing knowledge through science, and translate and apply research that drives discovery and generates value in the area of sustainable production of products from renewable sources.
The University of Warmia and Mazury in Olsztyn, Poland	Bioeconomy	Doctorate	Educating highly qualified staff to work in both higher education and industry.

What strategies are being applied to these production determinants in different forms of existing academic entrepreneurship and with what effects? What is the level of importance of specific production determinants across several sectors of the bioeconomy?

As universities continue to rethink their traditional approaches to training, to more interdisciplinary offerings in the field of bioeconomy, there is need for further insightful exploration, particularly into the existing curricula to decide on whether to integrate bioeconomy and related courses into existing curricula, since bioeconomy spans several sectors of the economy, or continue launch to a separate curricula to address different aspects of the bioeconomy.

The motive of academic entrepreneurs in the context of bioeconomy is widely unexplored, especially from the sustainable development. This is desirable to gain insights to catalyze more entrepreneurial motives toward contribution to sustainable development.

CONCLUSION

Education, research and serving society are the key missions of academics and their institutions. Bioeconomy offers the academics and their institutions opportunities to fulfill these missions. At the core of bioeconomy is the need for an understanding of science, as well as a capacity for innovation in scientific research and entrepreneurship to reach the markets.

Bioeconomy by definition is a multidisciplinary action, a network economy of several actors and functions that can be situated within the technology innovation framework. The TIS framework provides a path for effective transfer of technological innovation from academic research in the bioeconomy sectors to create social, as well as economic value, and promotes sustainable development. It is important that academic entrepreneurs adopt the TIS framework to ensure the diffusion of innovation in bioeconomy sectors towards achieving sustainable development.

There is considerable attention on sustainability in the bioeconomy debate, with sustainability seen as an inherent characteristic of the bioeconomy. The future of sustainable development is in the implementation of bioeconomy to change our current patterns of production and consumption towards more sustainable pathways. Likewise, entrepreneurship and ensuring sustainability on our resources-constrained planet will be interdependent. Bioeconomy is a veritable avenue for academic entrepreneurship to contribute to solving escalating societal problems. There are opportunities in emerging sectors of bioeconomy to be developed as a part of entrepreneurship engagements. These include innovations around biobased products (final and intermediate) and production technologies.

In practice, academic entrepreneurship in bioeconomy includes production of platform chemicals and final products, technology development and consulting services. There are situations where academics hold top and mid managerial positions, and where alumni are using the knowledge and experience garnered during their doctoral training in entrepreneurship. There are also evidences of university-industry collaborations in training, research and development of cost effective technology.

Universities are introducing courses and degree programmes in bioeconomy and related fields to equip students and researchers with competencies, skills, and knowledge base required for achieving their career goals in bioeconomy sectors. In order to make progress, it is imperative to improve the entrepreneurial component of the curricula as well as innovative training and ensure the right mix of education while providing a supportive environment.

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KEY TERMS AND DEFINITIONS

Academic: A teaching member of an institution of higher education.

Academic Entrepreneurship: The process in which an individual or group of individuals linked through their work to an institution of higher education or research center sets up a business venture in order to commercialize the results of their research.

Academic Entrepreneurship, Bioeconomy, and Sustainable Development

Bioeconomy: The sustainable production of renewable biological resources and the conversion of these resources and waste streams into value added products for final and intermediate consumption.

Entrepreneurship: The process of designing, launching and running a new business to generate a profit.

Innovation: An idea, method, process, practice, or object that is perceived as new by an individual or other unit of adoption.

Renewable: A substance capable of being replaced by natural ecological cycles.

Sustainable Development: Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Section 2

Entrepreneurial Ecosystems

Chapter 4

Implementing Academic Business Incubators: Reflections and Best Practices of a Portuguese Case Study

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ABSTRACT

Academic business incubators (ABI) are an important tool to support entrepreneurship awareness among higher education institutions communities, as well as to promote new and high-value companies' creation by fostering regional competitiveness. The present chapter aims to explore a Portuguese ABI implementation and development process, attending identified success critical factors on previews literature and analyzing the incubator processes and some incubatees' statements. In addition, and in line with a no "fit all" incubation practices, it draws some possible strategies that can be followed by other institutions with similar implementations and presents some results linked to the way dissemination is made and support is provided.

INTRODUCTION

According to the European Commission (2008), European small and medium-size enterprises (SMEs) need to be boosted in order to gain world-class position and to put Europe in the forefront of business. In order to achieve this goal and become driving forces of countries' development (as mentioned in the next paragraph), SMEs must incorporate a lot of different areas of knowledge. This may be the path to

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achieve vibrant SMEs, as advocated by the European Commission: “*In a globally changing landscape characterised by continuous structural changes and enhanced competitive pressures, the role of SMEs in our society has become even more important as providers of employment opportunities and key players for the wellbeing of local and regional communities. Vibrant SMEs will make Europe more robust to stand against the uncertainty thrown up in the globalised world of today.*” (European Commission, 2008).

The report “Think Small First – the Small Business Act for Europe” (European Commission, 2008) highlights the imperative need to support the innovation and growth potential of SMEs, stressing that such support will be decisive for the future prosperity of the European Union. The Commission adds that the most dynamic entrepreneurs will be in a better position to seize the opportunities generated by globalization and rapid technological change. A statement opening a European Commission website page (n.d.) clearly states the economic need for supporting SMES, as the base of the European economy. New entrepreneurs, of all ages and in all knowledge fields are encouraged to begin this path.

In the “Entrepreneurship 2020 Action Plan” (European Commission, 2013), entrepreneurial education and training to support business creation are presented side by side as well as the need to reignite the culture of entrepreneurship and the nurturing of a new generation of entrepreneurs. It is therefore clear that, for SMEs to have a significant impact on the European economy, they need to grow, increase headcount and expand their product lines, markets and sales. This is the higher policy makers view and these are some of the signs, in terms of policy, for countries, regions and institutions from around European Union to strive to create supportive conditions for SMEs to be born and successfully grow.

Thus, it is fair to say that for this growth to take place, it is necessary to provide entrepreneurs with knowledge and skills that will make a difference when facing the growth phase and technological and global challenges and competitiveness. This means that access to new technologies, know-how and qualified and knowledgeable staff that can lead SMEs to their sustainable growth will be of utmost importance. Other needs that the European Commission also considers pressing for SME growth are access to advice on management, financing and finding new markets. The lack of entrepreneurial and other skills is also presented as a direct link to the untapped potential in innovation and R&D issues.

In the Entrepreneurship 2020 Action Plan, the European Commission dedicates a pillar to entrepreneurial education and training as support and ground tools for growth and business creation and its link to the higher education institutions (HEI). The document stresses that “... young people who benefit from entrepreneurial learning, develop business knowledge and essential skills and attitudes including creativity initiative, tenacity, teamwork, understanding of risk and a sense of responsibility. This is the entrepreneurial mind-set that helps entrepreneurs transform ideas into action and significantly increases employability.” (European Commission, 2018, p. 14).

The role of entrepreneurship is presented as a key enabler of innovation and HEIs are called to action when it comes to entrepreneurship and as active components of entrepreneurial ecosystems and innovation activities. So that Europe as a whole can achieve the front office of business, each country, and for that matter each region, must succeed. This is to say that regional development depends on SMEs innovation capacity and competitiveness (European Commission, 2018). In this context HEIs play a central role, catalysing triple-helix interactions and entrepreneurship awareness and promotion (Etzkowit & Leydesdorff, 2000; Carayannis et al., 2018).

Also, because countries and regions across the world need to increase the level of economic development and gain global competitiveness, they encourage the creation of sustainable entrepreneurial ecosystems (Cohen, 2006; Cohen & Winn, 2007; Isenberg, 2011; Spigel, 2017). Sometimes this kind of ecosystems appear, directly related to universities and their regional networks and some recent research

has already demonstrated the importance of this concept (Regele & Neck 2012; Clarysse et al. 2014; Rice et al. 2014; Hayter, 2016).

But from the point of view of HEIs, there are some important questions that need to have clear answers:

- How can HEIs boost entrepreneurial teaching and practice in their courses and support facilities, for the actual creation of businesses?
- How can HEIs start enrolling in this entrepreneurial support process?
- Will entrepreneurs that are born under these conditions be successful?
- Will their companies succeed after leaving their parent institution?
- Will these companies have a great impact on regional and national development?

Although these are very important questions and their answers are of the utmost importance, this chapter aims to address the reasons behind HEI entrepreneurial support and the starting point of such a process, namely institutional strategy and policy, internal human resources support and facilities provided, by addressing one incubation support scheme in Portugal.

This chapter presents an empirical study, based on the case of a Portuguese HEI that is developing an entrepreneurial support structure under the concept of Academic Business Incubator (ABI). This structure is very young and for that matter the chapter also lacks robust comparable data. Nevertheless, the authors decided to develop this study at this early stage, in order to present information as soon as possible that can be used as part of in-depth studies. As a contribution to this discussion, the purpose of this chapter is to explore why and how it was planned and implemented and what were the first achievements and struggles from the moment of its creation.

Firstly, this chapter includes a brief literature review about ABI definition, strategic scope and business/managerial models. The second part describes the research methodology, and the ABI framework and description. The last two parts present discussion, conclusions, limitations and directions for future research.

The methodology relies on an empirical and exploratory case study, including a mix of qualitative and quantitative approaches, to explore the genesis and management model of IPStartUp – the Polytechnic Institute of Setúbal (IPS) ABI.

LITERATURE REVIEW

The Business Incubators (BI) and Academic Business Incubators (ABI) Concept

BI were designed as tools to support new business creation and to promote the commercialization of innovative ideas (Theodoraki, Karim & Rice, 2017). The ABI concept, specifically, is based around BI that are created and managed by HEIs and that allow them to promote and support entrepreneurship and the creation of new companies. Some authors also refer to this concept as University Business Incubators (UBI). For the purpose of this chapter, ABI and UBI are considered similar concepts.

Many authors have studied them and defined ABIs as an important tool to support academic entrepreneurship (Mian, 1996; Lalkaka, 2001; CSES, 2002; Grimaldi & Grandi, 2005; Van Burg et al., 2008; Somsuk & Laosirihongthong, 2014; Stal et al., 2016), but this concept is far from being consensual when

it comes to “best practices”. Specific contexts and HEI strategy will influence the implementation of activities (Grimaldi & Grandi, 2005; Nicholls-Nixon et al., 2018).

BI are organizations that provide entrepreneurs with a set of support resources, helping them in the establishment and development of their project, which can happen from the initial idea to the launch phase of the new business and marketing of their products and services. These resources may be more tangible or intangible and have been pointed to as a key success factor for the development of companies in their different stages and throughout the value chain (CSES, 2002; Sarkar, 2010; Gerlach & Brem, 2015).

ABIs are non-profit institutions and aim to promote regional development (Grimaldi & Grandi, 2005). They tend not only to focus on commercializing intellectual property which originates in their academic labs, but also to promote innovation and entrepreneurship among the internal and external environments, through education in entrepreneurship and support for new ventures at different lifecycle stages (Grimaldi & Grandi, 2005; Nicholls-Nixon et al., 2018). The focus is not only on technology or engineering; instead, entrepreneurial HEI promote and support innovations across all HEI departments, including social sciences, humanities, and liberal arts (Nicholls-Nixon et al., 2018).

There are several BI studies that address different points of view, but which appears to be a logical link to strategic positioning, the incubation model and the kind of services provided, as well as the external context (Grimaldi & Grandi, 2005; Clarysse et al., 2005; Lockett et al., 2005; Phan et al., 2005; Somsuk & Laosirihongthong, 2014; Berbegal-Mirabent et al., 2015; Nicholls-Nixon et al., 2018). Many types of organizations fall under this concept and thus is easy to lose ourselves in many distinctive labels and models such as: traditional incubators; business centers; technological and innovation centres; or ABI and the latest “new economy incubators”. Throughout the ages their respective management models also evolved (CSES, 2002; Grimaldi & Grandi, 2005). Over time, BI extended their value proposition and became very homogeneous, as they evolved from a first generation that provided basic services like physical space, to a third generation which also provides services such as business development support and access to networks (Bruneel et al., 2012). On the other hand, even between third generation incubators, their management strategy differs according to their institutional logic, stakeholders’ goals and strategic focus (Nicholls-Nixon et al., 2018). Other studies reveal differences between BI types, not only relying to the services provided, but also according to the greater or lesser innovative nature of their tenants, their management team and the experience learning curve of each one (Carvalho & Galina, 2015). Even if they vary with respect to structure, services and operational processes, they share the same common goal: to support entrepreneurs and create new companies (Theodoraki, Karim and Rice, 2017).

ABIs tend to promote economic development based on capabilities and management models that rely on scientific knowledge transfer to society, considering social and environmental sustainability and knowledge democratization. Besides, those incubators tend to operate increasingly within the operating and management models of “new economy incubators” in which the services put emphasis on knowledge sharing (CSES, 2002; Grimaldi & Grandi, 2005), complementing support with continuous access to specific academic infrastructures (laboratories and facilities) and academic networking (Grimaldi & Grandi, 2005; McAdam & McAdam, 2008; Aaboen, 2009).

The next section presents a literature review about strategic ABI development.

A Strategic Perspective about ABI Development

In the European Union (EU) and in Portugal specifically, 99% of the companies are micro companies and SMEs, which account for more than 65% of employment in the private sector and contribute to

more than half of the total added value created, which reveals their pivotal role in boosting the European economy (European Commission, 2018).

EU strategies for regional development have been consolidating a position to stimulate open innovation and knowledge transfer (Directorate-General for Research and Innovation for European Commission, 2014), pointing out that HEIs play a central role and need to be more entrepreneurial and catalyse the interactions between HEI, industry, government, civil society and the environment (Etzkowicz & Leydesdorff, 2000; Carayannis et al., 2018).

While there are some studies that suggest contradictory data regarding the efficiency of incubators (Ratinho & Henriques, 2010), many others consider ABIs as an important instrument of economic dynamism. According to the latter, ABIs facilitate the creation of spin-offs, technological and knowledge transfer for companies' development and advancement of market growth and entrepreneurial culture (Mian, 1996; Lalkaka, 2001; CSES, 2002; Grimaldi & Grandi, 2005; Van Burg et al., 2008; Somsuk & Laosirihongthong, 2014; Carvalho & Galina, 2015; Stal et al., 2016). There are also some studies that concluded that incubated firms outperform non-incubated firms in both sales growth and employment (Lasrado et al. 2016).

The HEI decision to support the creation of companies depends on the local context in terms of availability of venture capital, social capital, incubators, mentors, policies to support the creation of technology-based companies and public investments in R&D. When the local context does not offer such promotion conditions by itself, HEIs should invest in their own support mechanisms, including business incubators (Fini et al., 2011). Regional and geographic context also seem to relate to the tenant's perception of the value of services, depending on the company's typology (Carvalho & Galina, 2015). Nevertheless, there are previous authors who argue that it is important for academia to invest in their own ABI, not just because knowledge flows from HEIs to incubated companies (Rothaermel & Thursby, 2005), but also because there is a mutual creation of value between the entrepreneurs and the academic community, triggered by their knowledge exchange, resources and business processes (Aaboén, 2009).

As an important part of an entrepreneurial HEI, some studies highlight that to achieve a successful development of an ABI, it requires some specific efforts in the long term (Van Burg et al., 2008; Nosella & Grimaldi, 2009; Rice et al.; 2014; Somsuk & Laosirihongthong, 2014):

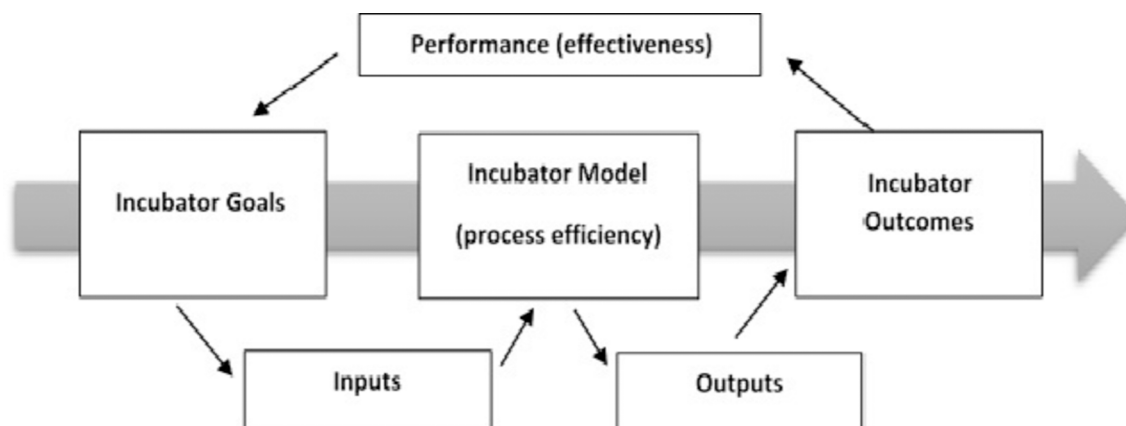
- Senior and leadership vision, engagement and sponsorship;
- Strong commitment from the faculty leadership;
- An appropriate, robust and effective organizational infrastructure that links entrepreneurship initiatives to research centres; teaching and curriculum development; networking events; technology licensing offices; business plan and other support and enrichment resources and activities;
- Allocation of substantial financial resources.

Designing ABI Through Best Practices: Some Remarks

Almost two decades ago, Lakalka (2001) said, "The business incubation process has established many successes under different conditions, but further work is necessary to provide a firm basis for the concept to properly define and reach its potential in the next decade" (p. 33). Today there are still doubts about what "best" practice really means in business incubation and each incubator must identify the incubating model that fits it best (Grimaldi & Grandi, 2005; Nicholls-Nixon et al., 2018).

Figure 1. Incubator performance evaluation model

Source: Mosselman et al., 2004 and Bergek & Norrman, 2008, adapted



Bergek and Norrman (2008) define “best practice” as a process which delivers a particular result better compared to other processes.

As Mosselman et al. (2004) argue, this can be measured by efficiency, which measures the relation between outputs/inputs, and effectiveness, which refers to goal-attainment, measuring the relation between the outcomes (relevant consequences of the direct effects – outputs) and the initial goals (Mosselman et al., 2004). Figure 1 presents a clearer way of understanding these relations.

Regarding ABIs’ missions and processes, Somsuk and Laosirihongthong (2014) classify the main performance dimensions in four domains: ABI growth and sustainability (e.g. number of tenants per year), incubatee growth and survival (e.g. tenant firms’ sales growth), contributions to sponsoring HEIs objectives (tenant employees enrolled in HEI’s courses/seminars) and community-related impacts (e.g. employment of tenants and graduates).

However, it is not just outcome evaluation that matters in order to achieve the right perspective on good incubator practices. It requires a holistic approach and needs to account for the incubator performance and its respective incubation model. Different types of incubators in different macro-contexts, with different strategies and goals, have different approaches and ways to increase performance (Mian, 1997; Bergek & Norrman, 2008; Hausberg & Korreck, 2018). Recent studies corroborate that analysis of good incubator practice is not a simple and linear process and for that matter, many context variables can give misleading conclusions and therefore the self-evaluation processes and strategies selection. Some of the most important variables are precisely the social and the political contexts and whether the incubator is public or private, dependent or autonomous (Clarysse et al., 2005; Lockett et al., 2005; Phan et al., 2005; Somsuk & Laosirihongthong, 2014; Berbegal-Mirabent et al., 2015). A standard definition of “good practice” is therefore questionable, especially in the case of ABIs. This kind of incubators follow broader objectives (related to their own context), such as promoting and spreading the entrepreneurial spirit and supporting the creation of companies that are not tech-based, like the ones targeting the social sector (Nicholls-Nixon et al., 2018).

When it comes to operational level, Van Burg et al. (2008) distinguish deliberated from emergent design processes, arguing that emergent design processes can be essential in getting started allowing experimentation with potential solutions. On the other hand, deliberate design approaches can assure

process tracking and improvement. These seem to be two complementary approaches which help to accumulate essential knowledge and achieve entrepreneurship promotion and the goals for the company's creation. Other authors corroborate this, stating that business incubators are learning organizations and grow as start-ups themselves, adjusting processes and procedures and improving results (Carvalho & Galina, 2015).

ABIs Incubation Models: Strategy and Expected Outcomes

As already mentioned, when it comes to BI, standard definitions of “good practice” are somehow questionable. This also applies to the incubation models. ABIs tend to be mainly oriented towards the valorization and exploitation of the internal competencies and knowledge, but they can support many different market needs (Grimaldi & Grandi, 2005). Some authors even argue that ABIs should create HEI-wide awareness of entrepreneurship opportunities and stimulate the development of entrepreneurial ideas, emphasizing the importance of promoting entrepreneurship abilities and skills among community and mainly undergraduate students (Van Burg et al., 2008; Somsuk & Laosirihongthong; 2014).

Some variables like HEI rationale, strategy and goals affect how ABIs are implemented. Their set of values and beliefs can guide operational decisions, such as selection criteria or resource allocation (Grimaldi & Grandi, 2005; Clarysse et al., 2005; Bergek & Norrman, 2008; Nicholls-Nixon et al., 2018) and the clarity of goals and concreteness of operation strategy are critical factors for an effective operational model implementation (Lee & Osteryoung, 2004; Clarysse et al., 2005). Therefore, to foster the generation of companies, many authors emphasize the importance of having a clear regulatory framework and supportive rules (Van Burg et al., 2008; Fini et al., 2011; Berbegal-Mirabent et al., 2015).

Access to finance resources, for instance, has been pointed out as another critical resource for the development of new ventures and while some authors state that ABIs don't resolve such problems (Grimaldi & Grandi, 2005), others state that they should obtain financial support from other partners (Bergel-Mirabent et al., 2015). To overcome these stressers, some R&D centres tend to implement self-autonomy finance strategies from venture capitalists, local public funds or specific industry companies, which enable them to provide intensive services (Clarysse et al., 2005).

Two major variables with direct implications for expected results are the strategy for selection criteria and rigidity (Table 1). Selection criteria implies selecting future supported incubates according to a more idea-focused approach or an entrepreneur-focused approach (Bergek & Norrman, 2008; Nicholls-Nixon et al., 2018), while selection rigidity implies choosing between those that are more likely to succeed or accepting all applications and waiting for the “natural” survival rate. Choosing one or another will have implications on the results. Thus it is reasonable to expect that this choice will also be aligned with HEI strategy.

Business Support and Services Provided

The concept of ABI business support implies evaluating several areas. Tangible and intangible factors have been noted as value-added to foster company creation and growth. In this scope, ABI managers and incubatees recognized several factors:

- HEI image guarantee (Mian, 1997; McAdam & McAdam, 2008; Carvalho & Galina, 2015);

Table 1. Selection strategies and results

Strategies & Results		Selection criteria	
		Idea-focused approach Incubator managers must have access to deep knowledge of products and markets in relevant technological fields in order to evaluate the viability of ideas	Entrepreneur-focused approach Incubator managers must have ability to judge personality as well as the knowledge to evaluate driving forces of entrepreneurs such as experience, skills, and characteristics
Selection rigidity	“Picking-the-winners” approach incubator managers try to identify a few potentially successful ventures ex ante (most common at private venture capital firms)	Results Highly niched portfolio of thoroughly screened ideas within a quite narrow technological area (common in highly ranked HEI)	Results Few handpicked and carefully evaluated entrepreneurs, commonly with ideas coupled to the research areas of a nearby HEI
	“Survival-of-the-fittest” approach Incubator managers apply less rigid selection criteria, help them to launch on market and over time, the processes will separate winners from losers.	Results Quite large number of upcoming entrepreneurs, with immature ideas related to a broad spectrum of fields	Results The result will be a diversified portfolio, with strong driving forces entrepreneurs/teams representing a broad set of ventures

Source: Bergek & Norrman, 2008, adapted

- Access to services and resources at lower costs (McAdam & McAdam, 2008; Carvalho & Galina, 2015; Carvalho et al., 2019);
- Access to financial resources (Mian, 1997; Clarysse et al., 2005; Somsuk & Laosirihongthong, 2014; Berbegal-Mirabent et al., 2015);
- Flexibility on entry to and exit from ABI (McAdam, & McAdam, 2008);
- Access to research results, laboratories and other HEI specific facilities and data (Mian, 1997; Grimaldi & Grandi, 2005; McAdam & McAdam, 2008; Carvalho & Galina, 2015; Carvalho et al., 2019);
- Use of students and graduates as employees for promoting the right mix of skills (Mian, 1997; McAdam & McAdam, 2008; Van Burg et al., 2008);
- Access to faculty consultants and support for business plan, team building, law, finances and patenting (Mian, 1997; Lee & Osteryoung, 2004; Clarysse et al., 2005; Van Burg et al., 2008; Nosella and Grimaldi, 2009; Somsuk & Laosirihongthong, 2014; Carvalho & Galina, 2015; Carvalho et al., 2019);
- Networking as a driver for new ventures success (McAdam & McAdam, 2008) enables cooperation and informal relationships (Schwartz & Hornych, 2010), promotes information and knowledge exchange (Schwartz & Hornych, 2010) and emotional support for each other (McAdam & McAdam, 2008; Bøllingtoft, 2012);
- Specific support like marketing consultancy, buyer preferences and technological development that can be provided by researchers and professors (Soetanto & Jack, 2015);
- External stakeholders and partners (such as business angels and industry partners) have also been found as valuable resources, filling gaps in knowledge and skills (Van Burg et al., 2008; Somsuk & Laosirihongthong, 2014) as well as high-quality relations to a few selected and relevant ones (Nosella & Grimaldi, 2009).

When it comes to activities promoted by the incubator, one that was also considered very important was the engagement of a new venture team on educational activities, due to a likely increase in the inflow of people, ideas and resources (Van Burg et al., 2008). In this scope, incubators act like a catalyst in value creation processes, identifying and mobilizing resources needed (Aaboen, 2009; Scillitoe and Chakrabarti, 2010), while also diffusing scientific knowledge into new companies (Somsuk & Laosirihongthong, 2014).

Incubators' Role in the Incubation Process

The way business support is provided is directly related to the incubators' role in the incubation process. It depends on whether they see themselves as active managers and dominant on the incubation process or as external facilitators, allowing entrepreneurs the main role in the management process. One extreme approach would reveal a strong intervention, guiding incubatees through the incubation process and sometimes supplying them with complete management teams. The other extreme approach, called "laissez-faire", allows incubatees to guide themselves, with very little assistance provided for them unless they ask for it (Bergek & Norrman, 2008).

Some studies found that younger teams seem to have high expectations about the incubator' role, especially related to market and finance issues, and ask for stronger intervention. When they become more mature, they tend to be more independent. In this process, they can feel confused about need for autonomy versus fear of independence. It's up to the incubator to encourage growth and autonomy (McAdam & McAdam, 2008). Other studies, however, pointed out that incubators must provide support in a personalized way to deliver value to the new companies (Van Burg et al., 2008; Ratinho & Henriques, 2010; Carvalho & Galina, 2015), and that it is important to bear in mind that there can be differences in needs depending on factors like the incubatee sector, typology or lifecycle stage (McAdam & McAdam, 2008; Schwartz and Hornyh, 2010; Carvalho et al., 2019).

METHODOLOGY

The main purpose of this study was to explore the genesis and management model of IPStartUp in IPS (a HEI), analysing it in the light of ABI literature. This analysis focused essentially on the creation, the strategy behind it, the entrepreneur's support type and form and the results so far. For this purpose, an empirical exploratory case study was adopted, with a mix of qualitative and quantitative approaches (Yin, 2009). Under the scope of the previous studies, IPStartUp was implemented and developed as an ABI. According to Yin (2009), case studies can be used to determine whether a theory's propositions are correct or whether some alternative set of explanations might be more relevant. Also, the author emphasizes the importance of exploratory studies to underline some relevant future study propositions.

To describe and support this case study, the authors accessed data from IPS internal databases, documents and regulations, reviewing and analysing them from April to June 2019. In addition, data from internal databases about incubation activity, entrepreneurship projects and company creation from 2008 to 2019 was also retrieved and previously prepared and adapted for this case study. In order to correctly understand and frame all the data, the authors formally and informally questioned IPStartUp staff during that time and obtained qualitative data that this chapter encompasses.

IPSTARTUP FRAMEWORK AND DESCRIPTION

Journey and Regulation

IPS is a public HEI created in 1979, with five colleges covering areas of engineering, education, business administration and health care in two different locations (Setúbal and Barreiro). In this scope, IPS has around 7,000 students in higher technical courses, bachelor's, master's and postgraduate courses, more than 600 professors and researchers and more than 160 other staff.

One of the main strategic focus of IPS (following general HEI strategies) is nurturing innovation and knowledge, as well as entrepreneurship, innovation and technology transfer. IPS has enforced and stimulated active learning practices, promoting links with industry partners and enhancing entrepreneurship among its community.

There were some important milestones that led the institution to the place where it is now, regarding the business incubation process:

- In 2006, IPS started to incorporate specific curricular units of entrepreneurship in many course curricula from different colleges. Nowadays, in every school year, about 500 students are enrolled in these curricular units.
- In 2007, IPS established an Office for Innovation and Technology Transference (OTIC) aiming to establish a closer link among R&D and entrepreneurship regarding the implementation of strategic technology transference processes. OTIC ended in 2011, after the funding ended, but a basic structure of regional networks and external partners has been developed.
- In 2008, IPS started to participate in the Poliempreende National Entrepreneurship Challenge, which involves 21 Portuguese HEIs. This Challenge calls for students and graduates with a business idea and a business plan. Starting with a first local competition, it ends with a national one between the 21 local winners. It's still the main internal driver for scouting innovative ideas and entrepreneurs.
- In 2011, IPS established the Support Unit for Innovation, R&D and Entrepreneurship (UAI&DE). This structure is nowadays composed by seven qualified people and acts as the specialized institution structure for supporting R&D funded projects and intellectual property issues. The Unit also manages Poliempreende and IPStartUp.
- In 2013 IPS opened a position for one entrepreneurship officer at UAI&DE that was filled at the end of 2013. It allowed a more strategic focus on entrepreneurship beyond the purpose of the curricular units.
- In 2015 IPS created IPStartUp as a step forward in a new form of entrepreneurship support.
- In 2018 IPS opened a position for an internship position to work directly in the spread of entrepreneurship support among students, graduates and researchers.

The creation of the structure of UAI&DE and the incorporation of entrepreneurship into R&D support stated the need to strengthen those links and to identify possible technology transference possibilities in a quicker and more efficient way. Also, the entrepreneurship officer position is a clear statement of one area that IPS wanted to reinforce and that lacked strategic activity until then.

After 2013, the UAI&DE entrepreneurship structure started to develop some exploratory activities. The main ones, considered key activities, are briefly described below:

Implementing Academic Business Incubators

- As awareness of students and their teachers was identified as a key point for the promotion of entrepreneurship activities participation, in 2014, classes of all colleges were visited by the entrepreneurship officer and students received information.
- As the involvement of the professors was also considered very important, a strategic involvement of several, with different knowledge background, started.
- In 2015, after IPStartUp was created, IPS provided dedicated physical space for 15 entrepreneurs.
- As a more in-depth knowledge about business creation and management was identified as entrepreneurs' needs, in 2016 some workshops were carried out with the involvement of IPS professors. In 2017, 2018 and 2019 more workshops were added, and new subjects (e.g. web prototype, product prototype with 3d printers) were covered.

IPStartUp is framed under a specific regulation that defines the incubation rules and that is part of the general IPS regulations. It mainly targets the IPS academic community (students, graduates, professors and researchers) and addresses innovative ideas to entrepreneurs. Those ideas must have a direct link to one of the knowledge areas that IPS teaches among its colleges. This link allows identification and recruitment of internal mentors and external partners that have that specific know-how.

Following national policies and recommendations, IPStartUp is part of the National Incubators Network (RNI) and is a certified incubator for governmental support programmes, managed by the Portuguese Competitiveness and Innovation Agency (IAPMEI) such as Startup Voucher, Incubation Voucher, Internationalization and R&D Vouchers. In 2018, IPStartUp was also certified for the Startup Visa programme, which is a residence visa for entrepreneurs and aims to attract investment, talent and innovation capacity to Portugal. The physical space at both Setúbal and Barreiro campuses provides office facilities as well as internet support, access to some internal specialized resources like laboratories, auditoriums, meeting and workshop rooms and science and business databases.

The human resources structure consists at this moment of one ABI manager, one ABI support technician and 8 permanent mentors among IPS professors in different fields. A third full-time internship position opened in 2019.

Implementation and Dissemination

After 2015 the implementation process took place. With a recently created support structure, the biggest challenge was spreading the word among a community of more than 7,000 people, five different locations and more than 40 courses. As already mentioned, in 2014 some personal visits were made to classes, which was considered very important, as students could make direct questions and receive information (e.g. flyers). However, at the end of the school year it was considered very time consuming and results were not satisfactory – the number of entrepreneurial teams was very low, both for the Poliempreende and for the IPStartUp.

After that trial, a new approach began. Instead of just going to classes and presenting the offers, a new workshop format was prepared to be carried out during a two- or three-hour class. During that time, students are challenged to work in small groups and develop a business idea from their study field. Around the basic structure of a business model, they can understand how to come up with ideas, how to address them to customers, link to partners or even understand the basic concept of cost and revenue. During the workshops there was time to introduce the support available and how students can access it.

From 2014 until the beginning of 2019 the number of workshops increased, as did the number of students that came up with ideas and contacted IPStartUp. Because communication is held inside classes and teachers are also there, awareness also includes them. From that point on, a greater number of teachers requested repeat workshops and recommended teams that they thought had an interesting idea.

The IPStartUp manager considered communication and awareness very key points. In her own words

It's not possible to develop entrepreneurial activities or support entrepreneurs if people don't know what kind of support is available and how to get to it. This is a constant battle and needs permanent action. Despite having a communication plan developed, there is not yet a good implementation and the message is not getting to most people.

Incubatee Support and Practices

Between the moment that the first teams were supported and now, several practices have been experimented with, and some remarks can be made.

After the OTIC experience, a very important work about regional knowledge and the establishment of deep links between IPS and regional industries and other organizations remained and was the basic structure for the work that followed. In terms of supporting entrepreneurship, and even though some companies were created, it lacked a more formal structure and did not have follow-up. Nevertheless, some lessons were learned: it needed a dedicated and professional structure; it needed multidisciplinary approach and continuous support.

The first teams arrived at IPStartUp via Poliempreende. Before IPStartUp existed, teams developed a business idea over several months and even got some support from some interested mentor and some management support, but failed in continuity as there was no supportive structure after that. Table 2 shows how the numbers have evolved since then and even though the number of teams that went to the Poliempreende is smaller in recent years than in the first years, they don't stop at the competition and have continuity.

In May 2019, there were 15 teams in the incubation process (9 projects and 6 companies/organizations) all created with IPStartUp support, comprising more than 40 entrepreneurs including professors, students, graduates and some external team members, as shown in Table 3. Two of these teams arrived in the first quarter of 2019 from Brazil and Malaysia under the Startup Visa programme and were selected among more than 30 applications. All teams are less than 3 years old and most of them are 1 year old or less.

DISCUSSION

After presenting the case study, a brief discussion follows. Each of the aspects found while describing these incubator characteristics are going to be linked to the literature already presented. This will allow a better understanding regarding whether this case follows evidence already presented in the literature.

Under the premises of regional development (Etzkowitz & Leydesdorff, 2000; Carayannis et al., 2018), IPStartUp is one of the various IPS statements of accomplishment to become an entrepreneurial HEI (Mian, 1996; Grimaldi & Grandi, 2005; Van Burg et al., 2008; Somsuk & Laosirihongthong, 2014, Stal et al., 2016).

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Table 2. *Poliempreende and IPStartUp numbers (2008-2019)*

Date	Poliempreende	Companies created with IPS support	Projects/companies incubated
	Business Ideas		
2008	6	7	(-)
2009	6	0	(-)
2010	6	0	(-)
2011	9	0	(-)
2012	4	0	(-)
2013	7	0	(-)
2014	9	0	(-)
2015	3	0	3
2016	7	1	9
2017	4	0	8
2018	5	1	15
2019	5	2	15

Source: authors elaboration

Table 3. *IPStartUp incubated teams (2016-2019)*

Start year	Age (years)	Sector	Development Stage	N.º Team members	Link with IPS
2016	3	Civil Engineering	Company	2	Alumni
2017	2	Mechanical Engineering	Company	2	Alumni & External
2017	2	Sustainable Products E-commerce	Company	3	Alumni & External
2017	2	Art Craft E-commerce	Idea	1	Alumni
2018	1	Sports Social Inclusion	Non-profit organization	1	Alumni
2018	1	Digital Health	Idea	6	Students
2018	1	Migration Consultancy Services	Idea	2	Student & External
2018	1	Biotechnology	Idea	4	Students & Professors
2018	1	Biotechnology	Idea	3	Students & Professors
2019	<1	Tourism	Idea	1	External
2019	<1	Social Services	Idea	1	Student
2019	<1	IT Business Consulting	Company	2	Alumni
2019	<1	Energy Business Consulting	Idea	2	Alumni & External
2019	<1	Data Analyses Services	Company	4	External
2019	<1	Fashion E-commerce	Idea	1	Student

Source: authors elaboration

To complement entrepreneurship support for those who want to develop their business ideas, IPStartUp has demonstrated, even in few years, that it has an impact not only on putting people together and working on internal innovation systems (Van Burg et al., 2008) but also on the creation of companies (Fini et al., 2011).

Since 2015 there has been a mixed implementation of deliberate and emergent operational practice, since it was a new project and it needed to be assessed within the community. The processes evolved and it was possible to improve managerial practices from the learning achieved along the way (Van Burg et al., 2008; Carvalho & Galina, 2015).

Despite being a very young incubator, the previously mentioned strategy, has, until now, been the internal selected strategy to achieve IPStartUp's own practice (Mian, 1997; Bergek & Norrman, 2008; Hausberg & Korreck, 2018). With the aim of providing support to those entrepreneurs who wanted to develop their projects, IPStartUp also used internal resources (Clarysse et al., 2005) and strong links to regional stakeholders (Phan et al., 2005; Fini et al., 2011).

As the goal of IPS is to boost regional development (Grimaldi & Grandi, 2005), the awareness of entrepreneurship opportunities and the spread of the entrepreneurial spirit (Van Burg et al., 2008; Somsuk & Laosirihongthong, 2014; Nicholls-Nixon et al., 2018), followed the selection criteria of entrepreneur-focused and survival-of-the-fittest approaches (Bergek & Norrman, 2008; Nicholls-Nixon et al., 2018). Until now this strategy seems to fit both the promotion of entrepreneurial spirit and the separation of winners from losers and results in a diversified portfolio, with entrepreneurs/teams representing a broad set of companies (Bergek & Norrman, 2008).

Furthermore, it is notable that management practices are ongoing and aligned with IPS knowledge transfer activities. For instance, IPStartUp started to receive teams from the recently created IPS research centres. Intellectual property support is made on ad hoc demand and both these practices may have direct impact on the creation of spin-offs (Van Burg et al., 2008; Fini et al., 2011; Berbegal-Mirabent et al., 2015; Carvalho & Galina, 2015).

Another alignment of the strategies of IPStartUp to those of IPS is the inclusion of goals regarding the number of incubated ideas and companies created per year in the institutional activities plan (Lee & Osteryoung, 2004; Clarysse et al., 2005). Despite the goal of obtaining numbers, operational practices demonstrate that there is concern for supporting teams that show strong commitment to their project's development and in that way pursue a very efficient and effective use of resources. On the other hand, the pursuit of objectives of creating companies does not overlap with the accomplishment of support in accordance with each project and team's needs and rhythm (Grimaldi & Grandi, 2005; Clarysse et al., 2005; Bergek & Norrman, 2008; McAdam & McAdam, 2008; Van Burg et al., 2008; Ratinho & Henriques, 2010; Schwartz & Hornyk, 2010; Carvalho & Galina, 2015; Nicholls-Nixon et al., 2018).

IPStartUp offers a set of services and support tools and as a non-profit organization. This support is provided at low cost for incubatees compared with most ABIs in the Lisbon area (Mian, 1997; McAdam & McAdam, 2008; Carvalho & Galina, 2015; Carvalho et al., 2019). In addition to the physical office facilities at both the Barreiro and Setúbal campuses, incubatees can access research and specific high-value data, laboratories and other specific in-house resources (Mian, 1997; McAdam & McAdam, 2008; Carvalho & Galina, 2015; Carvalho et al., 2019).

IPStartUp incubatees have been using the IPS image to open doors on complex issues like intellectual property, legal questions or reaching prospective customers at a very early stage (Mian, 1997; McAdam & McAdam, 2008; Carvalho & Galina, 2015). This is one of most valued assets of ABIs.

Since most of teams are young with scarce business development knowledge, IPStartUp tutors and mentors guide them through the incubation process. But even with this guidance there is a clear concern to avoid strong intervention (Bergek & Norrman, 2008). Also, tutors and mentors act to promote entrepreneurs' gradual achievement of independence, as the real market may not be so friendly, and teams must gain maturity to succeed (McAdam & McAdam, 2008).

Network Growth Strategies

IPStartUp links incubatees to professors, researchers and external experts who provide mentoring on technology and business issues (Mian, 1997; Lee & Osteryoung, 2004; Clarysse et al., 2005; Rothaermel & Thursby, 2005; Van Burg et al., 2008; Nosella & Grimaldi, 2009; Somsuk & Laosirihongthong, 2014). The tailored support approach of IPStartUp makes stakeholder selection very ad hoc, in accordance with real incubatees needs (Nosella & Grimaldi, 2009). In this scope, IPStartUp has been developing relevant networks within regional partners such as companies from different industries, public procurement entities, governmental SME support entities, business consultant partners and also investment partners, with regarding to complementing internal resources with external ones (Aaboen, 2009; Scillitoe & Chakrabarti, 2010; Fini et al., 2011).

Regular activities like themed workshops and networking sessions to foster entrepreneurs' skills development, to promote knowledge exchange between entrepreneurs and to link them to external stakeholders are carried out along the year (Van Burg et al., 2008; Somsuk & Laosirihongthong, 2014). In this scope, some newer entrepreneurs can learn from older ones, engage in good practices and get emotional support (McAdam & McAdam, 2008; Schwartz & Hornyk, 2010; Bøllingtoft, 2012). This happens not only between IPStartUp incubatees but also among other students who participate in Poliemprenende workshops and IPStartUp presentation sessions. The increasing dissemination sessions with IPS students, workshops and networking sessions, which are based on the testimonies of young incubatee entrepreneurs, have allowed the dissemination of the entrepreneur spirit as well as attracting and helping more teams to develop their business projects (Van Burg et al., 2008).

In 2017, IPStartUp launched a pilot-project called "IPS Junior Consultant" with the purpose of involving students in start-up development. The goal is to provide specialized help to newborn projects in which entrepreneurs lack knowledge about business, marketing, finances or ICT issues. From the point of view of the students, they are allowed to engage in a new venture while still studying and for that matter that can enrich their curriculum. This kind of results demonstrate the value added from internal links, within a win-win relation, both for start-ups and for other internal stakeholders (Van Burg et al., 2008; Aaboen, 2009; Somsuk & Laosirihongthong, 2014).

The IPStartUp network is growing gradually, mainly through internal and external partners attracted to the project. These partners have been instrumental in bringing knowledge, resources and key links to support entrepreneurs. This is especially relevant given the non-profit nature of IPStartUp and the resources needed to efficiently manage it.

CONCLUSION

The main purpose of this study was to explore the creation genesis and management model and support of the IPStartUp, analysing it in the light of ABI literature. This analysis focused essentially on the why of creating a business incubator in IPS, on the entrepreneur support type, form and the results so far.

The reasons behind the creation of the incubator are related to the mission of IPS to advance regional socio-economic development and its role in knowledge and technology transfer to society. This can be increased by supporting the creation of new and high-value, knowledge-based organizations and through entrepreneurship education. It can be a way to be closer to the entrepreneurial HEI and contribute to providing entrepreneurial essential skills to students, regardless of whether they start their own business or not.

As the incubator is only four years old, it seems early to conclude on the impact on regional socio-economic development, the type of companies created, the relevance of those companies, the impact on employment or the survival and growth rate. But it is already possible to have some results about its relevance. The results already achieved, either in terms of dissemination or attraction as in terms of the number of teams supported, show clear growth.

The iterative model developed and put into practice by the incubator management has proven to be an appropriate model. It allows the process to be continuously evaluated and improved, responding to the entrepreneur's specific needs and it is aligned with the best practices identified in the literature.

As a contribution for institutions that intend to start their own ABI, this study identified the need to clearly understand the context in which the incubator will be born. All activities developed under the institution, their external links and stakeholders must be taken into account.

A crucial key point is dissemination. No ABI is successful if teachers, students and graduates are not aware of its existence. It is an activity that takes a lot of time to implement and the specific contexts influence effectiveness.

Soon, more studies should be undertaken, allowing more evidence on the short-, medium- and long-term impact of IPStartUp's activity. Simple results about the number of teams supported or companies created are not enough to evaluate the effectiveness of the support, the efficiency of the use of resources, the creation of jobs or the revenue achievements.

Also, as IPS is a public institution, the use of resources in the support of this kind of activities must be well demonstrated, as its mission is socioeconomic regional impact and knowledge transfer.

The main limitation in doing this study was the lack of data, due to the early stage of the incubator, as there are no background studies and few inquiries were made to incubatees. However, it was possible for the authors to access all data available until now and primary information, which allowed a more accurate study.

As for future research directions, besides the socioeconomic impact previously referred to, it will be important to follow the path of the companies created and developed under ABI support and compare them to the path of other similar companies without this kind of support. It is important to have structured and continuous evaluation of the work performed and its impact.

In order to achieve the European goal of having a high-standard driving force for companies, public institutions that are called upon for this purpose must clearly demonstrate their commitment, efficiency and effectiveness.

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KEY TERMS AND DEFINITIONS

ABI: Non-profit institutions that promote entrepreneurship in higher education institutions and aim to promote regional development, linking academic staff (students, researchers, professors and community) with the business environment.

Incubatees: Free term indicating the entrepreneurial teams formally supported by the incubator.

Knowledge Transfer: Regular actions and activities resulting in transfer of knowledge from academia (or research institutions), usually to regional or national organizations or companies and resulting in positive economic or social impacts.

Tenants: A reference to the entrepreneurial teams being supported by the incubator.

Chapter 5

Successful and Unsuccessful Routes for Entrepreneurs: Lessons From an Entrepreneurial Regional Project Program

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ABSTRACT

There is significant research on entrepreneurs, but little on financed entrepreneurial project programs at the regional level. This chapter attempts to identify which of the several activities developed in the “Leiria Entrepreneurial Project Program” helped to promote business acceleration and to identify successful and unsuccessful routes for the stimulus of the entrepreneurship activity. Secondary and primary data were collected. The results reveal that “Mentoring,” “Participation in Workshops,” and “Conferences” activities are the most important to stimulate the spirit of entrepreneurship. The entrepreneurs’ success route lies on the competencies of the business promoters, on multidisciplinary teams capable of creating a product/service, and on the maturity of the business idea planning in all its phases. The entrepreneur’s failure path lies on the inability to clearly identify the business idea, its development, and its implementation. The findings provide an important theoretical and managerial contributions.

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INTRODUCTION

In the last decades, entrepreneurship has been a subject of growing academic interest (google N-grams that tracks mention of words in scientific published literature provides a picture of exponential growth since the 1970s). However, there is still no consensus about the meaning of the concept, its impacts and which factors increase the probability of success of new firms. It is often recognized as important because it is a strong driver of economic growth by stimulating job creation and innovative products (or it provides the means for increased market dynamic), as a means of accessing the labor market and by generating changes that can lead to better living conditions for individuals and for the whole society. Entrepreneurship leads, on the one hand, to the creation of new businesses and, on the other, to the development of already established businesses. The person responsible for this whole process is the entrepreneur. The entrepreneur is an individual who is willing to take risks and therefore takes advantage of the business opportunities that arise in an innovative way to integrate in the market and to succeed. An entrepreneur is a “product” of education, culture and environment where the individual is inserted, and therefore is not innate. However, there are some common characteristics, such as the need for independence and autonomy, curiosity, willingness to confront situations of uncertainty, proactivity, optimism, friendliness, responsibility and the detection of innovation. Entrepreneurship plays a prominent role in the progress of the economy and society, above all in the creation of new jobs, as already mentioned. Thus, research questions emerge. It becomes important to identify which practices lead to an increase level of entrepreneurship and at the same time secures the success of new ventures. The current study explores for the “Leiria Entrepreneurial Project Program” which of the activities developed by the program nourishes business acceleration and the successful and less successful routes for entrepreneurs. The chapter is structured as follows. On the second section is developed the main theoretical concepts linked with entrepreneurship and its success factors. On the third section is described the focus of the study; i.e. the Entrepreneurial Project Program developed in the Leiria region in Portugal. Objectives of the program and its activities are outlined. On the fourth section is presented the methodology, on the fifth section is presented data analysis and results and finally, the sixth section includes the final remarks and main paths for future research.

THE ENTREPRENEURSHIP: CONCEPTS AND IMPACTS

The first use of the term “entrepreneurship” is attributed to Richard Cantillon (1755) and Jean Baptiste Say (1800) cited in Hisrich, Peters and Shepherd, (2012). These authors defined entrepreneurs as risk-taking individuals by investing their own money in ventures. Later Schumpeter (1928) cited in Filion (1998) associates entrepreneurship with innovation by stating that “the essence of entrepreneurship lies in the perception and use of new business opportunities; has always to do with the creation of a new way of using national resources, where they are displaced from their traditional employment and subject to new combinations”

Schumpeter (1928) cited in Filion (1998) also describes the entrepreneur as someone who triggers processes of “creative destruction” that resulted in the creation of new production methods, new products and new markets that would replace the pre-existing ones. Modern entrepreneurship is a preponderant factor in job creation, in introducing innovations in the economy and in driving the economy and society to progress (Gaspar, 2006). According to Sarkar (2007) entrepreneurship is derived from the French

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‘entre’ and ‘prendre’ meaning ‘to be on the market between the supplier and the consumer’ “. Entrepreneurship takes a variety of definitions, but has always to be associated with a market, or the execution of something, which must be recognized and valued by an audience.

According to Hisrich *et al.* (2012), entrepreneurship is a process of creating value for the target audience, or of independence or personal fulfillment. Entrepreneurship is often associated with wealth generation, but it is not money that moves and guides entrepreneurs. What motivates them is the realization of a dream and an idea. Money is a consequence and indicator (or not) of the success that comes from it. According to Acúrcio (2005) entrepreneurship is more separated and more distanced from the economic vision and assumes an importance as behavior and attitude. The entrepreneur has the ability to dream and make his dream come true, as well as contributing to the creation and distribution of wealth.

According to the GEM (2017), it is possible to find a more succinct definition of the concept of entrepreneurship, this may be the attempt to create a new business or initiative, such as own employment, a new business organization or the expansion of an existing business, by an individual, or by a team of individuals.

It is possible to delineate some fundamental aspects of this concept, being the following:

- Detect and exploit opportunities in the market;
- Associate the concept of risk with the exploitation of opportunities in the market;
- Influence exerted by the elements of the surrounding context, both socially and economically;
- Innovation that is associated with the consequent contribution to economic development and progress;
- Knowledge and abilities of individuals as a key factor for the development of this process.

Entrepreneurship can thus be defined as the capacity to undertake, that is, to take initiatives, to create innovative solutions and to act in order to find the solution to economic or social problems, stimulating the development through the self-realization of who uses this method of work. Understanding the meaning of entrepreneurship, it is important to know the existent types of entrepreneurship in the literature.

Types of Entrepreneurship

According to Dantas (2013), there are four distinct types of entrepreneurship: business entrepreneurship that is divided into traditional entrepreneurship and technology-based entrepreneurship, cultural entrepreneurship, social entrepreneurship and intrapreneurship. Reynolds, Bygrave, and Autio, (2002), *Global Entrepreneurship Monitor: Report on* (2002) and, Leite and Oliveira (2007), share the view that entrepreneurship can take on two types: entrepreneurship by opportunity, when it is given the opportunity of a profitable business and entrepreneurship by necessity, in which business is created as there is no other alternative. On the other hand, Baggio and Baggio (2014) identify three types of entrepreneurs: the corporate entrepreneur, which is the one that captures and implements new opportunities within existing companies; the startup entrepreneur, which creates a new business; and the social entrepreneur, who acts for social purposes. For Dornelas (2007) there are seven types of entrepreneurs. The entrepreneur by necessity, who starts a businesses because he has no other option; the heir entrepreneur, who is motivated by the mission to continue the family legacy; the normal entrepreneur, who is the one who plans the next steps of the new organization, minimizing risks, and has a clear vision of the future and goals of the organization; the born entrepreneur, who is generally well-known and revered; the learning

entrepreneur who is characterized by being one who, when faced with a business opportunity, decides to learn how to manage his own enterprise; the serial entrepreneur, who creates the business to sell and finally the social entrepreneur, who comes from any sector that is non-profit, possessing the characteristics of traditional entrepreneurs of creativity, vision and determination. Knowing the different types of entrepreneurship, it is important to comprehend its economic impact.

The Economic Impact of Entrepreneurship

Since Schumpeter (1934) there is a long list of literature linking entrepreneurship and growth. Some authors, such as Schumpeter (1934) as well as von Hayek (1937, 1949) or Casson (1982) have long identified entrepreneurship as a source of economic dynamism. In this study, it is important to highlight the link between this phenomenon and regional competitiveness. The Leiria Region is known by its economic dynamism and its contribution to the national exports, much due to, its managers' entrepreneurial spirit.

According to Braunerhjelm (2007), there have been several attempts to clarify the relationship between entrepreneurship and regional/national growth. Renolds (1999) found a positive relationship between entrepreneurship and growth in the United States. Baptista and Thurik (2004) and Baptista, Escária, and Madruga, (2008) show that new firms contribute not only to increase economic activity through job creation, but also through the strengthening of overall competitiveness. Many other studies have found similar relationships, especially at the level of entrepreneurship by opportunity (GEM, 2017). In this way, the promotion of entrepreneurship, both in the academia and among the general public, has grown exponentially around the world (Fayolle, 2000, Linan, 2004, Kuratko, 2005, O' Connor, 2013, OECD, 2007).

Aghion (2017) reinforces this idea, modelling the viewpoint that growth is often generated by innovative entrepreneurs, that entrepreneurial investments respond to incentives that are themselves shaped by economic policies and institutions and these movements have in themselves a Schumpeterian nature of creative destruction. According to Acs, Estrin, Mickiewicz, (2018), entrepreneurs, in a favourable institutional environment provide the transmission mechanism from innovation to economic growth, therefore being one of the missing links that explains economic growth. Most programs in this field aim to increase entrepreneurship rates and the quality of business created, as well as an improvement in more general education in terms of management languages. The creation of mechanisms and the preparation of technicians who can support this type of activity is essential, as often the potential entrepreneurs have difficulties in obtaining technical support, fundamental to the success and even reformulation of their ideas. After identifying the economic impact of entrepreneurship, it is important to understand the entrepreneurial key success factors. The following section explores perspectives and contexts of entrepreneurial key success factors, of several researchers.

ENTREPRENEURIAL KEY SUCCESS FACTORS: RESEARCHERS, PERSPECTIVES AND CONTEXT

Researchers and Perspectives

Identifying success factors (KSF) in entrepreneurship, has been a challenge to the investigation in different contexts. Benzing *et al.* (2005a, 2005b, 2009), Stefanovic *et al.* (2010), Chu *et al.* (2011 a, 2011

b) and Zimmerman & Chu (2013) used, in their research, the following entrepreneurial critical success factors in different countries: Good general management skills; Charisma/ friendliness to customers; Satisfactory government support; Appropriate training; Access to capital; Previous business experience; Support of family and friends; Marketing factors such as sales promotion; Good product at a competitive price; Good customer service; Hard-work; Location; Maintenance of accurate records of sales/expenses; Ability to manage personnel; Community involvement; Political involvement; and Reputation for honesty.

Benzing, Chu & Szabo (2005), identified in Hungary that charisma/friendliness, good customer service, and reputation for honesty as the most important success factors. They identified in Romania that entrepreneurs added hard work, to the list of success factors. Benzing, Chu and Callanan (2005) in their research in Vietnam reported reputation for honesty, charisma/friendliness, and good customer service and providing a good product at a competitive price, as key success factors. Benzing, Chu and Kara (2009) in Turkey identified reputation for honesty, charisma/ friendliness, and good customer service as key success factors. Stefanovic, Prokic and Rankovic (2010) in Serbia found that the most critical success factors are good customer service, good product at a competitive price and reputation. Chu, Kara and Fiorentino (2011) in a study in Bulgaria concluded that most important factors for success are hard work, good customer service, product quality, family and friend's support and business experience. Chu, Kara, Zhu and Gok (2011) found that Chinese entrepreneurs regarded a reputation for honesty as the crucial factor contributing to their success, and good customer service, good general management skills, charisma, friendliness to customers, and an access to capital are relevant for their success. Finally, Zimmerman and Chu (2013) concluded in their study that the most important success factors in Venezuela are good management skills, appropriate training, maintenance of accurate records of sales/expenses and political involvement.

It seems that the most important entrepreneurial success factors are different across countries, representing differences in values, norms and attitudes of individuals and society (North, 1990). Good customer service is important in seven countries, reputation for honesty in six, charisma/friendliness in five and management skills, hard work and good product at a competitive price in two countries.

In a different perspective, the Global Entrepreneurship Index (GEI) 2018 (Acs *et al.*, 2018) developed fourteen pillars of entrepreneurship divided in three blocks: entrepreneur attitudes, abilities and aspirations. The first pillar, entrepreneur attitudes, includes an opportunity perception, startup skills, risk acceptance, networking and cultural support. The second pillar, entrepreneur abilities, includes an opportunity startup, technology absorption, human capital and competition. Finally, the third pillar entrepreneur aspirations, considers product innovation, process innovation, high growth, internationalization and risk capital. Supported in those fourteen pillars they constructed the GEI and establish a ranking of entrepreneurship. Portugal had an overall GEI score 49%, an individual score (entrepreneurial qualities) 59% and an institutional score (quality of the institution of support) 68%. Portugal reached a global rank 31 of 137 countries. After identifying the success factors (KSF) in entrepreneurship it is important to analyze their meaning within the Entrepreneurial Programs context, to fill the research aim.

SUCCESS FACTORS IN ENTREPRENEURIAL PROGRAMS

The success/failure of a new company can be influenced by multiple factors, and the scientific literature is not unanimous about those that will be more relevant. Most studies point out the influence of factors

in certain areas or companies, but no author can claim that there is a more important factor than any other (Coelho, 2012).

In addition to the literature on start-ups, the literature on SMEs is also relevant, since when a company is born it is both SME and start-up. Therefore, what affects an SME may also affect a start-up (Coelho, 2012).

For Cuervo, Ribeiro, and Roig, (2007), and Veciana (2008), it is fundamental to know the factors of success and failure of the new companies, being considered as a guide for decisions about products, strategies, sectors, among other aspects. For these authors the main problems that arise in the creation of companies are: (1) the antecedents; (2) the identification of opportunities; (3) activities/steps; (4) business models/strategy/business model redefinition; (5) critical incidents - problems; (6) differences between the individual founder and a team of founders; (7) the duration of the foundation process and its individual steps; and (8) the impact of these factors on the success or failure of the new company.

In a comprehensive way, this study takes into account aspects that could, from the perspective of companies, be considered as facilitators and obstacles, to understand the forms of financing, the characteristics of the entrepreneur and his product and project.

According to Scarborough and Zimmermam (1998); Islam et al. (2011) the characteristics of entrepreneurs directly influence the company's strategy, its objectives, its way of innovating, etc., so that success can come from the decisions of the entrepreneur/entrepreneur team (Coelho, 2012). For Cuervo et al. (2007) and Dahl and Reichstein (2007), the survival and success of new organizations depends fundamentally on their founders' previous experiences (Simões, 2009). Shane (2000) argues that the knowledge and skills that entrepreneurs possess results from their previous professional experiences and their education. The founder's experiences and routines will influence the future development and success of organizations (Dahl and Reichstein 2007; Simões, 2009). Aligned with the literature, the current study considers a set of questions that characterizes the entrepreneur, his background and experience.

When internal resources are lacking, companies feel the need to resort to financing/external capital (Pissarides, 1999; Serrasqueiro et al., 2010, Gratchev and Bovina, 2001, Bădulescu, 2010, Coelho, 2012). In this way, in the current research, the type of financing obtained is pondered, especially since, as it was saw previously, together with the access to networks, this is one of the factors that have the greatest impact. Following previous discussion, it was also added other factors, such as Mentoring, Contact Networks, Business Plan Construction, Business Plan Building Support, Management and Marketing Training, Financial Tools Provision, Participation in Entrepreneurship Competitions and infrastructure.

The personal characteristics such as the responsiveness, flexibility and adaptability of an entrepreneur, influence the characteristics in the company, (Gibb and Cotton, 1998), therefore, were also considered.

Other factors were also considered in the research, as the size and age of the company. Companies need to find a minimum efficiency scale that will allow them to survive (Serrasqueiro et al., 2010).

Given the revised literature, and the current study attempts to identify for the "Leiria Entrepreneurial Project Program" which of the activities developed by the project helped to promote business acceleration, and to identify the routes of success and unsuccess of entrepreneurs. The following section features the "Leiria Entrepreneurial Project".

The "Leiria Entrepreneurial Project"- Innovate and Empower

The "Leiria Entrepreneurial Project - Innovate and Empower", was developed to promote the spirit of entrepreneurship and to help business acceleration. The Leiria Region has a huge entrepreneurial

dynamic, with a strong industrial and export component. The region has also centers of knowledge, i.e. Higher Education Schools and Research Centers that deliver creativity and innovation to feed the entrepreneurial activity in the Region.

The “Leiria Entrepreneurial Project” was promoted and developed by “The NERLEI” - an enterprise association located in the Leiria Region; and it was funded by the European Union funds. The project provides support to accelerate and to develop business ideas. To achieve it, the project comprised several initiatives, among which stand out: a) setting business tools on a digital platform to structure and craft business ideas; b) holding thematic conferences, training (workshops and webinars) and monitoring sessions in the Leiria and West Region, c) promoting a national business idea contest. The initiatives developed are following described.

Setting Business Tools on a Digital Platform to Structure and Craft Business Ideas

The “Leiria Entrepreneurial Project” developed a set of business tools as well as thematic conferences, training sessions (workshops and webinars) and monitoring sessions in order to help structuring the business idea of the entrepreneur. It also promoted a business ideas contest for stimulating the entrepreneurial activity and reward the best business ideas.

The business tools were prepared in excel to facilitate the formulation and choice of business strategy and to help to develop ideas and plan a startup. The business tools were presented, explained and practical guidelines and examples were provided in the webinars and workshops sessions for their application to every business idea/entrepreneurial project.

The conferences allowed the approach of fundamental themes to the development of the ideas, and the testimony of entrepreneurs who shared experiences, challenges and teachings. Eleven conferences were held in different parts of the Region, between December 2016 and October 2017. The exchange of know-how and experience with businessmen and individuals of high reputation and professional experience at the conferences, allowed to better understand the paths to follow and those to avoid, based on the accumulated wisdom of those who have already made mistakes.

The workshops allowed face-to-face dialogue. In this way, they have as great advantage the interaction between the participants and the various tutors, allowing the spontaneity of questions and discussions. Throughout the Project, all the workshops had a theoretical introduction followed by a practical component in which the participants discussed aspects of their business individually with different tutors. This mentoring support was important for clarifying doubts or suggesting ways forward, since they were customized to the needs of each idea/project and therefore. Ten workshops were held from March to December 2017, in different parts of the region, approaching and exemplifying topics relate with the clarification of business ideas and its implementation.

Webinars allowed continuing access and consolidation of knowledge. They were hosted on the “Leiria Entrepreneurial Project” web page, permitting being seen and reviewed by all visitors of the Project as many times as wanted. From November 2017 to May 2018, 10 Webinars were held in key thematic areas for the development/improvement of a business idea. The webinars were held after the business ideas contest finished. Participants should continue learn how to develop their business idea. In this context, webinars are an important tool for refining the understanding of some business concepts and for improving the outlines of the idea/project.

The business ideas contest aimed to contribute to an increase in qualified entrepreneurship by testing and improving the ideas of the candidates. During 2017, there were 3 editions of business ideas contests. All the candidates for the contest filled out and submitted an application form submitted online. Each contest took place in three phases: the Preliminary Phase, the First Phase of the Competition and the Second Phase of the Competition, each comprising the following:

- in the Preliminary Phase, the accepted applications were subject to prior analysis to verify the conditions of eligibility of candidates and projects. Eligible applications were scored and up to 20 ideas were selected.

The 20 ideas with the best score were selected for the 1st Phase of the Contest. The selected participants at this stage were automatically enrolled in the Workshop “From Idea to Business Plan”.

- in the First Phase of the Contest, 10 business ideas were selected from the preliminary phase. The selected candidates enrolled the Workshop “How to present a business idea”. The 10 selected business ideas moved on to Phase Two.

In the second Phase of the Contest, the Jury selected three business ideas/projects: the winner (first place) and two honorable mentions (for the second and third place). To the winner of each edition it was awarded a monetary prize of € 5,000 (five thousand euros).

Given the revised literature, the description of the “Leiria Entrepreneurial project”, its business tools and activities, the current study attempts to identify which of the activities developed by the project helped to promote business acceleration and to identify routes of success and unsucccess of entrepreneurs. The following section describes the method of data collection and analysis to accomplish it.

METHODOLOGY

The current research attempts to identify in the “Leiria Entrepreneurial Project” behaviors that create successful and unsuccessful routes for entrepreneurs within the project; i.e. best practices that may lead to successful business development, as well as those that may confine it. The business ideas contest had 3 editions and each edition comprehended three phases as stated previously.

To answer to the research question, different sources and methods were used for data collection. First, secondary data were collected to understand and characterize the Leiria Entrepreneurial Project and its various initiatives. Second, a questionnaire was applied to the participants of the business ideas/projects contest. The questionnaire allowed to test the information captured in the secondary data to a large population. The aim was to know participants’ global appreciation about the initiatives that helped them to develop their business idea, as well as those that were less relevant in this process. The population of the study were all the ideas/projects selected in the first phase of the contest in its various editions, i.e. 1st, 2nd and 3rd edition, i.e. 53 ideas/projects. The sample was non-random. The sample was selected based on the intended objective: to identify participants’ opinions on good entrepreneurship practices conducive to the success of their business idea and to identify the most relevant obstacles that limited their success. Thus, participants were selected among the three editions of the competition. This infor-

mation was obtained through the entity that organized the business idea contest, the D. Dinis Business School. Finally, an interview was conducted to validate the information collected.

Content analysis was performed on the project documents/forms. Content analysis is a decisive resource in the systematization of the gathered information, treating in a methodical way the information and testimonies that present a certain degree of depth and complexity (Quivy and Campenhoudt, 1992). According to Bardin (1995, p. 42) the operation and purpose of the analysis of content can be defined in a general way as: “A set of it techniques of analysis of communications aimed at obtain, by procedures, systematic and objective description of the content the messages, indicators (quantitative or otherwise) which will enable the inference of knowledge regarding production/receipt conditions (inferred variables) of these messages”. The different contents were analyzed, categorized and finally inference and interpretation was made.

Following content analysis, the survey was organized. The questionnaire was divided in 3 sections. The first one aims to characterize the profile of the entrepreneur (age, experience, background to entrepreneurial activities, education, etc.) followed by questions about the reasons that led the participant to compete. The second part considers the factors that contributed most to the success of the idea and the last section aims to find which factors constituted the most relevant obstacles to the success of the idea. The words were carefully selected to ensure familiarity and understanding to the respondents. Closed-ended questions were used (open-ended questions mostly for “other” factors not included). In the present study, the closed-ended questions contained an alternative number of possible answers, from which respondents were asked to choose (de Vaus, 1991). Different types of closed-ended questions were also used, and consequently nominal and ordinal information was measured. Likert’s scale from 1 - not relevant, to 5 - very relevant, was used to measure attitudes and beliefs. The research instrument was developed taken into consideration other similar studies such as Benzing et al. (2009), Wong and Choo (2009), Pihie (2009) and Chu et al. (2011).

On April 16th 2018, 48 questionnaires online were sent by email to participants of the first phase of each contest edition: 18 from the 1st edition; 12 of the 2nd edition and 18 of the 3rd edition of the contest. The questionnaire was completed by: a) the participants who were in 1st place - the winners of the contest; b) the participants who received an honorable mention, who were in 2nd and 3rd places; and c) the participants who were not selected for the 2nd phase of the contest and those that gave up. To increase the response rate to the questionnaires, several strategies were adopted. On April 18th and 19th, 2018, a telephone follow-up was carried out to find out if participants had received the questionnaire online by email and to motivate them to fill it out. When participants said they had an idea of having received the questionnaire, the questionnaire was sent again online by email. On April 23rd and 24th, participants were contacted once more by email and telephone, and were persuading to fill the questionnaire. The collection of online questionnaires was closed on April 27th, 2018, and a total of 32 valid questionnaires were received. A response rate of 66.67 was obtained (for a 95% confidence interval, the margin of error of this sample will be close to 10%). The questionnaires obtained were divided as follows: 11 corresponding to projects/ideas from the 1st edition of the contest, 7 from the 2nd edition of the contest and 14 from the 3rd edition of the contest. Data were obtained through the Google Form database. Simple descriptive statistics analysis was conducted. For a more in-depth study of relationships between variables, the data were transposed to SPSS and a bi-varied correlation analysis was performed to identify significant correlations. The statistical treatment of the data was done through statistical software SPSS 24.0 for Windows (Statistical Package for Social Sciences).

The last step was a semi-structured interview. Interviews can be defined as structured, unstructured and semi-structured, “according to the characteristics of the device set up to record the information provided by the interviewee” (Afonso, 2005, p. 97). For the current study, it was considered the semi-structured interview as the most appropriate, since the researcher has a series of guiding questions that are important to receive information from the interviewee. Also, this method allows to establish a verbal interaction between interviewer and interviewee. The interview is usually conducted with specific topics from which to create the questions; it generally presupposes a script, understood as an “interview management tool (Afonso, 2005). As such we constructed a script with the main topics related with our research.

The interview was made to the founders of a business idea/project, i.e. the EcoXperience. This project results from the doctoral research of one of the partners. The company has created an innovative formula (EcoX®) that democratizes the valorization of oils in any home or commercial establishment through a fast and safe recycling process. As a result, 100% biodegradable detergents and liquid soaps with cleaning characteristics like those of the leading brands are generated. This technology, in the process of patenting, uses a protein in the human body, produced by the pancreas to process the fats ingested, according to the FCTUC (the Faculty of Sciences and Technology of Coimbra University). In practice, the formula developed by EcoXperience, in partnership with the University of Coimbra, mimics what happens in the human body, that is, it transforms the triglycerides present in the used oils into new components, explained two of its founders.

DATA ANALYSIS AND DISCUSSION

Analysis of the Results Obtained Through the Application Form of the Business Ideas Competition

Based on content analysis of the application form of the candidates who were in the 3 first places, in the 3 editions of the contest, one can verify the following behaviors that lead to a route of success of the business idea/project:

- a) Clear and comprehensive identification of the business to be developed: The promoters are knowledgeable and have identified in a precise and detailed way the business idea to be developed; the business opportunity; the positioning of the product/service; the clients; the value proposition to customers; uniqueness/differentiation of the product/service compared to competition, and competition;
- b) High degree of maturity of product/idea development: Applicants' product is either patent-pending or available for commercialization;
- c) Establishment of partnerships: Indication of the establishment of partnerships, which is important not only for the development of the product/technology, as well as for the conquest of customers/market;
- d) Identification of financial projections to assess the viability of the business idea: Financial projections are identified; the value of the investment, as well as the sources of financing necessary for the investment, using financial maps as support. This information reveals maturity in economic-financial forecasts, i.e. in identifying costs, identifying the value of revenues that are required to

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meet those costs, and the investment that is required to implement the business. Financial maps are an important tool of reflection of the value that the company can generate;

- e) Comprehensive project planning i.e. sequentially thought from A to Z: The winning candidates of the business idea/project presented a Business Plan; product development - prototype and subsequent testing; searched for financing/investors; presented product disclosure, customer benefits, and product marketing.

The data reveal that the company formal creation, is not a determining factor of the success of the business.

The motivation of the entrepreneur/promoter of the business idea, is to: a) acquire knowledge to materialize the idea in business, b) access to networking/mentoring, c) accelerate the product in the market and d) create value to the region where they live.

As for the teams, these are characterized by being highly qualified, have higher education, have technical skills and have extensive professional experience in the fundamental area of product development. Another important aspect is that the teams are multidisciplinary, enabling not only the product development - the prototype /testing, as well as the business management.

Thus, the results suggest that a successful path of the entrepreneur is sustained in a process of reflection and maturation of the business idea, which is based on the presentation of detailed and precise information about its operation.

The results also reveal the behaviors that lead to an unsuccessful route of the business idea/project. It was found that the candidates who obtained the lowest score:

- a) Do not clearly identify the business model:

There is an idea, but it is not detailed how the business is operationalized. The business opportunity is not identified; neither the size of the market, or who is the competition, and a common feature is that the product/service is easily copied;

- b) The degree of maturity of product/idea development is at an embryonic stage. It is confined to the idea of the business:

There is no detailed information about what the product/service could be;

- c) Do not present financial projections, or the projections that exist, are scarce: They do not use financial maps as support. There is no identification of funding sources. In the absence of financial projections either on the revenue side or on the cost side in detail, the estimated value of the investment is unknown or small.
- d) Do not present in detail the project planning: They present only few phases of business development, and product/service development is not one of them.

The results also show that the fact that the companies are not formal constituted is not a determining factor of the business failure.

What motivates the candidate in the participation of the contest is the possibility of personal fulfillment and the creation of one's own job, rather than the focus on putting a product/service on the market place.

As for the teams, there is little detailed information on the skills needed to develop the business. There is no information on the qualification, the professional and technical experience, or the skills to ensure, not only, the development of the product/service, but also the management of the business. The multidisciplinary of team competencies is not mentioned/considered.

Thus, the results suggest that a route of failure of the entrepreneur is due to the lack of information about the business operation. To overcome this, it is suggested a greater reflection, maturation over the entire process - from idea, product/service development - to its commercialization.

ANALYSIS OF THE RESULTS OBTAINED THROUGH THE QUESTIONNAIRE

Sample Characterization

Of the 48 questionnaires sent to participants in the contest, 32 valid responses were obtained. The average age of the respondents was 35 years, with the two oldest participants being 53 years old and the youngest 18. Most respondents were between 30 and 40 years old (21 respondents). These results are in agreement with the majority of studies indicating that most entrepreneurs are over 30 years old. In fact, the recent study by Azoulay et al. (2018) puts the average age of the founder of the 1,000 fastest growing companies at the age of 45. The results are broadly similar when considering high technology sectors and business centers. This study also emphasizes previous industry-specific experience as the primary predictor of business success. These findings strongly reject common assumptions that emphasize youth as a key trait of successful entrepreneurs. Regarding the group of winners and honorable mentions of the 3 competitions, the average age was 34 years and only one participant was under 30 (27).

As to the level of literacy, the overwhelming majority of respondents have a college degree and 25% have masters. Of the winners and honorable mentions, 50% of respondents have Bachelor's, 37% Master's degree and one of the winners has a PhD.

As for the qualification areas, the respondents have great diversity. However, three areas can be highlighted: marketing (with 3 participants), Computer Engineering (with 5 participants) and Electrical Engineering (with 2 participants). It should be noted that of the 32 valid answers, 13 are engineers (40% of the total), and among the winners and honorable mentions this percentage is 62.5%, reason why the technical preparation can be indicative of a greater probability of success of the idea/project.

Regarding prior professional experience of participants, 65% of the participants had more than 4 years of experience, with 43.8% having more than 10 years of previous professional experience. In the group of winners and honorable mentions, 75% had more than 5 years of experience.

Concerning the motivations for participation, it was found that "job creation/unemployment", + search for "financing/support" was the main motivation, with 11 responses. Already "learning" + "test, improve and validate the idea" was mentioned by 10 participants as the main motivation, which indicates that most of participants have the motivation to improve the project and its skills. "Taste and new challenges" were mentioned 7 times by the respondents. Only one respondent referred to the awarded, as motivating. Among the winners and honorable mentions "validating the idea" and "seeking support" were the main motivating factors.

Most respondents (65,6%) have an entrepreneurial family background. In the group of winners and honorable mentions only 1 respondent had no entrepreneurial family background. As for the number of entrepreneurial projects started earlier, it was verified that the vast majority (56%) is in its first project,

Table 1. Factors that contributed in a relevant way to the success of the business idea

	N	Mean	Std. Deviation
Previous work experience	32	3,781	1,0697
Training background	31	3,613	1,0223
Maturity of the Idea	31	3,613	0,8823
Team	31	3,581	1,0575
Mentoring	31	3,387	1,0856
Contact Networks	30	3,267	1,1427
Participation in Workshops	31	2,968	1,2243
Previous Training in Management and/or Marketing	31	2,903	1,1932
Participation in Workshops outside the scope of the Project	32	2,781	1,0697
Participation in Conferences	31	2,677	1,301
Participation in previous business contests	31	2,548	1,3376
Participation in Webinars	31	2,452	1,1207
Participation in Webinars Out of scope of the Project	31	2,355	1,2261

Source: Authors

25% created a project previously and 9.4%, had two projects. In the group of winners, one respondent has created more than 4 projects previously, but 75% are on their first project.

Around 47% of respondents participated for the first time in an idea business contest, but 28% participated at least once and 9.4% participated previously in 4 contests. Note that among the 3 winners, 2 have participated previously in more than 4 contests and 1, in 4.

Regarding the Ideas Business Areas, it has been verified that Tourism and TICE/Applications/Software are both mentioned 6 times, curiously, *stricto sensu*, only one of the winners and honorable mentions belongs to one of these categories.

Next, it was analyzed the factors that contributed most to the success of the idea, and those that constituted significant obstacles to its development.

Analysis of the Factors That Contributed in a Relevant Way to the Success of the Business Idea

From the questionnaire, it was analyzed which answers had a higher score, thus revealing their contributing importance for success. According to the answers obtained in Table 1, the “previous professional experience” is the factor considered most relevant to the success of the idea by the respondents (3,781). This is followed by “Training background” (3,613) and “Maturity of Idea” (3,613), “Team” (3,581), Mentoring (3,387), “Contact Networks” (3,267) and finally “Participation in Workshops” (2,968). The factors considered as less relevant were Webinars and, interestingly, participation in previous competitions (interestingly, because this variable seems to indicate success). For the winners the “Previous professional experience” appears in 4th, with the “Training Background”, the “Maturity of the Idea” and the “Team”, occupying the first 3 places.

Regarding “other factors”, two respondents mentioned that “the support of some mentors in the Workshops” contributed significantly to the success of the idea.

Analysis of the Factors That Constituted Relevant Obstacles to the Success of the Business Idea

From the questionnaire, it was analyzed which answers had a higher score, thus revealing their importance as obstacles. According to the responses obtained Table 2, the main barriers encountered by the participants were “Assessing/ quantifying the potential market” (3,563), “Why customers buy ” and “Identify sources of financing” (3,469). “Define Sales Channels,” “Define Operational Planning for the Project,” and “Define Business Model Revenue” (3,313). Interestingly, if for the group of winners and honorable mentions, identifying the “potential market” remains the main obstacle, the second major barriers are “Define the operational planning of the project” and “Define the sales channels”. This factor may indicate that this group had a greater maturity of idea design than the other participants, since the operational questions appear ahead of the market definition.

Success and Conditioners

To investigate which factors led to success in the project, it was tried to cross the dimensions/variables of the survey with the position obtained by each project in the contest. For this, a new ordinal variable was introduced that could assume the value of 1 (if it was a winner), 2 (if it is an honorable mention), 3 (if it belongs to the first 10 projects selected in the second phase) and 4 (if it belongs up to the 20 projects selected in the first phase). Most variables were transformed into ordinal variables and family history into a categorical variable with a value of 1 if there was a family history and 0 if there were none. The “qualification” was also considered as an ordinal variable, with 1 or less, for those with the minimum mandatory qualification, and more than 1, with more than the minimum qualification.

After the classification of the variables, a simple bi-varied correlation analysis was performed in order to identify significant correlations between the position obtained in the contest and the survey dimensions. The correlation test serves to identify the strength and direction of the connection between two variables at a time (Pestana & Gageiro, 2008). In this case, we conducted this test utilizing the Spearman rho approach, since the data is classified as non-parametric and this is the test that better deals with those kinds of characteristics (Pestana & Gageiro, 2008).

In this way (see Table 3), it was found that among the variables, the “How many business ideas contests did you attend prior to this?” has the strongest and significant correlation (0.416 to 5%) with the position obtained in the contest. Second, it was found that Qualifications (0.403) and “Training Background” (0.379) were the only other variables with significant correlation. An ordinal regression analysis (where as a dependent variable the position obtained in the contests was introduced) did not confirm the significance of the variable “Participation in previous contents” but identified the “Qualifications” as important.

Summing up, in this analysis of correlation of variables with the position of the idea/project in the contest, the main predictors of success in the 3 editions of the contest and in the 3 phases of each contest are: “Experience in previous contents”, and “Qualifications”/“Training Background”.

Successful and Unsuccessful Routes for Entrepreneurs

Table 2. Main obstacles

	N	Mean	Std. Deviation
Assessing/quantifying the potential market	32	3,563	1,1622
Identify key factors - why customers buy	32	3,469	0,9832
Identify sources of financing	32	3,469	1,1635
Identify key factors - who are the customers	32	3,344	1,1248
Calculate the price	32	3,344	1,2342
Define sales channels	32	3,313	1,176
Define project operational planning	32	3,313	1,2032
Define business model revenue	32	3,313	1,1483
Define the investment needed	31	3,29	1,1887
Identify key factors - differences from competitors	32	3,219	1,3133
Identify key factors - who is the competition	32	3,188	1,2032
Not having the required team	31	3,097	1,4226
Define communication policies	32	3,063	1,014
Identify Key Factors - What are the Competencies, Activities and Key Resources	32	3,031	1,2568
Lack of management skills in general	32	3	1,27
Describe the business idea	32	2,781	1,2374

Source: Authors

Comparative Analysis of Groups

It is now important to analyze if there are differences between the group of participants who won and received the honorable mentions, the group that went on to the second phase (i.e. the 10 selected ideas/projects) and the group of ideas/projects that did not pass to the second stage. As shown in Table 4, for the projects that went to the second phase, there are not many different factors in the main success factors, but both the “Mentoring” (3.63) and Participation in Workshops (3.56) and Conferences (3.13) are indicated as contributing significantly to the success of the business idea/project. As for the main obstacles, the only significant difference from the total group is the “Identification of sources of financing” (3.56), which is the second main barrier, shortly after the “Potential market evaluation” (3.63). When comparing the winners/honorable mentions with the participants who did not reach the second stage, it was verified that:

- There are no significant differences in terms of the average age;
- There are no significant differences of prior professional experience;
- The Training Background of the winners/mentions honorable is 38% superior to the group of those not selected for the second phase, and 27% superior to the group of the selected ones (without the winners);
- There is a higher prevalence of “family history” in the group of the winners and in the selected group, compared to those who did not reach the second stage;

Table 3. Correlations

Variables	Position		
	Spearman's rho		
	Correlation Coefficient	Sig. (2-tailed)	N
Age	0,01	0,957	32
Qualifications	-,403*	0,022	32
What is your previous professional experience level?	0,019	0,917	32
Family history - Is anyone in your direct family a business owner or entrepreneur?	-0,251	0,166	32
How many entrepreneurial projects have you started before?	0,098	0,593	32
How many business ideas contests did you attend prior to this?	-,416*	0,018	32
Mentoring	-0,29	0,113	31
Contact Networks	-0,191	0,313	30
Participation in previous contests	-0,115	0,539	31
Participation in Workshops	-0,179	0,335	31
Participation in Workshops outside the scope of the Project	-0,201	0,27	32
Participation in Webinars	0,012	0,947	31
Participation in Webinars Out of scope of the Project	-0,065	0,728	31
Participation in Conferences	-0,035	0,853	31
Previous Training in Management and/or Marketing	0,005	0,98	31
Previous work experience	0,053	0,774	32
Team	-0,113	0,544	31
Training Background	-,379*	0,036	31
Maturity of the Idea	-0,266	0,148	31
Describe business idea	-0,2	0,272	32
**. Correlation is significant at the 0.01 level (2-tailed).	*. Correlation is significant at the 0.05 level (2-tailed).		

Source: Authors

- On average the winners participated in 2.5 previous competitions, while the 10 selected business ideas for the second phase, 0.81 and the non-selected, 0.75;
- For the winners, “Training Background”, “Maturity of the idea” and the “Team” are the most important factors, while for those who went to the second stage, “Previous Professional experience”, overlaps with these factors;
- For the winners, “Assessing/Quantifying the potential market” and “Defining operational planning” are the most relevant factors. For those selected for the second phase (without the winners), factors related to “customer knowledge” seem to be more relevant. For the group that did not go to

the second stage, the “Lack of Team”, “Calculate the price”, “know who the competition”, were the main obstacles.

Interviews

According to EcoXperience founders, the firm is sustained in the philosophy of circular economy (an economy that has as its premise the transformation of waste into innovative products). The company intends to provide, both for the industrial sector and for domestic use, a capsule identical to that placed in the washing machine or dishwasher, “Stuffed” with all the necessary agents for the transformation of the used oil and the essential ingredients for the various cleaning products (perfume, dyes, etc.). In this way, a waste is valued, and highly ecological detergents are provided, without environmentally harsh chemicals. Thinking about the international market, the startup is conducting a survey of all types of oils that are used worldwide with the objective of finding a solution for each geographical area of the globe or even developing a universal formula. The aim is to democratize the way people have access to detergents, enabling them to obtain effective and environmentally friendly plant products, saving time and money.

It was possible, through the results of the semi-structured interview, to realize that the team of this company is characterized by a high degree of training (doctorate) reflecting both the sophistication of the product and the choices made. After the project was created, the two founders initially realized that they would need support from someone with entrepreneurial experience, adding to the team a new element, with successful experience in creating a startup, with management skills and the various acceleration stages of a business. This new partner allowed to accelerate the company, burning stages and avoiding errors that many new companies commit. At the same time, the company assumes itself as a spinoff of the University of Coimbra (UC), which allows a close partnership not only at the research level, but also at the business level (recently the company obtained 700 thousand euros of financing under the framework Portugal 2020, in a project in collaboration with the UC, which involves a dozen researchers from the Chemistry Department of FCTUC, Tecnocanto and the Sonae group, in order to ensure that the industrial version of its capsule is on the market within two years).

On the other hand, the route is characterized by the incrementality and value creation with the market. The partners interviewed stated that they started functions with a minimum viable product (PMV), aimed at the educational market, to enable children to make soap at home, learning ecological and sustainable behaviors. However, the rapid introduction in the market allowed to obtain feedback to improve the product and to reformulate the business model, pointing later to the industrial market.

Finally, although the product is not patented, the company realizes the potential of this alternative and is trying to guarantee some kind of protection.

Summarizing, the high formation of the promoters, the diversify and knowledgeable team and the way in which the team gaps were filled (adding to the team promoters with a high degree of experience in entrepreneurial processes), the partnership with an institution of higher education, and the technical sophistication of the product, appear to be the key factors in EcoXperience’s success. The rapid introduction of a PMV, elaboration of market tests, allowed to capture customer feedback, which will be fundamental to scale the project to a new level in the industrial market. It should be noted that having carried out several business plans, promoters do not consider them as essential instruments for their success but help them to understand the market.

Table 4. Comparison between participant groups

Groups	Winners and honorable mentions (average)	Second Stage (Average)	Did not pass to second stage (Average)
Age	34,125	36,125	35
Qualifications	2,63	2,06	1,88
What is your previous level of professional experience?	6	6,81	6,63
Family history - Is anyone in your direct family a business owner or entrepreneur?	0,88	0,63	0,5
How many entrepreneurial projects have you started before this?	0,75	0,81	1
How many business ideas contests did you attend prior to this?	2,5	0,81	0,75
Mentoring	3,5	3,63	2,71
Contact Networks	3,29	3,38	3
Participation in previous entrepreneurial contests	3,14	2,25	2,63
Participation in Workshops	2,71	3,56	2
Participation in Workshops (Out the scope of the Project)	3	2,81	2,5
Participation in Webinars	2,14	2,75	2,13
Participation in Webinars (Out the scope of the Project)	2,29	2,38	2,38
Participation in Conferences	2,29	3,13	2,13
Previous Training in Management and/or Marketing	2,75	3,06	2,71
Previous work experience	3,5	3,94	3,75
Team	3,63	3,56	3,57
Training background	4,13	3,63	3
Maturity of the Idea	3,75	3,81	3
Describe the idea/projects	3,13	2,81	2,38
Assessing/Quantifying the potential market	4,25	3,63	2,75
Identify key factors - who are the customers?	3,88	3,5	2,5
Identify Key Factors - why customers buy?	3,88	3,5	3
Identify key factors - who is the competition?	3,5	3,06	3,13
Identify key factors - differences from competition	3,5	3,25	2,88
Identify key factors – what are key competencies, activities and resources	3,25	3,19	2,5
Not having the required team	3,38	2,93	3,13
Calculate the price	3,5	3,38	3,13
Define communication policies	3,75	2,88	2,75
Define sales channels	4,13	3,13	2,88
Define the business model revenue	3,63	3,31	3
Define the investment needed	4	3,2	2,75
Identify sources of funding	4	3,56	2,75
Define project operational planning	4,13	3,19	2,75
Lack of management skills in general	3,38	3,19	2,25

Source: Authors

Relating the Results Obtained from the Application Form, With Those Obtained in The Questionnaires

Entrepreneur's Success Route

The cross-checking of the results obtained from the application form with the questionnaires reveals that the entrepreneur's success route consists of:

- a) competence of the participants (based on previous professional experience and training background);
- b) the team, which is multidisciplinary, and ensures both the technical skills for the development of the product/service (allowing the development of prototypes and tests in the case of the product, such as patent registration) and the competences for the business, and
- c) the maturity of the business development; in the detailed identification of what the business idea is, its development, and its implementation, with its economic/financial projections.

Thus, an entrepreneur who intends to follow a successful route must ensure knowledge about the product/service and the development of the business.

Entrepreneur's Failure Path

On the other hand, the cross-checking of the results obtained from the application form with the questionnaires reveals that the entrepreneur's failure path is the inability to detail the business idea in its various capacities, namely: identifying the opportunity for business, and therefore assessing/quantifying the potential market; define the price of the product and sales channels, define the revenue model, define the operational planning of the project, make the economic/ financial projections and identify the main sources of funding.

In summary, in order to build the successful path of the entrepreneur, it is fundamental the maturity of the business idea and its implementation.

CONCLUSION

There is a substantial research on entrepreneurs, but none to very few on financed Entrepreneurial Projects. Analyzing the activities promoted in those Projects and the profile of the participant entrepreneurs, contributes to fill the knowledge gap, as well to help managers and policy decision-makers to undertake the necessary measures to promote an entrepreneurial activity and to provide the necessary guidance to entrepreneurs' business succeed.

The "Leiria Entrepreneurial Project Program" was developed to promote the spirit of entrepreneurship. The current research attempted to identify which of the several activities developed in the "Leiria Entrepreneurial Project Program" helped to promote business acceleration and to identify routes of success and unsuccess of entrepreneurs. Secondary and primary data (in the form of interviews and questionnaires) were collected to answer the research questions.

The results reveal that from the activities promoted by the Leiria Entrepreneurial Project, the most relevant to the success of the idea were "Mentoring", "Participation in Workshops" and "Conferences".

The findings have significant managerial implications. These activities could be reinforced in Entrepreneurial financed Projects Programs and firms, to assist and boost entrepreneur's business ideas/projects.

The entrepreneurs' success route lies on the competencies of the business promoters (academic, technical and professional experience), on multidisciplinary teams capable of creating a product/service, and on the maturity of the business idea planning in all its phases. Inherent characteristics of an entrepreneur increase the entrepreneurial success probability, indicating that successful paths for entrepreneurship are dependent on experience.

The entrepreneur's failure path lies on the inability to clearly identify the business idea, its development and its implementation. It is suggested that this inaptitude arises from the lack of knowledge on how to develop a business idea. Training in this area could reverse the direction of the route, contributing to the creation of successful entrepreneurs.

The current study is the first study known that analyzed the activities provided by an Entrepreneurial Program at a Regional Level, that most contributed, according to participants, to the success of their ideas/projects, and identified successful and unsuccessful routes in an entrepreneurial activity. The findings provide an important theoretical contribution as it unveils an unexplored field. They also offer important managerial inputs. They help decision-makers to select the entrepreneurial activities that most help entrepreneurs to boost their business.

Future research should expand on this methodology, combining the analysis of participants of different entrepreneurial programs around the country, but also expanding into international comparisons. Little is known about the effect of the thousands of entrepreneurship programs that are conducted everywhere. The participants in these programs supply a trove of data that should be explored. At the same time there is a problem of self-selection, thus this samples from these programs should be compared with data from entrepreneurs that did not participate in this type of initiative.

The sample size of the research that was constructed from the participants in a specific entrepreneurship program in a specific region in Portugal is identified as a limitation. The sample is constituted by people that apply to the program (even if they did not qualify), so there is a self-selection bias. In the end, this research constitutes mainly a case study analysis and the conclusions should be read accordingly.

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KEY TERMS WITH DEFINITIONS

Entrepreneur: Is a person with the vision to see an innovation and the ability to bring it to market (GEI, 2018, p. 17).

Entrepreneurship: May be the attempt to create a new business or initiative, such as own employment, a new business organization or the expansion of an existing business, by an individual, or by a team of individuals (GEM, 2017).

Success Factors: There is no consensus among researchers on the factors contributing to business success, but a few variables are discussed more often in previous studies. They may be grouped into the following categories: the first category deals with the psychological and behavioral traits of entrepreneurs, the second concerns managerial skills and training of entrepreneurs, and the third focuses on external environment in which entrepreneurs operate (Chu et al., 2011, p. 88).

Chapter 6

The Influence of the Local Ecosystem on Entrepreneurial Intentions: A Study With Entrepreneurs and Potential Entrepreneurs of Beja (Portugal) and Huelva (Spain)

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ABSTRACT

This chapter focusses on the influence of the local ecosystem on entrepreneurial intentions (EI) of entrepreneurs and potential entrepreneurs (in specific, higher education management students) of Beja (Portugal) and Huelva (Spain). The study explored the influence and support of the surrounding ecosystem on entrepreneurial initiative. Data were collected through a questionnaire from two samples of 184 entrepreneurs (100 from Huelva and 84 from Beja) and 205 business management students (107 from Huelva and 98 from Beja). In spite of the diversity of the existing structures and support, the evidence showed that, contrary to the needs of the socioeconomic sustainability of Beja and Huelva, the local ecosystems are not recognized as favourable or encouraging the EI. There are no articulated strategies between the different institutional supporting actors and the creation of a new business is perceived as a very difficult path.

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INTRODUCTION

The reflection focus of this chapter is on the relationship between *local ecosystems and entrepreneurial intentions*, based on the results obtained in a project carried out in Beja (Portugal) and Huelva (Spain) which aimed to characterize the perceived influence of ecosystems and surrounding structures (official structures including higher education institutions) on the development of entrepreneurial initiatives, such as new companies and new business ideas. For this purpose, the project analysed the opinions of:

- Entrepreneurs with companies created within five years previous to the date of the study, in the municipalities of Beja and Huelva, and
- Business management students at the Polytechnic Institute of Beja (IPBeja) and Huelva University (UHuelva).

Their opinion was solicited on the role of and the support provided by local structures to the dynamics of business creation and/or as promoters of entrepreneurial ideas. In a comprehensive perspective, the focus is on the analysis of the factors that influence the development of entrepreneurial intention (EI).

Entrepreneurship and the creation of new businesses are actually considered an important engine for growth, shaping not only the economic environment (Thai & Turkina, 2014), but also empowering the creativity and innovation power of individuals and organisations. Current governments, and their political actors, are increasingly aware of the social and economic benefits that come from creating and promoting new business (Bruton, Ahlstrom, & Li, 2010). This fact is particularly relevant especially in contexts marked by a high rate of unemployment and economic decline, which explains why numerous governments have shown increasing interest in the development of measures and creation of supporting structures to enhance entrepreneurial dynamics and intentions (Parker, 2009). It is considered necessary to develop a favourable and entrepreneurial-oriented culture that encourages risk and empowers decision-making, where the various institutions responsible for the formation and socialization of individuals play a fundamental role. The social and cultural context can play a relevant role in entrepreneurial dynamics if entrepreneurship is dynamised and fostered (Lackéus, 2015).

The question of how to encourage entrepreneurship has raised intensive academic interest and generated extensive research and debate (Redford, 2013). Entrepreneurs should not be seen as isolated and autonomous decision makers, but as actors who are influenced by micro- and macro-involving contexts (Millán, Congregado, & Román, 2010).

Social cognitive theory (Bandura, 2001) confirms that the surrounding social environment plays a crucial role in shaping individual behaviour and knowledge. By structuring beliefs, values, and attitudes, the social and cultural environment influences the conduct and decisions of individuals, consequently determining entrepreneurial thoughts and actions (Dubini, 1989; Kent, 1984). In the context of entrepreneurial attitudes, various studies have shown that cultural variables influence entrepreneurship more than economic variables, since the former tend to be more permanent than the latter (García-Cabrera & García-Soto, 2008). Cultural values represent traits deeply rooted in the population and change relatively slowly (Hofstede, 1993; Ulhaner & Thurik, 2007), leaving a lasting imprint on entrepreneurial practices and on the profiles of business activity (Hechavarría, 2016).

Another important factor is the surrounding institutional environment. The creation of networks of collective action is an increasingly critical element in structuring current societal dynamics. Over the last years, networks, in their different forms and typologies, have expanded extraordinarily. Within the scope

of the policies supporting entrepreneurial dynamics, the “place/region” is more and more the core for the construction of new references – studies, programmes, new legislation – that attest to the relevance that has been given to the institutional context as the privileged ground to support entrepreneurial dynamics. Veciana and Urbano (2008) consider that institutional theory provides us with a consistent conceptual framework, adequate to the study of the influence of external factors on entrepreneurship.

The decision to move towards risk and uncertainty is also associated with personal factors, such as: personal and family characteristics.

In relation to the personal factors that influence entrepreneurial activity, the psychological aspects stand out; within the theories that defend the influence of psychological characteristics on entrepreneurial dynamics the pioneering study of McClelland in 1965 was key, followed by many others, focused on identifying the main psychological characteristics that distinguish entrepreneurs from non-entrepreneurs. As a result of the various theoretical and methodological critiques made to that approach (Shane & Venkataraman, 2000), and given its limited predictive ability (Krueger, Reilly, & Carsrud, 2000), a new theory emerged based on the defence that entrepreneurial activity is a result of a voluntary and conscious decision taken by the entrepreneur, designated entrepreneurial intention (EI). The “founders” of this thesis are Shapero and Sokol with the model of entrepreneurial intent (1982) and Ajzen (1991) with the theory of planned behaviour (TPB). These two approaches are the theoretical basis for several studies that since then have sought to predict and compare EI profiles.

At the level of the influence of personal factors on entrepreneurial activity, the effect of the family background is also considered an important relation to explore. To Shapero and Sokol (1982), family is one of the most important driving factors in the creation of new business, as well as in the shaping of an individual’s entrepreneurial behaviour. For many authors, the propensity for entrepreneurship is directly and positive correlated with the existence of family members, especially parents, who have created their own businesses (Franco, Haase, & Lautendchäger, 2010).

Given the multiplicity of factors that induce entrepreneurship, the authors were interested in focusing their analysis on the effect of the characteristics of the surrounding context on its dynamic; in particular, they wanted to analyse and understand how entrepreneurial ideas and intentions can be influenced by the surrounding institutional and support environment. It was an intentional choice that privileges a sociological and institutional view, seeking to understand whether the increasing attention given by government programmes to entrepreneurship support, materialised in the creation of various support structures and measures, is an effective factor to promote EI or not. Specifically, the developed study aimed:

- To identify and characterise the institutional environment that exists in Beja and Huelva for supporting and enhancing entrepreneurial dynamics and intentions;
- To identify and compare the representations of the support given by the local ecosystem and its influence on the EI of Beja and Huelva entrepreneurs and higher education students.

In summary, in this chapter the role that entrepreneurial supporting structures can have on the promotion of the EI will be discussed, based on the results obtained in a research developed in low socioeconomic and neighbouring regions such as Beja, in Portugal, and Huelva, in Spain; by these means the authors want to contribute to strengthening the link between entrepreneurship research and public policy.

THE ENTREPRENEURIAL INTENTION

Entrepreneurship, in particular entrepreneurial intention, has gained more and more prominence in the political agenda and in academic research. Different scientific domains, such as anthropology, economics, management, psychology, and sociology, have devoted increasing attention to this multidimensional area.

Entrepreneurship is the process of creating new ideas, solutions and/or business ventures and, according to the scientific literature, is based on an intention, designated entrepreneurial intention (EI).

EI is a conscious state of mind that precedes personal action and directs it to the goal of creating something new and/or undertaking it (Shook, Priem, & McGee, 2003). EI can also be defined as a state of mind that directs one's attention (and, in turn, one's actions) toward the achievement of a specific objective or goal, in this case, becoming an entrepreneur (Bird, 1998).

The studies developed by Liñán and Fayolle (2013), Lortie and Castogiovanni (2015), Santos, Martins and Silveira (2016) and Souza and Silveira (2016) show that EI is one of the most widely used theories to understand the individual's behaviour in relation to entrepreneurship. According to Liñán (2004), intention becomes the essential and driving element of an individual's behaviour, as it shows the effort that he will make to perform that behaviour, that is, to start his business. That is, EI determines the effort one is willing to make for a particular entrepreneurial behaviour (Liñán & Chen, 2009). For Krueger (2009), EI refers to the individual intention to create a new entrepreneurial project.

In EI studies, it is possible to identify two basic theoretical models, namely: 1) Shapero and Sokol's entrepreneurial intent model (1982) and 2) Ajzen's theory of planned behaviour (1991).

According to Ajzen (1991), the intention of a person to perform a behaviour is the fundamental determinant of that behaviour; whatever the behaviour is, it always needs proper planning before it is executed, so, the process of setting up a business is determined in advance through the intention taken by the individual. Thus, according to the theory of planned behaviour (TPB), it is possible to determine whether or not an individual has an intention to undertake it by assessing his EI. The TPB assumes that individual behaviour is influenced by three variables, namely: 1) attitudes, 2) subjective norms and 3) perceived behavioural control. These three variables expose the intention of performing a behaviour; the greater the individual's appreciation of a given behaviour, the greater, also, is the intention to achieve it. Intention arises as the antecedent of the behaviour, and the stronger the intention to develop that particular behaviour, the greater is the probability of its effective realization (Ajzen, 1991). This theoretical model contributed greatly to the study of EI, becoming widely used in several researches such as those carried out by Autio, Keeley, Klofsten, Parker and Hay, 2001; Kolvereid, 1996 and Moriano, Gómez, Laguna and Roznowski, 2008, among others.

The model presented by Shapero and Sokol (1982) determines, in turn, that an individual's intention is based on 3 variables, namely, desirability, viability and propensity to act. For Shapero and Sokol, the intention to create a business is based on two essential steps, viability and desirability. For an individual who considers that there is no viability in creating a business of his own, desirability will go down; however, if he is not motivated and does not want to create it, he will not be able to achieve its viability.

In the study of EI, other models were developed, namely those explored by Kruger and Carsud (1993) and Kristiansen and Indarti (2004), always constituting essentially adapted versions of the two initial models of Shapero and Sokol (1982) and Ajzen (1991). To measure EI, there are several studies that have been developed, key among which are: Zhang, Duysters and Cloudt (2014), in China; Kautonen, Gelderen and Fink (2015), in Austria and Finland; Pfeifer, Šarlija and Zekić Sušac (2016), in Croatia;

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and Zampetakis, Bakatsaki, Litos, Kafetsios and Moustakis (2018), in Greece, just to cite the most recent, and which demonstrates the interest and timeliness of the topic for understanding entrepreneurship.

In many of these studies, part or all of the Entrepreneurial Intent Questionnaire (EIQ) was adopted, developed by Liñán and Chen (2009) and improved in 2011 by Liñán, Urbano and Guerrero (2011) which is based on Ajzen's assumptions and TPB's structure. The EIQ is a psychometric scale consisting of 4 dimensions of analysis:

- 1) Personal attitude;
- 2) Subjective norms;
- 3) Control of perceived behaviour; and
- 4) Entrepreneurial intent,

operationalized into 20 statements (five for dimension 1, three for dimension 2, six for dimension 3 and six for dimension 4) formulated according to the assumptions of a Likert scale ranging from total disagreement to total agreement.

The EIQ is still a baseline for EI studies, particularly through the incorporation of the EI dimension scale into questionnaires exploring the relationship of EI to personal and social factors, such as: personal background, entrepreneurial motivation, entrepreneurial self-efficacy, cultural context, economic context or institutional supporting context. Studies on EI lately have favoured the exploration of factors or determinants of EI. Examples of this are studies developed by: Diaz, Hernández and Barata, 2004; Kolvereid, 1996; Krueger and Brazeal, 1994 and Toledano, 2006, among many others.

According to Rasli, Khan, Malekifar and dan Jabeen (2013), EI is a mental behaviour of the individual; it develops over time, guided by internal and external factors which drive the individual to visualise the existing field of action, or to create a new environment, where he/she can develop his/her entrepreneurial motivations and goals. In this sense, EI guides the behaviour of the individual, within a framework of external variables inherent to the cultural, economic and social context in which he/she is inserted and that, mixed with the psychological variables, regulates, influences and determines the decision to create or to maintain entrepreneurial ideas.

Factors that Influence Entrepreneurial Intention (EI)

There are several types of EI influencing factors presented and explored in the studies, which, according to Soomro and Shah (2015) can be grouped into:

- 1) **Family background:** Kolvereid (1996) considers the role of an entrepreneurial family as a positive factor in entrepreneurial stimulation. Chua, Chrisman and Sharma (1999) state that anyone who grows up in a family where parents are managers and/or owners of a business is much more exposed to the challenges and opportunities that come with an entrepreneurial career. For Bronfenbrenner (1986), the family plays a fundamental role in shaping the personality, attitudes, beliefs and intentions of these individuals, particularly those of an entrepreneurial nature.
- 2) **Entrepreneurial motivation and propensity to take risks:** Some research shows that entrepreneurial individuals are more likely to take risks than those who do not exploit any business project (Teixeira, 2007). Reference is made in several surveys that the propensity to take risks is a factor

that distinguishes managers from entrepreneurs, as it is a fundamental characteristic of entrepreneurial activity (Brandstätter, 2010; Raposo, Paço and Ferreira, 2008).

- 3) **Entrepreneurial self-efficacy:** For Bandura (2001), self-efficacy refers to the beliefs that people have in their own abilities to perform a certain task. For Baum and Locke (2004), self-efficacy is a determining factor for an entrepreneur, because if that person has confidence in his own abilities to successfully perform various actions and behaviours, they will also be able to predict situations of insecurity. One of the contributions of the study of entrepreneurial self-efficacy was the analysis of its influence on the formation of EI. Boyd and Vozikis (1994) state that self-efficacy is a mediating factor both in determining EI and in the probability that these intentions will result in entrepreneurial action. The same was found in the research by Lee, Wong, Der Foo and Leung (2011) where it is shown that self-efficacy can influence EI.
- 4) **Cultural Context:** Studies in this field have demonstrated that different cultures have different beliefs about entrepreneurship, and that cultural variables influence EI more than economic variables. Cultural values are deeply rooted in the population and change relatively slowly, leaving a lasting imprint on entrepreneurial practices and business activity profiles (Hechavarría, 2016; Hechavarría & Reynolds, 2009;). As Amorós and Bosma (2014) claim, cultural and social norms can encourage or facilitate individual and collective actions that lead to the creation of new businesses and/or activities. This explains the reason why some countries have a stronger entrepreneurial culture than others.
- 5) **Economic Context:** Kreiser, Marino, Dickson and Weaver (2010) establish a link between economic context and entrepreneurial indicators. Davey, Plewa and Struwig (2011) compared the EI of students from Germany and Finland (in Europe) and Uganda and Kenya (in Africa), finding that students from developing countries are more likely to predict future careers as entrepreneurs and are more positive about entrepreneurship than their industrialised European counterparts. Clark and Drinkwater (2000) developed a study on push and pull factors with influence on EI. The push factors are defined as: job loss, unemployment, career setbacks, saturation in the existing market low family income, and lack of flexibility in the previous job. The dynamics and economic situation, both by the logic of strong dynamism and innovation, and by the logic of strong constraints and unemployment, are factors that favour EI (Thai, & Turkina, 2014).
- 6) **Institutional Support (the support given by the local ecosystem):** Research developed by Aponte, Urbano and Veciana (2006), Díaz, Hernández and Barata (2004) and Toledano (2006) with university students from Portugal, Puerto Rico and Spain, points to the relevance of institutional support in the intention and motivation of university students to be entrepreneurs. Of particular relevance is the existence of a support ecosystem consisting of structures, financial support and entrepreneurship training programmes that work in an organized manner to support and encourage entrepreneurial ideas. If individuals realise that there is dynamic support and incentive for entrepreneurship, they will have more confidence in their ability to become entrepreneurs and this will increase their EI (Schwarz, Wdowiack, Almer-Jaz & Breiteneker, 2009). According to Carvalho and Costa (2015), entrepreneurial activity may depend on a set of conditions, namely: the existence of financial and qualified human resources, education and training of human resources, telecommunication infrastructures, transport, industrial and technological parks, business incubators, etc. The authors also refer to the importance of adequate trade and labour legislation, equality of opportunities, a favourable tax system, efficacy in knowledge and technology transfer, among other factors. This way, we can create entrepreneurial ideal ecosystems for entrepreneurship and innovation, in which

the articulated work between companies and public actors that support entrepreneurship, such as universities, polytechnic institutes, and knowledge transfer offices, can use and expand the capacity to create new solutions and value-added ideas (Carvalho & Costa, 2015). An entrepreneurial ecosystem can be defined as a territorial area/space including a variety of institutional and individual actors that foster and support the entrepreneurial spirit, innovation and entrepreneurship, in a coordinated way. This regional area includes a diversity of actors associated with three dimensions: government-university-business. It is proven that the existence of an environment that supports and stimulates entrepreneurial dynamics is very important and, in many ways decisive, for EI (Mason & Brown, 2014).

EI is thus influenced by a variety of factors that must be worked out and considered simultaneously when aiming to stimulate them.

Among the areas of study in the field of entrepreneurship that has attracted the most interest is the identification and analysis of the contextual determinants that underlie the creation of new businesses. Given the multiplicity of factors that explain the phenomenon of entrepreneurship, and the intention of comparing entrepreneurial dynamics in two different territorial contexts (Beja and Huelva), belonging to two different countries, the present study favours a sociological and institutional view, focusing in particular on the exploitation of the entrepreneurs' and potential future entrepreneurs' (in specific, higher education management students) representations of the support for and influence of the local ecosystem on their EI. The choice of only one dimension of analysis is consistent with the option made by other authors, such as Simon-Moya, Revulto-Taboada and Guerrero (2014), who considered the following aspects in the category of institutional drivers: existing resources, existing supports, the official supporting institutions for the growth of new business, culture and education. It is assumed that the institutional context is a key factor that can contribute or inhibit EI.

THE INFLUENCE OF THE LOCAL ECOSYSTEM ON ENTREPRENEURIAL INTENTIONS: THE CASES OF BEJA AND HUELVA

The Cases Studied

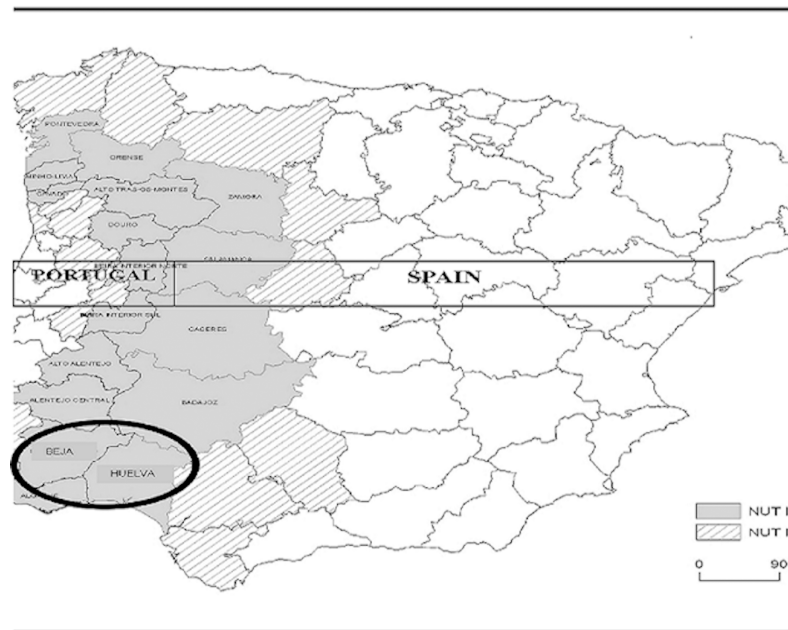
This reflexive contribution on the relationship between the surrounding ecosystem and entrepreneurial dynamics and intentions is based on the study carried out with young entrepreneurs and business management students residing in Beja (Portugal) and Huelva (Spain) (location of both regions in Figure 1).

Beja and Huelva are the capital cities of two of the NUTS III (Nomenclature of Territorial Units for Statistics III) with the lowest socio-economic development rates in Europe, located in the south of their respective countries. Both are considered territories with low population density: in 2011 Huelva had 147,808 inhabitants (Institute of Statistics and Cartography of Andalusia, 2019), and Beja had a population of 25,148 (National Institute of Statistics (INE), 2019). The Province of Huelva and the region of Baixo Alentejo do indeed have similar circumstances in terms of demographic density, combining poorly populated rural territories with some urban areas where the population concentration is higher.

Concerning business demography, in 2018, 1,885 new companies were created in Baixo Alentejo (NUTS III), corresponding to 16.4% of the 11,476 companies that started in the whole of Alentejo (NUTSII). The predominant sector was agriculture, animal production, hunting, forestry and fisheries,

Figure 1. Location of Beja (Portugal) and Huelva (Spain)

Source: Adaption made by the authors from the original available in: http://www.juntadeandalucia.es/medioambiente/portal_web/web/temas_ambientales/programas_iniciativas_europeas/interreg/interreg_iv_a/ambito_poctep.jpg



accounting for 479 companies, the equivalent to 25.4% of the total number of companies founded in Baixo Alentejo (INE, 2019). The second sector was administrative and support services, followed by wholesale and retail; repair of vehicles as well as accommodation, catering and the like. In the Province of Huelva, 8,266 companies were created in 2018, with the service industry predominating, followed by commerce and then by companies in the construction sector (Institute of Statistics and Cartography of Andalusia, 2019). Despite the differences in absolute numbers of new business start-ups, justified by the territorial and demographic differences between the two regions, both in Beja and in Huelva the number of new companies created has grown in the last 5 years (INE, 2019; Institute of Statistics and Cartography of Andalusia, 2019). According to the Global Entrepreneurship Monitor (GEM), the more current rates of the total early-stage entrepreneurial activity (TAE) and entrepreneurial intention (EI), captured for the same year (2014) for both countries and regions of Alentejo and Andalusia (where Beja and Huelva respectively belong), shows that in Portugal/Alentejo there are more actual and potential entrepreneurial activity than in Spain/Andalusia (Table 1). According to GEM reports, the set of additionally collected indicators also shows that, in recent years, the index of entrepreneurial activity in Spain has remained more or less constant and that in Portugal, the trend is for growth, particularly driven by the financial crisis of 2011 (GEM, Informe Ejecutivo 2014/2015). The activity and entrepreneurial dynamism registered in Portugal is very significant and stands out from the international average, particularly in the last several years.

Although there are no current available figures for 2018 for the same indicators, it is nevertheless possible to assume, taking into account the Beja and Huelva start-up indicators in the last 5 years (presented earlier), that actual and potential entrepreneurial activity registered in both regions tends to maintain

The Influence of the Local Ecosystem on Entrepreneurial Intentions

Table 1. Rates of total early-stage entrepreneurial activity entrepreneurial activity (TAE) and Entrepreneurial Intention (EI) for the countries: Portugal and Spain and for the NUTSII: Alentejo and Andalusia (2014)

	International Average (total of countries covered by GEM)	Portugal	Alentejo*	Spain	Andalusia*
TAE (Total Entrepreneurial Activity)	8.9%	10%	7.1%	5.5%	7.1
EI (Entrepreneurial Intention: % of 18-64, non-entrepreneurs)	15.5%	18.4%	15.2%	8.0%	7.8

Legend: There are no statistics available for the NUTSIII Baixo Alentejo and Huelva Province.

Source: GLOBAL ENTREPRENEURSHIP MONITOR. Informe Ejecutivo 2014/15. EUROACE. Available at: <https://www.gemconsortium.org/economy-profiles/portugal> and GLOBAL ENTREPRENEURSHIP MONITOR INFORME GEM ESPAÑA 2014. Available at: http://www.gem-spain.com/wp-content/uploads/2015/04/GEM_es_2014.pdf

a good rhythm, or even to grow. The entrepreneurship indicators appear to counter the fragility of the main socioeconomic indicators of both territories.

Methodology

The study was developed based on the research question (RQ):

- *What opinion/representations do Beja and Huelva's entrepreneurs and potential entrepreneurs (in specific, higher education students) have about the support and the influence of the local institutional ecosystem for their entrepreneurial intentions?*

and on the objectives of:

- identifying and characterising Beja and Huelva's institutional ecosystems for support and enhancement of the entrepreneurial dynamics and intentions;
- identifying and comparing the opinion/representations that Beja and Huelva's entrepreneurs and potential entrepreneurs have about the support given by the local ecosystem and its influence on their EI.

In order to meet these objectives, an exploratory study was carried out based on direct, documental and indirect observation procedures. The indirect observation was made through two questionnaires applied to the two groups under analysis. Through direct and documental observation, the data and information needed to identify and characterise Beja and Huelva's entrepreneurial supporting ecosystems was collected.

The Questionnaires: Procedures and Participants

The questionnaires were applied online to the entrepreneurs and student populations identified in Beja and Huelva. To identify 1) entrepreneurs with companies created within five years previous to the date of

the study and 2) actual management students (including undergraduate and masters students), databases were use provided, in the first case, by the Beja and Huelva's entrepreneurial official support structures (identified in detail in the next chapter) and, in the second case, by the UHuelva and IPBeja.

The questionnaires were constructed based on the key scientific references that study and measure:

- EI, namely those developed by Liñán and Chen (2009) and improved in 2011 by Liñán, Urbano and Guerrero (2011) (among other studies conducted and already mentioned above). The key reference of the EIQ, namely the EI scale, was also taken into account.
- the influence of institutional support (including support given by higher education structures), on the development of entrepreneurial activity. The key references were the scales developed by Turker and Selcuk (2009) for the opinions about the overall local institutional support and by Kraaijenbrink, Bos and Groen (2010) for the representations about the support given by the higher education structures, in particular.

The scales applied (ranging from 1 = Total Disagreement to 5 = Total Agreement and 1 = No Importance to 5 = Total Importance, in accordance with Likert rules) were adapted taking into account the characteristics of the target population (whether entrepreneur or management student) and the study objectives.

The questionnaires also included other questions to 1) collect personal characterisation data, 2) to hierarchise the personal characteristics considered most important to ensure the success of an entrepreneurial project and 3) to identify the factors that may influence the success of an entrepreneurial project.

Before being applied, the two questionnaires were validated using standard scientific procedures: validation by a panel of experts in business and social sciences, followed by a pre-test of the questionnaires performed on a group of analysis units selected by convenience sampling. The application of the pre-test evaluated the pertinence, internal reliability and adequacy of the scales. Data collection took place between March and June 2018, obtaining responses from two valid samples of 184 entrepreneurs who had started up a new first company in the last five or fewer years – 100 from Huelva and 84 from Beja – and from 205 business management students – 107 from Huelva and 98 from Beja.

DATA ANALYSIS: STRATEGY AND TECHNIQUES

Data were analysed using descriptive statistics, correlation test and difference significance tests; SPSS software version 24.0 was used for this purpose. At the correlation test level, the relationship between EI and the perceived institutional support was tested in the two groups under analysis using a t-test and Pearson's r. Differences at EI level and in the expressed opinions about institutional support between Beja and Huelva entrepreneurs, on the one hand, and between Beja and Huelva potential entrepreneurs (management students), on the other hand, were tested via chi-square and Wilcoxon-Mann-Whitney tests.

RESULTS: THE PERCEIVED INFLUENCE OF THE LOCAL ECOSYSTEM ON SUPPORTING EI

In this reflection, and in the study carried out, the hypothesis was assumed that there is a direct relation between the opinion/representations that Beja and Huelva's entrepreneurs and potential entrepreneurs have about the local support ecosystems and their EI. Thus, ecosystems that encourage entrepreneurship tend to be perceived by entrepreneurs or potential entrepreneurs as positive factors that contribute to the decision to undertake a business venture, regardless of how favourable the surrounding socio-economic context is. In the concrete case of the territories under study, both Beja and Huelva have fragile economic development dynamics, which does not stimulate potential entrepreneurs to take the risk involved in creating a new company, if only the sustainability component of the business plan is considered.

The Entities Supporting Entrepreneurship in Beja and Huelva

Regarding the entrepreneurial ecosystem, there is a diverse set of structures supporting entrepreneurship in Beja and Huelva. There are several entities that support and stimulate business activities, from the financial support provided by the European Community, to informational actions, and training programmes in the school context that seek to encourage the community to engage in entrepreneurial activities. In the case of Beja, we have the following entities:

- Alentejo XXI, Agency for the Regional Development of Alentejo, National Association of Young Entrepreneurs of Évora, Commission for the Coordination and Regional Development of Alentejo, Baixo Alentejo Intermunicipal Community, Development, Entrepreneurship and Innovation Office – Beja Municipality, Business Incubator of the IPBeja, Portuguese Institute of Beja for Sports and Youth, Business Centre of the Region of Beja, School Cluster of Beja.

As concerns the Huelva municipality, there are the following:

- Support Centre for Entrepreneurial Development (CADE), Chamber of Commerce, Huelva Impulsa (Diputación de Huelva), Association of Young Entrepreneurs (AJE), UHuelva.

Different types of support are provided to entrepreneurs or potential entrepreneurs such as: guidance when applying for financial support, assistance in the construction of a business plan, discussion and analysis of the potential of new business ideas, information on existing support programmes and structures, and training offers for the development of entrepreneurial skills.

The Perceived Influence of the local Ecosystem on EI by Beja and Huelva Entrepreneurs

The entrepreneurs questioned had the following characteristics:

- In Beja: male (62.5%), aged between 41 and 50 (62.5%), coming from a family of entrepreneurs (57.5%), owners of micro companies with 1 to 9 employees (87.5%);

Table 2. Perceived Institutional support (PIS) (Average results of a 5-point Likert scale: 1 = Total Dis-agreement and 5 = Total Agreement)

	Beja	Huelva	Sig *
It is difficult to manage one's own business due to lack of available financial support	4.20	3.90	0.345
It is difficult to manage one's own business due to the complex administrative procedures	4.56	4.43	0.446
The university doesn't connect with the daily life of local businesses	4.60	4.45	0.678
The economy doesn't provide many opportunities for entrepreneurs	3.65	3.74	0.147

Legend: * Wilcoxon-Mann-Whitney U test for independent samples. Rejects H0 if Sig. $\leq$ 0.05:

Source: Questionnaires applied, 2018

- In Huelva: mostly male (61.1%), aged between 30 and 40 (35.2%) and 41-50 (35.2%), 50 percent have entrepreneurs in the family, just as in Beja, and the great majority own micro companies (94.4%).

Regarding the relevance of the entrepreneur's characteristics to success, entrepreneurs from both regions agreed that "perseverance" is the most relevant feature. Perseverance as a synonym for resilience and the stamina to continue despite adversities, among which they highlighted the lack of state support at the level of: (i) coordinated support programmes, (ii) lack of positive discrimination in terms of taxation and (iii) inexistence of differentiated support structures specialized in encouraging the creation of new businesses and new jobs, particularly in regions less attractive to business activities. As for the entrepreneur's less relevant characteristics, entrepreneurs in Beja emphasized "sociability", and in Huelva, "creativity and qualification".

With regard to the factors that may influence the success of an entrepreneurial project, opinions are the same. For entrepreneurs in Beja and Huelva, "having good human resources" and the existence of "effective support from the structures dedicated to encouraging entrepreneurship" are the most important factors.

Concerning the support received, or not, from the surrounding local and governmental structures: 25% of the businessmen from Beja and 46.3% from Huelva claimed to have received support in the form of assistance for analysis of legislation and/or the application for financial support.

In relation to the perceived institutional support (Table 2), the results were:

Taking these results into account, it can be concluded that Beja and Huelva entrepreneurs similarly consider the support given by the local ecosystem to be ineffective, complaining about the lack of financial support and of the complex bureaucracy. When asked to justify their opinion, the prevailing common idea was that "there are too many structures for so little support" (Entrepreneur 12); "Often we do not know what these structures do, let alone how they can help us" (Entrepreneur 43); "There are many supports but too many restrictions and we rarely meet the conditions to participate" (Entrepreneur 81); "There are many structures but they do not act in a coherent and articulated way" (Entrepreneur 56).

Regarding the relationship with the formative ecosystem, in particular, with the existing higher education institutions, the majority consider that there is no effective relationship (67.3% of Beja entrepreneurs and 67.8% of Huelva entrepreneurs). This evidence is corroborated by the fact that only 25% of Beja

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Table 3. Entrepreneurial Intention

	Beja (%)	Huelva (%)	Sig *1
Given your experience, are you still interested in continuing to be an entrepreneur in the future?			
1. Yes	76%	72%	0.076
2. No	24%	28%	
If you answered Yes in the previous question, please indicate your level of agreement (on a scale of 1 = Total Disagreement and 5 = Total Agreement) with the following statements:	Beja (Average)	Huelva (Average)	Sig *2
2.1. I'm ready to do anything to continue to be an entrepreneur	4.28	3.95	0.346
2.2. My professional goal is to continue to be an entrepreneur	4.54	4.27	0.476
2.3. I will make every effort to continue to run a self-owned firm	4.38	4.19	0.532
2.4. I am determined to create a new firm in the future if my present one fails	3.81	3.96	0.782
2.5. I have very seriously thought of starting a new firm if my present one fails	3.84	3.95	0.576
3. Given your entrepreneurial experience, you would start again?	Beja (%)	Huelva (%)	Sig *2
3.1. Yes	55%	62%	0.051
3.2. No	45%	38%	

Legend: *1 Chi-squared test and *2 Wilcoxon-Mann-Whitney U test for independent samples. Rejects H0 if Sig. $\leq$ 0.05:

Source: Questionnaires applied, 2018

entrepreneurs and 22.2% of Huelva entrepreneurs had already collaborated or received support from the university during their entrepreneurial project.

In relation to the EI (Table 3), the results were:

EI are significant and firm among Beja and Huelva entrepreneurs. With not significant statistical differences, the majority affirmed that they are still interested in continuing as an entrepreneur in the future, and that it is a professional goal.

In the analysis of the relationship between the perceived Institutional Support (PIS) index and the EI index (Table 4), a negative correlation can be seen, visible in the data obtained both from Beja and Huelva entrepreneurs.

Those who most criticise the support given by the institutional ecosystem (agree or totally agree with the difficult context) are those who express the lowest EI.

Table 4. Relation between perceived institutional support (PIS) and entrepreneurial intention (EI)

	Beja (r)	Huelva (r)	Sig *3
PIS* EI	- 0.578	-0.620	0.076

Legend: r Pearson ranges from -1 (perfect negative linear relationship) to 1 (perfect positive linear relationship); *3 t-test. Rejects H0 if Sig. $\leq$ 0.05:

Source: Questionnaires applied, 2018

Table 5. Perceived Institutional support (PIS) (Average results of a 5-point Likert scale: 1 = Total Dis-agreement and 5 = Total Agreement)

	Beja	Huelva	Sig *
It is difficult to start one's own business due to lack of available financial support	4.56	4.78	0.147
It is difficult to start one's own business due to the complex administrative procedures	4.67	4.57	0.348
It is difficult to obtain sufficient information on how to start a business	4.39	4.25	0.178
The economy doesn't provide many opportunities for entrepreneurs	3.70	3.98	0.078

Legend: * Wilcoxon-Mann-Whitney U test for independent samples. Rejects H0 if Sig. $\leq$ 0.05:

Source: Questionnaires applied, 2018

The Perceived Influence Of The Local Ecosystem On Ei By Beja And Huelva's Potential Entrepreneurs (Management Students)

Among the students questioned who attended the management degrees at the UHuelva or the IPBeja, the majority had the following profile:

- In Beja: male (55.5%), aged 18-25 (69.7%), no entrepreneurs in the family (75.8%);
- In Huelva: male (55.5%), aged 18-25 (85.7%), and like their colleagues in Beja, no entrepreneurs in the family (73.9%).

Regarding the relevance of entrepreneurial characteristics for success, Beja students emphasized “determination” while those in Huelva highlight “perseverance”. Determination and perseverance as synonyms for resilience and the ability to pursue a goal despite adversities, which, according to the students, are still many; for them, creating a business is a possibility, but it implies knowing how to overcome many obstacles, starting with the ability to create a good business plan and how to get the money for the initial investment. The least relevant characteristics for an entrepreneur are: “sociability”, according to Beja students, and “flexibility”, according to those in Huelva.

With regard to the factors that may influence the success of an entrepreneurial project, opinions were very similar. Just as the entrepreneurs who were questioned, management students in Beja and Huelva also considered these factors as more important: “having good human resources”, followed by: “having good knowledge on how to run a business” and “good and effective support from the structures dedicated to encouraging entrepreneurship”.

On the image they have of existing institutional support (Table 5):

The students' opinion, like the entrepreneurs, is not positive about the support they can get from official structures. It is emphasized that it is a paradox that most students strongly agree with the statement: “It is difficult to get enough information about how to start a business”, as they are being trained in business management and, in such a situation, these matters should be examined.

This deduction is confirmed by the results obtained when they were questioned about the perception they had about the incentive and/or support provided by the HEI in which they study for their EI:

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Table 6. Perceived Institutional HE support (PIHES) (Average results of a 5-point Likert scale: 1 = Total Disagreement and 5 = Total Agreement)

	Beja	Huelva	Sig *
The academic environment in the institute/university inspires me to create new business ideas	2.46	2.10	0.147
The academic environment in the institute/university is favourable to becoming an entrepreneur	2.80	2.23	0.348
At my institute/university, students are encouraged to engage in entrepreneurial activities	2.79	2.25	0.178
During my institute/university education, I had the opportunity to work in a team and run my own real-life business	2.20	2.18	0.078
During my institute/university education, mentors and consultants assisted me from the idea-generation phase to the actual launch of the real-life business	2.65	2.67	0.067
My institute/university enhances my practical management skills to enable me to start a business	2.60	2.97	0.073
My institute/university enhances my capacity to identify an opportunity	2.78	3.10	0.546

Legend: * Wilcoxon-Mann-Whitney U test for independent samples. Rejects H0 if Sig. $\leq$ 0.05:

Source: Questionnaires applied, 2018

- Beja students: 78% disagreed or strongly disagreed that “the academic environment in the institute is favourable to becoming an entrepreneur”; 66.7% disagreed or disagreed completely that “the academic environment in the institute inspires them to create new business ideas” and only 32.5% agreed or fully agreed that “the institute develops and enriches their capacity to identify business ideas”.
- Huelva students: 66.7% disagreed or totally disagreed that “the academic environment in the university is favourable to becoming an entrepreneur”; 71.8% disagreed or totally disagreed that “the academic environment lived in the university inspires them to create new business ideas” and only 32.5% agreed or fully agreed that “the university develops and enriches their capacity to identify business ideas”.

The contribution of the HEI to enhancing and supporting entrepreneurial skills is not evaluated positively by Beja students nor by Huelva students (Table 6).

Cross-analysing these answers with those of EI (Table 7), the results show the existence of negative relationships:

- Relation between PIS and EI: $r = -0.559$ for the Beja students’ sample and $r = -0.567$ for the Huelva students’ sample, that means that those who agreed the most with the “negative effect of the institutional support on entrepreneurial intent” are the ones with lowest EI;
- Relation between PIHES and EI: $r = 0.301$ for the Beja students’ sample and $r = 0.268$ for the Huelva students’ sample, that means that those who disagreed the most with the “positive effect of the HEI support on entrepreneurial intent” revealed less EI. The results show that students share the opinion that the institute/university they attend does not encourage or contribute positively to EI.

Table 7. Relation between perceived institutional support (PIS)/perceived institutional higher education support (PIHES) and entrepreneurial intention (EI)

	Beja (r)	Huelva (r)	Sig *3
PIS * EI	-0.559	-0.567	0.076
PIHES * EI	0.301	0.268	0.081

Legend: r Pearson ranges from -1 (perfect negative linear relationship) to 1 (perfect positive linear relationship); *3 t-test. Rejects H0 if Sig. $\leq$ 0.05:

Source: Questionnaires applied, 2018

Table 8. Entrepreneurial Intention

	Beja (%)	Huelva (%)	Sig *1
Have you ever seriously considered becoming an entrepreneur?			
1. Yes	76%	72%	0.076
2. No	24%	28%	
If you answered Yes in the previous question, please indicate your level of agreement (on a scale of 1 = Total Disagreement and 5 = Total Agreement) with the following statements:	Beja (Average)	Huelva (Average)	Sig *2
2.1. I'm ready to do anything to be an entrepreneur	4.18	3.99	0.346
2.2. My professional goal is to be an entrepreneur	4.50	4.26	0.476
2.3. I will make every effort to start and run my own firm	3.96	4.12	0.532
2.4. I am determined to create a firm in the future	4.25	4.15	0.782
2.5. I have very seriously thought of starting a firm	3.95	3.99	0.576

Legend: *1 Chi-squared test and *2 Wilcoxon-Mann-Whitney U test for independent samples. Rejects H0 if Sig. $\leq$ 0.05:

Source: Questionnaires applied, 2018

Globally, Beja and Huelva students revealed notable EI (the EI index for Beja students is 4.135 and for Huelva students is 4.067); additionally, 76% of the Beja students and 72% of the Huelva students expressed that they have already seriously considered the possibility of becoming entrepreneurs.

DISCUSSION OF RESULTS AND FINDINGS

In Beja and Huelva, the local ecosystems can count on a variety of structures that support entrepreneurship; they include representatives of local, regional and national bodies, as well as specific support centres for the creation and incubation of new businesses. In accordance with their national policies, both Beja and Huelva have several financial support programmes, particularly targeted at potential younger entrepreneurs. Supporting entrepreneurship is part of the measures adopted to stimulate economic growth, both in Portugal and in Spain, and the funding available has greatly increased in recent years, benefiting directly from European Community funds. At the educational level, the attention given to the development of entrepreneurial skills and/or the creation of new companies is increasing. There is a proliferation of incentive programmes to promote entrepreneurship in schools and higher education. In higher education, topics such as how to create a business plan and how to boost entrepreneurship have

been included as part of many curricula, complemented by the creation of support structures for business incubation within the institutions themselves.

Because of the recent financial and economic crises in Portugal and Spain, the political discourse has emphasised the creation of one's own employment as an alternative to the problem of growing unemployment. Recent numbers related to business creation also reveal that the surge of new companies has seen a steady positive evolution over the last five years, both in Beja and Huelva, even though with different growth rates.

Although the surrounding context can be considered favourable to entrepreneurial dynamics and intentions, given the diversity of existing structures and the increasing numbers of new businesses created in recent years, the truth is that the results obtained from the two samples, of entrepreneurs and students, seem to demonstrate that this potential positive influence is not interpreted as such by current and potential future entrepreneurs. For most of the entrepreneurs and students involved in the study, the influence of the surrounding ecosystem (state support, support structures for creating new business ideas and an entrepreneurial spirit) is still insufficient. There are no coordinated strategies between the different actors, which is, according to the respondents, a hindrance to their performance when it should be a facilitating factor. Despite the lack of a favourable ecosystem, or at least recognized as such, EI exists; the EI index in both samples is significant, more than 4 on a scale from 1 to 5. The results show that the image that entrepreneurs and potential entrepreneurs of Beja and Huelva have about the local support ecosystems is that they are not favourable to their EI. Despite the diversity of the identified local entrepreneurial supporting structures and programmes, the image shared by the two surveyed groups is that there is a lot of bureaucracy and a lack of support. Nevertheless, and paradoxically, both groups maintain high levels of EI, which leads to the conclusion that there are other factors that continue to drive the goal of entrepreneurship. Despite the existing local structures, there is a lack of a true concerted work dynamic that makes the existence of a real entrepreneurial ecosystem effective and able to empower the existing EI.

CONCLUSION

It is scientifically proven that entrepreneurial dynamics and intentions are influenced by several factors that must be worked out and considered simultaneously in order to boost them. In this context, the structural importance of the surrounding environment stands out, in other words, the existence of an ecosystem that facilitates and encourages EI.

This research focused on the analysis of the opinion of two samples of entrepreneurs and potential future entrepreneurs, in Beja and Huelva, about the influence of the local ecosystem on the dynamics of entrepreneurship. The results show the existence of an inverse relationship between the images taken about institutional support and EI; institutional support is assessed as negative and insufficient, although EI is significant. Therefore, there is scientific evidence to conclude that there is significant work to be done in order to improve the entrepreneurial support available in the two contexts under study. Due the diversity of structures and supports identified, the results achieved seem to allow us to also conclude that there is a significant potential of EI and resources, which need to be better harnessed and enhanced. The promotion of EI requires the existence of an active, recognized and coordinated entrepreneurial ecosystem that could, at the same time, be one of the main drivers of socio-economic revitalisation.

An ecosystem favourable to entrepreneurship must: i) foster and facilitate entrepreneurial culture; ii) help signpost the entities that can assist in identifying and building new business ideas and/or new solutions to existing problems; iii) promote a culture of risk and innovation; iv) have coordinated support structures – those that work on action competences and those that guarantee logistical and/or financial support; v) integrate all the actors involved: entrepreneurs, educational actors and those related to financial support, logistics and/or the creation of new added value ideas.

Especially in the so-called low-density territories (LDT), which is the case of Beja and Huelva, to which socio-economic vitality is fundamental, it is crucial to ensure the effectiveness and efficiency of the work carried out by the various agents in order to create real entrepreneurial ecosystems. The results show that this is not happening: despite good EI, the shared images about institutional support are negative; this represents a waste of resources and energies; as resources exist they urgently need to be refocused and coordinated. The “heavy tendency” of low socio-economic density is very difficult to reverse, so the challenge must be focused on the activation of local initiative and its capacity to create value from existing resources or from those assets the territory can create/attract. When studying the factors that can influence EI in LDTs, what is at stake is the search for new strategies to promote the sustainable development of these territories, where the low density of resources and capital poses additional challenges to the dynamics of entrepreneurship.

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KEY TERMS AND DEFINITIONS

Business Venture: A start-up entity developed with the intent of making a financial profit. A business venture may also be considered a small business.

Ecosystem: A set of interrelated elements within a specific territorial context. Relations of interdependence, communication and mutual influence are fundamental to the internal dynamics of any ecosystem.

Entrepreneurial Dynamics: This is represented by the volume of creation of new companies and/or new ideas. The entrepreneurial dynamics is proportional to the number of new companies created and/or new business solutions developed, aiming to solve existing problems.

Entrepreneurial Ecosystem: A territorial area/space including a variety of institutional and individual actors that foster and support the entrepreneurial spirit, innovation and entrepreneurship, in a coordinated way. This regional area includes a diversity of actors associated with three dimensions: government-university-business.

Entrepreneurial Intentions: This represents the individual and/or of a group of people's intentions to create a new business/idea. Such an intention is a conscious mental state that precedes the action and directs attention towards the goal of establishing a new business.

Entrepreneurship: In the strictest view of entrepreneurship, the focus is on the mere analysis of how the individual can become an entrepreneur. In a more complete perspective, entrepreneurship focuses on aspects that enable the individual to develop an entrepreneurial attitude and resorts to approaches that value personal development and the enhancement of entrepreneurial competencies, such as creativity, self-confidence, initiative or action-oriented skills.

Low Density Territories: Territories displaying low demographic density (population per square kilometre) as well as weak economic density (GDP per capita, economic developments levels), both below national and European levels. Low density territories often combine these characteristics with physical and relational distance to centres of decision-making.

Chapter 7

Entrepreneurship in Border Territories: Context Costs, Resilience, and Logics of Action of the Companies and Entrepreneurs – Study of the Border Municipalities of Beira Interior in Portugal and Salamanca in Spain

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ABSTRACT

The territory of Beira Interior Norte in Portugal with the province of Salamanca in Spain have low demographic densities and populations in deep regression and aging as a result of migration movements, economic disarticulation, and specific context costs, given the different administrative framework and public policies. Promoting entrepreneurship in peripheral border regions is a key strategy for their sustainability, as part of the Europe 2020 goals for smart, sustainable, and inclusive growth. The chapter aims to provide guidelines for greater interaction between the results from the statistical analysis and its interpretation by local actors. In addition, indicate vectors that will help to design and develop the natural entrepreneurship dynamics for the Portugal/Spain border region, reinforce cooperation in the articulation of strategies, and the development of collaborative networks between entrepreneurs, training entities, business associations, and administrative entities have been explored.

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INTRODUCTION

The Spanish-Portuguese border is the oldest and most extensive in the European Union (EU), with low demographic densities in the territory of Interior of Portugal and Salamanca, a population in deep regression and aging, affected by strong repulsion movements (towards metropolitan areas and abroad), including accelerated processes of social and economic disorganization. It presents an underdeveloped urban network, with a predominance of small urban centers and specific context costs, given the different public investments (infrastructures, equipment, and services), and fiscal and administrative frameworks. The economic structure shows an agricultural production system (which occupies a high percentage of the working population), with low productivity rates and some areas threatened with erosion. The industrial activity is incipient, predominating small companies that use scarce technologies and innovation. The tertiary sector is of traditional base, with excessive weight of the public administration and concentration of commercial activities of products of first necessity, having increased service connected with the tourism and hospitality.

The unfavorable conditions of this border region, Beira Interior Norte with Province of Salamanca (BIN-SAL), are due to its peripheral location (i.e., away from decision-making centers), its penalizing demographic evolution, and economic and organizational disarticulation. As a result, BIN-SAL requires the equation of strategies to promote entrepreneurship and creation of jobs, capable of promoting the economic and social sustainability of the region.

Thus, this study is inserted in the context of territorial border, aiming to identify factors that may influence the renewal and consolidation of companies and entrepreneurial spirit in these peripheral regions. It is intended, simultaneously, to find determinants of entrepreneurial and innovative performance in these regions, with unique and distinct characteristics of the areas of greater economic dynamism and urban centers. The socioeconomic evolution and the own costs of context require the knowledge of the differentiating elements of the territory and the processes of innovation and entrepreneurship, adjusted to the reality of this border region.

Thus, the aim is to illustrate the main characteristics of companies, generate new knowledge, and consolidate the understanding of the determinants of entrepreneurial and innovative performance in regions with low development indicators. At the same time, the study aims to provide the definition of strategic vectors of action to enhance the understanding of entrepreneurship that occurs within noncore business environments. The study can also assist policy-makers in achieving development goals by reducing asymmetries within the country and the EU, in a context of increasing concern for regions with declining demographics and territorial specificity.

It should be noted that the promotion of entrepreneurship in the peripheral border regions is a key strategy for sustainability, which is framed in the Europe 2020 strategy for smart, sustainable, and inclusive growth. It is therefore intended to provide guidelines for a better interaction between the results of the statistical analyses and their interpretation by the local actors and, in addition, to indicate vectors that will help to design and develop entrepreneurship dynamics for the BIN - SAL. The strengthening of cooperation through the articulation of strategies and the development of collaborative networks between entrepreneurs, training entities, business associations, and local administrative entities is fundamental. In this context and in terms of goals, it aims to:

- Analyze the productive characteristics of the Interior of Portugal and the Province of Salamanca of Spain region, and evaluate sectoral trajectories in terms of companies, employment, and innovation.
- Systematize qualified information on processes and initiatives of entrepreneurship in regions of low density and with territorial specificity.
- Identify and systematize endogenous determinants of success/failure of entrepreneurial initiatives.
- Inventory guidelines for stimulating productive activities, investment attraction actions, creation of qualified channels and distribution networks and innovation.
- Encourage the articulation of companies with teaching and research and development institutions, in the development of applied research within existing endogenous resources.

The set of results, the identification of logics of business performance, and the perspectives and understandings the authors obtained through the contributions of business associations and entrepreneurs allowed to identify vectors of action, which may constitute arguments for local entrepreneurship policies, and for the claim of support and specific stimuli for these territories. The ability to promote dynamic processes of entrepreneurship will have to be sustained in a continuous strategy of active and collaborative diagnosis. This will allow to collect information and qualified contributions to support entrepreneurs' decision-making and capacity building for the investment. The implementation of strategies of multidimensional entrepreneurship become critical to the sustainability of these communities. These strategies combine the fixation and attraction of entrepreneurs and investors, which are public policies that reduce the costs of context for these regions and enhance the capacity of attraction and valorization of resources.

BORDER TERRITORIES, MEANINGS, AND DEVELOPMENT CHALLENGES

Concern about the development of the Portuguese-Spanish border has become more significant with the accession of the two Iberian countries to the European Community, through functional reconfigurations, intrinsic weaknesses in cross-border areas, and a move away from major centers of economic activity and decision-making politics. Over the years, social and economic deregulation has been aggravated, because the development strategies these areas have pursued have not achieved the desired effectiveness. In particular, the European programs have not achieved development goals and territorial cohesion (Arencibia & González, 2013; Fath & Hunya, 2001). The specificity of the social, economic, and territorial problems of these regions was recognized, together with the need to create more socially and territorially equitable interventions for their cohesion (Hidalgo *et al.*, 2014). In recent years, there has been a favorable dynamic to “disfrontier” by new structures, resource recovery, and interest communities (Calderón, 2017). Further, many initiatives have emerged and sought to encourage cooperation between regions, in order to counter their depopulation and fragile productive structure (Fernandes *et al.*, 2014a; Lange, 2012). However, the socioeconomic indicators have shown, overall, negative developments, aggravating the fragilities of these territories, depopulated, aging and growing depreciation of their productive structure (Dominguez *et al.*, 2013; Medeiros, 2018).

Economic, social, and technological changes, and the increasing interdependence of the economies as a result of the integration process, have altered the traditional role of the border and have brought about the reduction of the dysfunctions it causes. The management of the cross-border spaces continues

to verify inertia in its development and disarticulation in its governance (Medeiros, 2010). Indeed, the border regions have multiperiphericity, in terms of their geographical position in relation to the decision centers, on the ability to mobilize and value the resources, and on effective territorial articulation. Thus, these areas present structural disadvantages. Importantly, cross-border cooperation has not achieved the main goals it proposed. This is the result of the limitations due to cultural differences, governance models, and asymmetries, but also to the historical inertia that has continued to feed fears of each side of the border (Hernandez, 2000; Salgado, 2010). Therefore, an analysis of the socioeconomic indicators of the border area of the Center of Portugal, taking into account the four frontier municipalities (Figueira de Castelo Rodrigo, Almeida, Sabugal, and Penamacor), shows the existing weaknesses, and development trajectories and conditions that structure the behavior of the communities and their relation with the territory, in the present time.

Thus, despite the EU's efforts and policies, economic and social conditions continue to mark these spaces for structural imbalances and limitations. Further, they are aggravated by the coexistence of different fiscal, remuneratory, and legislative contexts. This has produced different perceptions of these territories:

- **Peripheral Space in Relation to Decision-Making Centers:** Border regions have a geographical and political periphery, which can be called marginal and is very distant from national decision centers (Hernández, 2000) and also regional ones (in the case of Spain), as well as consumer centers (Natário, 2005).
- **Disarticulated Space through the Nonpolitical-Administrative Combination:** The border regions involve two national spaces, which are not being conceptualized in terms of collective coordination, either at the microinstitutional or trans-institutional level, and are conditioned on their consistency in a cross-border perspective (Lange, 2011a; Salgado, 2010)
- **A Lack of Space in Services and Productive Activities:** Although there has been an improvement in infrastructure and equipment in several areas (i.e., cultural, sports, road, health, social, education, and tourism), as the RIET report highlights (Castro *et al.*, 2013), there is a tendency for services to be reduced in several areas of the public domain, partly as a result of the Portuguese executive's expenditure containment policy and partly because of the lack of capacity of the territory to monetize the available services. This is mainly due to the increasing depopulation and aging of these territories (Dominguez *et al.*, 2013).
- **Aged and Depopulated Space:** The RIET study (Castro *et al.*, 2013) and Braga, Natário, Daniel and Fernandes (2013) unequivocally show that the aging of the population, with increased migrations of young populations to the more developed coastal and urban centers, is a reality in these regions of the border. This phenomenon condemns them to depopulation patches at an accelerated rate and with a tendency to disappear in the next few years. Older populations are growing; this is increasing levels of social support and is reducing potential investment.
- **Barrier Space, through the Relations and Logics of Functioning:** The studies of Trigal (2005), Perez (2006), Medeiros (2011), and Arencibia and González (2013) identify several obstacles to cross-border cooperation and the existence of a common and motivating project. The differences highlight the organizational models of the two states in the forms and procedures of cooperation, in legal, political, and institutional terms. No domestic legal instruments regulating cross-border cooperation exist, in Portugal (Brito, 2006). In addition, while Spain has regional powers and provincial governments with legitimized powers by voters, Portugal's border areas are under the in-

fluence of Regional Coordination Commissions. These boards cover extremely heterogeneous areas, with different dynamics and with reduced powers of negotiation and decisionmaking (Lange, 2011b; Lourenço, 2007; Medeiros, 2018).

- **Space of Mental Design through History and the Motherland:** The physical frontier has disappeared with the process of European integration. However, to a greater or lesser extent, barriers to other levels still exist and condition the assumption of the regions as one on both sides of the border. Lourenço (2007), Medeiros (2011) Pires & Lange (2016) emphasize psychological borders and counter-powers, economic and social borders, institutional borders, and cultural and linguistic borders.

In this context, constraints of territorial, economic, and social scope generate different problems, namely of a political and administrative nature, of urban structure, of valorization and promotion of resources, of demographic negative dynamics, of cooperation and productive sustainability. These issues continue to disturb and weaken these territories, and promote a critical demographic and economic loss, which endangers the sustainability of the border.

ENTREPRENEURSHIP AND COST OF CONTEXT IN THE IBERIAN BORDER

According to Arbuthnott and von Friedrichs (2013), border regions which are located away from the central metropolitan areas and large dynamic markets have loss effects and fragility. Besides, as a result of the severe evolution of their population, these regions may have different employment schemes and fiscal policies, together with the absence of cooperative and concerted strategies for economic and social cohesion. These regions tend to present less favorable conditions for the creation and development of business activities (Oinas & Malecki, 1999). In addition, the provision of local business development services is ineffective and slows business progresses (Arbuthnott & von Friedrichs, 2013; Hidalgo et al., 2014). It should also be noted that the frontier is a bipolar and multiform space, that is a geographical environment that requires the near necessity of transporting its limits, where this plural environment transformed the frontiers into singular territories (Oliveira, 2005).

Cross-border areas are remote and isolated from the main centers of economic and political activity in the States to which they belong. Moreover, they are located on the periphery of the Member States, which results in less provision of communication infrastructure than the regions in the center. They are also predominantly rural regions with low levels of densit. (Consultores de Políticas Públicas, 2014, pp 7)

The rural and peripheral nature of the BIN-SAL territory, the existence of numerous small size settlements, and the dispersion of its population generate additional complications for small and medium-sized enterprises. Without adequate transport and telecommunications infrastructures, the disadvantage of rural enterprises increases.

Their rurality and remote location add difficulty, as they affect the investor's or the financial institution's perception of risk. Due to this asymmetric information, the cost of foreign capital rises and, with it, the difficulties to access to credit (Felsenstein & Fleischer, 2002). In the present conjuncture, this aspect can be an even more decisive factor. In the rural area, initiatives of reciprocal collaboration in the financial field have arisen; the rural banks, in Spain, and the Caixas de Crédito Agrícola Mutuo, in

Portugal, are paradigmatic examples. Further, in recent times, new formulas (e.g., funds) have begun to produce venture capital for rural development (e.g., Rural Community Development Venture Capital and Rural CDVC) or “green” venture capital funds (e.g., Green Venture Capital).

According to the European Commission’s Green Paper (European Commission, 2003), entrepreneurship is characterized by a link to the factors that greatly contribute to the success of a new business. In order of importance, they are: Information and knowledge, persistence and perseverance, available resources, quality in what is done, dedication, willpower, and, ability to take risks.

The studies of Fernandes *et al.* (2016), Fernandes & Natário (2014), Fernandes *et al.* (2014b), Macías, *et al.*, (2014), and Natário *et al.*, (2018) on the issue of entrepreneurship in border regions highlight their context costs. These context costs are associated with the success factors that were presented by the European Commission (2003). However, these costs also focus on the peripheral, rural, and low population density characteristics, the disarticulation of its traditional productive structure, and the different fiscal, administrative, and labor contexts between Portugal and Spain.

According to Hidalgo *et al.* (2014) and Fernandes *et al.* (2016), the context costs in the “raya” Ibérica are connected with the administrative and institutional configuration of the region, its sociodemographic characteristics, geographic particularities, the planning of transport and communication infrastructures, the management of public services, and the development of entrepreneurial activity, with a low propensity for entrepreneurship. In addition to these structural problems, which are difficult to stimulate the development of these regions face high costs associated with tolling, transporting, and packaging products (i.e., to access wider markets), marketing, and banks (i.e., to access finance and commercial relations).

The reduction of these context costs and the promotion of an entrepreneurial culture in the Iberian border require the implementation of multidimensional entrepreneurship strategies that combine the fixation and attraction of entrepreneurs and investors, and public policies (Hidalgo *et al.*, 2014; Macías *et al.*, 2014, Natário *et al.*, 2018). In these border regions, entrepreneurship is characterized by companies that keep cross-border business exchanges/transactions in the face of a perceived wide and potentially accessible market (Natário *et al.*, 2018; Policarpo & Mogollón, 2015).

According to Natário *et al.* (2015), the success characteristics of entrepreneurship in the Iberian Peninsula are different from those the European Commission (2003) identified, and are linked to factors such as: Resources and the business creation process facilitated by simpler bureaucracy; the profile of the entrepreneur, who sees the creation of a business more as a different opportunity and a different lifestyle; the internationalization of the target market; the adopted channels of dissemination and commercialization.

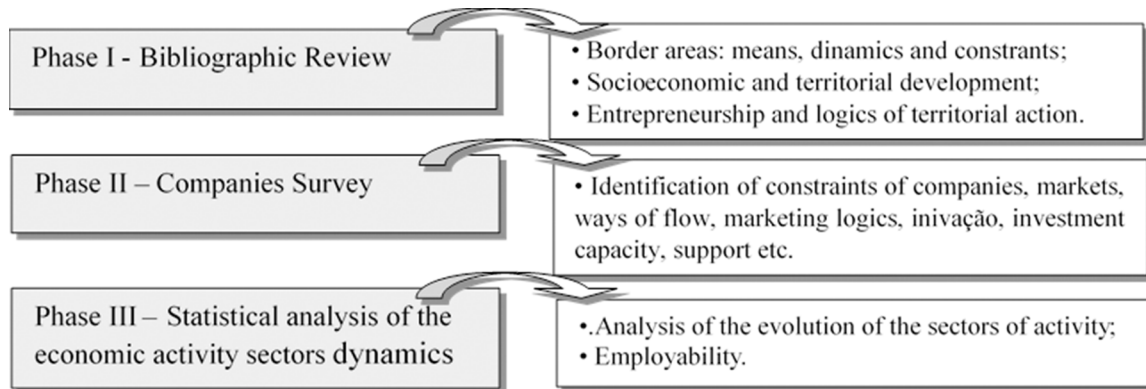
METHODOLOGY OF THE STUDY

In a context of territorial specificity, and considering the socioeconomic constraints and weaknesses of the frontier municipalities, the authors proposed a set of structuring objectives for an investigation that would allow to extract results on the logics of business operations, the context costs, and the logics and vectors to undertake a business successfully in these territories. Thus, the researchers aimed to:

1. Analyze the productive characteristics of the BIN-SAL region and evaluate sectoral trajectories in terms of companies, employment, and innovation.

Figure 1. Outline of the research methodological phases

Source: Own elaboration



2. Systematize qualified information about entrepreneurial processes and initiatives in territories of low density and with territorial specificity.
3. Identify and systematize determinants and endogenous factors of business creation.
4. Inventory guidelines for stimulating production activities, based on project development, distribution channels and networks, and markets.

The study combined an analysis of the territorial specificities of the border region Beira Interior with the province of Salamanca in Spain. The analysis focused on the necessary conditions for setting up businesses: Social and economic present dynamics, companies' behavior, their management, and their administrative and financial contexts. Then, the authors proceeded to the development of suitable methodologies. They conducted the analysis by the following approaches:

1. From the theoretical point of view, they aimed to frame the Iberian border regions and their specificities, the administrative and economic contexts that determine entrepreneurship, as well as the logics of entrepreneurship.
2. From the empirical point of view, they intended to contribute to the understanding of the border territories, in particular to the forms and processes of business development, ways of acting, and cooperation.
3. From a methodological point of view, using qualitative and quantitative analysis, they adopted a theoretical approach to the study of similar situations by equating stimulus policies to investment in regions with territorial specificities, certain border effect, low business density, and depopulation.

In terms of methodology, the researchers established three complementary phases (Figure 1), in order to collect quantitative and qualitative data, enable consistent analysis, examine companies and the processes they activated in their creation, as well as support the definition of entrepreneurship vectors and boosters. The three phases were: Phase One - Bibliographic Review, Phase Two - Survey to Companies, and Phase Three - Statistical analysis of the economic activity sectors.

Phase One: It focused on literature review to establish a solid theoretical body on regions of borders and their constraints, giving emphasis to the existing dynamics between Portugal and Spain. In this sense,

the research explains the evolution of border territories, making a retrospective analysis of the meaning and perception, the context of costs, and the policies to support their development programs. The authors sought to frame the entrepreneurial dynamics in these territories, the contexts of action and the entrepreneurs' logics, framed in territories of low density and/or rural. The identification of the structuring elements of the border territories and their perception and evolution are crucial for understanding the entrepreneurial dynamics and the entrepreneurial potential and their perspectives.

Phase Two: Knowledge of logic and business management strategies are based on the information the authors collected through a questionnaire survey applied to the enterprises of various sectors. These companies were located in the four municipalities of the first line of the border, according to a formal structure, which induces rigid and implies some limitations to the depth of the information. The survey was applied to 35 companies, which were randomly selected among those with more than 2 years of activity and based on their quantitative representation in the different municipalities. This probabilistic sampling was intended to achieve a comprehensive view of the entrepreneurs' performance in these territories and to assess the specificities arising from their location, and administrative and fiscal context.

Phase Three: The statistical analysis was oriented to promote a framework of socioeconomic development of these municipalities, in order to assess the trajectories of business behavior, and its direct effects on employment and the social organization of communities. Thus, using statistical and documentary sources, the authors investigated the characterization of the productive structure of the BIN municipalities and their sectoral evolution (i.e., business density, birth rate, business mortality, and sectoral dynamics).

SOCIOECONOMIC AND RESILIENCE EVOLUTION OF THE MUNICIPALITIES OF THE FRONTIER OF THE CENTER OF PORTUGAL

In the context of BIN-SAL, the rural councils predominate and are characterized, among other things, by the weak economies of agglomeration, low population density, small size of urban centers, and a breakdown of productive structure. In general, these territories have scarcity of business resources, human capital, relational capital, population, and urban dimension, along with a weak institutional and relational density, which makes it difficult to build partnerships (Lange, 2012; Natário *et al.*, 2018; Salgado, 2010). At the same time, the disarticulation of the traditional productive structure has not seen the expected recomposition through projects or financing. There is a need to develop finer analysis processes and reconsider strategies to encourage business creation and the expansion of the labor market (ESPON, 2017a; Fernandes *et al.*, 2014b; Fuller-Love *et al.*, 2006).

In addition to the above-mentioned limitations, these rural areas have witnessed the departure of their populations (mainly young and working-age), growing aging, and abandonment of productive activities, which have caused a disarticulation of the economic and social structure and, consequently, the revitalization of these territories (Cabero Dieguez & Caramelo, 2001, Macías *et al.*, 2014). The progressive abandonment of agriculture, the lack of industry, the fragility of the social structure and the lack of investment in some economic sectors, together with political and administrative centralism, have led to negative consequences on employment opportunities and, in turn, to the progressive depopulation of these regions (Azevedo, 2010; Braga *et al.*, 2013; ESPON, 2007, 2017b).

The development of entrepreneurship in these regions is a key strategy for their sustainability in the short, medium, and long term. In addition, entrepreneurship is one of the four thematic areas in the BIN-SAL 2020 Strategic Plan, and is also in line with the objectives of the Europe 2020 strategy for

smart, sustainable, and inclusive growth. As the Europe 2020 strategy, under the new Common Strategic Framework (CSF), is based on results-based targeting and seeks to maximize the impact of EU funding, entrepreneurship development is articulated in these guidelines. It is recalled that the CSF establishes five priorities, which aim to better link European funds so as to maximize their impact, with the private sector and employment as priorities. Thus, the priorities of the CSF are:

1. Stimulating the production of tradable goods and services, internationalization of the economy, and qualification of the specialization profile.
2. Strengthening investment in education, including advanced training, and measures and initiatives addressing employability.
3. Reinforcing the integration of people at risk of poverty and combating social exclusion.
4. Promoting territorial cohesion and competitiveness, particularly in cities and low-density areas.
5. Supporting the state's reform program, ensuring that the funds can contribute to the rationalization, modernization, and institutional capacity of the public administration, and to the reorganization of the models for the provision of public goods and services.

In this context, the ability to promote dynamic entrepreneurship processes will have to be based on a proactive strategy, which are articulated with diagnosis and collaborative relationships with entrepreneurs, business associations, and higher education institutions, to enable the collection of information and qualified contributions. A careful statistical analysis, the collection of data by means of surveys and meetings for reflection and debate with entrepreneurs, professional associations and researchers, as well as an analysis of the companies' strategies and the levels of performance they have achieved allow to determine the entrepreneurship in the region and its social and economic dynamics (Global Entrepreneurship Monitor, 2012; Jayawarna *et al.*, 2011).

The economic structure shows a production system that is dependent on agriculture, which occupies a high percentage of the working population, with low productivity rates and some areas threatened with desertification. The industrial activity is incipient, predominating small companies that use little innovative technologies. The tertiary sector is the traditional base, with excessive weight of public administration and commercial activities concentration, having increased service connected with tourism and hospitality (Fernandes *et al.*, 2014a, 2016; Natário, 2005).

The constraints on these territories result from the costs of contexts, reduced investments, and the continued loss of population, which leads to continued economic and social depreciation that European programs have not been able to overcome (ESPON, 2017a; Lange, 2011). Despite the proactive initiatives of the municipalities, the reduced influence in terms of decision-making and governance skills limits the ability to initiate policies and to hold the necessary resources to counter the demographic and economic decline (Macías *et al.*, 2014; Natário *et al.*, 2018). Economic and social fragility, as well as the lack of investment in primary and secondary sectors, along with political and administrative centralism and low public investment, have negative consequences on employment opportunities. This leads to the progressive depopulation of these regions (Caramelo, 2002; Braga *et al.* 2013; Macías *et al.*, 2014; Natário *et al.*, 2018; Trigal, 2016).

The analysis of the evolution of the resident population in these four frontier municipalities (Table 1) shows the marked loss of population since the 1950s, when these municipalities reached the maximum population. According to the data of 2015, this loss represents a reduction of around 70%, and with municipalities such as Sabugal and Penamacor surpassing 72%. It should be noted that, in the last 15 years,

Table 1. Evolution of the resident population and its variations (5) between 1950 and 2015

Resident Population by Municipality	1950	1991	2001	2011	2015	Var. (%) 1950-15	Var. (91-15	Var. 01-15
Almeida	17480	9928	8378	7228	6323	-63,83	-36,31	-16,82
Fig. de Castelo Rodrigo	14912	8067	7115	6260	5918	-60,31	-26,64	-24,53
Sabugal	43513	16798	14772	12544	11489	-73,60	-31,60	-22,22
Penamacor	18860	8047	6573	5680	5116	-72,87	-36,42	-24,55
Total	94765	42840	36838	31712	28846	-69,56	-32,66	-21,69

Data Source: Instituto Nacional de estatísticas (INE- Portugal)

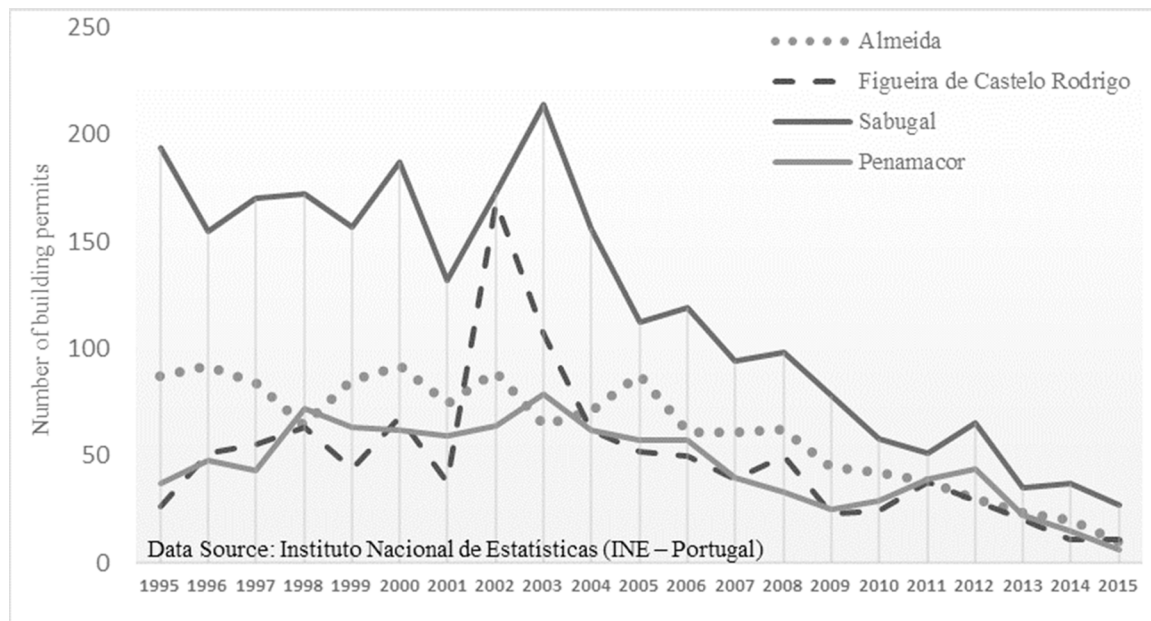
the losses exceeded 21%, with counties such as Penamacor and Figueira Castelo Rodrigo surpassing 24%, which means that in 15 years they lost about one fourth of the population.

Demographic trajectories, supported by the analysis of the resident population, show a critical stage for these territories. The implications are severe for the continuity of services to the population, the drastic decline in economic vitality in destruction of landscapes, and the enlargement of uncultivated areas. This depopulation has repercussions on the degradation of built heritage, the loss of inheritance and traditions, and the creation of a deep and growing demographic void (Daniel *et al.*, 2014; Medeiros, 2005; Silveira, *et al.*, 2013). During the 60s, 70s, and 80s of the last century, emigration had a decisive influence on the emptying and weakening of these territories. Since the 90s, the effects of depopulation have been generated by the entanglement of the areas of greater economic dynamism, with emphasis on Lisbon and Porto, as well as proximity, where the cities of Guarda, Covilhã, and Castelo Branco exert polarization (Daniel *et al.*, 2014, Fernandes, 2012; Silveira *et al.*, 2013). The supply of employment out of the primary sector and the levels of services and equipment, which are perceived as of value for the increase of well-being, induce strong rural exodus. Thus, the exit of young and qualified workers further hinders the economic performance of rural regions. The crisis of traditional family farming systems of self-consumption explains the aging and loss of the population that characterize almost the entire frontier territory. Again, this trend supports a downward spiral that reduces the overall attractiveness of these rural regions, their market potential, and their entrepreneurship (Caramelo, 2007; García-Cabrera *et al.*, 2015; Natário *et al.*, 2018).

Several studies (Macías *et al.*, 2014; Natário *et al.*, 2018; Silveira *et al.*, 2013; Trigal, 2005) analyzed recent developments and demographic challenges for the coming decades, in order to identify demographic trends across Europe and, at the same time, to highlight trends in rural areas. In general, demographic change has consequences for regional and local development. Also, these processes have an effect on investment, as well as the renewal and expansion of the local or regional economy (Azevedo, 2010; ESPON, 2017a; European Union, 2013).

Considering the registered building permits (Figure 2), the trend of real estate investment has clearly diminished and has followed the depopulation trajectory. Indeed, the number of licenses has decreased of more than 50%, compared to the beginning of the 21st century) There has been a progressive decrease in the application of licenses to the municipalities, and a consequent reduction in dynamism (e.g., employment, sales, and taxes) in associated economic activities. These developments have direct repercussions on the economy, in terms of associated goods and services. Consequently, this regression implies a decrease in companies' activity and closure (Figure 2 and Figure 3).

Figure 2. Number of building permits for Municipality between 1995-20015



At the level of the headquartered companies (Figure 3), the trend is also a continuous reduction, evidencing the consequent effect on economic activity and its business dynamism. In this sense and based on a five-year analysis of the data, the authors verified that in 2000 the municipalities reached their maximum number of companies, with a total of 4888 companies. Sabugal had the largest amounts (1379 companies) and Penamacor, to present, the smallest number (564 companies). Since the beginning of this century, all the border municipalities in the central region have lost one fourth of their headquarters, in Almeida and Penamacor, where the highest rates of business losses are recorded.

Figure 3. Evolution the companies with headqartes in the municipality between 1995-2015

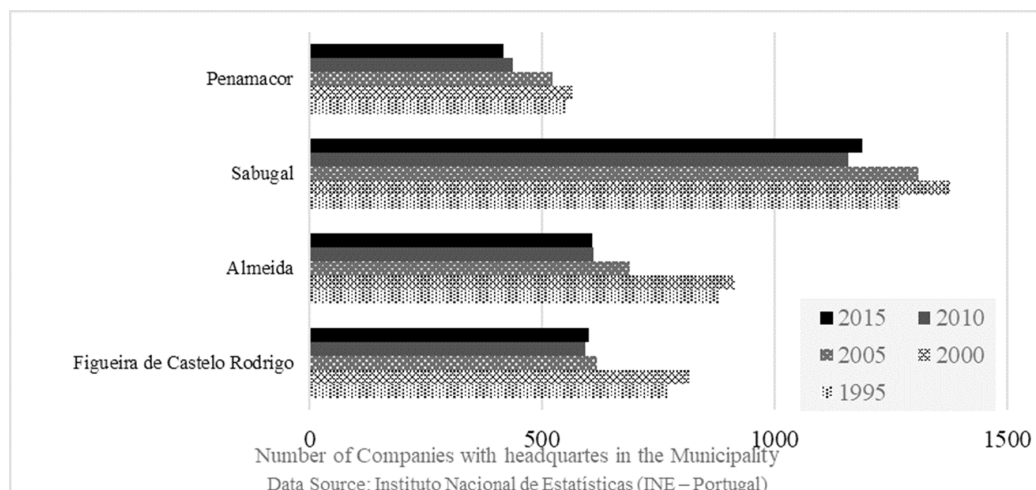
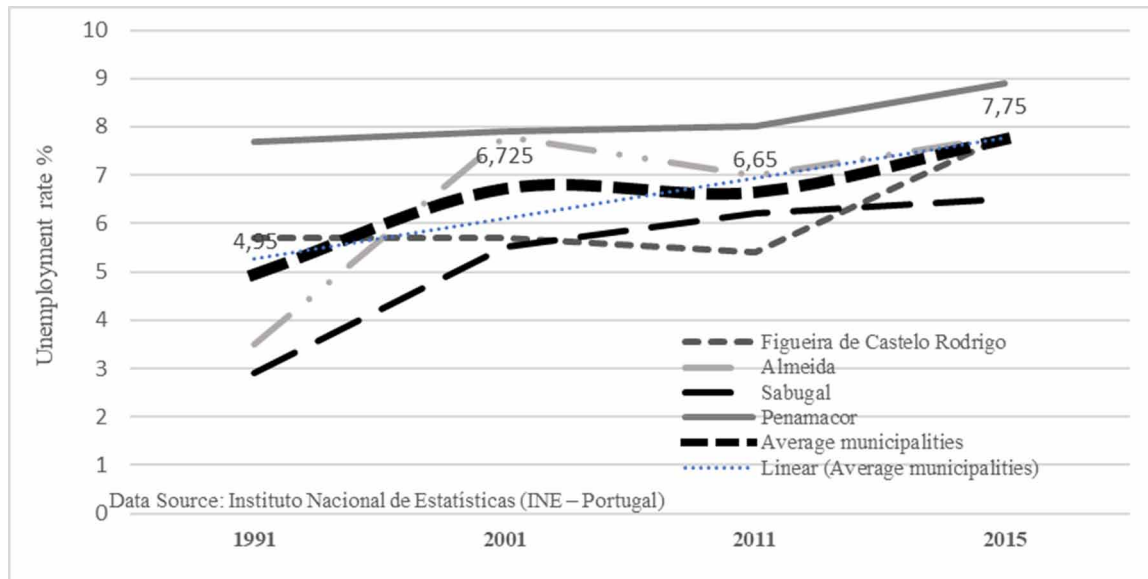


Figure 4. Evolution of unemployment between 1991 and 2015



The reduction of companies generates not only unemployment, but also the abandonment of buildings or commercial/industrial spaces, with side effects in the social organization of these communities. This enhances the emigration of their populations and reduce the capacity to attract new investments.

The economic factors play a crucial role in these depopulation processes. Indeed, the areas where this phenomenon takes place are usually economically depressed, backward or scarcely dynamic in relation to other areas of the same country. Attracting young people will be indispensable to resurrect these regions. Therefore, it is essential to find the right approach, so urban-rural migration becomes a solution for both parties.

In terms of unemployment (Figure 4), there is a trend towards an increase in the rate, which is around 7.8% and which has its most relevant value in Penamacor. Since 2015, the situation has worsened more rapidly; the values are not higher as a result of the migration of the active population.

Depopulated areas need entrepreneurs to stimulate the economy. Several initiatives can be the starting points to do profitable business. The clearest example is the promotion of the natural and cultural heritage of these regions, in order to increase tourism and add value to local products. Effective policies should include the following:

- Developing creative and innovative activities in areas of great tranquility.
- Promoting agriculture, pastoralism, and agro-industries.
- Stimulating consulting services supported by information and communication technologies.
- Promoting social economy and the valorization of endogenous resources with new uses for health and well-being, leisure, and tourism.
- Promoting local gastronomy and cultural industries.
- Developing social economy and recover products with identity.

Rural areas can become places of opportunity, but making the transition requires a large investment, cooperation, and territorial cohesion policies.

Community resilience is the ability to anticipate risks, limit impacts, and rise again quickly through survival, adaptation, evolution, and growth in the face of changes (Community & Regional Resilience Institute, 2013). In these territories, the difficulty is to activate mechanisms, and mobilize investments and proactivity, to be able to reverse the known trends. Resilient communities have a variety of employment opportunities, various income, as well as a variety of financial services facilities from financial and social institutions. Besides, they are able to manage, protect, enhance, maintain, and mobilize natural and community resources (Community & Regional Resilience Institute, 2013). In border regions, management is more complex in the face of political, administrative, economic, and social contexts.

LOGICS OF BUSINESS ACTIVITIES AND ENTREPRENEURS IN THE MUNICIPALITIES OF THE BEIRA INTERIOR NORTE WITH SALAMANCA

The analysis of the companies allowed to evaluate the forms of investment for the creation of companies, the tools and support developed, the markets involved, and the main problems and challenges. In terms of territorial entrepreneurship, the companies the authors surveyed are divided according to the sectors of activity to which they belong, as follows: 31.4% in manufacturing; 22.9% in accommodation, restaurants, and similar; 8.6% in transport and storage; 7.1% in trade; 5.7% in construction, as well as information and communication activities; 2.9% in agriculture, consulting, scientific, technical, and similar activities and other services.

They are small companies, considering the number of workers they have. The valid answers show that almost half of the companies (41%) have less than 5 workers, and about 24% have between 5 and 9 workers. More than one third of the companies (35.2%) have more than 10 workers. More in detail, 17.6% of these enterprises have between 10 and 19 workers, 8.8% have between 20 and 49 employees, and 8.8% have more than 50 employees.

In the process of setting up the company, it turns out that 37% of the entrepreneurs had an initial investment of more than €60,000, and needed, on average, about 9 years to recover the applied capital. The vast majority of the investors (59.5%) consider that the recovery period is higher than expected. The researchers also verified that it took about 7 months to establish the company, and the creation process is considered to be lengthy and bureaucratic, which reveals difficulties and obstacles that investors have to overcome for the formal and functional implementation of the business.

Analyzing the entrepreneurs' behavior, at the time of the formation of the companies, 47% of the companies the authors surveyed had previously made a business plan. However, the vast majority (around 72%) did not use infrastructures to support start-ups or receive advice from public organizations/institutions (around 65%) (Table 2). Companies that received support for their constitution consider them mostly advantageous, mainly because they "helped create the company," provided "financial support," "guidelines for good functionality," and "some capital lost," and because "without them, I would not be able to implement the company."

At the time of incorporation, equity was the main source of financing the entrepreneurs used. This was followed by the use of external bank financing and family funds. The use of public subsidies as a source of funding was zero for 32% of the companies the authors surveyed, and very low or low for about 54% of the cases. This result reveals ignorance or difficulties in accessing public capital or investment projects.

Table 2. List of the main factors associated with the establishment of the company

Factors associated with the establishment of the company	%
Made a business plan previously	47,1
It used infrastructures to support the creation of	28,3
Received advice from public or private organizations / institutions	35,2
Obtained support from other entrepreneurs or relatives	55,6

Source: Companies survey

In relation to the activity the entrepreneurs promoted (business established), they pointed out their previous experience in the activity they had developed and the knowledge of languages, namely Castilian through established commercial relations and geographical proximity, as relevant. For investors, the entrepreneurial activity was fundamentally induced by the opportunity, by the possibility of personal fulfillment, and by the need of work, being oriented according to the profession or experience they held (Table 3).

The results allow to infer that, at present, the main target market of companies the researchers surveyed is at the local level (<100 km), with no specific mention of cross-border activity, followed by supralocal market (> 100 km), with special mention of cross-border activity with BIN-SAL, as well as Portugal/Spain, in general. The medium-term business prospects are positive and the entrepreneurs intend to intensify their internationalization and extend the target markets abroad (international market), without neglecting the supralocal (> 100 km), with special mention of cross-border activity (Iberian) in general, without reducing the presence in the local market, which continues to be the orientation of production. For the entrepreneurs in analysis, the characteristics of the most relevant human resources when incorporating or maintaining a worker are the motivation and the will to work, the knowledge of the sector, professional references, previous works, as well as having completed specific courses of professional qualification (Table 4).

In the daily operation of the company, given the need to follow the evolution of the market and competition, the companies the authors surveyed have electronic mail as a functional link, and the vast majority has a Web site. Also, the companies have already developed their adhesion to social networks, with emphasis on Facebook. However, the main language they use on their Web site, their products,

Table 3. Reasons to have your own business instead of being an employee

Reasons to have your own business	Average
Personal independence / I can manage my time	3,7
My family and my friends are self-employed.	2,6
I had an idea that constituted a business opportunity	4,0
It is a more interesting work (> Possibility of personal fulfillment and more prestigious)	3,6
Better compensation prospects	3,0
Lack of attractive job opportunities	3,8
Control of uncertainties related to working for others (eg, becoming unemployed)	2,8

Scale: 1- none; 2- low, 3 medium, 4 high, 5 very high

Source: Companies survey

Table 4. Most Relevant Characteristics of Human Resources when Incorporating / Maintaining a Worker

Characteristics of human resources	Average
<i>Age and gender</i>	2,2
<i>Academic qualifications</i>	2,6
<i>Specific courses of professional qualification</i>	3,4
<i>Knowledge of the sector</i>	3,9
<i>Linguistic competences</i>	2,8
<i>Prior knowledge of workers</i>	3,2
<i>Professional references and previous work</i>	3,4
<i>Motivation and willingness to work</i>	4,6

Scale: 1- none; 2- low, 3 medium, 4 high, 5 very high

Source: Companies survey

brochures or company dossiers is the national language. Some companies, which are particularly related to endogenous products or tourism, incorporate other languages, such as English or French. In the publicity leaflets, the use of the two languages-Portuguese and Castilian-is habitual, in order to try to reach markets of proximity.

The researchers promoted the collection of information regarding the perception of the most relevant factors to undertake in the region and for the activity to succeed. Thus, the authors systematized in order of importance in relation to sales, exports, hiring of employees, and innovation the factors they deemed relevant to promote the companies (Table 5).

The three most important factors the entrepreneurs in the border region indicated to increase production and improve sales are: Better training, better market knowledge, better distribution channels, and less bureaucracy and business taxation. Specifically, in order to improve exports, entrepreneurs consider that there should be better distribution channels, better training, better market knowledge, and better transport infrastructures.

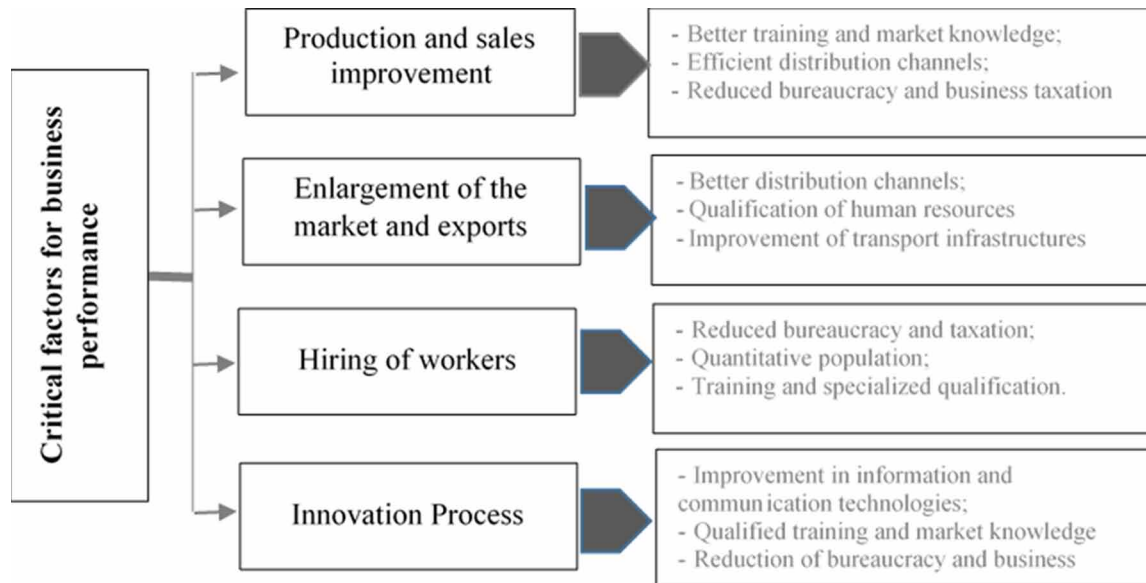
Table 5. Ordering of the factors considered most important for increasing the production of your company or to improve sales, exports, hiring workers and innovation

Promotion Factors	Sales	Exports	Hiring workers	Innovation
<i>Better training and market knowledge</i>	1	2	2	4
<i>Reduced bureaucracy and business taxation</i>	4	4	1	3
<i>Better transportation infrastructures</i>	8	7	5	8
<i>Best information and communication technologies</i>	5	3	6	2
<i>Access to credit facilities</i>	3	5	4	1
<i>Demographic factors more favorable</i>	7	8	3	6
<i>Largest commercial permeability and administrative proximity to Spain</i>	6	6	7	5
<i>Best distribution channels</i>	2	1	8	7

Source: Companies survey

Figure 5. Relevant factors associated with the entrepreneurial process in the region

Source: Companies survey



At the level of the hiring of workers, the main factors they pointed out are less bureaucracy and business taxation, more favorable demographic factors, and better training and market knowledge. Regarding the innovation process, they consider important the best information and communication technologies, better training, better market knowledge, and less bureaucracy and business taxation. Figure 5 summarizes the relevant factors associated with the entrepreneurial process in the border regions.

The entrepreneurs the authors surveyed indicated different competitive advantages and disadvantages (Table 6) of their business location. The advantages they pointed out are: The proximity of the border, the position against Central Europe, road accessibility, availability of quality raw material, less competition with customer loyalty, and favorable environment (work context). The disadvantages are: Tolls with rising travel costs, aging population, depopulation, market size, interiority (distance to large consumption centers), and qualification of human resources.

In a global approach, the international scale of the region should be a driving factor for entrepreneurs, stimulating initiatives that leverage markets on different sides of the border. In rural and low-density areas, resilience capacity must be sustained by collaboration and unity among entrepreneurs. Greater

Table 6. Advantages and Disadvantages indicated by the entrepreneurs

Advantages	Disadvantages
Border proximity Accessibilities Road Diposnibilidad of raw material Minor Competition Workplace	Incidence of tolls Aged population Peripheral positioning Resource Qualification Operational costs

Source: Companies survey

knowledge of the market, better distribution channels, and less bureaucracy and business taxation are demanded, coupled with an acceleration of the labor market and the establishment of companies.

STRATEGIES AND GUIDELINES FOR INVESTMENT AND VALUE CREATION

Considering the administrative, productive, and social conditions of border regions and recognizing the territorial specificity which they confer to these spaces, with repercussions on their perceptions and ways of working in their communities, the authors aimed to establish a framework of reference for action to systematize propelling guidelines for entrepreneurship. This investigation considered the works and reports that were produced on the Iberian frontier, the social and economic dynamics they evidenced, and the results of the investigations and work meetings they promoted with companies, business associations, and academics.

The study of the specific factors of entrepreneurship and of the human and spatial context the authors considered allowed to determine, for the future, a set of vectors that will imprint the natural dynamics of entrepreneurship in this territory. These vectors are contextual and related to the environment that are already developing existing business logic and with its changes, and mark the opportunities and future threats. Among these contextual vectors, the authors can mention mainly the depopulation of the rural area, the character of the border area, the low business density, the traditional character of the economic structure, as well as the recent crises.

As Smallbone & Welter (2009) underlined, rural areas face three main challenges. First, the reduction of job opportunities in a primary sector, due to structural change and the reorientation of agricultural policies. Secondly, the aging process of the population, which is favored by young population's exodus to the city, often accompanied by the return of retired population. Finally, the difficulty of maintaining a critical mass of support structures for economic development, including the services provided by companies.

The effectiveness of a policy to promote entrepreneurship is stimulated when it has an explicit, differentiated, and simultaneous impact on the different aspects resulting from the analysis of the best entrepreneurial experiences. These aspects have very different origins. According to Macías et al. (2014), a strategy on entrepreneurship should incorporate measures which are aimed at finding a balance between approaches that, although apparently opposed, are in fact complementary: Measures for the creation of new companies vs. growth of existing companies; Measures for resident local entrepreneurs vs. attraction of new actors; measures for strictly local activities vs. activities from the territory; financial measures vs. social measures; active measures vs. obstacle removal measures; measures on the context of entrepreneurship vs. entrepreneurship (Figure 6 and Table 7).

- **Measures for the Creation of New Companies vs Growth of Existing Companies:** This consists in boosting the growth of companies which are already installed, so that they expand the size of their business, based on activities that reduce their operating costs or, on the contrary, expand their reference market. There should be actions to consolidate and expand existing activities, in conjunction with new ones, within the sector or in other existing sectors, extending networks and creating synergies of business and work.
- **Measures for Resident Local Entrepreneurs vs Attraction of New Actors:** This refers to impulse for the creation of new companies by local entrepreneurs and by other actors who have not

Figure 6. Proposal vector for entrepreneurship for peripheral border regions

Source: Own elaboration

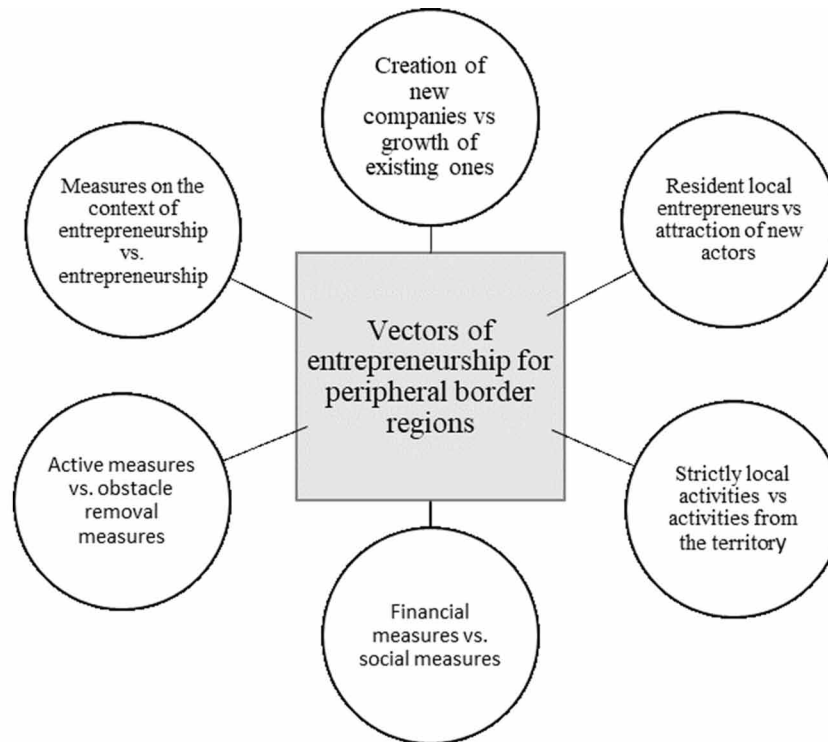


Table 7. Operational actions for the entrepreneurship in peripheral border regions

Vectors	Actions
Measures for the creation of new companies vs growth of existing companies	- Reduction of bureaucratic aspects in the creation of companies -Finance tax benefits -Advisory and support in technological areas, commercial and innovation
Measures for resident local entrepreneurs vs attraction of new actors	-Training in the creation of business, accounting and taxation -Stimulating e-commerce and the use of TIC -Access facilitated to finance and means of production
Measures for strictly local activities vs. activities from the territory	-Dynamization of the territory in territorial marketing strategies -Improvement of Information and Communication Technologies and incorporation of other languages into communication -Investment tax incentives
Financial measures vs social measures	- Support to social economy activities - Articulation of investment with support to specific audiences. - Stimulating entrepreneurship in teaching
Active measures vs obstacle removal measures	- Decrease in transport costs due to the abolition of tolls - Creation of financing lines for companies in specific territories - Compensation of context costs
Measures on the context of entrepreneurship vs. entrepreneurship	- Approach of entrepreneurs to business associations and economic development centers - Training in the areas of business plans, international trade and Marketing - Dissemination of good international practices and a business success story

Source: Own elaboration.

found the opportunities to do it, yet. They include measures which are focused on the promotion of territory and the creation of specific investment conditions, creating opportunities for economic initiative and support for the expansion of existing businesses.

- **Measures for Strictly Local Activities vs. Activities from the Territory:** This results in combining activities which are owned by rural/local companies in a strict sense (products/local clientele), together with others that, from their location in BIN-SAL, can have a wider range of products or client portfolio. The created networks, locally or on a larger scale, generate links and interests in favor of the region.
- **Financial Measures vs Social Measures:** This refers to support through economic-financial measures in a strict sense, with others of a more social nature, highlighting the adequacy of the territory to meet the expectations of new entrepreneurs (e.g., aspects such as those linked to education and socio-health sector, or intensification of female entrepreneurship). The provision of education, health, training, leisure services, and a broad commercial offer strengthens investment and territorial attractiveness.
- **Active Measures vs Obstacle Removal Measures:** This refers to a combination of active impulse measures that help the entrepreneur find a way to create or expand his/her business, along with others that reduce bureaucratic obstacles to entrepreneurship. In this sense, the territory should speed up with the entities and regulations, leading to the investment that provides support and implementation of facilities, in terms of material resources or the administrative aspects.
- **Measures on the Context of Entrepreneurship vs. Entrepreneurship:** Actions must seek a balance between favoring the optimal external conditions for entrepreneurship and obtaining, on the part of the entrepreneur, skills and abilities that condition success, which must be provided by the local administration and business associations. Resources and conditions of advantage should be promoted for the increase of investment and the establishment of qualified workers.

The most important challenge is to maintain the sustainability of the territorial development of these border regions, promoting their economic competitiveness and potential for growth, while respecting the need to preserve social cohesion. Consequently, it is essential to consider the territorial specificity of the border, promote the development of territorial management instruments, and encourage effective cooperation between companies, institutions, and the community. The ability to attract young people, the provision of technological infrastructures, innovation in products, and the enhancement of eco-cultural resources are determining factors for new job opportunities and the establishment of populations.

CONCLUSION

In business creation processes, the most dynamic and innovative entrepreneurs in this border region, demand faster solutions for their projects and a less passive attitude, in particular for the recovery of investment. The creation of the business itself is sustained by personal achievement, by prestige, and by providing better prospects of remuneration. With respect to the market, with the supra-regional being valued, there is a trend towards a more global (international) market, in order to intensify sales expansion, greater profitability and recognition.

Thus, the development of concerted actions that foster business initiatives and social revitalization in border regions must pass through the use of proximity advantage of the two neighboring countries and

also international markets. It is vital to stimulate businesses in the sectors which are identified as more entrepreneurial and innovative, supporting the development of a culture that bets on exchanges between the two neighboring countries. It is important to communicate and create a culture, in the young and adults, of creating business as an opportunity and a lifestyle which is more interesting than working for others and which allows for greater personal fulfillment, greater prestige, and the potential to provide better remuneration.

The cross-border entrepreneurs the authors surveyed indicated that the most important factors to increase production and improve sales are qualified training, better market knowledge, better distribution channels, and less bureaucracy and business taxation. In order to improve exports, they suggest the qualification of the channels of dissemination, better training and market knowledge, and accessible transport infrastructures. In the hiring of workers, they mentioned reduction of bureaucracy and fiscal support are essential, factors of depopulation inversion, skilled training of workers, and greater knowledge of the market. In fostering the innovation process, they referred to the importance of information and communication technologies, specialized training, knowledge of products and the market, and less administrative and fiscal bureaucracy.

The development of policies that promote the internationalization of companies, providing them with training in creating a Web page, is essential, with self-control in the mother tongue and English, and also in the preparation of brochures, reinforcing the means of disclosure of the company.

This region, BIN-SAL, due to its unfavorable conditions (i.e., peripheral location and distance from the decision-making centers, demographic evolution, and economic and organizational disarticulation), requires the equation of strategies to promote entrepreneurship and creation of jobs with specificity. In view of the economic, social, and administrative contexts, it is crucial to promote local and external investment initiatives that can guarantee the sustainability of these territories and their respective communities.

It is considered necessary to implement multidimensional entrepreneurship strategies which combine the fixation and attraction of entrepreneurs and investors, and public policies that reduce the costs of context associated with these regions, enhancing the capacity of attraction and valorization of resources, recognition of specificity, and its value for innovation in endogenous products.

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KEY TERMS AND DEFINITIONS

Border Equity: Borders are a space of territorial specificity, exchanges and cultural hybridity, with a system of governance that requires approximations of commitments, solidarity and sharing, in order to generate synergies and collective benefits. The borders of peripheral areas, far from urban areas or strong economic dynamism, require policies and models of governance that foster their cooperation and the creation of services and equipment that guarantee equity to their communities and economic activity.

Cross-Border Cooperation: Cross-border cooperation applies to the activities of local authorities at various levels, as well as to joint initiatives, promoted for non-governmental organizations and businesses. It aims to create cooperation networks at local and regional levels, as a result of which cooperation on economic matters can be fostered, while cultural and social barriers in local communities disappear. The specificity of the border required programmes and funds to create favorable conditions for investment and well-being of communities.

Cross-Border Entrepreneurship: Cross-border entrepreneurship (CBE) refers to entrepreneurial activity across international borders, which involves some forms of cooperation or partnership. It includes a wide range of different types of entrepreneurship, from informal petty. CBE may contribute to social and economic development in peripheral áreas and increase the potential benefits for the region as wel for companies.

Section 3

Entrepreneurship Types and Theoretical Approaches

Chapter 8

Intrapreneurship Initiative Based on an Internal Ideation Contest in the Public Sector: The Case of Madrid City Hall (Spain)

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ABSTRACT

There are few studies that provide empirical evidence of the use of crowdsourcing initiatives within public organizations as an element that favors an innovative culture where employees are able to acquire a sense of accomplishment and recognition by presenting new ideas and innovative possibilities and, consequently, help to improve public sector efficiency and deliver new and better-quality services. Through a single case study, the purpose of this chapter is to assess how an internal ideation contest initiative (internal crowdsourcing) in a local government institution—Madrid City Hall (Spain)—can promote intrapreneurship and be a lever for a culture of innovation in public organizations, for which the authors have used the innovation culture model of Rao and Weintraub as a theoretical framework. The results show that through that initiative, Madrid City Hall was able to enable employees' participation, leverage collective intelligence, and definitely stimulate an entrepreneurial spirit within their organization.

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INTRODUCTION

We live in times of change and permanent transformation, *liquid times* according to Bauman (2007), which require rapid adaptation by the public administrations in order to respond to the demands of a society that is requesting more, faster and higher quality services. In this context, public innovation is often presented as the lifeline to this changing reality, reaching out to society through more direct models of government and participation (Open Government) and bringing the provision of public services to the society through e-Government.

In recent times, this transformation has been accelerated by several factors. First, in the current economic crisis initiated in 2007, the public sector has been subject to major budget constraints. Second, the demand for public services in many advanced countries is growing faster than the rest of the economy (Thenint, 2010). Finally, there is pressure to tackle challenges such as ageing, climate change and migration. In order to respond to these challenges, while most managers in the public sector struggle with what to do, a few of them consider that public institutions need to reorient their focus to become organizations where intrapreneurship thrives, is valued and rewarded and becomes a core part of the organizational fabric (Desouza, 2013) in order to allow the public sector to be more innovative.

It is precisely in local government that the most innovative urban management practices have been developed, for example, those related to citizen participation. This has taken place in cities such as Madrid (MediaLab Prado), La Coruña (Co-Lab), Cornellá (Citilab) or Granada (LabIN), but also in cities such as Buenos Aires, Mexico City or Quito, where innovation laboratories promoted by administrations have taken shape. These spaces have favored the democratization of innovation in order to bring methodologies closer together and opened up collaborative learning to all of civil society.

After these efforts, where does this leave public innovation? According to the general innovation results, the public sector in Europe innovates, but still faces a number of internal and external obstacles. The European Public Sector Innovation Scoreboard (2013) identified internal barriers as a lack of human and financial resources, a lack of management support and staff incentives and a risk-averse culture or staff resistance. Therefore, more in-depth studies should be carried out finding mechanisms that help minimize internal barriers and stimulate a more innovative-oriented culture in public organizations.

In this regard, this research pursues a “micro-perspective”, which has been repeatedly demanded in the literature (Zuchowski *et al.*, 2016). It then matches this perspective with an organizational level analysis of capabilities and culture.

This study responds to the overarching research question: *how does the implementation of an internal ideation contest in a public organization - Madrid City Hall (Spain) - influence the development of an innovation culture?* This main question is related to two operational objectives:

1. Understand the characteristics, and key factors of an internal ideation contest, as well the rationale behind it.
2. Test which components of the innovation culture model selected are strengthened by its implementation.

The basic methodology applied in this research has been a single holistic case study, whose design has been adapted from Villarreal (2007) and Villarreal and Landeta (2010). This design has been drawn up using the most relevant contributions (Eisenhardt, 1989; Maxwell, 1996; Yin, 1989, 1998) from literature reviews.

The rest of this chapter is organized as follows. The second section presents the background literature concerning public innovation, intrapreneurship, the model of innovation culture on which the authors have relied to explore the influence of an internal ideation contest program in their development is briefly described, and finally, crowdsourcing, with a special focus on the characteristics of internal crowdsourcing. The third section is concerned with the methodology used for this research. The Madrid City Hall case analysis is reported in the section “Madrid City Hall case analysis”, and the fifth section discusses the results obtained through the second phase of this research. The chapter concludes by suggesting avenues for future research, pointing out the limitations of this research and outlining contributions.

BACKGROUND

Public Innovation and Intrapreneurship

Generally, the concept of innovation is automatically associated with the world of business and enterprise, and today in particular with the field of technological advances. However, until a few years ago, it bore little or no relation to government and the public sector. It was understood *de facto* that the possibilities for innovation in public administration was a chimera in which it was worth investing neither time nor resources. This changed radically at the beginning of the new century and its expression is revealed daily in the debates and in practice about the opportunity to improve public services, promotion of participative spaces and the use of social networks. This is added to the various forms of massive collaboration and the generation of new technological applications, boosting the cultivation of social capital and facilitating the processes of knowledge management among different actors.

Research on the phenomenon of innovation in government and public administrations has increased substantially in recent years as a new space for reflection and practice to leverage modernization's processes and improvement in the management of public services and institutions (Osborne and Plastrik, 1997; Borins, 2001; Osborne and Brown, 2005; Maddock, 2009; Mulgan, 2009; Potts, 2009; Kohli and Mulgan, 2010).

Additionally, there is a clear interest in developing conceptual and analytical frameworks that serve as a basis for understanding the phenomenon of innovation, identifying its main variables (Borins, 2006; Bloch, 2010; Bason, 2010; Hilgers and Piller, 2011).

While technology plays a vital role in the innovation process, a great deal of innovative activity is founded on an organizational structure which promotes learning and leverages knowledge. However, in order for this to be possible, conditions need to exist which favor the risk-taking practices inevitably linked to the new activity and from adopting new organizational models (Berger, 2005), and the ability to overcome any internal obstacles identified.

The term innovation is being used by organizations for describing many concepts, and ways of managing innovation found in literature vary according to the context and the scope of the analysis (Dobni, 2008), but overall innovation must constitute a certain novelty and provide substantial improvements. Some definitions are quite general and refer to the type of cultural behaviors to be adopted by employees.

Innovation in its particular application to the public sector implies, in global terms, considering the following characteristics: They are new ideas (or concepts) applied (involves a “doing”); that respond to a specific need or problem; that may involve (deliberate) changes in the behavior of agents, practices, processes and/or products (public goods and/or services); that improve institutional performance and

generate observable results; that add public value, contribute to institutional strengthening and improve the quality of life of citizens; that improve indices of effectiveness, efficiency and quality in the provision of public services... That, in short, it is a means to an end, not an end in itself (Ramírez-Alujas, 2011).

Corporate entrepreneurship or intrapreneurship represents an entrepreneurial activity carried out within the organizations (Antonicic and Hisrich, 2003; Guzmán and Trujillo, 2008) can be translated into the development of innovative business projects and new businesses for the company. Their relevance to the public sector may be questionable, where the leaders are neither the owners of their institution, nor are they expected to be profit motivated in their management (Boyett, 1996).

Therefore, what is an intrapreneur in the public sector? According to Arnold and Magia (2013, p. 2): *intrapreneurs are employees who do not let bureaucratic barriers stop them from driving constructive change. To a large degree, they succeed because they are creative and tenacious enough to make the best of suboptimal or difficult circumstances.* Often, an intrapreneur's success can depend in part on a manager who offers early support, an advocate in the agency, or a program or policy that allows them to try something new.

Innovation and entrepreneurship are intrinsically related as both involve the stages of discovery, evaluation, and exploitation of opportunities and novelties. In both cases, an innovation culture is, therefore, that kind of culture that unlike the "traditional" one, offers employees the possibility of finding opportunities to innovate and, at the same time, to satisfy the desire to feel like owners of their own projects without having to leave the company (Garzón, 2005).

Innovation Culture

From the last decades of the 20th century to the present, the effects that innovation culture can have on the performance of organizations has been of great interest to researchers (Christensen and Raynor, 2003; Hartmann, 2006; Muñoz *et al.*, 2015; Senge *et al.*, 2001). The OECD (2014, p. 249) emphasizes that *cultural and social values, norms and behaviors can influence innovation giving rise to a culture in which perceptions of science, technology and entrepreneurship play a very important role.*

Although the literature on innovation culture has already made great progress, it has been limited by the difficulties in reaching consensus on several issues due to its complex nature. Thus, different models for diagnosing, measuring and assessing culture have been proposed (Naranjo and Calderón, 2015). These models assume that culture can be managed, that is, analyzed as a variable (Smircich, 1983). This variable, when interacting with other variables, favors the adaptation of the organization to its environment, constituting a factor of competitiveness.

Among the models proposed, two major trends can be distinguished: on the one hand, those approaches that analyse culture from its most observable features, such as those proposed by Aiman-Smith *et al.* (2005), Anderson and West (1998), Dobni (2008), Hoe (2011), Humphreys *et al.* (2005), Morcillo (2007) and Rao and Weintraub (2013), and on the other hand, those that integrate these features in cultural typologies, as highlighted in the models of Cameron and Quinn (1999; 2006) and of Fey and Denison (2003).

For the purpose of this research, a culture of innovation is defined in a multi-dimensional context. We have chosen the Rao and Weintraub (2013) innovation culture framework to explore which elements of an organizational culture improve in an organization which provides resources for managing ideas to stimulate employee co-creation around intrapreneurship. This choice was driven by our own literature review as well as the conclusions obtained by Danks (2015) during their assessment process as to which

was the most appropriate instrument to measure an innovation culture in an organization, along with two significant facts: on the one hand, it is the instrument selected by the the Spanish Association for Quality (Asociación Española para la Calidad in Spanish or AEC) to measure the Innovation Culture Index (ICI) in Spain since 2014 (AEC, 2014), which bases its results on the Innovation Quotient Instrument developed by Rao and Weintraub (2013).

This conceptual framework considers that an innovative culture rests on a foundation of six blocks: resources, processes, success, values, behaviors and climate (Figure 1). Each of the six building blocks is composed of three factors (18 in all), and each of those factors incorporates three underlying elements (54 in all). As we move from those abstract building blocks towards more concrete elements, the innovative culture becomes more measurable and manageable – for example, the abstract building block of values involves the entrepreneurial factor, which can be further divided into hungry, ambiguity and action-oriented -.

The building blocks are dynamically linked. Thus, the values of the organization have an impact on people's behaviors, on the climate of the workplace and on how success is defined and measured.

When it comes to fostering innovation, organizations have generally focused considerable attention on resources, processes, and success-measures, and have often paid less attention to those people-oriented dimensions, such as values, behaviors and working environment. As many managers have discovered, peoples' values, behaviours and the working environment, are less tangible and difficult to manage. Below we describe each dimension in detail (Rao and Weintraub, 2013, p. 30).

Values. Drive priorities and decisions, which are reflected in how an organization spends its time and money. The more innovative organizations generously invest in fostering intrapreneurship, promoting creativity and in encouraging continuous learning. The values of an organization are less about what the leaders say or what they write in the annual reports and more about what they do and what they invest in. Values manifest themselves in how employees behave, more in what they say.

Behaviors. Describe how people act in support of innovation. For leaders, those acts include a willingness to substitute existing products with new and better ones, to energize employees through a vivid description of the future and to reduce bureaucracy. For employees, actions which support innovation include perseverance in overcoming technical roadblocks, optimizing resources when budgets are tight and listening to customers.

Climate. An innovative climate cultivates engagement and enthusiasm, challenges people to take risks within a safe environment, fosters learning and encourages independent thinking.

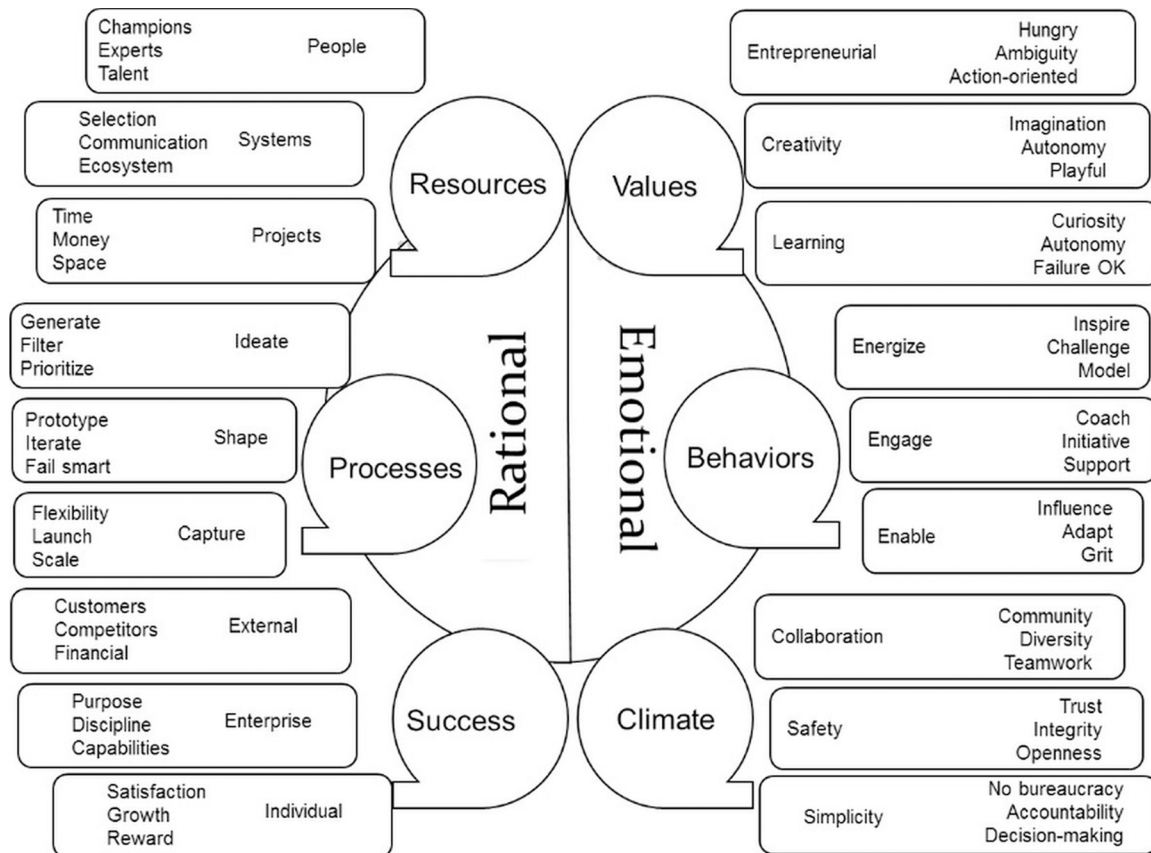
Resources. Comprises three main factors: people, system and projects. Of these, people – especially “innovation champions” – are the most critical, because they have a powerful impact on the organization's values and climate.

Processes. Processes are the paths that newly developed products follow, from the idea to the commercialization of the resulting innovation. One of the most utilized methods of the century, with the explosion of the manufacturing industry, is the innovation funnel managed by a stage-gate process. It is a model designed to manage the classic life-cycle of a product under development, where the funnel is a metaphor representing how the different ideas and projects filter through each stage of innovation until a product finally emerges (Domingo, 2013).

Success. The success of an innovation can have an impact at three levels: external, organizational and personal. In particular, external recognition shows how well an organization is regarded as being innovative by its customers and competitors, and whether an innovation has paid off financially.

Figure 1. Components of the innovation culture conceptual framework

Source: Authors. Adapted from Rao and Weintraub (2013)



Crowdsourcing

Either through technological platforms, or through more traditional idea contests, open innovation (Chesbrough, 2003) can turn public administration into an accelerator of innovative ideas and take advantage of talent and experience both internally and externally. Apart from Madrid City Hall's *Innovando Juntos* initiative, some examples of how this kind of approach has been put into practice are the French government's *Futurs Publics* (OECD, 2016), the *Funciona!* initiative developed by the Civil Service of the Chilean government in collaboration with its government laboratory, and Málaga City Hall's *Concurso de Ideas Innovadoras* initiative, among others.

Over the course of the last decade, the literature on innovation management has devoted much attention to new open models of innovation that facilitate knowledge exchange among the different actors in the innovation process (Villarroel and Reis, 2010). Crowdsourcing (Howe, 2006) is one of the new types of Open Innovation of which organizations are increasingly seeing the potential.

Brabham (2013, p. xix) defines crowdsourcing as *an online, distributed problem-solving and production model that leverages the collective intelligence of online communities to serve specific organizational goals*.

Crowdsourcing is a relatively new practice that has developed considerably during the last decade. Nevertheless, as a concept, it is still considered to be “under construction” (Schenk and Guittard, 2011), and as such, remains underexplored. Many taxonomies of crowdsourcing can be found in the literature, such as explicit and implicit crowdsourcing (Doan *et al.*, 2011), external and internal crowdsourcing, and so on, but for the purpose of this research we are focused on internal crowdsourcing (Simula and Ahola, 2014) or intra-corporate crowdsourcing (Villarroel and Reis, 2010) with employees, in the form of an internal ideation contest.

According to the literature review by Zuchowski *et al.* (2016), internal crowdsourcing has several unique characteristics that make it distinct from other forms of crowdsourcing, as for example, [1] “the crowd” is made up of identifiable employees, [2] competitive and confidential issues can be addressed, and [3] there is the need in internal crowdsourcing for change and culture management skills. Zuchowski *et al.* (2016, p. 168) define internal crowdsourcing as *an IT-enabled group activity based on an open call for participation in an enterprise*. Villarroel and Reis (2010, p. 2) provide a more complete definition: *intra-corporate crowdsourcing refers to a distributed organizational model used by the firm to extend problem-solving to a large and diverse pool of self-selected contributors beyond the formal internal boundaries of a multi-business firm: across business divisions, geographical locations, and hierarchical positions*.

RESEARCH METHOD

This study has applied a qualitative research methodology (Table 1), since the nature of the research question suggests an explicit aim to gain an insight into an internal ideation contest which favors intrapreneurship and to explore its linkage to the development of a culture of innovation (empirical evidence is still scarce). According to Denison (1996), qualitative approaches are most common when studying culture. A case study approach was chosen to gain a detailed understanding of the study phenomenon. The complexity of the research, such as its attempt to analyze the contemporary phenomenon within the organization in its actual context, justifies the suitability of this research strategy (Yin, 1989). Its application in this research is based on an exploratory and descriptive study.

For this purpose, following the methodological design proposed by Villarreal (2007) and Villarreal and Landeta (2010), based on the findings of the literature reviewed (Eisenhardt, 1989; Maxwell, 1996; Yin, 1989, 1998), several sources of evidence were used, obtained in two complementary phases of research.

The first one, essentially qualitative, was carried out to describe the motivations and characteristics behind each stage of the internal ideation contest in Madrid City Hall (Spain). Using methodological triangulation to validate the data, the authors gathered the evidence from: a. internal and external documentation review, b. multiple in-depth interviews with 11 key informers (see Appendix 1) and c. use of physical, technological and cultural artefacts for recording interviews and for producing photographs. In addition, the authors obtained a review of the case report developed by key informers.

For the second (quantitative) phase, the authors constructed an instrument based on the innovation culture model of Rao and Weintraub (2013) which we have used as a theoretical framework. The questionnaire uses a five-point Likert scale with degrees of influence, ranging from 1 (*without influence*) to 5 (*very positive*), allowing the initiative’s influence on each of the 54 elements to be analyzed according to the six dimensions of the innovation culture model selected.

Table 1. Case study data

Purpose of research	Understand motivations, characteristics and key factors of an internal ideation contest. Analyze how an internal ideation contest can promote intrapreneurship and be a lever for a culture of innovation in a public organization.
Methodology of research	Single holistic case study (single analysis unit). Descriptive and exploratory study.
Single analysis unit	A local public organization which has implemented an internal ideation contest (internal crowdsourcing) initiative.
Type of sample	Logical and theoretical sample (capacity of transferability of the phenomenon studied), non-random (sampling and statistical generalization).
Sample	Single case: Madrid City Hall
Evidence-gathering methods	Documentary review (documentation and archives). Multiple semi-structured interviews with open-ended questions. Use of physical, technological and cultural artefacts.
Information sources	<i>Internal:</i> internal reports and studies. <i>External:</i> publications, Madrid City Hall website and other websites.
Key informers	Relevant employees, project managers and directors dealing with the internal idea management initiative.
Methods of analyzing the evidence	Essentially qualitative: • Search for key factors • Search for critical difficulties • Identification and description of the steps to implement such an initiative. • Analysis of critical decisions. Partially quantitative (means and standard deviations).
Scientific approach	Analytical induction through replication logic (analytical generalization). Deductive processes insofar as they arise from the theoretical propositions of the theoretic model.
Evaluation of the methodological rigor and quality	Validity (constructive, internal and external), reliability, consistency (contextual and theoretical – interpretative).
Date conducted	March 2015 – October 2015

Source: Authors

Inspired by Yin (1998) and Villarreal (2017), in Table 2 we summarize the rigor and quality assessment test used in this case study.

Data Collection

The main data collection method was semi-structured interviews with open-ended questions. The interviewees included key relevant employees, including the IT project manager and directors involved in the idea management initiative. Some of the respondents were interviewed more than once.

In total the researchers conducted 11 interviews between March and October 2015. The respondents were selected based on their involvement with the internal idea management process. The respondents were proposed by the project manager in accordance with the profiles we were interested in. Most of the interviews lasted around 90 minutes each. All interviews were MP4 recorded and transcribed. Moreover, an ongoing dialogue with our main contact in the City Hall had been taking place in order to identify any misunderstandings and to obtain additional insights both by telephone and by e-mail.

Documentation reviews and field notes were complementary collection methods in this phase. Internal sources included documents such as: outlines for submitting an idea, samples of submitted ideas,

Table 2. Case study assessment tests

Test	Tactical	Research phase
Constructive validity	Prior analysis of the conceptual context and theoretical framework (theoretical triangulation). Structural design of the main conceptual elements based on the Innovation Cultural model of Rao and Weintraub (2013) (theoretical model). Use of different methods for gathering the evidence (methodological triangulation): • Documentary review. • Multiple in-depth interviews. • Use of physical, technological and cultural artefacts. Use of multiple sources of information (data triangulation) to confirm evidence in different sources: • Internal and external, direct (primary) and indirect (secondary). • Varied typology: documentation, files, interviews, questionnaires, real physical context. • Diversity of key informers faced with the same questions. • Critical assessment of evidence compared by source. Quasi-simultaneous and unified process of evidence gathering and analysis. Establishment of chain of evidence. Feedback of case report by key informers. Review of case report by key informers.	Review of the literature Design of the research Evidence gathering Evidence gathering and analysis Composition All
Internal validity	Creation of explanation (systematic comparison of the literature structured on the theoretical model).	Individual and replication analysis
External validity	Eclectic and inclusive approach to the theoretical perspectives and focuses on culture of innovation and crowdsourcing Establishment of unit of analysis and selection of the case based on the potential of knowledge on the phenomenon studied (influence on the development of an innovation culture). Selection of evidence-gathering methods (methodological triangulation) based on the potential for understanding the phenomenon under study. Consideration of the results of the research as an initial hypothesis for studies in future lines of research.	Design of the research General design Identification of unit of analysis and selection of case Individual analysis Composition and conclusions
Reliability	Creation of a study protocol and monitoring of guidelines as a guide for action. Preparation of a database that will organise, integrate and synthesise the information obtained from the different sources of evidence. Ethical commitment on effort, time, dedication and specific activities of the key informers involved. Rigorous assessment of ethical aspects in obtaining and analysing the evidence.	General design and data gathering General design and data gathering
Theoretical-interpretative consistency	Prior understanding of the phenomenon and the context according to key informers (high degree of empathy with the frameworks of reference of the sources of information). Use of techniques (starting protocol, open questions, semi-structured interviews) that will allow dialectic initiative by key informers. Critical filtering of the contextual knowledge based on relevant conceptual and theoretical elements established in the theoretic model.	General design and data gathering
Contextual consistency	Attention to relevant contextual elements for explaining the phenomenon to be studied, even those not explicitly set out in the original model. Consideration of the generic environment of the unit of analysis and critical assessment of the evidence based on this (macro) context. Consideration of the specific environment of the unit of analysis and critical assessment of the evidence based on this (micro) context.	General design and data gathering

Source: Authors. Adapted from Villarreal (2017).

winning ideas, criteria for ranking ideas and idea selection. Material used for communicating the initiative was also included. In the case of external sources, web pages, associations and media were used to compile the information.

Subsequently, for the second phase, the designed instrument (questionnaire) was developed with the Eval&GO tool in order to facilitate implementation and ensure more efficient data recovery. The survey

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was sent by the project manager to the 209 City Hall employees who submitted the 287 ideas (Table 3). Between April 8 and April 22, 2015, 73 usable responses were received (a 34.9% response rate with a sampling error of 9.3% at a 95% confidence level).

Demographic information for the respondents is presented in Table 4.

As the Table 4 shows, most of those responding to the survey were women (54.8%), of 46 years of age or older (58.9%), had a Master / Bachelor / Higher Engineering qualification, were technical staff (45.2%), with a lot of experience in the organization (at least 4 years (76.7%)), came from all the City Hall departments, had previous experience in other organizations (84.9%) and they did not have specific training in innovation (76.7%).

Table 3. Initiative analyzed, dates of completion of the surveys and number of valid observations

Organization	Name of the initiative and Year	Dates	Population size	Questionnaires started	Answers completed
Madrid City Hall	"Innovando Juntos (Innovating Together)" (2014)	From April 8 to 22, 2015	209	123	73

Source: Authors

Table 4. Demographic data sample respondents

Sex	Percent	Government Depart.	Percent
Male	45.2	City Hall	15.1
Female	54.8	Economy and Treasury	13.7
		Citizen Participation, Transparency and Open Government	9.6
Age range	Percent	Culture, Sports and Tourism	10.2
Less than 26 years old	5.5	Environment and Transportation	5.5
Between 26 and 35	6.8		
Between 36 and 45	28.8	Safety and Emergencies	12.5
Over 45 years old	58.9	Urban Development	4.2
		Activities Agency	1.4
		Information Systems	2.8
Job Category	Percent	Health	2.8
Executive	17.8	Districts	15.3
Administrative	26.0	Others	4.1
Employees	5.5		
Technical	47.9		
Others	2.8		

Source: Authors

MADRID CITY HALL CASE ANALYSIS

Madrid City Hall is the institution in charge of governing the city and municipality of Madrid.

With the historic status of being Spain's capital since 1561, Madrid is today an open, competitive and sustainable city, with more than 3 million inhabitants (3,141,991 on 1 January 2015) and covers 604.3 km², distributed among 21 City Districts. It consists of the elected Mayor of Madrid, the Government Council and an elected 57-member Plenary with scrutiny Powers, 9 Government Departments and 21 City Districts.

The staff of the City Hall and its autonomous bodies amount to 28,872 workers (2015 data) and it manages a budget of 4,388,217,120 Euros.

Relevant Facts

Madrid City Hall's internal ideation contest initiative, *Innovando Juntos*, began in 2013 within the team led by Amaya Gil, Deputy Director of the Social Innovation Office, who was very clear that innovation is fundamental in all organizations today. From that vision, it was decided to create said Office, first within the Government Area (G.A.) of Social Services then within the G.A. of Economy, Treasury and Public Administration.

In order to manage the initiative and promote it internally, a project steering committee was created, made up of staff from the Social Innovation Office, the Directorate General (D.G.) for Contracting and Services, the Cabinet of the Delegate for Economy, Finance and Public Administration, the D.G. for Quality and Citizen Service, the Coordination of Human Resources and, finally, the Autonomous Body for Information Technology of Madrid City Hall, hereinafter referred to as IAM.

Brief Description of the Initiative

As shown in Figure 2, the initiative was divided into these three stages (Campos-Blázquez, 2019, p. 262):

1. **Systematic and Focused Gathering of Ideas.** A standardized process is established for this stage. First, the IAM developed a platform that allowed any Madrid City Hall employee to participate in the process by contributing and voting for ideas. The following phases were identified:
 - a. *Design and planning*, this took place between April and June 2014, where the coordinating group of the initiative established the bases, described the objectives, communicated the deadline for the presentation of ideas, the theme of the challenge, eligibility for participation, the project phases, jury composition, as well as the criteria for the evaluation of the ideas or projects resulting from the five shortlisted ideas.
 - b. *Promotion*, from May to December 2014. For this purpose, the steering committee established a plan to send e-mails recurrently to all municipal employees who had a corporate e-mail address. Table 5 shows the submission of 13 emails made on specific dates and the number of employees who received them, as well as their impact as measured by the number of ideas submitted during the participation period.

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Table 5. Impact of the emailing campaign. Number of ideas submitted

Date of the emailing	Recipients	Subject	Ideas submitted
05.30.2014	24,241		
06.03.2014	24,304		
06.16.2014	24,745	Launching of the initiative	10
07.04.2014	24,274	Comfort zone	8
07.09.2014	24,274	Acknowledgment	5
07.22.2014	24,303	Innovative personality test	8
09.03.2014	24,312	Musical staircase video	2
09.10.2014	24,294	Reminder last days. Balloon ideas	34
10.07.2014	23,824		
10.13.2014	23,850		
10.16.2014	23,821		
11.04.2014	23,804		
12.05.2014	23,718		

Source: Social Innovation Office of Madrid City Hall

For municipal employees who did not need a corporate e-mail address in their job - specifically 1,467 employees working at sports facilities, 440 traffic police officers and 540 employees in various other functions (gardening maintenance, trade personnel, etc.), - it was necessary to use other means to encourage their participation.

- c. *Participation*, from 16 June to 15 September, any employee could submit up to three ideas to the platform in response to the challenge posed. Each idea had to provide the following information: title, category, description of the need identified, description of the idea and foreseeable consequences of its implementation in the public service. A total of 287 ideas were submitted by 209 employees.
- d. *Evaluation and Selection of Ideas*, this stage was subdivided into two parts (IAM, 2015):
 - i. In the first part, the jury reviewed all the ideas submitted with the following results: 61 were excluded from the beginning due to a variety of reasons: they referred to internal socio-labour aspects of the City Hall; they were duplicated ideas or referred to competences outside the City Hall and another 126 ideas did not advance in the process because of one of the following reasons: too underdeveloped, proposed existing or services or actions already in progress; considered to have little impact on citizens or dealt with basic improvements to internal working methods.

The result of this first filter was a pre-selection of 100 ideas, which would be evaluated by municipal experts in the subjects involved, according to the following criteria:

- Degree of interest: Interesting/Not interesting
- Originality: Yes/ No

- Implementation period: Immediate/less than 1 year/1 to 2 years/more than 2 years.
- Technical feasibility: Yes/No
- Cost estimation: It could be executed with the current budget or would need a substantial increase.

With this technical report of each pre-selected idea, the jury rated them (from 0 to 10) and chose the 20 that they considered to be the best.

- ii. Once the 20 ideas chosen by the jury had been published on the platform from 6 to 19 October 2014, any employee of Madrid City Hall could vote for a single idea. 2,811 votes were received, which determined the five short-listed ideas, which were:

“Welcome to Madrid” mobile app (490 votes). The aim of the project was to have an information service in mobile format in several languages to improve the experience of visitors to Madrid. The application would provide useful information for visiting the city such as: routes, easy-to-understand maps, art, culture, gastronomy, transport, services, agenda of events, and also information for the resolution of incidents and administrative procedures in the city.

Access and use of Social Services through Information and Communication Technologies (ICTs) (432 votes). The purpose of this project was to improve efficiency, access, streamline and simplify the management processes of Social Care by adapting it to current demand and the changing technological profile of the population, through ICTs.

Unification of Madrid Cards (335 votes). This project proposed the creation of a single card for all citizens in two variants - on paper or mobile app -, to facilitate citizens' access to all municipal services. This card would make it possible to identify the cardholder, use all municipal services and pay and carry out transactions securely with the City Hall.

Cultural Pass (294 votes). Its objective was to design a web portal that would concentrate the entire municipal cultural offers in a standard and attractive way at the same time simplifying and speeding up the system for acquiring tickets. It would offer multiple advantages for the subscribers such as discounts, ticket reservation, speedy access to free shows, guided tours, invitations to rehearsals, encounters with artists and other benefits. In addition to serving as an information tool for citizens and providing the ability to acquire tickets with advantageous conditions, it could be a powerful tool for municipal cultural management.

Municipal Social Advisory Body (288 votes). The idea was to create a service designed to support citizens with personal autonomy difficulties in obtaining and interpreting documents, completing forms, and, in general, facilitating any procedures they had to carry out with the Public Administration or utility companies.

2. **Transform ideas into projects.** The aim of this stage was to enable the development of each of the five shortlisted ideas into viable projects in the City Hall. Thus, those responsible for the ideas chose four people to set up the team that would develop them. They also received the advice of specialized municipal technicians. With this in mind, not only were they provided with specific IT tools (laptops, tablets...), but they were also given training in the use of tools from the Design Thinking methodological approach, as well as in the management of the Osterwalder and Pigneur (2010) business model canvas, prototyping and elevator pitch. This training period took place during the first three weeks of November 2014. Once the projects were developed, on 27 November

2014 they were presented to a jury in a public ceremony. Previously, all the members of the jury were sent the reports drawn up by each work team, as well as a file containing the criteria for evaluating these reports, which represented 70% of the total evaluation, distributed as follows:

- Improvement in public service: score from 0 to 10 with a weight of 30%.
- Viability of implementation: score from 0 to 10 with a weight of 20%.
- Economic cost: score from 0 to 10 with a weight of 20%.

The presentation of the projects was rated from 0 to 10 in the session itself, with a weight of 30% to complete 100% of the total rating. Each team had five minutes to present their project to the jury. The winner was the *Unification of Madrid Cards* project.

3. **Validation and Deployment in Government Areas and Districts.** In this last stage, the hypotheses of the business model were contrasted with potential citizens or users who had the relevant need. The information obtained was used to review the assumptions and repeat the cycle, at least once, testing the redesigned prototype and making small adjustments (iterations) until the model was considered validated. The implementation plan was then designed and started with a pilot test proposal.

Given the quality of all the shortlisted projects presented and their contribution to the improvement of municipal services, the City Hall decided that in addition to studying the possible implementation of the winning project, the other four shortlisted projects would also be included in this process.

The following subheading analyzes the reasons that justified the launch of the initiative, as well as its key success factors and possible areas for improvement.

Reasons and Key Factors

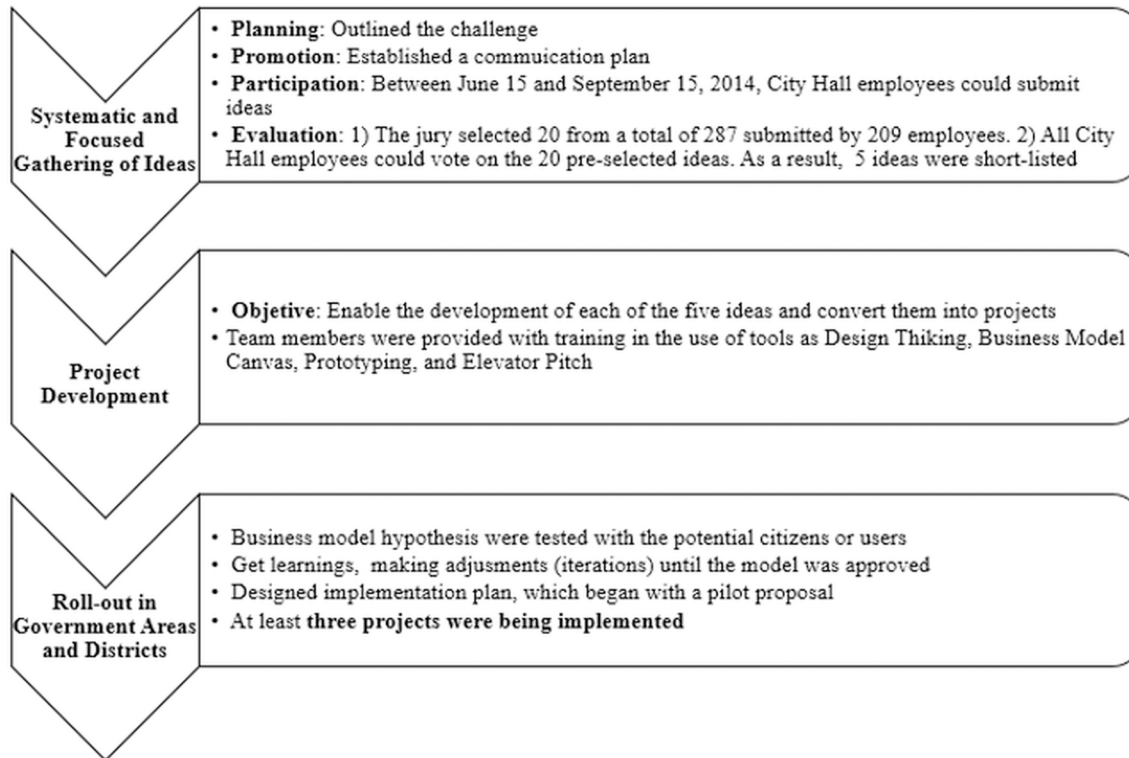
With this initiative, Madrid City Hall, as a priority, sought to channel the knowledge, creativity and commitment of municipal employees in order to seek new ways to improve the services offered. In short, as Amaya Gil points out: *...what we considered was how we could improve the services provided to citizens by taking advantage of the participation and all the talent of the employees themselves. That was its essence.*

In this sense, the objectives established were the following (IAM, 2015):

- Promote the participation of all Madrid City Hall staff by proposing innovative ideas to provide services with greater quality and better optimization of resources.
- Incorporate the collective knowledge and experience of municipal staff to improve services to citizens.
- To move towards an increasingly efficient, flexible, agile and transparent administration, in order to respond adequately to the demands and problems of citizens.
- To create a meeting space for all City Hall staff, promoting a different, more transversal culture.

Figure 2. *The internal ideation contest process and results for Innovando Juntos initiative*

Source: Authors



With regard to the key success factors of this initiative, it is worth differentiating between those that are associated with leadership issues and people, and those which are more involved in designing the support processes.

In order to describe the leadership characteristics that are required for the roll-out of this type of initiative, the authors consider very enlightening the words of Concepción Dancausa, former director of the G. A. of Economy, Finance and Public Administration of Madrid City Hall at the time when the initiative was conceived and one of its main promoters, for whom:

These innovative and change projects, first of all, must be believed by the person promoting them, since, given the multitude of inconveniences that will be found along the way, if you do not push, will not start. [...]

Secondly, you have to have an enthusiastic team, and I did, since both Amaya and Paloma are enthusiastic by nature, but also my cabinet collaborated a lot with them, because they also believed in it, as well as the coordinating group of the project that was created, who fully committed-themselves. [...]

It also requires a lot of creativity. At the beginning, in the meetings we had to present the project, everything was questioned, it was exhausting, since there was a lot of discussion and little progress, but

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nevertheless, after that phase, in a very short time we managed to launch a project that, in my opinion, has given excellent results. [...]

The final touch was provided by the employees of the City Hall, thanks to the enthusiasm with which they participated in the initiative. In a competition of ideas of this type, it can be thought that only technicians, that is, those with a higher level of training, could be the only ones who had good ideas, and here it was demonstrated that this is not the case, since splendid ideas were presented, very well thought out, by people with the most varied training.

Regarding the factors related to the design of supporting processes, the following should be mentioned:

- The use of a specific online platform for encouraging the participation of all employees is recommended.
- Design a communication plan (Linke and Zerfass, 2011) which embraces the whole process, invigorating and encouraging participation.
- A process of evaluation of all the initial ideas presented carried out by a multidisciplinary team of experts representing all areas of the City Hall and guided by well-defined criteria, is necessary.
- Design an open and transparent voting process that allows all employees to select the best ideas.
- Implement a training stage to transform the ideas presented into projects.

Thanks to its efficient and effective implementation, as well as the results obtained, the *Innovando Juntos* initiative was awarded a runner-up prize for Innovation in Management in the Quality and Innovation in Public Management Awards 2014, organized by the State Agency for the Evaluation of Public Policies and Quality of Services (AEVAL, 2016).

In relation to the possible areas for improvement, two were highlighted. On the one hand, instead of proposing such an open formulation of the challenge, for future editions, they suggest proposing a more concrete challenge and, on the other hand, it would be necessary to further promote the commitment of middle-managers. According to Concepción Dancausa:

A seminar was organized at the beginning of the project with the aim of making Coordinators and Managing Directors aware of the need to encourage intra-entrepreneurship among the people in their departments, but it was insufficient. Perhaps this prior preparation should have been greater, in order to propitiate change and innovation. [...]

... the formula could be that, in addition to a motivational talk at the beginning of the project, a more continuous calendar of activities should be established. In fact, there was an additional session, but, without a doubt, we would have to work more with middle managers, who, although they do not participate directly in the initiative, are important in supporting those who do.

To conclude the description of this case, it makes sense to underline one of the main lessons that the Madrid City Hall learned with this initiative, which, in the words of Concepción Dancausa, was: ...not everyone is motivated by an economic incentive or a personal benefit, but simply to improve things, not only for themselves, but specially for others.

ANALYSIS OF THE INITIATIVE'S INFLUENCE ON THE DEVELOPMENT OF AN INNOVATIVE CULTURE

As mentioned above, and in line with the second objective, in order to be able to measure the impact that the internal ideation contest initiative had on the development of the innovation culture of Madrid City Hall, the authors selected the innovation culture model of Rao and Weintraub (2013).

Table 6 shows the descriptions with the arithmetic means and standard deviations that reflect the influence that the *Innovando Juntos* initiative has had on the 54 items of the innovation culture model selected (see Figure 1), according to the opinion of the employees who answered the questionnaires sent.

Table 6. Items and their arithmetic means and standard deviations

Block	Factor	Code and statement associate to each item	Mean	S.D.
VALUES	Entrepreneurial	V1 In the desire to explore opportunities and to create new things	3.25	1.23
		V2 In the possibility of admitting different interpretations when pursuing new opportunities (tolerance for ambiguity)	2.96	1.30
		V3 In avoiding analysis paralysis when we identify new opportunities by exhibiting a bias toward action	2.85	1.34
	Creativity	V4 In encouraging new ways of thinking and solutions from diverse perspectives	3.40	1.38
		V5 In providing the freedom to pursue new opportunities	3.33	1.26
		V6 In being spontaneous and not afraid to laugh at ourselves	3.23	1.39
	Learning	V7 At asking questions in the pursuit of the unknown	1.29	1.36
		V8 In constantly experimenting in our innovation efforts	3.42	1.29
		V9 In not afraid to fail, and to treat failure as a learning opportunity	3.25	1.45
BEHAVIORS	Energize	V10 In the way our leaders inspire us with a vision for the future and articulation of opportunities for the organization	1.90	1.19
		V11 In the way our leaders challenge us to think and act entrepreneurially	1.85	1.11
		V12 In the way our leaders model the right innovation behaviors for others to follow	1.83	1.08
	Engage	V13 In which our leaders devote time to coach and provide feedback about our innovation efforts	1.83	1.14
		V14 In our organization, people at all levels proactively take initiative to innovate	2.69	1.34
		V15 In which our leaders provide support to project team members during both success and failures	1.83	1.08
	Enable	V16 In which our leaders use appropriate influence strategies to help us navigate around organizational obstacles	1.96	1.20
		V17 In which our leaders are able to modify and change course of action when needed	1.94	1.17
		V18 In which our leaders persist in following opportunities even in the face of adversity	1.96	1.20
CLIMATE	Collaboration	V19 In creating a community that speaks a common language about innovation	2.29	1.18
		V20 To appreciate, respect and leverage the differences that exist within our community	2.73	1.40
		V21 In working better as a team to capture opportunities	2.67	1.33
		V22 In being more consistent in actually doing the things that we say we value	2.92	1.27
	Safety	V23 To be able to question decisions and actions that are inconsistent with our values	2.54	1.18
		V24 To be able to freely voice our opinions, even about unconventional or controversial ideas	2.92	1.29
		V25 In minimizing rules, policies, bureaucracy and rigidity to simplify our workplace	2.48	1.24
	Simplicity	V26 In which people take responsibility for their own actions and avoid blaming others	2.21	1.30
		V27 In which people know exactly how to get started and move initiatives through the organization	3.06	1.36
		V28 In having committed leaders who are willing to be champions of innovation	1.96	1.09

continued on following page

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Table 6 continued

Block	Factor	Code and statement associate to each item	Mean	S.D.
CLIMATE	People	V29 In having access to innovation experts who can support our projects	2.44	1.37
		V30 In identifying and developing internal talent to succeed in our innovation projects	3.06	1.42
		V31 In having the right recruiting and hiring systems in place to support a culture of innovation	2.21	1.32
RESOURCES	Systems	V32 In having good collaboration tools to support our innovation efforts	2.54	1.25
		V33 In leveraging our relationships with suppliers and vendors to pursue innovation	2.10	1.24
		V34 In giving people dedicated time to pursue new opportunities	2.58	1.25
	Projects	V35 In having dedicated finances to pursue new opportunities	2.19	1.23
		V36 In having dedicated physical and/or virtual space to pursue new opportunities	2.56	1.41
		V37 In systematically generate ideas from a vast and diverse set of sources	2.79	1.44
	Ideate	V38 In methodically filtering and refining ideas to identify the most promising opportunities	2.81	1.21
		V39 In selecting opportunities based on a clearly articulated risk portfolio	2.77	1.22
		V40 In moving promising opportunities quickly into prototyping	3.02	1.28
PROCESSES	Shape	V41 In having effective feedback loops between our organization and the voice of the customer	2.60	1.20
		V42 In stopping quickly projects based on predefined failure criteria	2.29	1.25
		V43 In having processes tailored to be flexible and context-based rather than control-and-bureaucracy-based	2.42	1.27
	Capture	V44 In going quickly to market with the most promising opportunities	2.81	1.23
		V45 In allocating rapidly resources to scale initiatives that show market promise	2.83	1.36
		V46 In which our customers think of us as an innovative organization	2.73	1.33
	External	V47 In that our innovation performance is much better than other organizations in our sector	2.58	1.33
		V48 In that our innovation efforts have led us to better financial performance than others in our industry	2.33	1.34
		V49 In treating innovation as a long-term strategy rather than a short-term fix	2.79	1.37
SUCCESS	Enterprise	V50 In having a deliberate, comprehensive and disciplined approach to innovation	2.83	1.36
		V51 In that our innovation projects have helped our organization develop new capabilities that we did not have three years ago	2.71	1.37
		V52 In that I am satisfied with my level of participation in our innovation initiatives	3.13	1.36
	Individual	V53 In stretching and building deliberately our people's competencies by their participation in new initiatives	3.21	1.38
		V54 In rewarding people for participating in potentially risky opportunities, irrespective of the outcome	2.69	1.49

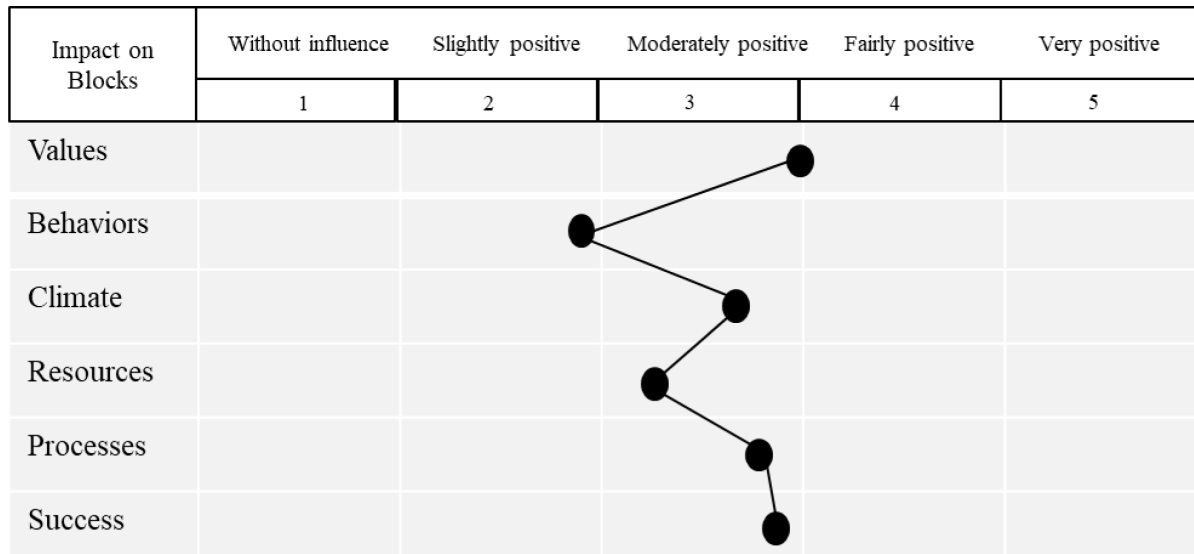
Source: Authors. Note: S.D., standard deviation

These descriptions are the basis for a more detailed analysis of the initiative. If the results of the Madrid City Hall's *Innovando Juntos* initiative are analyzed to the scale of the dimensions and factors which characterize the innovation culture model, it can clearly be seen (Figure 3), that it has had a positive influence on Values (3.00), particularly favoring factors such as Creativity (3.32) and Intrapreneurship (3.02). With respect to the other dimensions, the factor that stands out most is Individual Results (3.01).

These results coincide with the opinion of Concepción Dancausa, for whom the initiative has had a favorable impact:

Figure 3. Profile of the influence of the Innovando Juntos initiative on the innovation culture model

Source: Authors



... on intrapreneurship, because if they had not presented ideas there would have been no competition nor proposals to analyze. The teams that have been created to develop the ideas have learned and shared a lot of knowledge among themselves and with others.

On the contrary, in the more action-oriented dimensions, such as Resources (2.31) and, in particular, Behaviours (1.98), the initiative's influence can be described as insignificant, highlighting those factors such as Energize (1.86), Engage (2.12) and Enable (1.95), factors in which the role of the “bosses” as drivers of innovation is key. This may be hampered, on the one hand, by a very pyramidal organizational structure with several levels of senior management (delegates, coordinators, technical secretaries-general, general managers, deputy directors, etc.) and, on the other hand, by the standardized nature of the civil servant's work.

FUTURE RESEARCH DIRECTIONS

With regard to future research, internal ideation contests as a cultural statement are an interesting value proposition; however, a challenging one, as internal ideation contests can build an innovation culture, but also demand an existing open culture for innovation to be successful in the first place. Following this trade-off is a promising area for future innovation research.

Conversely, the stages model described above has rather little academic novelty with regards to theory development; nevertheless, it has large value for management practice and also provides a very good framework for a more fine-grained study of internal ideation contests. For future innovation practice, a contingency perspective could be assumed here, for example, assessing in more detail how situational factors or characteristics of the host organization influence the design and execution of the stages.

Finally, although the single case study methodology used has been ideal for analyzing the phenomenon, we are aware it has several limitations related to the sample selection, geographical scope, the amount of time that longitudinal research takes, but especially related to statistical generalization. The single case study reduces the chance of using Yin's replication logic, compared with a multiple-case study. In this regard, it is proposed as a line of future research to use Yin's replication logic, both in other cases with a similar context (literal replication) and in different contexts (theoretical replication), with a view to achieving a greater degree of transferability (Maxwell, 1996).

CONCLUSION

The first objective of this study is to investigate if and how an internal ideation contest initiative can help to stimulate a more innovation-oriented culture in public institutions to overcome some of the identified internal obstacles in the public sector, such as insufficient human and financial resources, lack of management support, lack of staff incentives, a risk-averse culture and staff resistance.

This chapter begins to answer this question by understanding the characteristics, key factors and rationale behind the internal ideation contest initiative, *Innovando Juntos*, launched by Madrid City Hall in 2014.

The findings offer a fresh and timely perspective on how to harness – and not kill – the power of innovation that exists inside a public organization, showing that through its initiative, Madrid City Hall not only promotes the generation of ideas, but encourages the entrepreneurial spirit of their employees by supporting their efforts to develop and implement their ideas.

Innovando Juntos has allowed innovation in ways of working, bringing multi-disciplinary teams together with different profiles and responsibilities and promoting a more diverse, more transversal culture. A fundamentally innovative aspect of the initiative was the use of a contest format as a source of new ideas and solutions in which all City Hall employees participate equally and in which the administrative structure serves to strengthen and materialize creative ideas.

It is not an easy task to develop an innovation culture in a public organization. However, the Madrid City Hall case has demonstrated that some internal barriers, such as insufficient human and financial resources, a lack of staff incentives, staff resistance and a risk-averse culture, can be overcome in cultures that encourage innovation and reward new ideas from intrapreneurs.

Nevertheless, a main problem has been identified, which was the lack of effectiveness of complementary actions (seminars) for raising awareness among coordinators and general managers as a way of encouraging the participation of their team members. Nevertheless, it is true that this task is complicated by a pyramidal organizational structure, with various levels of management and by the standardization of public employee jobs.

At a practical level, the research provides other public institutions with valuable, new empirical information which can help them identify successful practices for implementing an internal ideation contest initiative to enhance their innovation capability and deal with the increasing competition among European cities (Parkinson *et al.*, 2004) to attract talent.

Innovation requires thinking and acting differently and Madrid City Hall has looked to achieve this through City Hall employees, creating a method for channeling talent, for continuing on the path of innovation and becoming a more efficient, flexible, agile and transparent administration.

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KEY TERMS AND DEFINITIONS

Crowdsourcing: An online participatory activity in which an organization proposes to a group of individuals of knowledge, heterogeneity and variable number, the voluntary performance of a task through a flexible open call.

Culture of Innovation: A way of thinking and acting that generates, develops and establishes values and attitudes in an organization that are prone to elicit, assume and promote ideas and changes that imply improvements in performance and efficiency in that organization (Morcillo, 2007).

Internal Crowdsourcing: A distributed organizational model used by an organization to extend problem-solving to a large and diverse pool of self-selected contributors beyond the formal internal boundaries.

Intrapreneurs: Employees who can work on new ideas and take them from concept to reality.

Public Innovation: The process of creating ideas and take them from concept to value for society.

APPENDIX 1

Script of the Semi-Structured Face-to-Face Interview

Questions for the semi-structured interviews are listed, although the interview is not limited to those questions, implying room for different or additional topics.

1. How did the internal idea contest initiative, *Innovando Juntos*, come about and what were the motivations that justified its implementation in Madrid City Hall?
2. Could you describe the initial phases of this initiative?
3. What do you consider having been the key success factors in its implementation?
4. Out of those dimensions that characterize a culture of innovation (Intrapreneurship, Creativity, Learning ...), upon which do you consider that *Innovando Juntos* initiative has had a favorable impact?
5. Indicate any other aspect you would like to highlight.

Profile of the People Interviewed, Date and Duration

Multiple in-depth interviews were conducted with several employees of Madrid City Hall who were directly involved in the *Innovando Juntos* initiative (face-to-face semi-structured, face-to-face open and closed-ended questions, closed-ended questions by e-mail and telephone clarifications):

- Collective interview conducted simultaneously with the Deputy Director of the Social Innovation Office, the Head of Service of Social and Digital Innovation, and the Head of Service of the Area of Quality and Evaluation, held on 25 March 2015 in Madrid. Duration: 1:30 hours.
- Interview with the Head of the Innovation Service of the Support Unit of the IAM, held on 17 April 2015 in Madrid. Duration: 1:30 hours.
- Interview with the Technical Advisor of the Directorate General for Quality and Citizen Service held on 17 April 2015 in Madrid. Duration: 1:30 hours.
- Interview with the Vocal Advisor of the General Coordinator of Human Resources, held on April 17, 2015 in Madrid. Duration: 1:30 hours.
- Interview with the Head of Studies and Technical Support Unit, CIFSE, held on 23 April 2015 in Madrid. Duration: 1:30 hours.
- Interview with the Head of the Business Participation Service, held on 28 April 2015 in Madrid. Duration: 1 hour.
- Interview with the Head of the Department of Social Services of the District of Usera (Madrid), held on 30 April 2015 in Madrid. Duration: 1:30 hours.
- Interview with the Government Delegate in the Community of Madrid, held on 14 July 2015 in Madrid. Duration: 0:30 hours (former director of the G.A. of Economy, Finance and Public Administration of Madrid City Hall at the time when the initiative was conceived and one of its main promoters).
- Interview with a Computer Technician at the IAM, author of the winning idea of the *Innovando Juntos* initiative, held on 13 October 2015 in Madrid. Duration: 1:30 hours.

Chapter 9

Intrapreneurship at University: A Sustainable Strategy to Handle Resource Crunch

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ABSTRACT

Admission of students in academic degree programs in a university fluctuates over time due to economic and global trends impacting and shifting the job opportunities from one field to another. In the absence of any government funding, revenues of private sector universities are more sensitive to these shifts. Designing and launching of new programs needs to be undertaken much before the intake dries up because there is a time-lapse of several years before the impact on admission numbers becomes visible. This chapter presents a sustainable readiness strategy for implementing intrapreneurship in a university that rewards faculty innovation and creativity in designing and launching new programs before the intake starts declining precipitously. The process of the discovery of this strategy with its implementation challenges and rewards is described through the use of autoethnographic methodology. The results show that the proposed strategy induces many benefits, such as faculty ownership, responsiveness, and motivation.

INTRODUCTION

Universities play a pivotal role in the development of a nation. Private sector's role in the education sector is huge across the globe especially in higher education because private sector universities bring innovations, opportunities and freedom as compared to public sector universities. It is impossible for the public sector to accommodate all applicants; hence the role of private sector universities becomes imperative. Same is the case with the Pakistan's higher education arena where we see private sector universities bringing in better opportunities for the knowledge seekers. There isn't everything positive about private sector universities and the most talked about issues are high tuition fee and unavailability

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of private sector universities in the rural areas of the country (Nazi & Mace, 2006). On the other hand, private sector claims that they do not have government funding and the only source of revenue is students' fee; hence the high tuition fee is justified. Further, the urban areas of the country can afford the private sector tuition fee as compared to rural areas and that's why Private sector universities are often found in the cities rather than villages.

The admission of new students is an important factor for the financial viability of the university especially in private sector. Universities offer various programs and the overall admissions of the university is actually the sum of the intake of all the programs offered by the university. Various factors influence the numbers of admissions in university programs that include social pressures, job market, political situation etc. University's job is to keep the overall intake at a respectable place to remain financially viable. Decreasing admission numbers can bring the university to a situation of financial crunch. In such situation, organizations tend to go into safe mode in which they try to cut corners and reduce cost which result into low or zero investment into new product / program development. Private sector universities are no exceptions so they behave the same. Rather than investing into new programs to balance out the decreasing admission numbers, universities tend to reduce cost and go into a downward spiral.

The chapter presents an intrapreneurial strategy in which the university's faculty members are given ownership to launch specialized degree programs on a revenue sharing model in critical circumstances. It was the time when the university could not afford to experiment the launch of a new program due to the decline in the students' intake and that has resulted in a financial hardship. The chapter explains the complete methodology to implement intrapreneurial strategy. It also highlights the associated benefits for the university and faculty members. By following the research direction of Autoethnography (Lisa, 2010), the chapter discusses the actual situation and real solutions implemented by the authors.

Funding of Universities

Internationally, universities get funding from various sources (BoK, 2009) that include but not limited to:

1. **Government Subsidy:** Public sector universities get funding from the government.
2. **Tuition Fees:** This is the fee students pay for their education. Both public and private sector universities charge fees from students however; public sector charges much less. Tuition fee is not typically more than 30% of the university's budget. However, there are many universities in the world that do not charge tuition fee.
3. **Endowment Fund:** Alumni often give money to the university they attended. This fund is usually used for scholarships (so talented but poor students can attend the university).
4. **Consultancy Fees:** Faculty across the globe are encouraged to solve industry problems through consultancy assignments to supplement their incomes. University salary is often considered to be a baseline on which they need to build their consultancy earnings which benefit the universities in providing relevance to their teaching and prestige.
5. **Executive Training Fees:** Executive development centers are established to train executives on new paradigms. This is the way of selling the faculty members to the outside world which also results in finding outside consultancies. Universities benefit through this interaction in terms of gaining prestige, contacts, and ensuring placements.
6. **Research Projects Funding:** Faculty members at universities can write proposals and apply for grants from public and private foundations to fund research or educational improvements.

7. **University Press:** Universities establish their own press to publish the books and journals that create a source of revenue for them.

On contrary, in Pakistan, the public sector universities are mostly dependent on government funding. Tuition fee is less in such environment and doesn't create much impact on the overall revenues. For many private sector universities, the major source of revenue is tuition fees; hence there is a rise on tuition fee across the private sector universities (Niazi & Mace, 2006). Public universities charge a subsidized tuition fee, as their major source of funding is through the allocations from state funding. A source of revenues for Public universities is from affiliated colleges and private students. From affiliated colleges, they charge a fee on a per student basis that is a component of the tuition fee. In addition there are registration fees and examination fees. Their model also consists of reserving a significant number of seats on self-funded basis and charging the students getting on these seats an amount that is comparable to the private sector universities and in some cases even exceeding it. The option to affiliate other private colleges or having off-campus private students is not available to private universities.

Sources of revenues other than tuition fees require a huge change management initiative requiring systematic investment in HR as they are all dependent upon the quality and performance of faculty members. Universities need to find faculty members who are competent and motivated enough to tap on these sources. We now analyze the earning models available to faculty members because university's revenue is also linked with the earnings of faculty members.

Types of Faculty Earning

Being a faculty member is not an easy job (Kroll, 2013) and universities typically offer incentives to the faculty using a formula similar to $X + aX$, where "a" is the multiplier which represents a university's capacity and experience to enable faculty members to supplement their income by the multiplier amount. For example: a prominent university in Lahore was offering a multiplier of 2, as long ago as in 1995. They used to incentivize the potential candidates by offering them that a typical faculty member's take home salary is $3X$, where X is earned through paycheck and $2X$ through consultancy and executive trainings. How much a faculty earns extra depends upon their expertise to generate an amount of the X or more from other sources that include but not limited to:

1. **Outside Consultancy assignments:** Taking up industry based consultancy assignments in their area of expertise. This may include designing a solution, creating a prototype etc.
2. **Books / Teacher manuals:** Writing books and manuals also pays well.
3. **Research projects Funding:** Writing proposals for research and educational improvements can ensure good money as the funding agencies are required to dispose the available funds.
4. **Executive Training:** Corporate training on campus and in-house training at the site of the corporate organizations.

Faculty members need to come out of their comfort zone to achieve this but the university needs to motivate the faculty members to make it happen. They should be provided enough time from their normal routine to think out of box. The payment from these ventures is typically distributed among the faculty members and the university on 70:30 ratios. However in Pakistan, 99% of faculty members and the universities take the easy way out. They allow the faculty to teach extra courses inside (or even

outside) the university to supplement income of faculty. This has the advantage of increasing the faculty retention, for reducing the direct costs due to per hour teaching remuneration. However, the university doesn't gain any additional revenues. On the downside, the extra teaching takes precious time away from the university, from their development in terms of research, self learning and industry interaction. The university also loses out in the long term as it fails to devote effort and resources in developing precious faculty potential. Initially a university incurs costs when it reduces their course load. This time should be considered by the university as an investment in faculty while they experiment and learn from their industry interactions, develop their competency and confidence to pitch for outside consultancy assignments, and complete them satisfactorily.

So, for a typical private sector institution, the situation is tough. Government isn't funding anything and the faculty is also not willing to generate anything due to the aforementioned reasons. In this scenario, the only source of revenue remains the tuition fee; the students' intake in various programs offered by the university becomes the most important factor.

Market Demand of University Programs

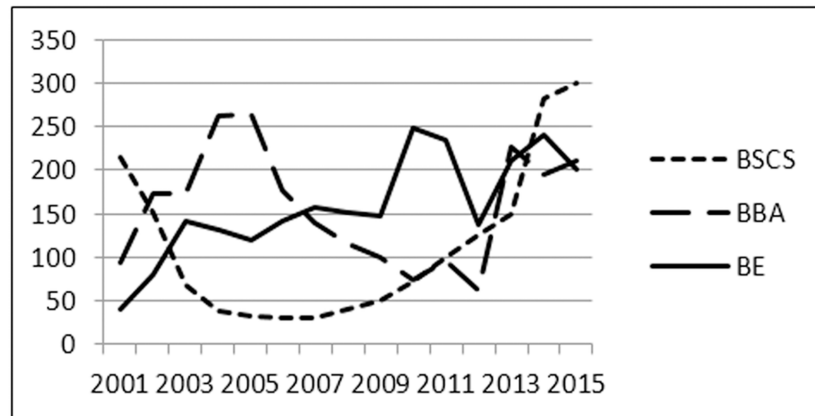
Admissions in degree programs fluctuate between peaks and troughs of demand (Bok, 2009). Please note that the result of a global recession or a major change in economy would only begin to reflect on the intake with a lag time of about 3-5 years. There is often a herding effect depending upon the popular perception. Admission numbers are determined to a great extent by word of mouth and the perceptions of the industry that permeate the grapevine and take time to reach the parents and then to students. In Pakistan, decisions of students for a particular discipline are more often fashioned by the parents as they pay for the higher education. The predominant reason in Pakistan for doing higher education is the scope of job opportunities that fluctuate according to global shifts in demands. A case in discussion shows the drastic reduction in numbers of admissions in Computer Science (CS) program that came down from the peak in 2000 after the dotcom crash to the lowest around 2008 by which many universities closed down their CS programs. The reasons for this nose dive were the post 9/11 circumstances and the global war on terror that reduced the outsourcing opportunities in Pakistan due to threat and violence perceptions.

We analyzed the numbers of admissions of three well established bachelors programs i.e. computer science (BSCS), management science (BBA) and engineering (BE) of a private sector university as shown in Figure 1. We found that the BBA program touched its peak in 2004-05 then hit the bottom in 2010-11 and it's again on rise. On the other hand, BSCS gram has seen a drastic decline that started in 2001 (the 9/11 impact), continued till 2011 but now it is getting; the maximum student intake. Whereas BE program, has seen its peak in 2010-11.

Universities do understand that many external factors influence the admissions in a particular program. The most important factor is market demand; parents tend to send their kids to the fields in which more jobs are available. The perception may be wrong as the students who are admitted to any bachelors program get the degree after four years and by that time the market dynamics may have changed upside down. But, for private sector universities this really affects their intake and resultant revenues.

For a business student, this is a typical scenario of portfolio management in which the organization need to balance the product line. In terms of BCG matrix, organizations need to group their existing products in terms of cash cows, stars and question marks. They also need to think about the launch of new product(s) to balance out the affects of depleting cash cows and dogs. It is indeed challenging to invest in new programs during resource crunch. A different approach is to create a culture of intrapreneurship

Figure 1. Student intake of last 15 years



in which faculty members are encouraged to take up some challenging initiatives in anticipation of big rewards.

BACKGROUND

The concept of internal consulting is also similar to intrapreneurship. Intrapreneurs can be defined as “Dreamers who do. Those who take hands-on responsibility for creating innovation of any kind, within a business” (Pinchot, 1984). Time Magazine article “Here come the Intrapreneurs” (DeMott & Byrne, 1985) brought the term to popular media. The recent understanding of the term is given as “intrapreneurs are the secret weapon of the business world” (Koch, 2014). It is safe to say that being an intrapreneur is considered to be beneficial for both intrapreneurs and large organizations. Companies support intrapreneurs with finance and access to corporate resources, while intrapreneurs create innovation for companies.

The essence of this concept is the employee’s initiatives in organizations to undertake something new, without being asked to do so. Hence, the intrapreneur focuses on innovation and creativity, and transforms an idea into a profitable venture, while operating within the organizational environment. The major characteristic of intrapreneurs is their courage and flexibility to think outside of the box, which allows them to work on ideas that may change strategic direction (Koch, 2014). They should have the domain knowledge and should have the ability to do multiple tasks at one time that includes Marketing, Creation of Demand and Trust etc....

Intrapreneurs are both employees and leaders of an organization that act similar to entrepreneurs in terms of e.g. self-motivation, creativity and pro-activity (Antoncic & Hisrich, 2003). Intrapreneurs differ very much from managers. Strong leadership skills are needed to strengthen teams and to persuade others to follow and execute their ideas. Leadership skills are also important to support rapid decision making under uncertainty (Gupta, 2016). However Intrapreneurs can only work in an environment that supports creativity and willing to give ownership. The top management should be ready to see that once successful, the intrapreneurs start to earn more than anyone in the organization that may create nuisance

in the ranks. In such circumstances, it is the job of the top management to convince the rest of the team and offer them equal opportunities.

Many big companies give this opportunity to their employees and many successful examples of intrapreneurship have come from companies such as Lockheed Martin, Texas Instruments, Google, 3M, Sony, Facebook and Sun Microsystems (Pinchot & Pellman, 1999). The most well-known examples of intrapreneurship is the “Skunk Works” group at Lockheed Martin. Working under the leadership of Kelly Johnson, the group created some of the most innovative aircraft models, including the SR71. At Texas Instruments, Larry Hornbeck took the charge Digital Imaging venture project that later became the industry standard for digital projectors. Gmail was also a result of intrapreneurship venture taken up by Paul Buchheit at Google. Dr. Spencer Silver Nvho was working on a strong adhesive for aerospace technology at 3M created a light adhesive that didn’t leave a residue on the surface. Later the world knew it as “sticky notes”. The Sony Playstation, most recognizable brand in gaming was developed by Ken Kutaragi as an intrapreneurship venture. Java, the most widely used programming language was born at Sun Microsystems by Patrick Naughton who thought the company is missing the large upcoming PC consumer market.

All these companies share one common thing; they encourage many projects within the company (Pinchot & Pellman, 1999). They give certain freedom to employees to create their own projects, and they even give them funds to use for these projects. They are known to provide innovation-friendly atmosphere and intrapreneurial reputation. They allow their employees to spend up to 20% of their time to pursue projects of their choice. These days’ organizations are running year long training programs to turn their managers into intrapreneurs, skilled in spotting new business opportunities with notable potential.

The biggest challenge for intrapreneurship is to deal with the organizational structures, bureaucracy, rules etc which do not support intrapreneurial culture and behavior (Antoncic & Hisrich, 2003). Traditional organizations want their employees to be engaged in daily routines with high levels of defined tasks. Clocking hours become more important than coming up with new ideas. Doing something new, failing at it, learning from it and again trying it, requires time, freedom and fearlessness from failure. Organizations need to come out of their comfort zone and need to provide an environment that pushes employees to be creative and thinking out of box. The performance should be determined by actual performance not by clocking hours. (Gawke, Gorgievski, & Bakker, 2017). It is to be understood by the organizations that they will only get what they count, if they count hours, they will get hours. If they count performance, they will get performance. It is also organizations’ responsibility to identify intrapreneurs in their ranks. Intrapreneurs often remain hidden and unrecognized, because they often display behaviour contrary to what is considered as “corporate”. Many studies have been conducted to recognize the traits of intrapreneurship in the employees (Sinha & Srivastva, 2013) that include personality factors such as extroversion; work values such as the need for intellectual stimulation and creativity; and, sociocultural factors such as individualism and power distance.

Giving ownership of a particular product to an employee is not a new concept; it is like internal consultancy and has its roots in the concepts presented in the Book “Built to Last” (Collins & Porras, 2005). In chapter 7, Collins presented few examples to describe opportunistic experimentation through trial and error as a way to make evolutionary progress. Moreover in chapter 8, he described a characteristic of visionary companies that these companies like to hire own employees (promote) to higher positions as opposed to other organizations that “hire from the outside.” This allowed for consistent excellence in leadership from within the ranks, from employees who have adhered to the company’s core ideology. Internal consultancy is a merger and extension of the above mentioned concepts.

The most acceptable generic Intrapreneurship models are derived by using two dimensions i.e. organizational ownership and resource authority. The first dimension talks about the primary ownership for the creation of the new business. It describes whether the ownership is focused to individuals / groups or diffused across the organization. The second dimension is related to resource authority. It describes the way funding is awarded to the new venture. It looks into the availability of dedicated funds for such purpose and questions unplanned funding. By using the above mentioned dimensions, the authors presented the four generic models i.e. opportunist, enabler, advocate and producer (Wolcott & Lippitz, 2007)

- **Opportunist:** Trust rooted in organizational culture allows experimentation that result in the establishment of intrapreneurial spirit.
- **Enabler:** Fostering innovation culture and intrapreneurial mindset / behavior throughout the entire organization.
- **Advocate:** Adapting and extending existing business units
- **Producer:** Exploring and scaling novel opportunities, (yet) outside of the business units' scopes

There is no doubt that the concept of intrapreneurship is way forward in 21st century. It is the most effective solution to gain sustainable competitive advantage as it helps companies to cope up with environmental dynamism, revive from the previous losses, and improve their efficiency and effectiveness (Gupta, 2016). The framework is based upon intrapreneurship. Centric innovation helps the employees with entrepreneurial skills, brings innovation into existing business activities and tries to attain sustainability and growth. People are using intrapreneurship everywhere, from SMEs to universities. intrapreneurship spirit is way to achieve sustainable innovation in today's hostile business environments. An integrated framework is presented for small and medium-sized enterprises (SMEs), to transform process innovation under existing technology for sustainable innovation (Widya-Hastuti, Talib, Wong & Mardani, 2016). The key elements of the framework are pro-activeness, risk taking and autonomy. Firms need to adjust their internal capability by configuring resource into process routines for process innovation. The study offered an insight to improve firm-specific capabilities to contribute on sustainable development through process innovation, particularly in SMEs.

Very few faculty members take a risk in developing innovative projects and programs for industry. They utilize their talents, expertise to develop high quality and cost effective solutions but they are usually neglected by the administration of the institutes (Thanikachalam, 2016). There is a need for supporting policy from the top management of the university and the government to encourage such outstanding ventures. Institutes have to plan project specific policies, maintain separate accounts and distribute the gains as per the approved norms. The fear of failing has to be removed from other faculty members besides giving the needed resources. Such initiatives would encourage more risk takers to undertake development activities, outreach programs and sponsored projects. The interpreneurial opportunities and initiatives are evaluated in context of a Brazilian public sector university (Da-Silva & Takahashi, 2017). The study analyzed the challenges and motivations for the development of an intrapreneurial initiative to be implemented as a post-graduation program. The analysis served as a model for identifying potential areas for meaningful theoretical and empirical contributions in public organizations, more specifically regarding the process of intrapreneurship and motivation in public education organizations. Human and resource factors are presented as key components along with motivation and creativity.

The effects of Intrapreneurship on social innovation are examined to understand the connection between the two concepts (Esen & Şekerdil, 2017). It has been found that "Innovation and Proactivity"

is effective on social innovation whereas “risk taking and self-confidence” is not effective on social innovation. Suggestions have been made to improve the effects of intrapreneurship tendencies on social innovativeness. Employees are required to be more innovative, self-confident, proactive and likely to take risks in order to support intrapreneurship in an organization. Organizations will both develop their own special abilities and be able to change the way of competing with new products, technologies, social relations in the market. The new human resources dimension is to shift from human resources management to skills management. In this perspective, a theoretical approach is presented that demonstrates the interest of companies or organizations to involve their staff through intrapreneurship program (Oprha & El-Oualidi, 2017).

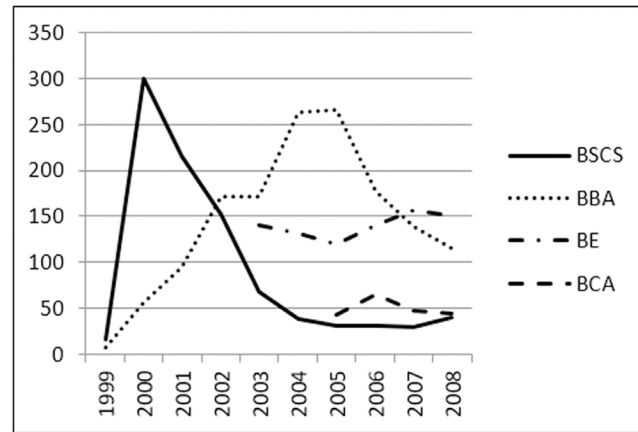
Organizational empowerment is about improving staff’s attitude toward the organization by giving them ownership and opportunities that leads towards self-empowerment. Organizational empowerment and intrapreneurship are related terms as intrapreneurship is the way of enabling self-empowerment (Moghaddas, Tajafari, & Nowkarizi, 2019). Intrapreneurship has a positive effect on management’s performance but it requires trust relationship between the supervisor and supervisee because if subordinates trust in their supervisors, they will work hard and will positively impact the business and management’s performance. (Zhang, Wang, Kim, 2018).

Research clearly identifies that intrapreneurship helps in improving the profitability of large organizations but its impact on smaller companies remains unnoticed. Small businesses also require highly competitive environment within to create a culture of innovation and intrapreneurship can really help in establishing such culture (Aguilar, Vengrouskie & Lloyd, 2019). Though intrapreneurship is counted as a means for organizations to simultaneously develop competitive advantage; there are several questions that are still unanswered. For instance, psychological reasoning of why employees decide to engage in intrapreneurial activities? The understanding of the psychology behind intrapreneurship can help in understanding employees’ intrapreneurial behavior in detail (Moghaddas, Tajafari, & Nowkarizi, 2019). A unique case related to intrapreneurship at educational institution shows two female graduate entrepreneurs proposed a for-profit business partnership with a nonprofit school (Wolfe, 2019). The university’s president has considered the proposal whereas the board of directors has serious doubts. This case highlights the challenges and potential associated with bringing creativity and innovative thinking to established organizations with the process of intrapreneurship.

DECLINING STUDENTS’ INTAKE AND POOR COUNTER MEASURES

To analyze the situation of the university, we needed to get some insight on the ground realities such as what was the numbers of admissions of the university, when the intrapreneurship based programs were launched? Why the need of launching a new program was felt anyways? What was the financial status of the university? Was the opportunity offered to other employees? What were the benefits? The first logical thing was to look into the numbers of admissions in each academic program of the university. There are other studies which have used students’ enrollment data for decision making (Abdullah, Herawan, Ahmad & Deris, 2011). Figure 2 depicts that the intake of the university from its inception till 2008 whereas Figure 3 portrays the declining student strength of the BSCS program.

It is evident that the BSCS program was drastically declining due to the shortage of IT jobs in the market. The reason was the closure of many IT companies after the 9/11 incident. Decline in computer science programs was a global trend and was witnessed in other developing countries as well (Sirat,

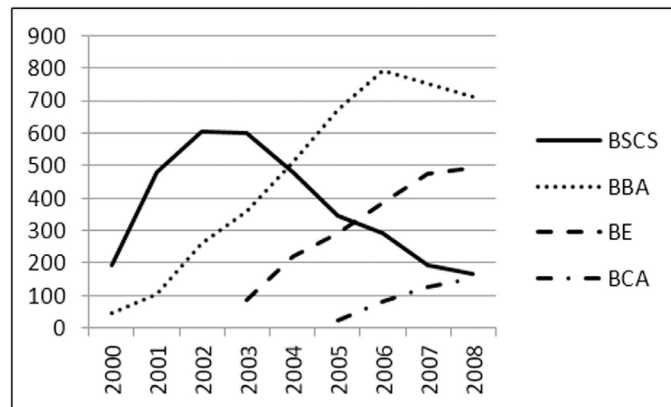
Figure 2. Program wise student intake of the university till 2008

2018). This section may be divided by subheadings. It should provide a concise and precise description of the experimental results, their interpretation as well as the experimental conclusions that can be drawn.

The overall students' strength of BSCS program has decreased to 165 students. BBA program was really doing well and supporting other programs because its costs are lower than other programs that require lab expenditures. Management launched the BE program on the anticipation of these declines. However, cost of BE program is huge due to investment in lab equipment and requirement of aggressive student-teacher ratio. The investment in the new block for College of Engineering and the large number of faculty members and the development of new labs with hardware has dried up all the funds. Further, in the same time frame, the board decided in view of its external investments in other initiatives, to reduce the reinvestment percentage that was 50% of the surplus has been decreased to 40% and which was going to be further reduced to 30% and then 20% in subsequent years. This was the only fund available for development of university that included infrastructure, people, processes and academic programs. The news was devastating as it closed the doors for further experimentation and expansion. Expense curtailment became the order of the day as there was no way to increase the revenue without initial investment and to maintain the profitability, expenses were supposed to be minimized at any cost.

Management started to make decisions to curtail the cost that included salary reductions, reductions in increment, freezing of increments to a small percentage, freezing of visiting faculty remunerations, etc. There was stipulation of mandatory holidays during winter break (between fall and spring semester), Summer Break (between Spring and Summer Semester) and Fall Break (between Summer and Fall semester), and then reduction in campus timings from 8:30 to 5pm to 8:30 to 3:30 to cut down on increasing fuel and electricity costs, reduction in the use of generators, etc. Even expenses for tea and tissue papers were stopped. It had soon become clear that the money being saved from these steps was far too low as compared to the negative fallouts on the employee morale and motivation. Employees who were previously working till 8 PM, started to leave promptly at 3:30 PM; in fact, they used to line up as early as 3 to 3:15 PM in front of the machine chatting and waiting for the pack-up time. The learning from this experience was that humans are not robots, the intrinsic motivation is really important. Ownership was lost and suddenly employees seemed to be barely completing their assignments, rather than working enthusiastically to make a difference. The faculty motivation was lost and they started to

Figure 3. Program wise student strength of the University till 2008



fly away. The institution was unable to keep even those who have already proved themselves and were making remarkable progress.

At the same time, competitors were launching new programs and opening up new campuses. They were investing in experimentation and were finding new territories. Various universities took bold measures and started new academics programs especially in the field of media and arts. There was a general trend of opening campuses in the densely populated areas of Karachi and other private sector universities were moving themselves closer to their customers. These universities were able to attract good faculty on better pay scales.

It was calculated that BE program cost was above 65% and BBA program cost was as low as 40%. The BBA program was actually supporting the overall expenditure as it was at its peak at that time and had the lowest cost as well. BSCS program was costing around 50% but the surplus was going into the establishment of the engineering program, thus computer science program wasn't getting any investment and it was going down every passing day. When senior faculty left, cheap replacements were hired due to insufficient funds for computer science. The students were also observing this trend and were raising complaints regarding faculty and computer labs. It was a downward spiral for the BSCS program and from the year 2003 to 2008, the situation deteriorates quickly. The number of new admissions of BSCS program dropped from 120 students (2001) to 12 students (2008).

It is pretty evident that the intake of university was declining specially of computer science department because of BSCS program. Revenues were drying up and there was no room for experimentation. These circumstance demanded cost effective out of the box solutions. The head of departments were asked to come up with plans to improve the revenues of the respective departments.

INTRAPRENEURSHIP: A SUSTAINABLE SOLUTION

In this situation, launching of new programs became out of question as the organization was already facing financial crunch and didn't have the funds to support a new launch. At that point, there was no option but to evaluate different joint collaboration models. Initially a course was offered to an IT company and they were asked to teach whatever skill set they wanted to hire. The idea was to increase the

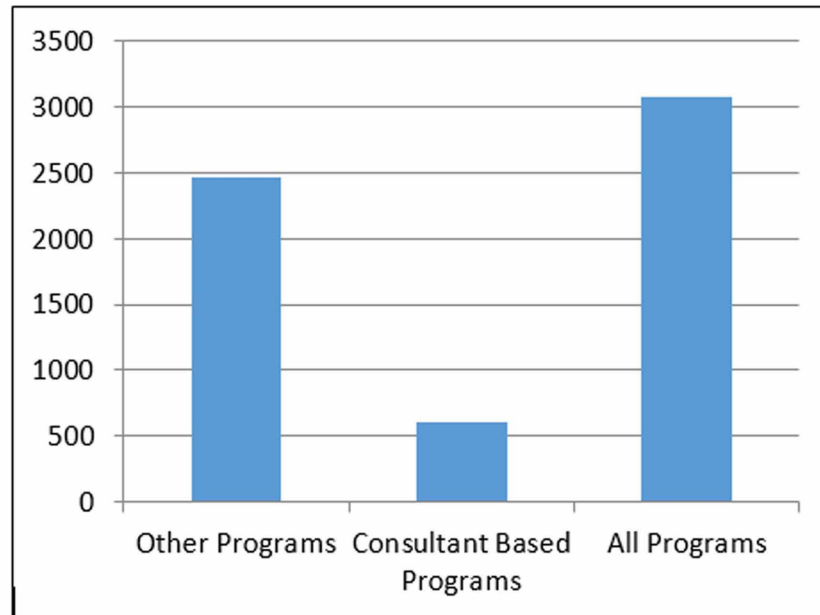
job opportunities for our students and to introduce them to industry oriented faculty. The idea worked well; the IT company developed a course and made their senior resource available to teach that particular course. This was not similar to hire a visiting faculty member because the visiting faculty member would just teach the courses whereas in this case the stakes of the company and the person involved were much higher. They had the ownership of the course and they were doing it to find quality resource for themselves. The results were encouraging; couple of students were actually hired by the company whereas few others found jobs in other organizations based on the skill set attained in the particular course. This gave confidence and as a next logical step, a set of 3 to 5 courses was offered to other IT companies on the same model. This demanded at least a year and half long association and didn't prove to be that successful because of two reasons. First; it is difficult for companies to analyze their needs two years down the road, second; to make their senior and costly resources available for extended period of time wasn't easy as well.

These steps cleared the concepts but didn't bring any financial benefits. The only way to improve the revenues was to induct more students and the university was supposed to think of a way to launch few programs without hiring people and without incurring much cost. It can be said that the situation has pushed the management to take on board an external consultant to launch a new program. The consultant was responsible to develop curriculum, create industry linkages, and find industry experts to teach courses of the particular domain, getting the students in the new program and to ensure market reputation whereas the university was required to fulfill infrastructure requirements. The first program that was launched on this model was of BS Economics in 2003. The consultant was from a very well reputed firm who worked for 8 months to finalize the curriculum of the BS Economics program. But he failed to run the program due to lack of ownership and availability at campus. The learning was that when a new program is launched, finalization of curriculum is not more than 10% of the work. The actual effort is to make the first intake (which would never be more than 15 to 20 students) believe that they are doing something special. The consultant needs to establish the market for the program as well by getting the right industry linkages and industry oriented faculty. It is an hard work and only possible when the ownership is there.

Later in 2005, the same model was followed for the launch of Bachelors in Computer Arts program. This time the external consultant was an industry expert in the field of Media & Arts and was running his own animation house. He had the right industry linkages, domain knowledge and was able to bring industry oriented faculty. Hence, the program remained successful. In 2008, the intrapreneurship based BS-ERP program was launched by the head of computer science department; hence, the true concept of intrapreneurship came into play. The opportunity was also given to other head of departments and senior faculty members. Some programs died at the curriculum level while others didn't make to launch. Two other programs were also launched but were not able to make it to the next year. This clearly shows that it is not only about the opportunity but also about the ability of the person to convert the opportunity in real success. The benefits were shared by university and the intrapreneur.

Across the globe, the salary of faculty members is not that big. They are supposed to find consultancy assignments in the industry and university encourages them by giving them 70% of the amount they make through consultancy. For university, it is a symbol of prestige and pride that the industry is coming to its faculty member for consultancy assignments. Universities develop executive training centers where executive trainings are conducted by the faculty members. It is their chance to impress the senior leadership that result in consultancy assignments. On the same model, it was decided that an internal consultancy assignment was offered to faculty members who have already proven themselves. The idea

Figure 4. Comparison of the student strength of other University programs and consultant based programs with the overall students' strength of the University



was to launch a new program through this model and on the basis of the learning from a failure through external consultancy, this time the consultant was chosen within the organization. The consultant based program did really well and in 2014, the students of these consultancy programs were approximately 20% of the overall students' population of the institution as shown in figure 4.

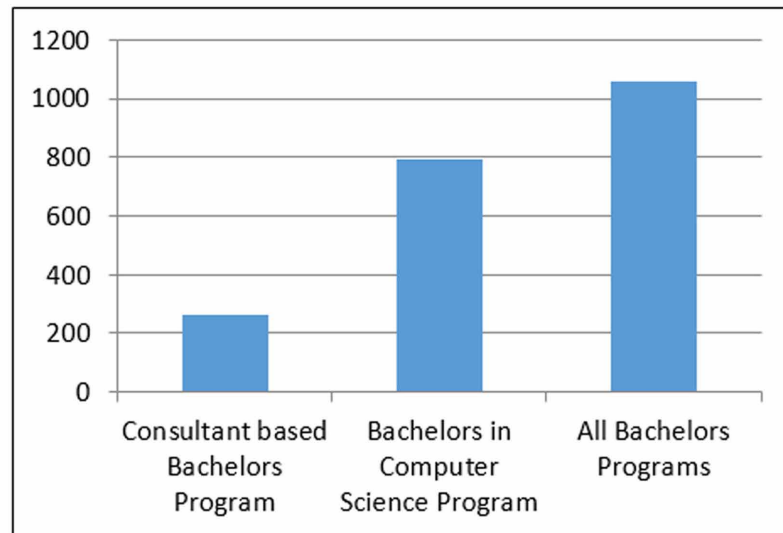
Whereas the students' strength of two bachelor programs offered h> the department working under the employee in question was on constant rise and in 2014, the students of the consultant based program were approximately 25% of the overall students' strength of the department is shown in figure 5. This also shows that the other bachelor program of the department has grown with a fast pace as well. The students' strength of BSCS program has risen from 165 students (2008) to close to 794 students (2014).

This proves that the question marks associated with intrapreneurship such as clash of interest etc can be answered and it is actually the responsibility of the intrapreneur to take special care of this issue. In this case, it is quite evident that the consultant based program has not hurt the performance of the other program though both the programs are managed by the same person.

The work presented in this chapter uses Opportunist Model of intrapreneurship because there was no precedence and culture of intrapreneurship in the organization. The other models such as Enabler, Advocate and Producer are more suited for environments where the culture of ontrapreneurship exists and nurturing is required to take it to the next level. The chapter has presented a detailed strategy to create acceptance of the concept of intrapreneurhsip in a typical university environment but this strategy can be generalized as well. We call it sustainable readiness strategy for implementing intrapreneurship in an organization and it is depicted below in Table 1.

The step by step description of the Sustainable Organizational Readiness Strategy explains the complete process of establishing a culture of Intrapreneurship. The first step is to do "Short Term" (small but

Figure 5. Comparison of the student strength of consultant based Bachelors programs and Bachelors in computer science program with the overall strength of the department



meaningful) collaboration. In our case, we started collaborating with individuals to teach one or two courses. Later, we went for “Long Term” collaboration i.e. we asked them to collaborate on curriculum level. Once the collaboration phase is over, we moved to the ownership based approach. In “External” approach, an external expert is given ownership of the new product / program on a revenue sharing model. In our case, BCA & other program were launched on this model. The “Internal” approach, suggest that the organization needs to find the expert from their own ranks and give him the opportunity. In our case, BS-ERP program was launched by the head of department. The step by step strategy will slowly and gradually create culture in which employees will be thinking out of the box to create new opportunities for the organization

It is analyzed that when organizations have no funding to launch new product program, they tend to take less risk i.e. no experimentation that results into a downward and spiral. Re-investment into the people and product if not there, the ability to experiment new ideas will be gone. A person who has the domain knowledge and has the ability to do multiple tasks that include marketing, creation of demand and trust etc can be the prospective intrapreneur. New programs / products can’t be given to anyone who is already running or is responsible of a program unless proper resolve is there. For a typical private sector institution, offering new programs also make portfolio management easy. Bigger departments cannot do justice to individual programs as individual programs have their own soul and culture.

Table 1. Sustainable organizational readiness strategy for intrapreneurship

Collaboration Based		Ownership Based	
Short Term	Long Term	External	Internal

CONCLUSION

The chapter describes how intrapreneurship improved the portfolio of the academic programs of the university and helped the university to come out of the difficult period. It also elaborates that intrapreneurship is the order of the day and the organizations need to identify intrapreneurs in their ranks who can be awarded the opportunities that can help the organization in so many ways. The intrapreneurial strategy can be copied by other universities facing the same critical circumstances to come out of the problem of declining student enrolments and resultant financial crunch.

It highlights the negative instance of the organizations facing financial crunch. In an attempt to cut the cost, they actually cut the way towards revenue generation by stopping the experimentation towards new product development. Top management should establish a culture conducive to intrapreneurship in which peers should not take it as a threat and they should be counseled about it. To overcome this issue, organizations should give equal intrapreneurial opportunities to all the employees who have been doing well in their current positions and have the required set of skills.

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KEY TERMS AND DEFINITIONS

Academic Programs: A combination/stream of courses pursued by students for the award of degree/certificate in an educational environment.

Autoethnography: A form of qualitative research that focuses on author's self-reflection to explore a situation based personal experience and understanding.

Intrapreneurship at University

BCG Matrix: It is a framework to classify the business brand portfolio into four categories based on the growth rate of that industry and relative market share.

Intrapreneurship: Intrapreneurship is a process that allows an employee to act like an entrepreneur within an organization. Intrapreneurs are self-motivated and proactive individuals who have the ability to take initiatives.

Intrapreneurship Culture: A culture that is transparent, positively competitive and initiative driven. Such culture pushes employees to think out of box so that they develop internal entrepreneurial spirit.

Intrapreneurship Readiness Strategy: A long term action plan that enables a company to gradually promote intrapreneurship among their ranks. The plan consists of various activities that induces intrapreneurship culture.

Portfolio Management: The method of allocating resources in various endeavors to balance the risk of performance.

Resource Crunch: A critical moment/situation that occurs due to the shortage of resources and is likely to take the organization on a downward trend.

Chapter 10

Can Business Intelligence Enhance Organizational Performance Through Corporate Entrepreneurship?

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ABSTRACT

The dynamism of the knowledge society's technological complexity and the speed with which data are processed to obtain information relevant to the firm and to generate new knowledge are making it especially important to research big data and the application of artificial intelligence to business (business intelligence) through strategic interactive processes that enable exploration and analysis of structured information on areas of the firm. Then, the chapter will examine how strategic use of tools and strategic technological variables can help firms to improve the development of their entrepreneurial processes to promote the competitive advantage of businesses. The goals of this research are to strengthen and advance the literature on corporate entrepreneurship, technology management, and business intelligence; to theoretically promote the integration of firms into the digital environment; and to research the technological connections that enable exploitation of current knowledge and entrepreneurship in order to draw conclusions to improve organizational performance.

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INTRODUCTION

The dynamism and technological complexity of the knowledge society and the speed with which these data are processed to obtain information relevant to the firm and to generate new knowledge (Giménez et al., 2018; Xue, 2014) are making it especially important to research Big Data and the application of artificial intelligence to Business Intelligence (BI hereafter) through interactive processes that enable exploration and analysis of structured information on areas of the firm. Such analysis can reveal trends or patterns that enable the firm to promote ideas and draw conclusions to improve organizational performance.

This idea is supported by the consultancy IDC (International Data Corporation), which has affirmed that the data generated by firms will increase tenfold by 2020, from 4.4ZB to 44ZB in only 2 years (IDC, 2014). Thus, nearly 50% of existing information will be accessible virtually and can be monitored by firms. This trend in firms' use of social networks is not yet fully generalized, however. Only 49.6% of firms with Internet connection are using social media for business ends, with social networks as the most frequently used tools (INE, 2017).

Managers are aware, however, of the strategic opportunities that technological capabilities and social media provide, since 92% of the firms using these tools stated that the tools were of great utility for developing their business (improving company image, obtaining greater brand notoriety, promoting products or services). Then, technology management is becoming especially important for attempting to improve the firm's positioning in the market (Martín-Rojas et al., 2019). Along these lines, technology, characterized as a comprehensive driver of innovation, not only plays a key role in creating new products or processes but is strategic for the foundations of the technological industrial structure, due to its radical redefinition of the rules of business competition (Leblanc et al., 1997; Prajogo and Ahmed, 2006; Tushman and Anderson, 1986). Today, however, a great gap still divides research on technology such as Big Data and BI from the development of management research, especially in the field of corporate entrepreneurship (Giménez et al., 2018; Martín-Rojas et al., 2013).

If, in addition, we consider that one of the most important strategic management decisions in the current competitive environment is the development of technology and handling of the different *technological distinctive competences*, as well as the use of *technological social networks* or *social media and social networks* (Fernández et al., 2013; García et al., 2018; García-Sánchez et al., 2018; Garrido-Moreno et al., 2018; Martín-Rojas et al., 2011), it is clear that we should perform more in-depth research on *technological resources*, including Big Data. Such research will enable the firm to solve organizational problems more efficiently and promote objectives beyond the inherent goal of optimizing profits, thus helping firms to focus on the use of or search for new technologies (Bourgeois, 1981; Bradley et al., 2011). We should then research how these *technological capabilities or competences* promote the organization's experience or ability to mobilize technical and scholarly resources through a series of routines and procedures that enable development and design of new products and production processes (Real et al., 2006), and enhance the entrepreneurship throughout the organization.

Based on the foregoing, firms must promote development of their human resources technological capabilities through dynamic programs that enable them to stress the knowledge generated and develop Corporate Entrepreneurship (CE hereafter) (Leonard-Barton, 1987). This area encompasses not only new business creation, but also other related innovation activities, such as development of new products, services, technologies, administrative techniques, positions, and competitive strategies. Consequently, among the main strategic components of CE we stress *organizational innovativeness*, *capacity for new*

business creation, proactiveness and self-renewal (Antoncic and Prodan, 2008). CE thus enables the firm to create innovation and face the current competitive reality.

Given the relative newness of the issue, however, there is still little theoretical and empirical research on the strategic role of how to break down the way CE and technological capabilities interact to influence performance and how the main entrepreneurial components of CE are interrelated among themselves. Furthermore, to fill the *research gaps* detected and to tackle issues of great interest and current relevance, this chapter seeks to respond to new challenges emerging in society due to the eruption of social media, digitalization of firms, Big Data, BI, technological change, and the transformation of entrepreneurial processes, endowing the business fabric with strong entrepreneurial competences to strengthen achievement of better performance.

Therefore, the *main objectives of this chapter are*: 1) to examine how strategic management of technology, BI, and technological competences can contribute to the development of CE, thus increasing business performance—an especially important issue in the current competitive context; 2. to analyze the relationship between BI and technological competences as antecedents of CE to attempt to motivate better and more sustainable results; and 3. to develop the inter-relationships of the different components of CE to deepen understanding of the evolution business entrepreneurship is undergoing. In sum, the paper attempts to research how corporate entrepreneurial spirit increasingly fosters organizational performance, based on management of technological capability, social media or BI for business development.

To achieve these objectives this chapter will go on the development of a theoretical background where the definitions and discussions of the topic are given. Latterly, the main focus of the chapter is written through different propositions. Then, the solutions, implications and recommendations to the propositions are given. Finally, conclusions are presented.

THEORETICAL BACKGROUND

This section collects the state of art of CE and BI in management and the definitions and discussions of the topic.

State of Art

The importance of managing technology and entrepreneurial capabilities as a theoretical model has increased considerably in recent years. This importance is reflected in the proliferation of publications on the matter, in numerous special issues dedicated to the topic in high-impact journals such as *Strategic Management Journal*, *Strategic Entrepreneurship Journal*, *Journal of Small Business Management*, *Journal of Business Venturing*, *Entrepreneurship: Theory and Practice*, *Technovation*, *Technological Forecasting & Social Change*, etc.

Given the relative newness of the issue, however, there is still little theoretical and empirical research on the strategic role of BI management on firms or on how to break down the way technological capabilities and entrepreneurial capabilities interact to influence performance.

Therefore, analysis of the specialized literature (Fontes, 2001; Kassicieh et al., 2002; Martín-Rojas et al., 2011, 2013, 2017; Walsh and Linton, 2001, 2002) enables us to highlight 3 priority lines for development and consolidation of the research: 1) application of the model to the technology sector, given its strategic character at regional, national, and international level; 2) specific analysis of the tools or

platforms that enable its development (among which we stress social media and BI); 3) need to develop theoretical studies that provide ongoing research that can serve as a reference for global markets.

Theoretical Focus

Although this research may well be based on the dynamic capabilities theory (Teece et al., 1997); this research will be focused on complexity science, because the emergence of the network economy has provoked a paradigm shift in the Information Systems (IS) discipline, and offers the appropriate concepts and tools for examining and explaining this shift (Merali, 2006).

Complexity is the study of the consequences of interactions; it studies patterns, structures or phenomena that emerge from interactions among elements—particles, cells, dipoles, agents or firms. It affects not only Mathematics, Computer Sciences or Biology, but also social Sciences such as Economics. In all cases, the interactions can propagate through the system (Arthur, 2013).

Complexity economics holds that the economy is not necessarily in equilibrium, but it is increasing as well as diminishing returns that may be present in an economic situation. Moreover, it is not something given and existing, but it evolve from a constantly developing set of institutions, arrangements and technological innovations (Arthur, 2013).

In this regard, complexity theory conceptualize innovation as a complex phenomenon giving rise to unpredictable emergence of new products, knowledge and business models as a result of the interactions of innovative agents (Corral de Zubielqui et al. 2016; Dougherty and Dunne 2011).

Building on complexity theory, this study firstly describes how BI, through Social Media, helps firms to increase their connections with relevant agents and to leverage the knowledge gained from these agents, connected to the firm. Second, BI acts as main driver of technological competences to enhance entrepreneurial competences such as new business venturing, proactiveness, innovativeness or innovation capacity of the firm and internal self-renewal. Finally, these innovative and renewed structures promote organizational performance. Consequently, as new phenomenon emergent in the Information Systems (IS) arena, BI appears as an important weapon to deal with the increasing complexity that companies face today.

Business Intelligence

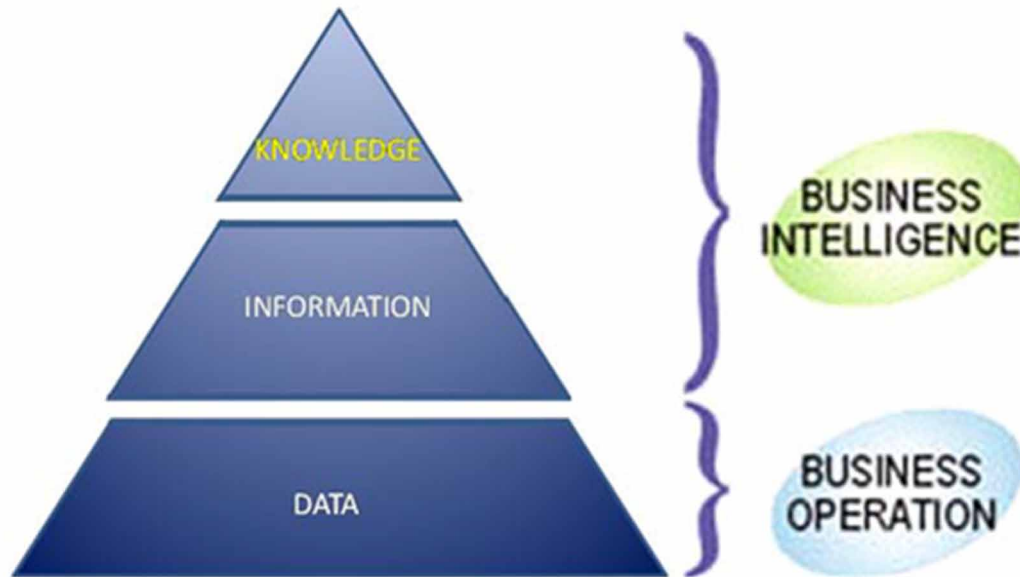
Data by themselves do not provide any information (OECD, 2005). In fact, when data are taken alone, they are useless to the firm. Then, they require to be processed and end up being useful information. Finally, this information will be analyse, used and turn out to be knowledge. These stages of data transformation into knowledge must occur for decision making and the relative value of these stages to the firm (Giménez et al., 2018) (see Figure 1).

Using knowledge analysis, firms can anticipate future events to make more accurate decisions and compete with other organizations. The steps to be followed are thus: data, information, knowledge, and finally assimilated knowledge (Beazley et al., 2004). The process by which data are transformed into knowledge is shaped by the data's sources. It is important to remember that transformation of data into information and then knowledge to be applied to a business plan or strategy (Computer Hoy, 2014) is determined by Artificial Intelligence and BI (Knight and Rich, 1994; Nilsson, 2000).

Artificial intelligence (Wooldridge and Jennings, 1995) is the capability of machines to perform actions by simulating intelligent behaviour, based on experience and study of the environment (Knight and

Figure 1. Transformation of data for decision making

Source: Davenport and Prusak, 2000



Rich, 1994). It is also a fundamental component of BI (Lu et al., 2012; Sinnexus 2007). Furthermore, both enable the materialization of firms' practical data as knowledge, favouring the firm's entrepreneurship and development (Tsai et al., 2015; Zahra et al., 1999).

BI is thus increasingly crucial in making good decisions to respond to the rapid and substantial changes occurring in firms (Sinnexus, 2007). Because BI originates in the firm's technology, we can speak of BI as a form of innovative or technological entrepreneurship in the firm.

Focusing on the need to deepen knowledge of firms and the current relevance of BI on society, the use of *social media* and *social networks* also requires special mention as a tool to foster BI in firms. *Use of social media* currently represents one of the most crucial information technologies in business, both inside and outside the firm (Aral et al., 2013). It has been applied to the use of a great number of technologies (e.g., wikis, blogs, microblogs, social networking sites, virtual worlds, video-sharing environments) that are changing the way users and firms communicate, collaborate, and generate value for society and thus redesigning traditional business strategies. *Social networks*, in turn, promote the pattern of connections that unite a set of people (Seibert et al., 2001), facilitate collaborative work, and enable easier sharing of ideas and knowledge among network members (Fliaster and Spiess, 2008).

Therefore, based on previous research (Giménez et al., 2018) it can be asserted that BI is an interactive process for exploring and analysing structured information on an area (usually stored in a "data warehouse") to discover tendencies or patterns from which to derive ideas and conclusions (Bustamante et al., 2011).

Corporate Entrepreneurship

Focusing on previous studies, which analyse CE (Martín-Rojas 2011; Kuratko and Audretsch, 2013; Zahra 2015; Martín-Rojas et al., 2017), we may conclude that CE is a behaviour or attitude that occurs in an organization, independently of its size (Martín-Rojas et al., 2017). The major impetus underlying CE is to revitalize innovation, creativity, and leadership in corporations (Kuratko and Audretsch, 2013). It includes not only new business creation but other innovation-related activities, such as development of new products, services, technologies, administrative techniques, competitive strategies or positions (Archibugi and Iammarino 2002; Chen et al. 2013).

Among the entrepreneurial abilities, capabilities or competences most strategic to research (Knight, 1997; Zahra, 1993; 1996), we stress *innovation capacity*, *capacity for new business creation*, *proactiveness*, and *self-renewal* (Antoncic and Prodan, 2008).

Innovation capacity, or *innovativeness*, gives the organization the ability to adopt or execute new ideas, processes, or products satisfactorily (Hurley and Hult, 1998), or to achieve an inclination to innovative behavior in the organization (Zaltman et al., 1973). Innovation capacity acts as a motor to expand efforts to realize the potential to innovate (Hurley and Hult, 1998).

Likewise, *capacity for new business creation* enables the firm to undertake business ventures, expanding its operations in both existing markets and other new ones (Zahra and Covin, 1995). This capacity also enables the birth of business ventures within existing firms (Guth and Ginsberg, 1990).

Proactiveness involves the firm's propensity for risk relative to its competitors (Antoncic and Hisrich, 2001). It is the effort to promote innovation from an internal organizational perspective through evaluation of potential new opportunities, allocation of resources, and exploitation of these opportunities.

Last but not least, *self-renewal* involves revitalization of the firm's operations, which changes the scope of its business, its competitive focuses, or both (Zahra and Covin, 1995). Self-renewal enables the transformation of firms through renewal of the ideas on which they are constructed (Guth and Ginsberg, 1990).

Other authors (Knight, 1997; Zahra, 1993, 1996) include more variables in the concept of CE however we choose these ones as they are the most extended in the reviewed literature and they explain the most variance of the concept.

To synthesize, the activities of an organization with CE are related to the following four dimensions: innovativeness, new business creation, proactiveness and self-renewal (Kazanjian et al., 2000; Rauch et al., 2009).

MAIN FOCUS OF THE CHAPTER

This section will go through the development of five sections with all the searched purposes on the paper. Firstly, we analyze how BI fosters the development of technological capabilities and improves firms' technology management. Later we study how to foster CE through the development of employees' technological competences and thus from good management of business technology. The proposition 3 thus attempts to explain how basic entrepreneurial competences (innovation capacity or innovativeness, new business creation, self-renewal, and proactiveness) are related to each other. Finally, we study the impact and maintenance of CE on the organization's yield and performance.

The Influence of BI on Technological Competences

Increased levels of complexity caused by the advent of the internet and the pervasive role of information (Merali, 2006) enable network emergence. BI through the development of Social Media has the potential to increase connectivity and may provide users and managers with the capabilities that allow them to act and interact with each other in novel ways that are difficult or were impossible to do in earlier online or offline settings (Gnyawali et al., 2010).

Therefore, BI, through Social Media advances, is increasing the awareness of network effects in companies (García et al., 2018; Garrido-Moreno et al., 2018) and changing the way society acts, requiring greater technological competences in all individuals (Martínez, 2011). In fact, entrepreneurs must take existing technological knowledge, obtained from BI, and assimilate it to obtain technological competences (Martín-Rojas et al., 2011).

Moreover, when new technologies are involved and data are not so easy to be extrapolated into knowledge, the complexity of new technology truly requires more training, a higher level of technological champions, and more supplier involvement (Leonard-Barton and Deschamps, 1988). Furthermore, complex technological projects allow the increase of technological competences in firms. For example *Smartphone applications* require specific capabilities that permit individuals to do several tasks at once. These competences enable employees of a firm to take advantage of a great amount of data/information/knowledge available to them through Social Media applications (BI). To do so, employees must constantly develop their technological competences and capabilities (Giménez et al., 2018; Leonard-Barton, 1987; Pérez et al., 2006) in order to manage all possibilities provided by the current technological development appropriately. Based on the foregoing, we propose the first proposition:

Proposition One: BI fosters the development of technological competences and improves firms' technology management.

The Influence Technological Competences on CE

Initially it is explained the general relationship and then the relationship between technological competences and one of the components of corporate entrepreneurship (new business venturing, innovation capacity and proactiveness).

Firms with good levels of technological competences and the capability to manage strategic technological capabilities and variables play a critical role in the process of generating and developing entrepreneurial competences. These technological competences act as facilitators of technology throughout the firm, as in the case of micro-electro-mechanical systems (MEMS) (Kassicieh et al., 2002). They also act as promoters of competences for undertaking entrepreneurship and fostering innovation, business creation, self-renewal, and proactiveness (Fontes, 2001, 2005; Martín-Rojas et al., 2011). For example, technologies generate opportunities for innovation, providing entrepreneurs with access to new sources of knowledge that they can exploit to gain a competitive advantage (Fontes, 2001; Martín-Rojas et al., 2019). Entrepreneurs thus have the difficult task of self-renewing and discovering which innovative opportunities are motivated by distinctive technological competences (Giménez et al., 2018) so that they can be the first to take advantage of such a business venture involving innovative opportunities and obtaining market opportunities that competitors have not yet considered or developed.

These four entrepreneurial capabilities (organizational innovation, business creation, self-renewal, and proactiveness) have been widely seen as the main components of CE (Antoncic and Hisrich, 2001; Martín-

Rojas et al., 2011; 2013; 2017). Furthermore, technological competences foster not only entrepreneurial competences, but also the complete construct of CE. Woolley (2010) applies this insight to technological firms and underscores that technological competences provide opportunities for entrepreneurs in the firm and an ownership advantage that enables entrepreneurs to increase the firm's likelihood of survival (Giarratana and Torrìsi, 2010; Martín-Rojas et al., 2011). That is, Technological Competences present an opportunity for CE, as entrepreneurs are more likely to exploit an opportunity when they can perceive demand (Choi and Shepherd, 2004; Martín-Rojas et al., 2011; Shane and Venkataraman, 2000). Thus:

Proposition Two: Technological competences and good technology management improve the development of CE in firms and on their entrepreneurial capabilities (innovation capacity, proactiveness, new business creation, self-renewal).

The process of new business venturing depends on the existence and awareness of new opportunities to be developed and exploited. The possession of appropriate technological competences enhances a firm's ability to exploit new technological opportunities from the market (Buckley and Casson, 1998; Giarratana and Torrìsi, 2010). Hence, increased connection improves a firm's ability to pursue innovative opportunities and gain competitive advantages. Then, the organizations that are developing technological competences strategically, to capture valuable knowledge from their stakeholders, are more likely to change from the traditional way of doing business to a more modern way (Parveen et al., 2016) by changing or creating business units. Thus:

Proposition 2.1: Technological competences foster new business venturing.

Through the application of technological competences, the process of organizational innovation is maintained and extended, through a flow magnitude that describes the generation of technological knowledge (Nieto, 2004). Technological competences, in turn, shape the company's ability to acquire, transform and exploit knowledge (Zahra and George, 2002). These processes must all be performed in order to successfully develop technological innovations (DeCarolis, 2003), and in this process, the more creative and innovative the knowledge, the more dynamic and innovative can be the firm that makes use of it (Kazanjian et al., 2000). Thus:

Proposition 2.2: Technological competences foster innovation capacity.

In the current business context, characterized by rapid technological change, firms may use different technological competences to understand emerging opportunities and capitalize on promising new trends, stimulating proactiveness (Hussinger, 2010). Proactive firms identify such opportunities through technology (Alvarez and Barney, 2007) within their firms; that is, through their technological competences (Martín-Rojas et al., 2017). Strong emphasis on technological competences enables work in new fields and exploitation of new possibilities (Hult and Ketchen, 2001)—ultimately, a new way to create differentiation and develop solutions that weaken competitors by anticipating them (Hughes and Morgan, 2007). Thus:

Proposition 2.3: Technological competences foster proactiveness.

How Entrepreneurial Competences Are Interrelated Among Themselves?

At this section, all the relationships between the entrepreneurial capabilities are developed. Firstly it is explained the relationship between entrepreneurial competences overall and subsequently they are split into the different internal relationships. Specifically, this connection starts with the relationship between the previous concept (technological competences) and the entrepreneurial capability of new business venturing. Then, this new business venturing will influence on proactiveness and innovation capacity.

Later, it is seen how proactiveness will promote innovation capacity and finally, how this innovation capacity will impact on self-renewal.

Considering that entrepreneurial organizations usually include regenerative transformation and involve substantial changes in their strategy, structure, process, and behavior (Muzyka et al., 1995), we dare to assert that it is highly probable that new business creation will produce competitive advantages in all fields of the firm's action, including innovation and technology (Giarratana and Torrissi, 2010). These new businesses generally promote innovation capacity, lead the company to adapt proactively to new fields of action, and combine current activities with new ones to improve production processes and self-renewal (García et al., 2014). As a result of these advances, the firm can extend its reach into areas of activity originally considered foreign to it (Kanter, 1983), activity that encourages its competence in innovation, its proactiveness, and its self-renewal (Martín-Rojas et al., 2017). Based on the foregoing, we study the interrelations between new business creation, innovation, proactiveness, and self-renewal, and propose:

Proposition Three: Basic entrepreneurial competences (innovation, new business creation, self-renewal, and proactiveness) are related to each other.

New ventures access diverse technology and market information, what allows them to enhance their innovation capacity (Lin et al., 2018). Likewise, new businesses creation may stimulate the production of new technological knowledge, especially knowledge focused on features of innovativeness and competitiveness (Van Hemert and Nijkamp, 2010). This is especially relevant if we speak about complexity theory or technological sector, where firm creation involves industrial developments, innovative processes to commercialize products, and innovative analysis and research to provide services beyond those of current companies (Martín-Rojas et al., 2017; Nosella et al., 2006). Thus:

Proposition 3.1: New business venturing fosters innovation capacity.

When a firm is created, there is a vast availability of opportunities in the new market. Observing the remarkable increase of new opportunities; researchers have emphasized the need of new businesses to firstly take advantage of these opportunities to gain a competitive advantage (Andries and Debackere, 2007; Martín-Rojas et al., 2017; Yunis et al., 2018); what is proactiveness. Proactive firms are prepared to anticipate actively and change internally to find a better position for achieving market share and customers by acting quickly when changes occur and mobilizing resources in advance of their rivals (Hughes and Morgan, 2007), even when they seek complementary knowledge or coordinate inter-organizational processes (Chen et al., 2013; Melander and Tell, 2014). Thus:

Proposition 3.2: New business venturing fosters proactiveness.

Strategic renewal or self-renewal consists of transforming organizations by modifying their foundational ideas (Guth and Ginsber, 1990; Sharma and Chrisman, 1999; Zahra, 1991). It includes reformulation of strategies, redefinition of business and reorganization, and it reflects organizational change (Martín-Rojas et al., 2017).

When new complex ideas enter the market, companies that add those new ideas and innovation can prosper (Baumol, 1990; Schumpeter, 1934). Nowadays, technological changes are causing that more and more companies have to renew themselves to survive (Burstrom and Wilson, 2015). Then, an organizational transformation is accomplished through redefinition of the company principles, reorganization in terms of innovation and undertaking changes in all systems within the company (Çoban and Güles, 2011). Thus:

Proposition 3.3: Innovation capacity fosters self-renewal.

Proactive behaviour consists of taking the initiative to attempt to improve current circumstances or to create other, new circumstances and involves questioning the status quo more than adapting passively to current conditions (Crant, 2000). It involves the important attributes of flexibility and adaptability toward an uncertain future (Bateman and Crant, 1999) in order to take the initiative in improving and changing business. That is, when firms are more proactive they have the flexibility needed to conceptualize and develop innovations in the organization, and are able to respond more rapidly to changes (McCann, 1991), adapting and reinventing themselves quickly as the situation requires (Martín-Rojas et al., 2017). Thus:

Proposition 3.4: Proactiveness fosters self-renewal.

The Influence of CE on Organization's Performance

In this section, the relationship of CE with organizational performance is firstly presented and later, to complete the analyses appropriately the relationship between the entrepreneurial competence of self-renewal and organizational performance is presented.

Based on complexity theory and technology sector, firms that exhibit CE are typically viewed as dynamic, flexible entities preparing, or prepared, to take advantage of new business opportunities when they arise (Corral de Zubielqui et al., 2016; Goodale et al., 2011). The entrepreneur must indeed identify potential market opportunities and then act upon them (Shane and Venkataraman, 2000; Woolley, 2010) to obtain an outstanding advantage.

Technological competences are thus a brilliant way for entrepreneurs in the corporation to demonstrate their technological knowledge; since CE in technological companies, may generate products, goods, processes, services, and systems that can be used to meet customer needs and build a strong international market position (Antoncic and Prodan, 2008; Martín-Rojas et al., 2011; 2013; Simsek and Heavey, 2011; Zahra, 1996).

Therefore, organizations that engage in CE are expected to achieve higher levels of growth and profitability than organizations that do not engage in them (Antoncic and Hisrich, 2001; Martín-Rojas et al., 2011). Moreover improved organizational results, usually in terms of growth and profitability, are thought to be a result of entrepreneurship in established organizations along the time (Antoncic and Hisrich, 2001; Covin and Slevin 1991; Zahra, 1991). These advantages may grow in magnitude as learning and experience curve effects enable entrepreneurial firms to improve their product or market strategies and achieve a higher organizational performance (Zahra and Covin, 1995). Among such entrepreneurial firms, there is a willingness to deviate from prior routines, strategies, business models, and operating environments, and embrace new resource combinations that hold promise as potential enablers of innovation (Goodale et al., 2011) and performance in turn (Martín-Rojas et al., 2013). Thus:

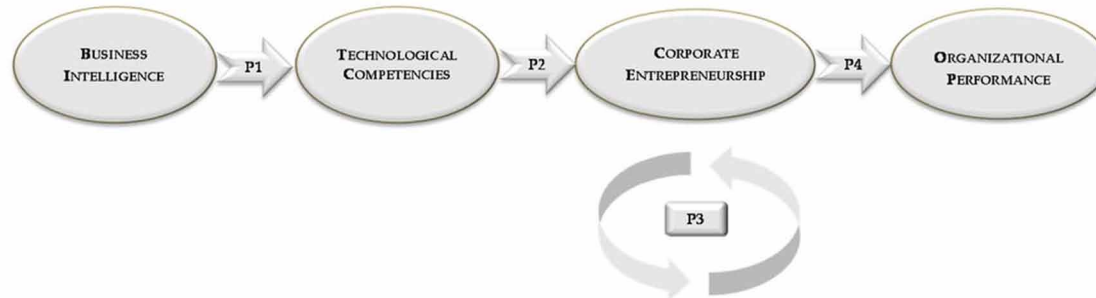
Proposition Four: CE fosters organization's yield and performance.

Self-renewal involves the redefinition of a firm's mission (Zahra, 1993), the alignment of organizational competences with the environment (Flier et al., 2003) and the process, content, and outcome of refreshment and replacement of own organizational attributes (Agarwal and Helfat, 2009). Therefore, the concept encompasses the need of making entrepreneurial efforts to revitalize existing firm businesses (Sharma and Chrisman, 1999).

Companies that perform frequent strategic and organizational changes (Eisenhardt and Martin, 2000; Smart and Conant, 1994) introduce new products and process technologies faster and more efficiently (Cottrell and Nault, 2004; Nerkar and Roberts, 2004) and are better able to survive in uncertain situations and industries. Thus:

Figure 2. General model presented

Source: Own elaboration



Proposition 4.1: Self-renewal fosters organization's yield and performance.

METHODOLOGY

As it can be seen in the references section, due to the newness and minimal development of the topic, in addition to scholarly articles, we consulted numerous webpages to gather information on the new types of design firms are currently applying. Furthermore, literature researching the impact of BI on organizational design, corporate entrepreneurship or management in general is still bare and scarce (Curto Díaz, 2012).

To obtain results of interest for the scholarly community, we attempted to contrast these propositions with theoretical development in this study. Further, only after reading and studying this information, did we formulate a series of propositions that relate BI to each of the management concepts explained above -technological competences, CE or main entrepreneurial capabilities of the firm and organizational performance-.

The methodology followed to perform this study is called grounded theory. It attempts to discover theories, concepts, hypotheses and propositions by starting directly from data rather from a priori assumptions drawn from other research (Rodríguez-Gómez et al., 1996). Since grounded theory has been primarily theoretical, we performed an exhaustive search for articles specifically on BI in the field of telecommunications engineering of intelligent systems and related these studies to articles in the field of entrepreneurship and mainly in corporate entrepreneurship.

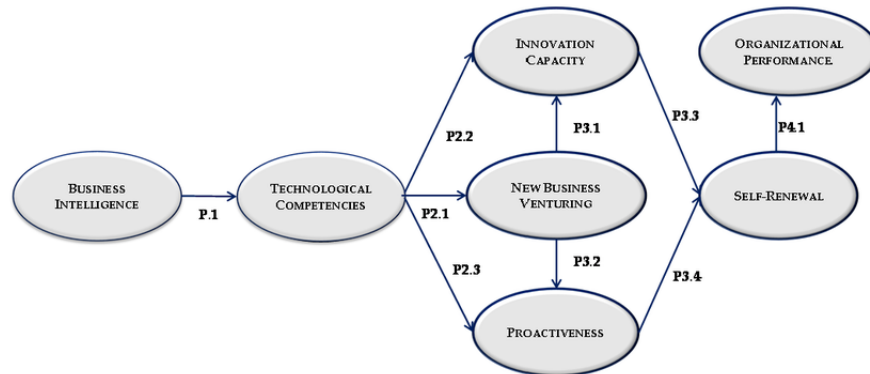
To do it, the worked model is presented in the following graphs (see Figure 2 and Figure 3). Firstly, in Figure 2 the general model is presented and then the disaggregated model in Figure 3.

In Figure 3 (see Figure 3), the presented model includes a total of 9 propositions reflecting: (a) The impact of Business Intelligence on Technological Competences (Proposition 1); (b) The relationships among Technological Competences and the dimensions of Corporate Entrepreneurship (Propositions 2.1, 2.2 and 2.3); (c) The interrelations among the different dimensions of Corporate Entrepreneurship (Propositions 3.1, 3.2, 3.3 and 3.4) and (d) The connection between the dimensions of Corporate Entrepreneurship and Organizational performance (Proposition 4.1).

Moreover, the specific purpose of the study was to examine the impact of Business Intelligence and Technological Competences on distinctive entrepreneurial competences or the different dimensions of Corporate Entrepreneurship, and show the pathway firms need to follow to benefit from Business

Figure 3. Disaggregated model

Source: Own elaboration



Intelligence, Technological Competences and Corporate Entrepreneurship. To this end, we design a comprehensive research model including all these specific direction of these propositions. All of them were posed based on prior research (Bateman and Crant, 1999; Crant 2000; Giménez et al., 2018; Jiménez-Barrionuevo et al., 2019; Guth and Ginsber, 1990; Lin et al., 2018; Martín-Rojas et al., 2017; Nosella et al., 2006; Sharma and Chrisman, 1999; Zahra, 1991).

In order to examine the impact of technological competences on the different dimensions of CE, and show the pathway firms need to follow to benefit from technological competences and Corporate Entrepreneurship, we have developed a comprehensive research model (see Figure 3). As those papers sustain, the Corporate Entrepreneurship concept builds on the Schumpeterian innovation theory (Baumol, 1990), that is the building block of entrepreneurship, and includes four main dimensions: new business venturing; innovativeness, proactiveness and self-renewal (Antoncic and Hisrich, 2001).

SOLUTIONS, RECOMMENDATIONS, LIMITATIONS AND FUTURE RESEARCH LINES

Solutions

Considering the objectives presented in this proposal, we stress that this chapter makes valuable, innovative contributions in the area of Management and Social Sciences, especially in view of the recent advances in artificial intelligence and its potential in countless key areas for the economy and society. This project seeks to apply the research to the field of business management through BI and to the field that explores the potential of some of its research techniques, such as Big Data, technological human resources, technological infrastructure of the firm, and increase in technological competences through ICTs or social media.

Managerial Recommendations

Aspects analyzed in this initiative bring the research performed into university teaching through the use of social networks or social media. It thus allow the encouragement of scientific-technical capabilities to increase the knowledge base of the business sector through identification of opportunities for innovation and entrepreneurship in the long term, generate competitive advantages, and create the capabilities needed to absorb the knowledge generated from the employees. Further, the paper is creative in insisting on new ways processing the internal relationships between the entrepreneurial components of corporate entrepreneurship, which fosters performance from three approaches: social, environmental, and financial.

Firstly, the chapter draws some attention to the acquisition and development of BI so as to obtain, to be able to analyze and to interpret the data from firms (Giménez et al., 2018). This fact may well be achieved in several ways, such as contacting with Computer Science Institutes that enable the analysis of all this information or simply with the possession and use of Social Media tools involved in the working process of any firm among their employees.

Any of this ways will make the organization to foster technological competences as a source of competitive advantage. When managers strengthen technological competences, they involve more modern organizational structures, compensation policies and stimulation of organizational flexibility to encourage internal knowledge exchange in the firm (García-Sánchez et al., 2018; Lane and Lubatkin, 1998; Nonaka and Takeuchi, 1995; Van den Bosch et al., 1999).

Moreover, with the development of technological competences, the promotion of corporate entrepreneurship is guaranteed (Antoncic and Hisrich, 2001; Martín-Rojas et al., 2011; 2013; Zahra, 1996). Then, this chapter promotes the construction of business models that develop the barely-researched inherent process of entrepreneurial capabilities and deepen knowledge of the evolution of CE. Specifically, it attempts to see how basic capabilities or competences of CE increasingly require the dynamic capabilities of the firms. To fulfill this goal, the research focuses on management of social and technological media. Furthermore, firms must to undertake some truly innovative initiatives, that is, promotion of invention and commercialization of new product and process innovations within a coherent employee involvement program that focuses on technology throughout the company. These initiatives might allow the use of a collective intelligence to source and select the most valuable innovative ideas, and promote their development and commercialization in a corporate setting (De Simone et al., 1995; Dos Santos and Spann, 2011; Martín-Rojas et al., 2017).

Scholarly Recommendations

According to the objectives of the research policy and innovation established by the European Commission in 2015 on open innovation, open science, and openness to the world; and to the main lines of research for European projects for H2020 of the EC's CORDIS Community Research and Development Information Service, this paper enables development of capacity for innovation and entrepreneurship through the search for and execution of sustainable changes in firms. It also promotes the construction of business models that can face today's technological era, encouraging development of innovative products, processes, and services for different markets and customers. This proposed initiative is proactive in producing more in-depth knowledge of technology management and the use of social media technology (including ICTs) to improve entrepreneurship. To fulfill this goal, the research focuses on management of social and technological media.

Based on the complexity theory, the study asserts some recommendations or implications to widen the literature for scholars:

1. Taking advantage of the possible data to be exploited by BI and the foreseeable information and knowledge produced by possession of these data, this chapter aims to strengthen and extend the literature on CE, technology management, and BI; and to deepen the emerging paradigm of complexity, entrepreneurial capabilities and development of inter-organizational and social collaboration networks. These goals are achieved by demonstrating the mechanisms for implementing firm performance through entrepreneurial capacities and their interrelation and by strengthening the firm's strategic positioning through creation of entrepreneurial and technological ecosystems (García-Sánchez et al., 2018).
2. The creation of regional, national, and international networks which enable academic collaboration among researchers promote CE and its consequent increase on performance.
3. Additionally, to keep the sustainability of projects linked to CE we shed some light on the literature by analyzing the possible inherent pathway/process which better suits the relationships between the studied entrepreneurial capabilities and has hardly been analyzed in the literature (Martín-Rojas et al., 2017).

Limitations and Future Research Lines

This study has focused on the involvement of BI promoting organizational performance through the encouragement of technological competences and entrepreneurial capabilities (New Business Venturing, Proactiveness, Innovativeness and Self-Renewal). However, new entrepreneurial competences could be considered, such as traditional competences -risk taking- (Zahra, 1993) or ongoing entrepreneurial competences –entrepreneurial resilience (Duchek, 2018). These competences may enable new insight on the research. Especially analyzing their impact on organizational performance (Ayala and Manzano, 2014; Hayward et al., 2010).

Likewise, the influence of BI has been only analyzed as a direct antecedent of technological competences and an indirect antecedent of entrepreneurial competences. Maybe the direct relationship could be analyzed.

A comprehensive theoretical analysis has been carried out. However, a quantitative or qualitative analysis of these variables would be a remarkable choice to do in the future research to contrast the suitability of the presented propositions.

CONCLUSIONS

This project seeks to apply its research to the field of business management through BI and to the field that explores the potential of some of its research techniques, such as Big Data, technological human resources, technological infrastructure of the firm, and increase in technological competences through ICTs or social media.

In this sense, results are a first attempt to explain how BI can be used to cope with increasing complexity, promoting changes in behavioral dynamics in complex ecosystems. The impact and effects of emergent digitally enabled platforms, BI, on complexity dynamics influence on firm performance.

This paper contributes to the academic debate explaining how BI changes behavioral dynamics in complex ecosystems, and how BI through Social Media can be used to cope with information and, in turn, knowledge. Furthermore, BI fosters technological competences of both, individuals and organizations, exploiting the knowledge obtained from BI.

Additionally, by using these technological competences strategically, firms can take advantage of knowledge flows to face new managerial challenges posed by increased complexity, to create new businesses, to be more proactive, to innovate and to renew organizations, especially in changing technological and competitive environments. That is, technological competences encourage corporate entrepreneurship both overall and its specific main capacities.

Based on the foregoing literature, all the evidence suggest that the development of BI encourage organizational performance through the better developed technological competences in organizations and the consequent increase of entrepreneurial competences.

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Chapter 11

Lifestyle Entrepreneurs: An Alternative Approach to the Entrepreneurial Activity

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ABSTRACT

Motivations play a critical role in setting up new organizations. Traditionally, the reasons to start a new business are mainly economic in nature. More recently, some researchers argue that some people, designated lifestyle entrepreneurs, decide to create new businesses on the grounds of personal fulfilment. This chapter aims to identify the most important motivations of lifestyle entrepreneurs and their relation with the factors that this type of entrepreneurs use to measure the success of their businesses. In order to achieve these objectives a qualitative methodology was adopted, based on the case study approach. The analysis of the cases suggests that this type of entrepreneurs are, first of all, motivated by a desire to live in a certain way and they measure their success according to the achievement of their goal, without neglecting the economic, environmental, and social sustainability of their businesses.

INTRODUCTION

Studies on entrepreneurship have continuously assumed an increasingly importance, either by their relevance and the role entrepreneurship plays in economic growth, in jobs creation and in revitalising the economies. The entrepreneur is the lead actor in this process and it is important that one understands the motivating factors that influence the beginning of the entrepreneurial activity, as well as the factors used by entrepreneurs to measure their success.

However, the studies on the entrepreneur have essentially focused on identifying the entrepreneur's psychological and personal features and on the factors, which have a major influence on the success of

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the organisations created, such as the entrepreneurial personal features and the impact of the external or environmental factors on the success of the business (Taormina & Lao, 2007).

This article aims to present a different approach, which focus on a particular type of entrepreneurs, whose way of dealing with the creation of new projects, the entrepreneurial activity and the measure of their performance differs from the one more usually described in literature and which has achieved a prominent role in the media (the so-called mainstream entrepreneurship).

Traditionally, literature points out that the reasons to begin a new business/project are mainly economic and financial. At the level of the success assessment of entrepreneurial project, literature shows several economic indicators, such as profit, growth, profitability or the turnover. (Delmar, Davidsson, & Gartner, 2003).

However, more recently, some authors (e.g. Verheul, Thurik, Hessels, & Zwan, 2010; Carsrud & Brannback, 2011) mention that some people decide to enrol the entrepreneurial activity as an end in itself, that is, for reasons of personal fulfilment and not only for financial reasons. These are called lifestyle entrepreneurs and are an integral (although quite small) part of what Welter, Baker, Audretsch, and Gartner (2017) called the everyday entrepreneurship or “the others”; their main concern is to ensure a comfortable lifestyle in an autonomous activity they like. This activity should also add to their personal and professional fulfilment, which means these entrepreneurs chose their lifestyle consciously and relentlessly pursue it.

According to Krueger and Brazeal (1994), motivations influence the decision whether or not to enrol an entrepreneurial activity, the way this activity is developed as well as its performance. Generally, it is consensual to consider that the entrepreneurs who create a new business focused on profit or on a larger turnover will probably have a different behaviour than those who create a company to better conciliate familiar and professional responsibilities (Verheul et al., 2010), or to prepare the end of their career. Furthermore, motivations play a major role in the individual’s behaviour, since they influence the direction and determination of the action towards the initial planned direction (Carsrud & Brannback, 2011).

From this diversity of visions, this paper aims to understand the lifestyle entrepreneurs’ most important motivations and their relation to the factors by which lifestyle entrepreneurs measure the success of their activity. This article aims to identify the factors that lead lifestyle entrepreneurs to achieve their projects and the indicators that allow them to consider the latter successful or not.

Following a qualitative methodology, exploratory in nature, to achieve this goal, this paper features case studies. Surveys to the promoters of three cases, which were complemented by data collected through interviews and information supplied by secondary sources, were carried out. With the collected information we tried to figure out if the assessment the entrepreneur makes of their own success is connected or not to the motivations and expectations towards the creation of a new business/project and if the reasons the entrepreneur applies to the success or failures influence their future behaviour regarding new projects..

The paper is organized in five sections. The first section consists of an introduction, in which the framework of the theme, the presentation of the addressed problem and the definition of the proposed goals and the strategy to achieve them can be found. In the second section there is a review of the literature on entrepreneurship; this review is particularly focused on the specific features of lifestyle entrepreneurship. This section is followed by the used methodology. The following section is composed of the case studies and, finally in the last section, the results are discussed, some conclusions are drawn, some limitations are presented and some suggestions are formulated regarding not only the public administration’s action but also new avenues for researchers.

LITERATURE REVIEW

Entrepreneurship

Taking into account the large number of publications (academic journals and books) engaged in entrepreneurship, the amount of events and references either in political speeches as well as in social communications, we can claim that entrepreneurship is a fashionable issue nowadays. Nevertheless, it is neither a new concept nor a consensual one.

The introduction of the word entrepreneurship is usually assigned to Cantillon (e.g. Arthur & Hisrich, 2011; Hébert & Link, 1989), even though Dornelas (2014) says its origin dates back to Marco Polo. At the limit, and considering the huge number of solutions that mankind had to find to ensure their survival, generation after generation, one might even conclude that entrepreneurship dates back to the origin of mankind, as appointed by Dantas, Moreira and Valente (2016).

Generally, entrepreneurship is considered to have a positive impact on the well-being of societies, namely in terms of economic growth, jobs creation and the increase of national and regional competitiveness (e.g. Audretsch, 2007; European Commission, 2013a), in a medium/long term horizon.

However, if usually the relevance of entrepreneurship to boost and regenerate economies is accepted, there is little consensus about what really the entrepreneurial activity is (e.g. Busenitz, West III, Sheperd, Nelson, Chandler, & Zacharakis, 2003, Sarkar, 2010), and it is easy to find a multitude of definitions. The inexistence of a consensual definition for entrepreneurship is a consequence, mainly due to the various scientific areas that approach it and also due to its multifaceted nature.

Overall, we define entrepreneurship as the process of identification, assessment, implementation and exploration of an innovative area or opportunity (existent or market latent) or the process of supplanting a pre-existent solution, in terms of efficiency and/or effectiveness.

We acknowledge that the proposed definition excludes a significant share of entrepreneurship projects that frequently appear in most economies and which only replicate pre-existent solutions. These projects might be relevant for their promoter, but tend to have a scarce socioeconomic impact (Acs, 2006).

However, regardless of the multiplicity of entrepreneurship definitions that might be found when reviewing literature, the project promoter, that is, the entrepreneur, will always be the lead actor of the action, since their decisions directly influence the success or failure of the project.

It is partially due to this entrepreneur central role, in the specific context of this article (new projects in the scope of tourism), that it seems more suitable to focus the analysis on the entrepreneur definition proposed by Kensbock and Jennings (2011) who, based on the study of Baumol (2004), consider that an entrepreneur is someone who creates a business with some original component, to provide a product, a service or an experience to tourists.

There is an issue which has been the object of several studies: understanding the motivations that can lead an individual to embrace entrepreneurship (Birley & Westhead, 1994; Block & Wagner, 2010; Townsend, Busenitz, & Arthurs, 2010; Sivapalan & Balasundaram, 2012). According to Birley and Westhead (1994), there are several motivations, since starting a business is a complex process, which implies a wide range of motivations and stimuli.

According to the Global Entrepreneurship Monitor (GEM), there are two basic motivations to entrepreneurship: necessity and opportunity. The former derives from “the absence of other opportunities in getting income (namely from employed work), which leads individuals to create a business, since they consider they do not have better choices, whereas entrepreneurship by opportunity “results from

the wish to seize, on their own initiative, a pre-existent possibility in market by creating a company” (ISCTE-IUL & SPI Ventures, 2013: 22).

More recently, in 2013, GEM introduced a subcategory in the scope of opportunity motivated entrepreneurship: improvement driven entrepreneurship, which would integrate people committed to improve their financial situation (in opposition as to maintain it) or increase their independence. This “refinement” seems difficult to operationalize (Dantas, Moreira & Valente, 2017), on account of two reasons: (1) the search for autonomy and independence are recognized drivers to entrepreneurship in general (e.g. Cromie, 2000); (2) it seems reasonably consensual that the majority of opportunity driven entrepreneurs bet on the success of their projects, which leads to their growth.

However, there is a kind of entrepreneurs to whom growth is a secondary goal, if not a possibility to avoid (Getz & Petersen, 2005). These are lifestyle entrepreneurs, a concept that GEM has not yet considered. These are the object of this communication. These entrepreneurs are concerned with earning enough to have an acceptable standard of living, doing something they enjoy and that adds to their personal and professional fulfilment and allows them a wider balance between professional and social life (Henderson, 2002).

Lifestyle Entrepreneurship

The lifestyle entrepreneur concept is referred to in several activities in the scope of small businesses. For example, Marcketti, Niehm and Fuloria (2006) explore 12 cases, which integrate areas as different as jewellery, dance, clothing and upholsteries production, and catering, whereas Tregear (2005) approaches it in the agribusiness sector in the United Kingdom.

However, the major part of the investigation is focused on the major area of tourism (e.g. accommodation, catering, transport, handicraft, recreational activities) (e.g. Ateljevic & Doorne (2000), in adventure tourism, Dawson, Fountain & Cohen (2011), in wine tourism; Getz & Peterson (2005), in handicraft, Marchant & Mottiar (2011), in surf, and mostly in hospitality, where the majority of studies have arisen throughout the last decades (e.g. Ateljevic & Doorne, 2000; Bredvold & Skålen, 2016; Carlsen, Morrison & Weber, 2008; Page, Forer, & Lawton, 1999; Shaw & Williams, 2004).

In Portugal this subject has been almost put aside, which justifies the approach of this article, which has an exploratory character. Actually there is only one study about lifestyle entrepreneurship in Portugal, a doctoral thesis (Cunha 2016), which analyses the concept in the scope of rural tourism (TER) in the Alentejo region.

In general terms, entrepreneurship in the tourism section has not called out many attention (e.g Li, 2008; Thomas, 2004). Regarding the lifestyle entrepreneurship concept, it has been associated to small companies in the tourism sector by Shaw, Williams, and Greenwood (1987); afterwards several investigators have looked at it in more depth (e.g. Carlsen, Morrison & Weber, 2008; Dewhurst & Horobin, 1998; Morrison, 2006; Rowson & Lashley, 2012; Shaw & Williams, 1998). This type of entrepreneurship thrives particularly in the context of tourism activities, because, as many authors (e.g. Komppula, 2004; Shaw & Williams, 2004) point out, the entrance barriers (licensing, investment, human capital) are somehow reduced.

The predominance of non-economic motivations (Shaw & Williams, 1997) is one of the distinctive milestones of the lifestyle concept, that is, the access to a certain way of life is frequently seen as the determinant goal to launch a business (Getz & Carlsen, 2000).

As Allardyce (2015) mentions, it is difficult to exhaustively enumerate the inherent features to the lifestyle entrepreneur concept, since they depend on several factors, namely, the project development stage, the promoter's age and a multiplicity of contexts related only to the individuals. Even so, we propose to point out some of the most relevant features and motivations, taken from the literature review:

- a) Contrasting with the entrepreneurship traditional paradigm, in which the investment return, growth and profit are key variables to the venture (Burns, 2001), the critical variables for the lifestyle concept are the access to and the maintenance of a certain way of life, namely because growth would threaten essential and distinctive business features (e.g. the customer being treated like a guest, as mentioned by Dantas and Marques (2016) and would collide with either physical, human or financial resources restraints (Morrison & Teixeira, 2004)
- b) The search for autonomy, independence, control over their own life, and being their own "boss" are among the most recognized reasons in the literature, regarding the general concept of entrepreneurship (e.g. European Commission, 2013b). These reasons are also much emphasized concerning lifestyle entrepreneurs (e.g. Komppula, 2004).
- c) Time availability to leisure activities (e.g. Marchant & Mottiar, 2011) and to enjoy familiar life, namely monitoring their children (e.g. Lashley & Rowson, 2010), are among the reasons of that dream to freely manage time.
- d) The proximity to the end of their professional life and subsequent concern with the preparation of an active retirement (e.g. Shaw & Williams, 1997), pursuing a challenging activity (e.g. Komppula, 2004) inclusively in social terms (e.g. Morrison, Andrew & Baum, 2001).
- e) Recovery and maintenance of assets (which are frequently inherited) to which they have strong emotional bonds (e.g. Lynch, 1996; Komppula, 2004), namely outside the urban centres.
- f) Sometimes it occurs in response to the appeal to preserve a local culture/tradition/environment (e.g. Morrison, 2006), leading them to recover activities in evident decline (free time occupation, architecture, gastronomy).
- g) In many cases it involves to live in a certain region because of its attractions (e.g. landscape, climate, authenticity), eventually to avoid the fuss of the city (e.g. Morrison et al, 2001), which translates into the migration or even outward migration, to other regions/countries (e.g. Morrison et al, 2001; Lardies, 1999), as is seen in many Portuguese regions.
- h) The venture dimension is another distinctive characteristic of lifestyle entrepreneurship in our context. Actually, while touristic activity is mainly composed of small businesses (e.g. Morrison, Rimmington, & Williams, 1999; Getz, Carlsen, & Morrison, 2004), lifestyle entrepreneurship is made up of micro companies (e.g. Lashley & Rowson, 2010), usually composed of the promoter and their family (e.g. Getz & Peterson, 2005), that is, in addition of their very small size rarely do they recur to external labour and when it occurs it is at a partial time level.
- i) Generally, promoters manage their ventures. However, even if they have previous experience, as Morrison and Teixeira (2002) state, because they are more mature people with management experience ((Morrison et al, 2001), they rarely have experience in the scope of the hospitality industry (e.g. Braun & Hollick 2005), which could lead to a less professional management (e.g. Peters, Frehse & Buhalis, 2009), since they obtain their training on the job.
- j) Simultaneously, they show some aversion to the intervention of external entities, either at the level of funding (e.g. Komppula, 2004), or at the level of counselling (e.g. Badulescu & Badulescu,

2014), or even for hiring employees (Morrison & Teixeira, 2002), because these external entities threaten their full control of the project.

- k) The minor skills resulting from the lack of a specific training, represent a threat to the sustainability of the business, as Lerner e Haber (2000) affirm. Nevertheless, these tend to be surpassed by the passion for the project (Cunha, 2016), by the tremendous commitment to achieve the dream (Morrison et al, 2001), which sometimes results in innovative approaches, which are particularly appreciated by a growing tourists niche, that searches for experience and authenticity (e.g. Dantas & Marques, 2016).

Given the multiplicity of authors who have studied the concept, it is normal to find a wide variety of definitions concerning it. However lifestyle entrepreneurs can be described as those who launch their project, aiming to obtain the necessary means to ensure a lifestyle they wish, that is, their main motivation is not the business increase or profit maximization, but instead, the generation of enough income to ensure a certain way of life (e. g. Ateljevic & Doorne, 2000; Kuratko & Hodgetts, 2001; Motiar, 2007).

In short, for this kind of entrepreneurs there are always non-economic factors, which determine their business launch, since for them “the success of their business must be measured in terms of their ability to perpetuate the lifestyle they have chosen” (Dewhurst & Horobin, 1998: 30) and, as a consequence, profit is only one of their goals, it is considered as a means to keep that lifestyle Di Domenico, 2005). Actually, as Hall and Rusher (2004: 94) state “lifestyle is a business strategic goal”.

From the analysis of the literature, the conclusion is that the primacy of personal (the access and maintenance of a certain lifestyle) rather than economic goals (e.g. growth, profit), constitutes the *leitmotif* for these entrepreneurs (Bolton & Thomas, 2003). In fact, whenever growth threatens the entrepreneur and their family’s intended quality of life, some measures are taken to limit that growth (Ateljevic & Doorne, 2000), by restraining the exhibition of the enterprise in external communication, for example.

It is important to clarify that the initial goals are not unchangeable (e. g. Komppula, 2004; Marchant & Mottiar, 2011), that is, there can be a change in context that might reflect on the change of the initial goals. Simultaneously, goals focused on lifestyle can coexist with more commercial goals, as Morrison and Teixeira (2002) have determined.

METHODOLOGY

As already mentioned, the authors aim to understand the concept of lifestyle entrepreneurship and its presence in Portugal, as well as the promoters’ motivations and their relationship with the factors they use to assess their success. So, we are dealing with “a contemporary phenomenon within its real-life context; ... [where] the boundaries between phenomenon and context are not clearly evident” (Yin, 1989: 23), which justifies the choice of the case study as the most appropriate methodology for our research. Actually, as stated by Villareal (2017: 167), the case study “is especially useful when one wishes to understand a real phenomenon by looking at all the relevant variables and when ones seeks to explore or assess complex situations or phenomena”.

This study is, therefore, exploratory in nature and adopts a qualitative methodology (Mahoney & Goetz, 2006), allowing a better vision and understanding of the context (Malhotra & Birks, 2007). It also allows a better understanding and connection between the different individuals’ perceptions and ideas (Bardin, 2009).

Our sample (3 small hotel units) was defined by convenience given the proximity of the residence of one of the authors, and some previous clues found in the media regarding those ventures.

The process of collection of information used several sources, enabling the triangulation, as suggested by Yin (2010), and has started with a preliminary analysis of the website of each of the ventures, in particular the customers' reviews, a search of information in the media regarding this units, and statistical data sources concerning the hospitality sector. Next, the authors requested an interview with each promoter in order to: know the premises, have a face-to-face interview, and carry out a survey.

The detailed visit of the premises had allowed direct observation and, therefore, the knowledge of each venture specificities. With the semi-structure interview, the researchers intended to know each venture's history, from the initial idea until the present.

Finally, has been applied a survey, mostly based in Claire (2012), which included several open questions in order to avoid loss of any additional and relevant information (Bardin, 2009), and was structured in five parts. The first one collects generic info about the enterprise. The second collects data on the enquired, namely data about their previous training and experience and participation in local organizations. The third part questions the motivations/goals that justify launching the enterprise. The following part collects info on the success factors of the enterprise from the entrepreneur's point of view. Finally, the last part collected, among others, information about funding, awards, partnerships, difficulties and future projects.

The data regarding the third and fourth survey part were collected based on tables with various items, which the enquired (the promoter) had to rate in a Likert scale between one and five, in which 5 corresponds to "very important", 4 to "important", 3 to "somehow important", 2 to "not very important" and 1 to "not important at all".

Finally, the last version of each case study has been submitted to the promoter for approval.

CASE STUDIES

As previously mentioned, we will introduce three hotel businesses, located in the Portuguese centre region: Luz Houses, Casa das Penhas Douradas and Quinta de Lograssol.

Luz Houses

Luz Houses is a small hotel business located near Fatima, a religious centre recognized all over the world. It is composed of 15 accommodation units, which are distributed in 4 small houses. These buildings have several support infrastructures: the so called Mother house, where we can find the Reception, a small grocery store, a living room, an honesty bar and a dining room, a "cave" which is the wellness centre, a chapel, a place meant for meditation but without religious connotations, a swimming pool and even a sheep shelter.

The set is something like a mini-village, whose architecture was deliberately inspired on the traditional building techniques of the region. The hotel is a charming hotel¹ and is formally classified as Rural Tourism, Country houses by Turismo de Portugal (Portugal Tourism).

The enterprise is particularly aimed at high middle class and even though it is a recent enterprise (it is open since April 2015) it has achieved a considerable success as its average occupancy rate of 55% demonstrates. Besides, it has been distinguished by several national and international entities since the

opening. At the moment it has achieved 9 awards (e.g. World Luxury Hotel Awards, in 2018, Luxury Travel Guide Awards, in 2017 and 2016; International Environment Awards 2017 and 2016; Award In Construction Innovation 2016, in the category Materials and Products; Boutique Hotel Awards, in 2015).

The hotel business is managed by one of the promoters, full time. Even though the manager has a higher education degree (human resources management), and some previous professional experience (16 years in the area of human resources), he has no specific training in this field.

The enterprise was financed by equity capitals (40%), public grants (60%). It employs 10 people permanently, 17% of which are locals and the remaining live in nearby villages (up to 50 km). The majority of the supplies is local (95%).

In addition to some leisure internal experiences (e.g. traditional games, bicycles availability) Luz Houses has also established some external partnerships which help to broaden the diversity of activities tourists can experience, while staying there.

Promoters' Initial Motivations

One of the main features connected to lifestyle entrepreneurship is to relegate profit and growth as secondary priorities. In this particular case, the promoter assigns maximum rating to seven items: “to have more free time for me and/or family”, “to be autonomous, be my own “boss”, “to do something I enjoy”, “to add to the local cultural/environment preservation”, “to increase assets, thinking about the heirs”, “to live somewhere I enjoy” and “to return to/live in my origins”.

All the aforementioned items are associated to the lifestyle entrepreneur concept, although the last two lose some importance, if we think that the enterprise was built on field (former backyard) next to the promoter's house, that is, the promoter did not have to move to another place.

The local culture/environment preservation results namely from the entrepreneur's “attachment” to the traditional architecture, which the hotel unit presents. Profit and growth (to create and develop my company until it turns into a great company) got less expressive ratings (3 and 1, respectively).

It is important to highlight, as the review of literature also shows, that goals do not have a static character. Even though regarding this specific enterprise, the initial idea pointed out to a smaller dimension (this intention was reanalysed, because it would prevent the access to a public granting programme); nowadays the entrepreneur is considering not only the facilities expansion possibilities, but also the opening of a new establishment, maybe in a foreign country. This shows that the first step towards entrepreneurship can be addictive, as the following case will demonstrate.

Indicators of Success

One of indicators of success with the highest ratings reflects on customer satisfaction, which reveals how the business is focused; the remaining are more centralized in the lifestyle concept: personal and professional fulfilment, time flexibility, the positive add-up to society and the small impact on natural resources.

On the other side (even though with rating 3) there is profit, crucial to the business sustainability and the maintenance of balance between personal and professional life, a goal pursued, but as shown above, the promoter considered it was not achieved. In the promoter's words: “reality is less romantic than we have idealized”.

Casa das Penhas Douradas Design Hotel & Spa

Casa das Penhas Douradas Design Hotel & Spa is a four star hotel unit, located in the middle of Serra da Estrela, 1.500 metres high, more precisely in Penhas Douradas. This location used to be prominent as a mountain resort, conceived for rest, especially aimed at tuberculosis treatment (there was even a hotel in the same place, which was destroyed due to a fire), but the rise of antibiotics led to its decline.

The promoters of this business, assumed nature lovers and regular visitors to the mountain, decided to totally change their professional paths the moment they saw that idyllic property for sale: they traded the hectic life in the city for the mountain tranquillity and left their successful professional lives (in law and management) to embrace the project and achieve the dream: changing their lives.

The establishment opened in 2006 as tourism in a rural space, offering nine accommodation units, which soon proved insufficient to the existent demand. As a consequence, expansion was promoted and it resulted in the current charming unit, with 18 accommodation units, which have been working since 2010.

The enterprise was financed in equal shares, by equity capitals and loans (35% public subsidies and 15% bank financing). Even though the promoters do not have experience in the area², one of them ensures the management of the enterprise full time.

The quality and customization that this type of establishment requires, implies the permanent employment of 20 people. The majority is local (80%) or from nearby locations (15%). Supplies are equally purchased in Penhas Douradas and in other nearby locations.

It also has established partnerships with several external entities, which complement their differentiating and experiential features, which are very common among these units.

The hotel has achieved several awards (e.g. TripAdvisor Certificate of Excellence, continuously since 2009; Award Portugal Tourism in the category of Service Quality in 2011, Best Tourism in Countryside, by Publituris in 2008; Award Portugal Tourism in the category of Architecture in 2008; Award More Centro in 2011, by CCDR Centro), since its opening, and, even though its location might suggest a certain seasonality, it presents an average occupancy rate of 65%.

Promoters' Initial Motivations

It seems that the lifestyle aspect suits this entrepreneur's approach to the survey: they only assigned maximum rate to an item: "to do something I enjoy". In contrast, the item, "to obtain profit" was rated as "non-applicable".

However they considered nine motivations as important: "to have more free time for me and/or family"; "to be autonomous, be my own "boss""; "to live somewhere I enjoy"; "to establish relationships with other people"; "to prepare/to have an occupation at the moment of retirement"; "to avoid the stress of living in the city"; "to add to the local cultural/environment preservation", "to explore a market niche not very explored yet"; "the wish to leave their previous job".

If we read the literature review, we will easily conclude that only one of those motivations is not featured: to explore a market niche not very explored yet. However, one must understand that an entrepreneur will hardly launch a project to fulfil needs that have already been satisfied. We will further analyse this question, in the final notes, to emphasize the relevance of this type of entrepreneurship in the context of hotel business.

The entrepreneur considers to have achieved all of the main goals (rated 5 and 4). However they also state that all their initial goals have changed throughout time. They mention new businesses launching

(three more so far, even though one of them has already been alienated), which demonstrates, on the one hand that initial goals can change throughout time, as previously mentioned; on the other hand, it also shows that “new entrepreneurs” can transform into “portfolio entrepreneurs”³, by exploring new opportunities and adding up to the experience they have acquired.

Indicators of Success

The majority of indicators of success was rated either “very important” or “important”. The only exception (somehow important) was the expression “I obtain profit”, which demonstrates that profit is not irrelevant for the entrepreneur, but it is not a crucial variable.

The expressions “my customers are satisfied”; “the results advise/allow the current capacity expansion”; “I feel personally and professionally fulfilled with this project”; “I believe that my contribution to the local community is positive” and “the impact on the used natural resources is low” were considered as the more relevant indicators of success. If we consider the focus given to customers, individually, as previously mentioned, and the project, which is in progress, to recover an old local hotel unit⁴, which matches the new goals of the entrepreneur, we can affirm that the main indicators of success are completely aligned with the literature on this theme.

QUINTA DE LOGRASSOL

Quinta de Lograssol is located in the small village of Lograssol, 3 km far from Mealhada and 5 km far from Buçaco Mountain. It is located in the Bairrada region, which is very rich in culture and heritage. This region is also recognized for its green landscapes and the quality of the wine and gastronomy. In five minutes of distance, it is possible to enjoy the beauty and quietness of the Mata Nacional do Buçaco, which is part of UNESCO World Heritage, and its iconic palace.

The enterprise started its activity in 2013, after a long “battle” against paperwork, which lasted almost ten years. As the owner and general manager says: “The bureaucracy, namely the projects approval for rebuilding the house and the license to use it for touristic purposes were a very long and complicated process. We needed patience and perseverance”.

The enterprise is composed of two buildings; the main house with its outstanding eighteenth century façade, and the guest house. The former was first rebuilt in 1870 and is a local ex libris. The farm is rated as Tourism on the Countryside – Country house, and has 6 equipped bedrooms with TV, air conditioning, central heating and a private bathroom. It also has two social rooms to rest and leisure and a kitchenette, equipped with a vitroceramic cooktop, a microwave oven and a refrigerator, in case the guests wish to cook a light meal.

The project financing was ensured by equity funds (95%). The remaining (5%) was ensured by a public programme, which was approved when the project was already in progress. Initially they submitted a proposal for a major dimension and in depth project, but it was not approved due to its lack of economic and financial viability.

The unit’s average occupation rates rounds 30%. In terms of employment, besides the owners, who perform essentially some management tasks, it ensures two full time positions and two part time positions (people from the neighbourhood). The necessary purchases necessary to the enterprise are carried out in the area, near the farm.

Apart from the costs allocated to the initial investment, the farm is financially sustainable and its revenue covers the current costs associated to the exploration.

Quinta do Lograssol is also a socially responsible enterprise and faces the environment impact and sustainability as important goals to achieve. Thus the house is endowed with several renewable energy sources, such as a biomass boiler, solar panels to water heating or geothermic with air-conditioned forced circulation.

The “Quinta de Lograssol” is part of Guia Boa Cama Boa Mesa 2016 and 2017 and has won an award by the reservation platform Booking, due to the guests’ comments/ratings - “Guest Review Awards”. In November 2017, the average customer rating in this platform was 9,7 in 10 points.

The project promoters are a mature couple, with higher education and with an experience of more than 30 years in their professional areas (education and health). They still devote to their areas of expertise.

Before launching this enterprise they had no previous experience in the field of tourism nor had they had any business of their own before. They also did not feel the need to attend specific training and trusted that their cumulative experience of life and the pleasure and habit of hosting (friends and other guests) would be enough to assure the success of the business.

Their initial financial expectations were low, but that did not influence their decision to proceed, since they had the resources (estate and capital) and the enterprise was not seen as a means of survival. Currently they devote 15% of their time to the project management and they also keep their regular professional activities.

Entrepreneurs’ Motivations

The current owners inherited the house, but they only became interested in its recovery at a mature stage of their lives, after their children left home.

The recovery and increase of the family assets and the complementarity with their professional life, by doing something fulfilling are the entrepreneurs’ motivations. Besides, they point out other reasons, even though these are not determining, which influenced the decision to launch the project. Among these are the return to a place filled with childhood memories, the freedom to choose their timetable, the preparation for life after retirement, the complement to familiar income and the fact that previous skills are not very demanding (items rated 4). Questions regarding profit or more connected to the commercial aspect were moved to third plan and rated 3 or less.

The less contributing factors in terms of motivation were the desire to leave their previous job, since there is no dissatisfaction, but there is a wish for complementarity; to follow the family tradition, which in fact was non-existent: the fact that the business is not very demanding in terms of investment, since the house and the land were inherited; and the fact they have more free time for them and/or family, because unlike the rule, the promoters aimed at filling the emptiness their children left when they left the nest with a different but complementary activity to their professional one.

Side by side with the recovery of family assets (first goal), one of the motivations reinforced by the promoter to implement this enterprise was to ensure that the recovered asset “had a life and was not just another pretty, but cold and uncomfortable manor, where someone would go at some weekends as an obligation and not for pleasure.” A place where, besides enjoying the space, they could carry on hosting friends and keep contact with people from other cultures.

The promoters consider they have achieved all of the goals set in the beginning of the project and they assign this accomplishment to the low initial financial expectations about the touristic project. The

main goal was to recover the house and enjoy the conditions that the recovery allowed. The fact that the investment was approved after the aforementioned initial refusal to grant public support, reinforces the determination the promoters show.

Indicators of Success

The indicators of success with higher rates were customer satisfaction, personal and professional fulfilment with this project and the contribution to the community. Secondly, the combination of familiar and professional life. As the entrepreneur said, their children have autonomous professional lives, so their time management is free and flexible and has less constraints.

The less valued aspects were high profit and the current enterprise expansion. Although the score for profit is low, they do not discard the possibility/need the enterprise might have a sustainable exploration but they do not consider it an urgent issue in terms of recovering their investment; in terms of expansion, they are already in the process of recovering a new real estate for commercial exploration purposes, in Coimbra. However, they do not see it as an expansion of the current enterprise, since the framework, goals and indicators of success for the new enterprise are distinct from those of Quinta de Lograssol.

The success of the new enterprise is measured in terms of the commercial aspect and financial indicators are determining to this evaluation.

In short, the survey data analysis combined with the interview to the promoter of the enterprise, allows the confirmation that goals/motivations more valued by promoters are consistently connected to the indicators of success. Bringing these results together with the literature review, we can say we are before a case of lifestyle entrepreneurship. As the promoter said “We wanted to recover a family asset, we had the means to do it, we knew we were not depending on the revenue of the enterprise and we also wanted to provide a living, welcoming space where we felt good and fulfilled.”.

DISCUSSION

This exploratory paper aims to perform the first approach to lifestyle entrepreneurship and its presence in Portugal.

To do so, we started by reviewing the literature, which essentially resulted in a concept clarification and a summary for the motivations and features associated with it.

We proceeded with three case studies, which allowed to come to some conclusions, which cannot be considered as universal in terms of lifestyle entrepreneurship nor in terms of the figure of this type of entrepreneur in the tourism sector.

Regarding the results’ discussion, we have noted that some researchers (e.g., Agarwal & Shaw, 2007), admit that this kind of ventures might be harmful for the sector since they often present a lack of specific skills and weaker financial and human structures. These characteristics added to the holistic character of the touristic experience might lead to lower quality services. Nevertheless, the studied cases have shown successful units, with expressive occupancy rates, excellent ratings in the OTA’s (Online Travel Agencies) and several distinctions, which clearly point to their sustainability.

In addition, this kind of ventures strongly contribute to the “sale” of “authenticity” (Braun & Hollick, 2005), an item increasingly appreciated by tourists⁵. As Yolanda Perdomo, Executive Director for the Programme for the Affiliated Members of The World Tourism Organization said in the 11th Tour-

ism International Congress “the modern tourist searches inner growth, to gain self-esteem, to learn and become part of the places they visit, to be more than a spectator”⁶. In sum, this type of units meets that new tendency, adding up to meet this developing market niches and enriching and diversifying the national tourist attractions.

In fact, two of the investigated units are oriented to a developing tourists’ niche, who are fed up with the conventional offer, the standardized tourism for the masses, the big hotel chains/units and who are starting to increasingly choose small units (e.g. Clegg & Essex, 2000; Dantas & Marques, 2016), which are more human, intimist, authentic and provide diversified experiences, frequently customized, and where tourists feel like guests, instead of customers (e.g. Rowson & Lasley, 2010).

Finally, these entrepreneurs’ motivation, attachment and even passion to pursue their “dream” leads them to overcome the lack of specific training, which they acquire on a daily basis, as well as the innovative approaches (from location and architecture to relationships and experiences), which stand out as hardly comparable competitive advantages (Bredvold & Skålén, 2016), making them an example in comparison to the hotel chains and larger dimension units (Gelderen, 2007).

The introduction of a “success factor of the enterprise” item in the survey revealed to be a right choice. Thus, it helped us to know these entrepreneurs better as well as the positioning of their units. Some of the constant variables of this item were not far from the “philosophy” behind their motivations (e.g. “I feel personally and professionally fulfilled with this project” or “I have a flexible timetable and I determine it”), so they were left out. However, other variables were far from those formulations and obtained maximum ratings. One of these is “my customers are satisfied” (maximum rating in the three cases), which shows that these units are customer-oriented and their positive contribute to the community and the impact on local resources, being the latter extremely valued (rating 5 or 4), which also shows us a concern with the new social tendencies.

CONCLUSIONS

This chapter aims to identify the factors which lead lifestyle entrepreneurs to undertake their projects and the indicators which allow them to judge their success.

The presented case studies have enabled us to identify and confirm the specificities of this type of entrepreneurs, both in terms of motivations to carry out their projects and in terms of success indicators they consider.

First off all, we verified that the motivation for the three studied cases clearly fit into the literature, even in terms of posterior change of goals. However, contrary to the literature, the employment generated by the units that were analysed, excludes the family core, except when it concerns management.

However, we might find distinctive situations regarding lifestyle entrepreneurship, either in the scope of hospitality or in the scope of tourism in general (e.g. adventure tourism, wine tourism, surf). We consider that this might be a line of investigation which deserves further study.

It seems natural, as referred by Dawson et al. (2011), that the local, regional and central authorities do not consider these entrepreneurs to be particularly relevant for the socioeconomic development, due to their lack of ambition (e.g. non focused on profit and growth). Actually, we verified the licensing major difficulties in the Quinta de Lograssol case, and the entrepreneur in the Penhas Douradas case explicitly mentions the lack of support (and the obstacles) from the local authorities concerning their projects.

From our point of view, public entities should review their requirements/practices, clearly encouraging these types of projects. In fact, they develop outside the urban centres, where the employment offer is reduced. So, the few job positions they create (not so few as we saw in the cases we analysed) are very important for the local sustainability. Besides, we should not forget the guests' consumption in the region, nor the fact that these units (the cases studied) concentrate their provisioning in the region, which is also very useful for the local business.

On the other hand, given their connection to the local community and the specific offer they provide the tourists with, they turn into active agents in preserving the local surroundings, a feature less common in the great international chains (Middleton & Clark, 2001). All in all, they seem to be very important agents to the local economy (Tinsley & Lynch, 2001).

To sum up, and taking the analysed cases into account, lifestyle entrepreneurs – motivated firstly by the wish to a certain way of living and, consequently, obtaining sufficient income to assure it (Deakins & Freel, 2006) – promoted small hotel units with local repercussions, with a scarce environmental impact and have reached a differentiated offer to “present” the tourists with more customized approaches to their stay, offering specific experiences and adding up to promote the potentialities of their location places. Even though they position in three distinct levels, they seem to show us that we can evolve from the traditional 3 S's (sun, sea and sand) to the new aspired 3 S's (sophistication, specialization and satisfaction).

We recommend that public entities should adopt a new approach regarding projects with the same features as the cases studied, considering not only the local economic impact, but also the influence these entrepreneurs have as role models (Bosma, Hessels, Schutjens, Van Praag, & Verheul, 2012), encouraging the entrepreneurial activity and even the fact that the success of the first entrepreneurial project may lead to the launching of new projects. This goal, by coincidence, is present in the three cases analysed under the light of this study.

Because this is an exploratory approach we suggest a more wide study that might allow us to confirm the evidence which resulted from this investigation, concerning the lifestyle entrepreneurs' motivations, regarding the socioeconomic impact of this type of entrepreneurship as well as its repercussions in the more specific hospitality field.

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KEY TERMS AND DEFINITIONS

Entrepreneurial Activity: It is the human action aimed at generating added value through creativity, innovation and identification of opportunities. It implies the exploitation of new ideas as well as to plan and to manage projects in order to create value and to achieve the desired goals.

Entrepreneurial Motivations: Diversity of factors which encourage entrepreneurs to undertake certain decisions and to commit themselves to achieve their goals. The prevalence of non-economic motivations is one of the hallmarks of lifestyle entrepreneurship.

Entrepreneurship: The process of identification, appraisal, implementation, and exploitation of innovative ideas regarding existing and dormant market needs or to overcome the efficiency and/or effectiveness of an already existing solution.

Indicators of Success: Set of quantitative and qualitative factors which enables entrepreneurs to assess the performance of their ventures.

Lifestyle Entrepreneurship: An entrepreneurial approach in which personal goals (e.g., leisure, family life) are favoured over economic goals.

ENDNOTES

- ¹ The charming hotel, boutique or design concepts are commercially used indistinctively, however they are not recognized by Turismo de Portugal. Even though it does not represent a new concept (Albazzaz et al, 2003) its presence in Portugal is fairly recent. They are aimed at a market niche, who seeks customizing, authenticity and new experiences (Dantas & Marques, 2016).
- ² We considered very interesting that even though the promoter favours hiring people with higher education, he prefers, in most cases, to hire people without hospitality graduation, to prevent stereotyped, “formatted” behaviours that would not add up to the authenticity and environment type the enterprise intends to offer their customers. Simultaneously, given the more intimist character of the hotel, the relation with the customers is more intense and it is also a consequence of the activities the hotel promotes to their customers, the cultural and higher education of the employees in different expertise areas: all of these constitute an important asset, a differentiation factor and team motivation, as the entrepreneur underlines.
- ³ Literature (e. g. Parker, 2014; Westhead & Wright, 1998) establishes a difference between three types of entrepreneurs: *novice entrepreneurs*, who have launched and manage only one project, *serial entrepreneurs*, who continuously promoted several projects (which they alienate, depending on opportunities) and *portfolio entrepreneurs*, who have launched and manage several projects simultaneously.
- ⁴ This new project is seen as critical in two perspectives; it allows resources optimization and, by incrementing the critical mass, it will attract a greater percentage of international customers.
- ⁵ Actually, although every studied unit charges prices clearly above the regional average, their average occupancy rate also boldly overcome the regional average (55%/30%, 65%/25,3%, 30%/24,7%, respectively for the first, second and third unit).
- ⁶ Publituris (*newsletter*), 18.02.2016.

Chapter 12

Social Entrepreneurship: What People Are Looking for When They Talk About It

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ABSTRACT

This chapter seeks to understand what motivates an investment in a social entrepreneurial initiative (SEI), in order to easy the fit between investors goals and the SEI proposals. It provides a benchmark for investors and a guide for entrepreneurs through the identification of the most valued investment criteria. Data were collected online between March and May 2019 from Schawb foundation, Skoll foundation, Ashoka and Yunus Social Business. It was analyzed by content analysis. The results obtained corroborate previous literature review as well as highlighted different perspectives, suggesting further research for a better understanding where theory can improve practice. This study contributes to a theoretical consolidation of social entrepreneurship research field by means of the identification of common points among the practice of global organizations and the theory. Exploring social entrepreneurship is important because it is a new way of doing business and delivering social value and maybe the better bet to achieving a more sustainable society.

INTRODUCTION

Social entrepreneurs seek new ways to combine the concepts: company and society (Seelos & Mair, 2005). Although these structural concepts are present in a diversity of organizations, it is in social entrepreneurship that they related to the search for sustainable solutions to recurrent social problems (Mair & Marti, 2009; Stephan, Uhlaner, & Stride, 2015). It is a new way of doing business and thus a new way

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of generating and delivering value to society. Its very existence can be seen as an innovation (Seelos & Mair, 2005; Yunus, 2010).

Traditional companies treat their businesses as investments that should generate greater returns. Even the most passionate conventional entrepreneurs pursue, as their main objective, the profit. However, social entrepreneurs take as priority their social mission (Hossain, Saleh & Drennan, 2017; Ormiston & Richard, 2011; Austin, Stevenson & Wei-Skillern, 2006). Where the market sees consumers, the social entrepreneur sees people who need help (Yunus, 2010). This type of entrepreneurship gives us greater hope than just the correction of a market inefficiencies. It encourages us to believe that business can promote the development of more fair and equitable societies (Bosma, Schøtt, Terjesen & Kew 2016, Baker, 2013, Griffiths, Gundry & Kickul, 2013, Seelos & Mair, 2005). By recognizing the importance of social business models in the social value generation one can improve their conditions to happen and increase its understanding about them (Borzaga, Depedri & Galera, 2012).

There is much to be done to understand social entrepreneurship. Although it is a very popular research field, (Rawhouser, Cummings & Newbert, 2019; Lepoutre *et al*, 2013, Lee, Battilana & Wang, 2014; Hossain *et al*, 2017) it is still a fragmented theory, lacking consensus on several issues (Hossain *et al*, 2017, Lepoutre *et al*, 2013, Lee *et al*, 2014). Consequently, it is still very difficult to define what is and what involves or covers social entrepreneurship. Some definitions are so broad that any firm would fit, others may be so restrictive that became hard to frame (Pestoff & Hulgård, 2016, Austin *et al*, 2006). The literature is mainly composed by theoretical articles or by single case studies, idiosyncratic, ignoring the complexity of the interrelationships of social ecosystems (Hoogendoorn, 2016, Lee *et al*, 2014; Lepoutre *et al*, 2013; Dacin *et al*, 2010).

Accordingly, Choi & Majumdar (2014), state that social entrepreneurship is an essentially contested concept, thus almost impossible to define. This kind of concept has basic characteristics that may or may not manifest in the same way at the same time. In addition, it assumes different meanings for different people. Love, freedom and art are examples of essentially contested concept.

Van Der Have and Rubalcaba (2016) argue that the conceptual ambiguity and the theoretical fragmentation of social entrepreneurship can be a strength by connecting different approaches and disciplines, promoting academic diversity. The potential for change and innovation is immense as social entrepreneurship extends the boundaries between public and private, creating synergies beyond the capacity of non-profit organizations (Tate & Bals, 2018; Zhara, Gedajlovic, Neubaum & Shulman, 2009; Seelos & Mair, 2005).

This chapter studies different aspects of the social entrepreneurial concept through its literature, to explore its multidimensional aspect and to identify the selection criteria used for selecting social entrepreneurial projects. Content analysis was applied to the online material of the biggest global social entrepreneurship support organizations – GSESO (Seelos & Mair, 2005; El Ebrashi, 2009; Hossain *et al*, 2017). As a result, the study provides a benchmark for investors, since the GSESOs were chosen due their coverage, their legitimacy, their longevity and the diversity of social objective supported by them (Hossain *et al*, 2017; Ormiston & Richard, 2011; Defourny & Nyssens, 2010; Zahra *et al*, 2009; El Ebrashi, 2009; Mair & Marti, 2006). It also helps social entrepreneurial initiatives [SEI] to better fit the investors' expectations. Knowing what motivates an investment allow that fit, as Malpeli, Moraes and Ciccario (2018) showed in their case study about Yunus Social Business and the SEIs supported by it.

This study is a consolidation strategy to social entrepreneurship research field, providing an in-depth understanding of the concept and its diversity through the GSESO's different approaches. It explores

in what extent the fragmentation of the social entrepreneurship literature reflects SEIs' diversity (Van Der Have & Rubalcaba, 2016).

SOCIAL ENTREPRENEURSHIP ANTECEDENTS AND CONTEXT

Talking About Social Entrepreneurship

Social entrepreneurship are new business models that seek to efficiently meet basic human needs, to which the existing structures - markets, companies, governments, among other stakeholders - do not satisfy (Seelos & Mair, 2005; Mair & Marti, 2009; Stephan *et al*, 2015). These initiatives attempt to not rely only on donations and public funds, reconciling the social result with the economic result in a sustainable way (Stevens *et al*, 2015). They identify opportunities amid social problems and can mobilize, combine and employ resources in an innovative way to solve them (Tate & Bals, 2018; Seelos & Mair, 2005).

The first time the term social entrepreneur appeared was in 1972 in Joseph Banks' work that described how managerial skills could be useful in solving social problems (as cited in El Ebrashi, 2009). It united the universe of business and the study of social movements, a common antecedent with the concept of corporate social responsibility (Dees, 1998, El Ebrashi, 2009, Hossain *et al*, 2017). Soon after, in the 1980s, Ashoka was the first institution to support individuals who combined pragmatism, commitment to results and vision of the future in order to carry out profound social transformations (Hossain *et al*, 2017). Ramos and Martín (2001) explains this social entrepreneurship evolution in four phases based on motivations, constrains and outcomes (Figure 1).

Figure 1. Evolution phases of social entrepreneurship

Source: Adapted from Ramos & Martín (2001)

Phase 1	Phase 2	Phase 3	Phase 4
New organization	Initial Activities	Flare	Future sight
Social Calling	Professionalization	Specialization	Diversification
Motivation from philanthropic ideology supported by culture and / or religion. Provided by donations	Government incentives (grants and contracts)	Diversification and scale of contracts. Increased participation of private initiative (Corporate Social Responsibility, donations, etc.)	Search for market survival with alternative sources of revenue
Prevalence of volunteers	Volunteering and some wage labor	Increase in wage labor	Prevalence of wage labor
Local focus	Local policy-dependent approach	Expansion of the activity (more area of activity and / or diversified objectives)	Search for self-sufficiency
No defined process	Increasing pressures for more efficient management according to accountability needs	Development of expertise	Diversification and risk acceptance
Simplest management possible		Increased complexity	
		Crisis and public investments reduction	

Social entrepreneurship development was boosted by the financial collapse of 2008 (Lumpkin *et al*, 2013; Costa, Barros & Carvalho, 2011; Zahra *et al*, 2009). One can no longer separate the social effects of the way the market operates. Capitalism demands certain inequality to exist, because it depends on people willing to sell their labor in exchange for wages. Although there is a need for a middle class that supports the growth of the economy (Santos, 2002; Chowdhury, 2013), the more unequal the society is, the less the economy grows in a long run (Piketty, 2015). Such dysfunction tends to aggravate historical situations of social inequality, such as those experienced in Latin America (Ibarra-Colado, 2006).

Social inequality doesn't result from economic poverty, but it's a result of a productive insufficiency to incorporate the basic needs of all individuals (Caetano, 2015). This inequality reduces growth and economic efficiency, since it affects the available human capital in a society, which strongly affects the labor market (OECD, 2018). The concentration of economic power in the hands of few, enhances this inequality as the collective is pressured by private interests, directing resources to certain areas and not to others. Social problems are treated as residual effects that could be alleviated by isolated actions, although such problems are endemic to social systems (Santos, 2002). Gradually, the understanding that externalities such as unemployment, social inequality and corruption are not unrelated to economic growth was built (Baker, 2013, Hossain *et al*, 2017), resulting in the search for new business models and the study of more responsible ways of socioeconomic performance (Baker, 2013, Phillips, Lee, Ghobadian, O'Regan & James 2015). Inasmuch as the political and economic scenario led to a reduction in social investments, especially those made by governments, there are more incentives for social entrepreneurs to build sustainable models that balance economic and social result, whether or not, acknowledging profit distribution (Lumpkin *et al*, 2013; Zahra *et al*, 2009).

Social entrepreneurship is not an isolated movement. Porter and Kramer (2011) argue that companies must create economic value and value for society by reconnecting the idea of success with social progress. It is not a single cause claim: the planet *also* has changed and the impacts of industrial society on Earth must be discussed. For this purpose, there was a dissemination of sustainability concept and the alertness about the importance of multiple stakeholders' satisfaction. Therefore, the pressure for organizations to take more responsible attitudes increased, and both, private companies and social movements took center stage in this change (Almeida & Santos, 2017; Leviner, Crutchfield & Wells, 2006; Ramos & Martín, 2001).

Unfortunately, the social challenges have been increasing in greater proportion than they are solved. For example, measuring the footprint, alerts us to the surreal need to consume approximately 2 whole planets to sustain the current pace of production, if it maintained until 2030. By 2015, approximately 900 million people lived on less than \$ 1.50 per day (Tate & Bals, 2018). Social problems have also become increasingly intertwined, expanding, and growing in number and complexity. Today, they demand multidisciplinary responses and the articulation of several sectors (Tate & Bals, 2018; Almeida & Santos, 2017; Porter & Kramer, 2011). Traditional solutions no longer demonstrate efficacy and innovation has become central to addressing the complexity and extent of social problems. In this sense, the restlessness of the entrepreneurial spirit and its capacity for experimentation becomes suitable and desirable (Almeida & Santos, 2017; Phillips *et al*, 2015; Zahra *et al*, 2009).

Clarifying and describing models, methods and concepts helps to save a great deal of time and resources (Cannatelli, 2017). Contrary to what would happen in a conventional competitive arena, social replicable models can be imitated, without urge the competition, because the scale of their effect is desirable and shareable (Tate & Bals, 2018; Borzaga, Depedri & Galera, 2012; Ormiston & Richard, 2011). Social entrepreneurship creates a collaborative environment that favors exchanges and innovations (Phillips

et al, 2015; Hadad & Găucă, 2014). Social entrepreneurship flourishes and benefits from networking (Dwivedi & Weerawardena, 2018, Stephan & Folmer, 2017, Hoogendoorn, 2016, Stephan *et al*, 2015).

New business models that generate more balanced and collaborative ecosystems, concerned with the consequences of economic operations in the social and environmental spheres, are fundamental to the development of humanity (Seelos & Mair, 2005). This concern was already discussed by Karl Polanyi (1944) in suggesting a double movement, which predicted that, efforts to expand the market would evoke efforts to protect human beings, nature and means of production from market forces. Polanyi focuses his criticism on the transformation of land, labor and capital into commodities, using economic insecurity to motivate human actions. Currently, it is also reflected in international pacts mediated by ONU (Seelos & Mair, 2005) as the 2020 agenda and its 17 Sustainable Development Goals (United Nations, 2018). For Hossain *et al* (2017) social entrepreneurship allows environmental objectives to be achieved, since it aims to generate a “*sustainable society*” (p.362). It is an outcome from the focus on society in general, and not only on a single aspect, like market failure or a specific environmental issue. In this way, the social value generated encompasses the three pillars of sustainability: people, planet and profit [3P].

The European Commission¹ (2016) reports a rise in demand for collective interest services. At the same time, points out governments interest to aligning SEI with public policies. This approach could be beneficial because there is still a need for development in legislation, for the creation of adequate support systems and for funding lines. However, even in countries where social entrepreneurship is rising, there is a great deficiency in the development of managerial skills useful to its operation. It occurs, because many social initiatives have developed from community groups, with unplanned growth and with voluntary labor. Therefore, many do not have the managerial skills necessary for the new type of business model, nor they can hire professionals who meet their need for lack of knowledge (European Commission, 2016). To make matters worse, the available educational programs fail to offer useful tools and techniques, by relying on conventional management literature. That is why it is so crucial to develop a social management capacity. For this, the advance of social entrepreneurship theory is fundamental. Among the negative consequences of the current theoretical fragility, is the imitation of market-oriented behaviors and governance, that undermine the social objective, and the precarious use of advantages and opportunities arising from the engagement with the community (European Commission, 2016).

Social Entrepreneurship Concepts

For the European Commission (2016) a SEI is a private organization that prioritizes the social objective while providing a collective-interest activity. Its operation must be stable, at least in part, based on monetary economy - capital, assets, wage labor. It can have mixed revenue sources (grants, donations and market) and preferably have its objectives aligned with public policies (European Commission, 2016). The importance of available human resources is directly linked to the productive capacity of the initiative (European Commission, 2016; Austin *et al*, 2006; Dees, 1998). Both, the appeal of social purpose and the choice of volunteerism are factors available only to social initiatives. Other public or private capital organizations do not have such mechanisms (Lumpkin *et al*, 2013; Borzaga *et al*, 2012; Dess, 1998). However, there are social initiatives that present difficulties in organizing their workforce, either because of structural difficulties due to their trajectory, resource constraints or lack of technical knowledge (European Commission, 2016; Austin *et al*, 2006; Dees, 1998). Consequently, it is important to observe intangible factors such as reputation and legitimacy, that can favor the engagement in valuable networks. Networks usually help to overcome lack of resources and to enhance organizational

capabilities (Hlady-Rispal & Servantie, 2018; Bacq & Eddleston, 2018; Bernardino & Santos, 2015, 2014). Networks can help with information sharing, innovation development and broadening access to social, political, human, and economic capital (Mair, Battilana & Cardenas, 2012). Hence, it also helps to promote financial sustainability. However, differences in focus on objectives can create friction when different organizations come to act together (Hlady-Rispal & Servantie, 2018; Seelos & Mair, 2005).

The EMES [European Research Network] acknowledge that these organizations operate with a significant level of economic risk, either by acting on institutional voids or by the very dynamics of prioritization of the social side which leads to less productive choices (Defourny & Nyssens, 2010, Pestoff & Hulgård, 2016, Austin *et al*, 2006). EMES (2018), establishes that a SEI should specify its collective objective explicitly. The decision-making process must be not influenced by capital. The EMES definition differs from the European Commission (2016) by admitting initiatives launched by a group of citizens and by accepting only social economy organizations [not for profit], excluding for-profit social business (Pestoff & Hulgård, 2016).

Profit and/or Social Value Outcomes

The profit issue is like a Gordian knot. The definition adopted by the European Commission (2016) admits for-profit organizations, provided that the distribution of results is not influenced by the participation of capital but rather is guided by participatory governance that emphasizes the social objective (CIRIEC, 2017). Other institutions define that if it exists, profit cannot be appropriated by the economic agent who created, controlled, or financed it (CSES, 2016, EMES, 2018). In Yunus's words (2010, p. 33), "*When profit and human needs conflict, profit often wins. Which means people lose.*" The maximum consensus possible is that the social impact generated by SEI is not a side effect of an economic activity, but its main reason. The economic activity exists only to support the social objective (Lumpkin *et al*, 2013, Defourny & Nyssens, 2010, Yunus, 2010, Austin *et al*, 2006, Seelos & Mair, 2005).

The profit issue reminds us of business model sustainability. Sustainability is understood as the harmony between environmental, social and economic aspects (Hossain *et al*, 2017). For Lumpkin *et al* (2013) sustainability may adopt the perspective of adequate resources to balance the business model (Tate & Bals, 2018; Bacq and Eddleston, 2018) or the prospect of perpetuating its social impact (Mair & Marti, 2006). Most of all, the operation must not cause socioenvironmental damage, since it would not make sense to treat a problem by creating others (Hossain *et al*, 2017; Lumpkin *et al*, 2013).

Resources are fundamental to guarantee the sustainability of the operation. The autonomy of the SEI depends on a varied source of revenue, so there is no dependence on an single stakeholder and the decision-making process is independent of capital domain (EMES, 2018, Pestoff & Hulgård, 2016, EMES, 2018; Pestoff & Hulgård, 2016; European Commission, 2016; CSES, 2016; Borzaga *et al*, 2012; Defourny & Nyssens, 2010). However, this variety of revenue sources cannot create a wide variety of objectives, otherwise it will undermine the performance of the organization (Hlady-Rispal & Servantie, 2018; Tate & Bals, 2018; Hadad & Găucă, 2014; Yunus, 2010). Dwivedi & Weerawardena (2018) consider innovation and strategic alliances as forms of revenue generation as well as grants and donations.

Social investors also offer alternatives to the dependence on public capital. But entrepreneurs should be able to demonstrate their potential for generating social value and the sustainability of their business models (Leviner *et al.*, 2006, Yunus, 2010). It is necessary to reach a middle ground where a fair economic model is possible and the relationships between stakeholders are equitable (Boons & Luedeke-Freund 2013; Tate & Bals, 2018).

Social organizations, in general, work in a collaborative way in their market relationships (Borzaga *et al*, 2012; Ormiston & Richard, 2011; Dees, 1998), so models from competitive environments will fail to describe their results. When conventional models are used or adapted, they lead to misunderstandings about: the interpretation of heterogeneity between organizations and relationship among stakeholders, strategies analysis, decision-making effect, growth potential, market share and variation of performance over time (Richard *et al*, 2009; De Brito & Brito, 2012). Therefore, it fails to report social results with accuracy and becomes a limited tool for business orientation (Hadad & Găucă, 2014).

Measuring the Social Value

There is great pressure on social entrepreneurs to ensure that social value is properly measured and reported, although there is no scientifically consensual recommendation on how to proceed. Investors and other stakeholders want to be sure about the effects of their support (Bosma *et al*, 2016). Measuring social value consists in the process of accessing or estimating the social consequences of an initiative. Value generation refers to both the type of value created and its creation process (Ormiston & Richard, 2011). Hossain *et al*. (2017) define it as the “*impact on the quality and quantity of life*” (p.361). Value forms are as varied as existing social problems (Ormiston & Richard, 2011; El Ebrashi, 2009). The value concept diversity makes it difficult to establish a standard of comparison (Bernardino & Santos, 2014; Ormiston & Richard, 2011; Defourny & Nyssens, 2010; Zahra *et al*, 2009; El Ebrashi, 2009; Mair & Marti, 2006; Austin *et al*, 2006).

In addition, the operation of a social initiative generates externalities defined as social impact, such as raising local welfare, satisfaction among employees, increasing social capital, exchanges of knowledge and innovation. Often these effects depend on long-term commitment and are intrinsically related to their context (Borzaga *et al*, 2012). It is also difficult to establish that a specific effect happened exclusively through the action of the social initiative (Borzaga *et al*, 2012; Ormiston & Richard, 2011).

Collaboration and circulation of knowledge are elements that favor social innovation (Borzaga *et al*, 2012). Social innovation is the process of mobilizing and apply scarce resources, recombining them in new ways to address unmet social needs (Hadad & Găucă, 2014). It involves creativity and experimentation, resulting in new products, services or processes (Miller, 2011). Some authors argue that the social business model itself is an innovation (Lumpkin *et al*, 2013; Seelos & Mair, 2005). Hayek (1945) argues that entrepreneurship opportunities are only locally possible, since most of these entrepreneurs' knowledge are not useful outside their context. This knowledge is tacit and often unavailable to people outside the context. Thus, the entrepreneurs adhere to the Social Bricolage to meet a social need of difficult recognition, with small businesses and limited scale (Zahra *et al*, 2009). Favored by information asymmetry, they combine the resources available to solve problems and raise new opportunities (Dwivedi & Weerawardena, 2018).

Social Impact - Scalability

Nevertheless, there is the idea of scaling social impact. This means maximizing and expanding the effect of the social initiative (Bacq & Eddleston, 2018). Scalability refers to how ease and how fast a system can be expanded (Lumpkin *et al*, 2013). It is associated with the ideas of innovation and social change (Leviner *et al*, 2016, Yunus, 2010). Cannatelli (2017) argues that the most serious social problems are scattered around the globe. In this way, an effective, flexible solution that can easily be replicated with-

out wasted resources with experiences would quickly serve a diversity of regions. Although desirable, it is unlikely to work by mere replication of the business models. Because both the perception of opportunity and the ability to act on the social problem depend heavily on networks. Most of all, different ecosystems generate different organizations, practices and effects (Hadad & Găucă, 2014, Borzaga *et al.*, 2012, Austin *et al.*, 2006).

In short, the creation of a sustainable business model, based on social innovation, with adequate resources (including human capital), coupled with a network engaged in the achievement of social goals, is fundamental for a SEI. It should be capable of impacting society in a stable and lasting way. This efficacy in the treatment of social problems can replace the relevance of profitability in the evaluation of potential investors, if properly reported (Hlady-Rispal & Servantie, 2018). However, the theoretical framework exposed here is not consensual. While these arguments are logical and compelling, interpretations on the subject vary immensely and make it difficult to use theory as the basis for empirical research. Impasses such the appropriation or not of profit and the importance of embeddedness or scale up are some inconsistencies that even the selected literature was unable to clarify.

SOLUTIONS AND RECOMMENDATIONS

It is not for lack of scientific production that social entrepreneurship does not yet have a delimited theory. Taking advantage over this large spectrum of knowledge, evidence was sought from practice to help filling the theoretical gaps in search of some consensus. The study begins with the search for the theoretical conjuncture according to the model of systematic review literature, as proposed by Remenyi, Williams, Money and Swartz (1998). The primary narrative talks about what is being discussed on the literature. It needed to be identified, detailed and delimited, framing it in the time. Different concepts were considered, then the primary order narrative was selected and organized in a higher order narrative, as presented in previous sections (Remenyi *et al.*, 1998). In order to achieve the theoretical conjuncture these concepts were compared with empirical data aiming to answer the question: which elements of a social entrepreneurial business model are considered on an investment selection? Through this comparison, the prospect is to understand to what extent the fragmentation of the social entrepreneurship literature reflects the diversity of the phenomenon itself (Van Der Have & Rubalcaba, 2016).

For this purpose, the study was written upon four global social entrepreneurship support organizations – GSESO - that provide support to SEI. The choice of these organizations was due to their impact on several other SEI, their coverage, legitimacy and longevity, which make them good representatives of the social entrepreneurship phenomenon. It also helps to overcome the difficulty of comparing SEI, as they all act globally and have initiatives with different social objectives, although sharing one common aim: enhance social entrepreneurship (Hossain *et al.*, 2017; Ormiston & Richard, 2011; Defourny & Nyssens, 2010; Zahra *et al.*, 2009; El Ebrashi, 2009; Mair & Marti, 2006). Some GSESOs description is provided to contextualize their interrelations with the social entrepreneurship ecosystem and to enrich the knowledge about this kind of investors. As Martin (2016) has done, the secondary data were collected from GSESO web sites in order to describe their objectives and selection criteria. The websites information was complemented by published case studies. The data collection was done between January and April 2019. The literature gaps and issues exposed in the previous section are analyzed based on the data collected to better understand the social entrepreneurship research field status.

The Figure 2 shows the references that supports the choice of these GSESOs.

Figure 2. The GSESO references

Source: Authors

Organizations	References
Ashoka	Hossain et al, (2017); El Ibrashi, (2009); Leviner <i>et al</i> (2006); Mair & Marti, (2006) www.ashoka.org/
Skoll Foundation	Hossain et al, 2017; Zahra <i>et al</i> , (2009) http://skoll.org/
Schwab Foundation	Hossain et al, 2017; El Ibrashi, (2009); Peredo e McLean, (2006) www.schwabfound.org/
Yunus Social Business	Malpeli <i>et al</i> , (2018); Yunus, (2010); Seelos & Mair, (2005) http://www.yunussb.com

The data analysis was operationalized by Content Analysis. It is a set of procedures adopted with the purpose of producing valid inferences from the examination of the communications (Weber, 1990; Bardin, 1977). Content analysis has the potential to identify scattered patterns in the language, helping to synthesize them through simplification. It also helps reveal latent constructs that would be lost in the mass of data (Bardin, 1977; Weber, 1990; Gephart, 1993; Duriau, Reger, & Pfarrer, 2007). This potential is useful in the identification of the consensuses to unify the theoretical concepts so necessary for the consolidation of the Social Entrepreneurship research field (Remeny *et al*, 1998).

The codes used to categorize the information emerged from the data, with the aim of giving prominence to what happens in practice (Tarozzi, 2008). Weber's (1990) protocol was adopted. The first step was a generic approach that enables data to be analyzed in terms of the principal concepts or themes. Thus, the thematic record was settled inductively through the data, then compared with literature. Hereby semantic criteria became a code list. The code list was tested by means of theoretical saturation and checking with another researcher. When all collected data were coded, the results were inferred.

Based on the literature reviewed the data were grouped into five categories to guide the search for information (For further information see Appendix 1). New categories have emerged from data, and replaced the previous ones used to website and literature scrutiny. The coding has been changed due to its inductive character and because the information available on the websites is organized differently from the literature. The new codes were used to calculate the frequency: 1) Social entrepreneurship definition; 2) Characteristics of the social entrepreneur; 3) Characteristics of the GSESOs; 4) GSESO focus; 5) Objectives supported; 6) Kind of IES supported; 7) IES supported features. The Appendix 1 summarize this track and its outcomes. Data were analyzed by the frequencies of the themes.

The content analysis results were applied to the model of Snow and Benford (1988) that provides the observation of the systematic and dialectical relationship between ideological factors, such as val-

ues, beliefs and meanings, with the motivation that leads to engagement in social causes. The model of resonance and participant mobilization is analytical, avoiding the descriptive way how the relationship between these factors are studied. It is operationalized through the classification into three linearly related categories: diagnosis, prognosis and motivation. The diagnosis is the issue identification that triggers the mobilization. The prognosis is reflected by strategies, goals and solutions proposed to address the diagnosed issue. It represents the conduct that will guide the use of resources mobilized. Finally, the motivation is the consequence of the multidimensional relationship between diagnosis, prognosis and reality. It is reflected in the consensual elements of the discourse adopted by the majority of stakeholders. It is something changeable, characterized by constraints imposed by beliefs, behaviors and situations. It is a mirror that reflects agents involved in the analyzed phenomenon (Snow & Benford, 1988).

The analysis has started from the first element of the strategic process – the mission - openly available on the most websites (Barney & Hesterly, 2011). Only the Schwab Foundation website demanded a certain degree of interpretation to access it. The Figure 3 lists the selected GSESO. The words in bold highlight the main elements according to the literature.

The four organizations support social entrepreneurship differently. Yunus Social Business [YSB] adopts a market model, focusing on social investments that should generate economic results. The other organizations act in a philanthropic way, being Ashoka the most charitable one. Skoll and Schwab foundations support SEI through awards. Both are prestigious, with political capital being the main difference aggregated by Schwab foundation, by giving access to the World Economic Forum. All organizations share the goal of identifying and giving visibility to social entrepreneurship initiatives and provide a network to the selected SEIs. YSB has a specific focus on poverty alleviation, while Skoll Foundation expands its scope for social problems. Schwab foundation and Ashoka do not specify exactly the kind of issue they are handling, but both seek to generate social change. It is not possible to compare the impact of their activities because they operate differently. A search on the website data was done seeking among disperse information in order to know more about what they think about social entrepreneurship (Appendix 1).

Ashoka and Skoll Foundation base their purpose on social change, while YSB and Schwab Foundation are focused on the generation of social impact, mainly through poverty alleviation. The firsts had as main subject-matter a critique to the current world order and the seconds, the help to disadvantaged and the marginalized populations that lack resources and power to do it by themselves. The Skoll Foundation has a vision where the social change is starred by social entrepreneurs. This permeates all that they do, and thus, their selection criteria are based on the dichotomy: social change potential and the entrepreneur's profile (El Ebrashi, 2013). Ashoka and Schwab Foundation were aligned with European orientation for the commitment with social impact linked with the notion of common good (EMES, 2018; Hlady-Rispal & Servantie, 2018; Pestoff & Hulgård, 2016; European Commission, 2016; CSES, 2016; Defourny & Nyssens, 2010). YSB has a more entrepreneurial approach, where the public policies alignment is not a point (Defourny & Nyssens, 2010). Maybe because YSB is also a social organization, not a regular foundation like the others. So, YSB has economic objectives as well.

All the GSESOs studied work as a network provider and try to expand and improve their networks. It is a central issue (Dwivedi & Weerawardena, 2018, Stephan & Folmer, 2017, Hoogendoorn, 2016, Stephan *et al*, 2015). In different levels all of them work on social entrepreneurship visibility (Seelos & Mair, 2005). Ashoka do it acknowledging the initiatives with bigger potential to social change (Seelos & Mair, 2005). The Skoll and the Schwab Foundations try to do that by increasing the social entrepreneurial political capital (Mair & Marti, 2009). The Skoll Foundation includes governs in their social network,

Figure 3. The GSESO description

Source: Adapted from organizations web sites retrieved on 06/03/2019

Global support Organization	Foudantion	Mission	Services	Coverage
Ashoka	1980 by Bill Drayton	Ashoka identifies and supports the world's leading social entrepreneurs, learns from the patterns in their innovations , and mobilizes a global community that embraces these new frameworks to build an "everyone a changemaker world".	Fellowship and network plataform	The Ashoka Network of Social Entrepreneurs includes over 3,500 entrepreneurs and social entrepreneurs spread across 89 countries .
The Skoll Foundation	1999 by Jeff Skoll	The Skoll Foundation drives large-scale change by investing in, connecting , and celebrating social entrepreneurs and innovators who help them solve the world's most pressing problems .	Award, some filantropic investment and network plataform	The Skoll Foundation has invested approximately \$470 million worldwide, including the Skoll Award to 128 social entrepreneurs and 106 organizations on five continents .
The Schwab Foundation	1998, under the legal supervision of the Swiss Federal Government	Aiming to support new model for social change , by developing a community of interaction and experience exchange . The Schwab Foundation gives to social entrepreneurship higher visibility on the global scene. Schwab Foundation identifies , highlights and gives a platform to social entrepreneurial organizations, thus including social entrepreneurs in the meetings, discussion and research projects of the World Economic Forum. Yunus Social Business believes in the power of business to end poverty .	Award and network plataform	For twenty years now, the Schwab Foundation for Social Entrepreneurship has supported the world's leading social entrepreneurs in their efforts to create a more just, equitable, and sustainable world and I am proud that over 300 social entrepreneurs continue to be engaged in our activities.
Yunus Social Business	2011, Nobel Peace Prize Laureate Prof. Muhammad Yunus	Our work offers a dignified hand out of poverty to millions of people through Social Business . YSB tackles poverty from the bottom up with Philanthropic Venture Funds and the top down with Corporate Innovation .	Social investment, business model, business incubation and network plataform	YSB is present in 7 countries , where local teams provide support, training, mentoring through acceleration programs and financing to entrepreneurs.

supporting their initiatives. The Schwab Foundation includes social entrepreneurs in the World Economic Forum discussions. YSB do it by the market, connecting organizations from different economic sector to exploit social problem-solving opportunities (Yunus, 2010).

The social entrepreneurship concept keeps the same pattern of indefiniteness. The only consensus is about the need of the social mission's prevalence (Hossain *et al*, 2017; Ormiston & Richard, 2011; Austin *et al*, 2006). Each one of the GSESO adopts a different definition and accepts different kind of organizations. The variation goes from a broad to a narrow set of organizations eligible for selection (Pestoff & Hulgård, 2016; Austin *et al*, 2006). The profit issue will remain as a dilemma (Hossain *et al*, 2017; Pestoff & Hulgård, 2016, Lee *et al*, 2014). Surprisingly, only YSB takes the risk to invest in new ventures. The most of GSESO choose organizations that can prove social impact capacity. Skoll and Schwab Foundation specifically demands data and facts. The autonomy of the SEI is presumed when it selected for investment, because none GSESO assume that their investment is a vital source of revenue, but a complement or a reinforce for scaling up (EMES, 2018, Pestoff & Hulgård, 2016, European Commission, 2016; Pestoff & Hulgård, 2016; CSES, 2016; Borzaga *et al*, 2012; Defourny & Nyssens, 2010).

Nowadays is consensus that only knowing "who the entrepreneur is" is not the better way to understand an entrepreneurial process (Mair & Marti, 2006; Shane & Venkataraman, 2000; Gartner, 1990). However, the social entrepreneur characteristics still seems to be a great concern on the investment evaluation (Malpelli *et al*, 2018). The valued characteristics vary accordingly with the GSESOs purpose and other selections criteria sets. Ashoka and the Skoll Foundation place greater emphasis on the entrepreneur's role as a changemaker. While YSB and the Schwab Foundation are looking for specific aspects of the entrepreneurial profile that will enhance the other features of the business model. The Figure 4 shows the GSESOs preferences.

The content analysis results were applied to the model of Snow and Benford (1988) that provides the observation of the systematic and dialectical relationship between ideological factors, such as values, beliefs and meanings, with the motivation that leads to engagement in social causes.

Based on the data classified in the seven categories (Weber, 1990), the model of resonance and participant mobilization was built (Snow & Benford, 1988). As the objective of this work is to understand the factors that influence the investment decision, there are at least two agents directly involved in the analyzed phenomenon: the investor and the entrepreneur. Malpelli *et al* (2018) have found that there are little motivations differences between social supporters and social entrepreneurs, the main stakeholders considered in this study. Hence, the challenge lies in understanding the selected prognoses to address the various social problems, in the search for common elements related to this aspect. The Figure 5 exposes the model raised in accordance with the theoretical conjecture (Remenyi *et al*, 1998). After this, the motivations derived from the process of solution-proposal and investment-decision will be analyzed. Evidence of the consensus from this process can clarify aspects of the literature aiming a more robust theoretical construction.

The obvious mobilization trigger are the complex and persistent social problems (Tate & Bals, 2018; Stephan *et al*, 2015; Mair & Marti, 2009; Seelos & Mair, 2005), however the approach to analyzes can be broad or narrow, as well as the social entrepreneurship definitions (Pestoff & Hulgård, 2016; Austin *et al*, 2006). The broad approach sees the social problem in a holistic way, thus demanding a social change. It means that new actions and relationships are needed to build different results (Baker, 2013). The narrow approach recognizes that social problems afflicts most the disadvantaged and the marginalized populations. So, the efforts are concentrated in the alleviation of these conditions, in a pragmatic way. This approach is best suited to public policies, although reproducing a criticized way of thinking

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Figure 4. The social entrepreneur' valued characteristics

Source: Authors

Degree of value	Ashoka	Skoll Foundation
Most valued		
	Creativity	Proactivity
Same importance		Pioneering
		Leadership
		Learning disposition
Degree of value	Schwab Foundation	Yunus Social Business
Most valued		Skills of stakeholder engagement
	Passion	Passion
	Compassion	
Same importance	Skills of stakeholder engagement	
	Leadership	
	Learning disposition	

Figure 5. Model of resonance and participant mobilization

Source: Adapted from Snow and Benford (1988)

Diagnosis	Prognosis	Motivation
Social change	Innovation	Former organizations
Solve social problems	Large-scale social impact	Sustainable social impact
	Replicable business model	
	Focus on the Entrepreneur	
	Focus on the Business model	
	Focus on the Social mission	
	Network provider	
	Social entrepreneurship visibility provider	

social solutions (Santos, 2002). It serves the market as well, keeping the inequality in a profitable balance without changing the agents that lead the decision-making by capital power (Piketty, 2015; Chowdhury, 2013; Porter & Kramer, 2011; Ibarra-Colado, 2006; Santos, 2002).

The consequent prognosis is a business-structured one. It could be a prescription for any multinational business model: a large-scale, innovation-based business model. It's better to be easy to replicate, like a franchise. The investment decision is driven by the extent of business model efficiency, with strategic valued long-term objectives to serve steadily a target consumer (Osterwalder & Pigneur, 2011). The head of the business must be a suitable character pervaded with qualities that can increase the value generation. The business reputation and legitimacy depend on it. The European Commission (2016) has warned about the risk of imitate market-oriented behaviors and governance. By doing it, one can undermine the social objective, and lead to a precarious use of advantages and opportunities arising from an appropriate engagement with the community.

The business results reflect on investor and vice-versa. Concerns about visibility are justified. As the literature predicts, the stakeholder's engagement in the network can help with information sharing, innovation development and broadening access to social, political, human, and economic capital (Mair, Battilana & Cardenas, 2012). It also helps to promote financial sustainability (Leviner *et al*, 2006, Yunus, 2010). The risk of multiples objectives is mitigated by the selection criteria (Hlady-Rispal & Servantie, 2018; Seelos & Mair, 2005). Albeit different, all the GSESOs studied, have demonstrated consistency in their statements, strategies, goals and operation modes.

Despite the preference for investment in ongoing SEIs, the data collected tell little about how social entrepreneurs demonstrate their potential for generation of social value and the sustainability of their business models (Boons & Luedeke-Freund 2013; Tate & Bals, 2018). No straight orientation about evaluation models or impact measures were identified. It looks like the entrepreneur profile is more important during the selection than the plain data about the business. It turns the investment selection a subjective quest. This subjectivity, along with the importance of social mission, can be the distinguish feature between regular investment and social investment. This is kind an emotional bond that connects with the empathy needed to seek for social-problems solutions (Hadam & Găucă, 2014; Borzaga *et al*, 2012; Zahra *et al*, 2009; Yunus, 2010; Austin *et al*, 2006).

The SEIs' selections criteria favor sustaining technologies (Christensen, 1997) and innovations that balance the market forces (Kirzner, 1973) relying on flexible, embedded and risk-tolerant entrepreneurial structures (Hitt, 2011; Seelos & Mair, 2005). The solutions from selected SEIs can spread if their business model were easy enough to be replicated (Cannatelli, 2017; Lumpkin *et al*, 2013). Therefore, large-scale means capacity of spread out rather than organizational size and operational capacity (Bacq & Eddleston, 2018; Cannatelli, 2017; Lumpkin *et al*, 2013).

The business model sustainability is not clearly expressed. It's something appreciated but not detailed. The GSESOs look for organizations that can promote environmental and social impact steady through economic results (Hossain *et al*, 2017; Lumpkin *et al*, 2013). But the sustainability on the perspective of adequate resources to operation (Tate & Bals, 2018; Bacq and Eddleston, 2018; Lumpkin *et al*, 2013) or the prospect of perpetuating its social impact (Mair & Marti, 2006; Lumpkin *et al*, 2013) is not detailed.

Finally, the theoretical result from diagnosis and prognosis process reinforces the former social organizations, capable to provide sustainable social impact. Therefore, the big, world-wide GSESOs are not engines to new SEI creation. Nevertheless, they are important players for the network strengthen, and this network can foster new SEI creation (Dwivedi & Weerawardena, 2018; Mair *et al*, 2012). It is possible just because there are collaborative market relationships involved and they are driven by social

goals that benefit all (Borzaga *et al.*, 2012; Ormiston & Richard, 2011; Dees, 1998). On the other hand, this evidence represents a constraint imposed by investors beliefs and behaviors, and it can shape the way social entrepreneurship develops, because affects the resource mobilization and distribution (Tate & Bals, 2018; Seelos & Mair, 2005).

FUTURE RESEARCH DIRECTIONS

The search for common elements on GSESOs investment decision-making helped to improve theoretical conjuncture of social entrepreneurship, but the selected method and the data set had some constraints (Remenyi *et al.*, 1998). By adopting the meanings as concentration unit through thematic analysis (Bardin, 1977) little attention was paid to quantitative research of data (Bardin, 1977; Duriau, Reger, & Pfarrer, 2007). With methodological rigor (Weber, 1990) the study sought theoretical saturation to support the analytical generalizations exposed, based on the theoretical conjuncture (Tarozzi, 2008; Remenyi *et al.*, 1998). However, the quantitative analysis of the data would allow to understand the correlations and interrelations between the identified elements, clarifying them.

In order to increase the reliability and validity of the results, the coding derived from this study should be applied to new social entrepreneurship support organizations data (Weber, 1990; Gephart, 1993). The application of the coding in the SEIs supported data would be also very elucidative, contributing both to theoretical conjuncture and to the identification of possible inconsistencies in the investment selection process. These new researches can provide evidences about literature issues don't accomplished here.

This study didn't solve the profit acceptance problem, thus important structures from the ideal social business model are still unclear. What can be done to achieve a stable social operation? There is little knowledge about factors as labor force and variety of revenue sources (European Commission, 2016; Lumpkin *et al.*, 2013; Borzaga *et al.*, 2012; Austin *et al.*, 2006; Dees, 1998). It blurs the comprehension about intangible factors such as reputation and legitimacy (Hlady-Rispal & Servantie, 2018, Bacq & Eddleston, 2018; Bernardino & Santos, 2015, 2014).

Even though the research was about investment decision nothing was found about risk (Defourny & Nyssens, 2010, Pestoff & Hulgård, 2016, Austin *et al.*, 2006). Social entrepreneurship is a risky venture because try to solve problems so far without answer, most of the times in a resource constrained environment (EMES, 2018; Dacin *et al.*, 2010). It usually makes unproductive choices in order to protect social goals (Defourny & Nyssens, 2010, Pestoff & Hulgård, 2016, Austin *et al.*, 2006). So, risk is an important issue to be elucidated. Much was accomplished using only secondary data and this study shows up a lot of research opportunities.

CONCLUSION

The intention to understand what does motivate an investment in a SEI was accomplished. And by this knowledge some features were highlighted in order to help a better fit between investors goals and SEI proposals. The identification of the most valued investment criteria provided a benchmark for investors, a guide for entrepreneurs and helped to reinforce some theoretical aspects through the common points identified in social investment practice. The divergences pointed out where more research is needed. Therefore, the assumption of the fragmentation of the social entrepreneurship literature reflects the di-

versity of the phenomenon itself seems correct. So, the social entrepreneurship research field could be thought as eclectic rather than only fragmented (Van Der Have & Rubalcaba, 2016).

Then, GSESO selection criteria were identified by applying the model of resonance and participant mobilization (Snow & Benford, 1988). The core aim [diagnosis] of GSESOs when choosing an investment are social change or social problems solution. It influences the selection criteria [prognosis]. The GSESOs focus on entrepreneur profile, on the prevalence of social mission and on the belief of a sustainable business model. Belief because it wasn't possible to find the description of a sustainable business model beyond the elements identified in the prognosis (Figure 5). These elements are innovation and large-scale social impact through a replicable business model. The GSESOs try to be a network provider and a social entrepreneurship visibility provider (Dwivedi & Weerawardena, 2018, Stephan & Folmer, 2017, Hoogendoorn, 2016, Stephan et al, 2015).

The GSESOs rely on subjective criteria to choose where invest. It looks like that they mitigate the risk, investing in former social organizations capable to provide sustainable social impact. But how the SEIs prove it is not clear. The social entrepreneur seems to influence the investment decision. The profile valued combines changemaker qualities with abilities that can enhance the initiative success, like skills of stakeholder engagement, leadership, learning disposition, passion, proactivity, creativity. This subjectivity, along with the importance of social mission, can be the distinguish feature between regular investment and social investment choices (Hitt, 2011). The elements considered when evaluating a social organization vary greatly in degree due the observed point of view. The criteria were grouped according to semantics (Bardin, 1977), respectively: 1) Social mission; 2) social entrepreneur's personal characteristics; 3) Innovation; 4) Large-scale social impact; 5) Sustainable social impact generation; 6) Replicable business model; 7) Revenue variety; 8) Social impact measurement.

It seems that the GSESOs investment strategy favor sustaining technologies (Christensen, 1997) and innovations that balance the market forces (Kirzner, 1973). The opportunity is exploited through social bricolage in a flexible, embedded and risk tolerant way (Hitt, 2011; Seelos & Mair, 2005). This business model can spread their social impact easily by replication (Cannatelli, 2017; Lumpkin et al, 2013).

The last part of the model is the motivation. The GSESOs invest in SEIs that represent former organizations with reported sustainable social impact. The motivations are the consequence of the multidimensional relationship between diagnosis, prognosis and reality. In this model it works as a constraint, which can be interpreted as the best chance of diagnosis [the trigger] being achieved through prognosis [the criteria].

Both GSESOs and SEIs are committed to solve complex and persistent social problems (Tate & Bals, 2018; Stephan et al, 2015; Mair & Marti, 2009; Seelos & Mair, 2005). While the four organizations studied here support social entrepreneurship differently, pursuing different goals, they share the believe in the social entrepreneurship potential to improve human life and society development. They all work to expand and improve social entrepreneurship, in order of increase its power to act.

The results obtained corroborated previous researches about the fact that social entrepreneurship concept is not clear among investors (Hlady-Rispal e Servantie, 2018; Hossain et al, 2017; Lee et al, 2014; Acs et al, 2013; Dacin et al, 2010; Seelos & Mair, 2005). The results also suggest that the initiatives benefited vary a lot. The acceptance of profit and the type of relationship with the social objective also varies. Other researchers have also corroborated these findings: Hossain et al, 2017; Pestoff & Hulgård, 2016, and Lee et al, 2014.

Accordingly, to the diagnosis, the search for social problem solutions vary from a holistic to a narrow approach. The holistic one assumes that new actions and relationships are needed to build different results

(Baker, 2013), and claim for social change. The narrow approach pragmatically concentrates efforts in the alleviation of some social problems. While social change is a long-term goal, difficult to follow-up, the pragmatic action is compelled by the existing social structures and market forces. Therefore, it tends to maintain the way things are done. Accordingly, the inequality would be merely balanced in a profitable way without changing the agents that lead the decision-making by capital power (Piketty, 2015; Chowdhury, 2013; Porter & Kramer, 2011; Ibarra-Colado, 2006; Santos, 2002). This new way of doing business and deliver social value should be explored in order to influence a more sustainable society, like Polanyi (1944) urged us.

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KEY TERMS AND DEFINITIONS

Scalability: It means maximizing and expanding the effect of the social initiative. Scalability refers to how ease and how fast a system can be expanded.

Social Economy: A set of formally constituted private companies, autonomous decision-making and free membership-based, created to serve the needs of their associates across the market, providing goods and services, including insurance and financing. It includes not for profit organizations that provide social services whose surpluses cannot be appropriated by the economic agents who create, control or finance them.

Social Entrepreneurship: Social entrepreneurship is an essentially contested and multidimensional concept that takes the perspective of entrepreneurship as a process. It is about combining and using resources in an innovative way to pursue cost-effective opportunities. Its main intention is to overcome social problems. Its business model must be stable and sustainable, with the explicit goal of generating social value of collective interest. It must make full or partial use of factors of production (wage labor, capital and resources), in addition to including participatory and inclusive governance.

Social Impact: By social impact is meant the result of the process of assessing the implications of a given initiative over the time. It's the social entrepreneurial effect on society.

Social Innovation: Social innovation consists of a breakdown of norms necessary for the social business model to be maintained in a capitalist context. It allows the focus on generating social value above personal wealth generation and profit, by combining scarce resources to generate useful, affordable and desirable products and services. The business model itself is an innovation when the economic result is not an end, but a means to increase the social value generation.

Social Value: Social value is an essentially contested concept, characterized by the multiplicity and complexity of its elements. It is the stable and continuous result of social entrepreneurial initiative (SEI) operation. It is what the organization produces and delivers to its customers or beneficiaries.

Sustainability: Sustainability means harmony between environmental, social and economic aspects. The economic goals are means to achieve social purpose. It can adopt the perspective of adequate resources to balance the business model or the prospect of social effect perpetuation. It is also observed that in the course of the operation no socio-environmental damage are generated, since it would not make sense to treat one problem by creating others.

Appendix 1

Figure 6. Compared elements

Source: Authors

Organization	Focus	Social entrepreneurship definition	Social entrepreneur definition	IES	Selection criteria
Ashoka	Its purpose is to change the fact that society has organized around a few people who were at the top and who dictated to others what to do.	Ashoka differentiates SEI from social enterprise by supporting the former. In this sense, the objective of a IES is to create systematic, large-scale and sustainable social change with a replicable business model .	Social entrepreneurs are an essential corrective force . They do systemic change and are individuals whose essence, and consequently, whose actions are deeply committed to the common good .	Any organization that seeks systematic and lasting social change, sustained by long-term goals, that acts on a large scale and with a replicable business model. Can be a corporate social responsibility initiative, for example.	The new associate undergoes a rigorous evaluation process that seeks to verify five criteria: 1) systematic innovation aimed at social change; 2) impact generation potential; 3) creativity; 4) entrepreneurial qualities; 5) ethics.
Skoll Foundation	The Skoll Foundation pursues the vision of a sustainable world of peace and prosperity . It has led the charge for social entrepreneurship, buoyed by the knowledge that social entrepreneurs are the world's best bet for solving some of world's thorniest problems.	The Skoll Foundation invests in SEI whose innovations have already had significant and proven impact on some of the world's most pressing problems and in order to generate even greater impact on scale .	Social entrepreneurs take direct action and seek to transform existing systems . They seek to go beyond , to create a new stable and transformed system that is fundamentally different from the world that preceded it. Social entrepreneurs are pioneers in innovative and systemic approaches to meeting the needs of the disadvantaged and the marginalize populations that do not have the financial means or the political influence to gain lasting benefits on their own .	- Government Institutions - Not for profit organizations - For profit organizations with inherent social goal - Social business (the profit is not distributed; it is invested in the business or in another social initiatives)	Skoll winners typically exhibit many of the following characteristics: 1) visionary and effective leadership; 2) Clear and unshakable focus on mission; 3) Solid, scalable business model for greater system-level impact; 4) Strong strategic network; 5) Commitment to measurement, evaluation and learning; 6) Diversified and mission-aligned funding sources

Chapter 13

Alternatives to Capitalism: Learning From Pro-Social Collective Business Models

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ABSTRACT

The seriousness of current social and environmental problems implies that a real transition towards sustainable development is only possible through collaborative actions between actors and organizations. However, most of the research continues to focus on the actions of individual sustainable entrepreneurs with little evidence on business models triggered by collective entrepreneurship. This chapter aims to analyze the role of emerging pro-social collective organizations that aim to offer alternatives to capitalism, that is, an alternative to organizations that only seek to maximize economic revenues at the expense of social and environmental deterioration. Specifically, the chapter analyzes the business models of three sustainable cooperatives in Spain that have initiated a movement that promotes social well-being and environmental concern through collective business models that rely heavily on social media to gain exposure and attract followers to their cause in different strategic sectors. The cooperatives subject of this study are Som Energia, Som Conexió, and Som Mobilitat.

INTRODUCTION

The exacerbation of social and environmental problems at a global level, such as climate change, the melting of the Arctic Circle, natural disasters, poverty and water scarcity has highlighted the need to radically change the way in which societies produce and consume resources. The magnitude of these social and environmental problems has grown to such a degree that many of them have been classified as major sustainability grand challenges (Howard-Grenville et al., 2014). The term grand challenge has recently been coined by academics and professionals to refer to multifaceted and global problems

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that often span several sectors, whose solution is urgent and whose complexity and dimension requires innovation and scientific research on a large scale (Eisenhardt et al., 2016; George et al., 2016). The United Nations has also recognized the magnitude of these environmental and social challenges and in 2015 translated them into seventeen sustainable development goals (SDGs) that require urgent action¹. The SDGs address global challenges such as poverty, inequality, climate change, etc. and provide specific actions that need to be tackled by 2030 to achieve a more sustainable future for all. The SDGs also highlight the importance of collaboration and partnerships between different actors and organizations to mitigate some of the grand challenges related to sustainability.

Business organizations play a fundamental role in society, since they are the main agents of production and consumption and are therefore considered to be essential actors for solving the social and environmental challenges mentioned above. As a result, companies face increasing pressure from different stakeholders that demand responsibility and proactivity in their actions. Thus, in recent years companies have carried out a wide variety of practices to act as more socially and environmentally responsible agents. However, the exacerbation of social and environmental problems has shown that their attempts and actions have been insufficient (Branzei et al., 2018), since, in global terms, little progress has been made to stop a growing tendency towards unsustainable development and lack of responsibility (Wright & Nyberg, 2017).

Therefore, new business organizational approaches are needed that can contribute to the fight against climate change and tackle major sustainability challenges (e.g., Doh et al., in press, Howard-Grenville et al., 2014, Wright & Nyberg, 2017). It is necessary to radically change traditional capitalism practices and conventional production and commercialization approaches in favor of new organizational approaches to create, design, direct and lead businesses (George et al., 2016) that help to restore the balance between nature, society and economic activity (Antolin-Lopez & Montiel, 2018).

Given this scenario, entrepreneurial efforts around the creation and leadership of new sustainable enterprises have gained notable academic attention in recent decades (Antolin-Lopez et al., 2019; York et al., 2016), since sustainable entrepreneurship has been proposed as the solution to the pressing social and environmental challenges that we face today and to those that will arise in the future (Dean & McMullen, 2007; Hall et al., 2010).

Scholars have also recognized the importance of collective entrepreneurship in this process (e.g., Cato et al., 2008; Dean & McMullen, 2007; Gallo et al., 2018; Doh et al., in press). Although the actions of individual companies and entrepreneurs are useful and necessary to lead change, the seriousness of current social and environmental problems implies that a real transition towards sustainable development is only possible through collaborative actions between actors and organizations (Montgomery et al., 2012). However, most of the research continues to focus on the individual actions of sustainable entrepreneurs (Antolin-Lopez & Montiel, 2018; Pacheco et al., 2010), with little evidence on business models of collective entrepreneurship (e.g., Doh et al., in press; Gallo et al., 2018; Montgomery et al., 2012). Consequently, little is understood about the emergence of sustainable collective entrepreneurship (Hall et al., 2010), its processes (Muñoz & Cohen, 2018) and its real impact on the sectors and economies where they appear (Antolin-Lopez et al., 2013; Muñoz et al., 2018).

This chapter aims to analyze the role of emerging pro-social collective organizations that aim to offer alternatives to capitalism, that is, an alternative to organizations that only seek to maximize economic revenues at the expense of social and environmental deterioration. The chapter analyzes the business models of three sustainable cooperatives in Spain that have initiated a movement that promotes social well-being and environmental concern through collective business models that rely heavily on social

media to gain exposure and attract followers to their cause in different strategic sectors. The cooperatives which are the subject of this study are: Som Energia, Som Conexió and Som Mobilitat.

The chapter is structured as follows. First, it offers a review of the literature on sustainable business models as background. This is followed by the methods describing the sample and outlining the process of collecting, coding and analyzing the case studies. Next, the results are presented and discussed to identify good practices and provide recommendations. Finally, the chapter provides some final conclusions.

BACKGROUND

The concept of a business model started to attract interest in the 1990s. However, it was not until 2010 that it started to gain momentum when it passed from being a mere communicative tool for investors to one that was used more broadly as an analytical, planning, communication and design tool and even a strategic asset for competitive advantage and firm performance (Boons & Lüdeke-Freund, 2013; Geissdoerfer et al., 2018). In recent years, the business model has also sparked attention as a relevant conceptual construct and tool to address organizational, social and environmental challenges and as a means to help organizations achieve their sustainable development goals (e.g., Bocken et al., 2014; Evans et al., 2017; Schaltegger et al., 2016). Geissdoerfer et al. (2018) even go as far as to suggest that the sustainable business model concept might eventually replace the business model concept as sustainable competitive advantage supersedes competitive advantage.

Scholars have provided their own definitions of sustainable business models (e.g. Bocken et al., 2014; Boons & Lüdeke-freund, 2013; Evans et al., 2017; Stubbs & Cocklin, 2008). Despite definition variances, there is consensus that a sustainable business model is one that considers sustainability at the heart of the value proposition, value creation and delivery and value capture (Bocken et al., 2014). There is also agreement that a sustainable business model is characterized by multiple stakeholders since it considers a wide range of stakeholders' interests, including those of society and the natural environment. A recent literature review defines sustainable business models as those "business models that incorporate pro-active multi-stakeholder management, the creation of monetary and non-monetary value for a broad range of stakeholders and hold a long-term perspective" (Geissdoerfer et al., 2018: 404).

Most of the literature on sustainable business models has focused on the creation value from the perspective of the customer or at the organizational level. However, recent studies also promote the idea that business models can be used to address societal grand challenges (Doh et al., in press; Antolin-Lopez & Montiel, 2018; Gallo et al., 2018; Hart et al., 2016). Sustainable business models can be transformational, that is, they can be used to transform social realities in favor of sustainable development goals and make societies prosper (Martí, 2018). Examples of the transformational effects of innovative business models are known and abound. These include micro-finance business models that are changing gender relationships and resource distribution (Mair et al., 2012), organic food business models that are creating value for the organic sector (Jolink & Niesten, 2015), or renewable energy business models that boost the consumption of clean energy over carbon-based energy (Antolin-Lopez et al., 2013; Cato et al., 2008).

The literature on sustainable business models has also recently highlighted the importance of joint efforts to address sustainability grand challenges (Gallo et al., 2018, Heinrichs, 2013, Matos & Silvestre, 2013; Montgomery et al., 2012). The urgency and scope of current social and environmental problems show that a real transition towards sustainable development cannot be achieved solely through single or individual actions; a greater degree of collaboration between actors is needed (Doh et al., in press). Our

society needs large-scale sustainable business models rooted in strong coordination and collaboration between different companies, entrepreneurs and stakeholders in order to guarantee a sustainable future. Gallo et al. (2018) is the first study that provides a conceptualization of Associative Sustainable Business Models (ASBM) as “business models deeply grounded in associative behaviors and partnerships to create value in the triple bottom line” (p. 906). According to the authors, the notion of “associative” should be broadly regarded to include different types of business models that range from informal resources sharing to more formal collaborative forms with multiple stakeholders (alliances, cooperative, joint ventures, etc.). After analyzing different collective sustainable business models, they provide a classification based on two theoretical dimensions that enable different types of ASBM design: firm location and claimant identity. Firm location refers to the proximity or distance between the firm’s decision makers and growers, while claimant identity explains if the business model relies on entrepreneurial investment or equity by laborers. On the basis of the two theoretical dimensions described, the authors categorized ASBM into four categories: (1) Distant Investment - firms located at a distance from the sources of production and rely on entrepreneurial investment, (2) Distance Control - firms located at a distance from the sources of production and rely on majority equity ownership by laborers, (3) Embedded Investment - firms located locally to the sources of production and rely on entrepreneurial investment, (4) Local Control - firms located locally to the sources of production and rely on majority equity ownership by laborers.

However, there is still little understanding about how collective sustainable business models emerge (Branzei et al., 2018), grow (Antolin-Lopez & Montiel, 2018) and specifically, on how the elements of the business model are integrated and interact to create and deliver environmental, social and economic value at organizational, community or sector levels (Gallo et al., 2018; Nosratabadi et al., 2019). Considering that many business models fail and the chances of failure are even higher in the case of sustainable business models (Geissdoerfer et al., 2018), studying successful collective sustainable business models, those that are economically feasible and able to co-create environmental, social and economic value, seems of paramount importance.

METHODOLOGY

Sample

The authors conducted an inductive qualitative study of three relevant case studies: Som Energia, Som Mobilitat and Som Connexió (see Table 1). These organizations were selected following the theoretical sampling principle (see Eisenhardt & Graebner, 2007) since they are relevant cases that illustrate collective business models for sustainability.

Som Energia, Som Mobilitat and Som Conexió were chosen because they emerged in their respective sectors as an alternative to capitalism. They initiated the change in their sector at a national level. All three companies were created in Spain and are pioneers in their fields. Som Energia was the first renewable energy cooperative, Som Mobilitat was the first sustainable mobility cooperative and Som Conexió was the first sustainable telecommunications cooperative. These three cooperatives are located in the region of Catalonia. Although the study did not specifically focus on this region, the three cooperatives that have initiated change in their sectors in Spain all happened to emerge in Catalonia. This could be explained by the fact that Catalonia has a long tradition of supporting the cooperative movement (Pellicer-Sifres, 2018).

Table 1. Overview of the collective pro-social organizations analyzed

Organization	Sector	Location	Foundation year
Som Energia	Renewable energies	Girona (Cataluña)	2010
Son Connexió	Telecommunications	Barcelona (Cataluña)	2015
Som Mobilitat	Transport	Barcelona (Cataluña)	2016

Som Energia is a non-profit renewable energy cooperative founded in Girona (Catalonia) in 2010 triggered by a citizens' movement. It was the first renewable energy cooperative created in Spain. Citizens had to lobby to change the law, which at the time did not allow citizens to create energy cooperatives. Its main economic activities are the production and commercialization of electricity from renewable sources throughout Spain. They emerged as an alternative to capitalist big electric utilities accused of using carbon-based sources and continual increases in prices. Som Energia is a project created to promote change in the sector in favor of an alternative energy model based on 100% renewable energy, affordable prices, transparency and openness. The intention was to reform the sector and fight against climate change, energy poverty, corruption and oligopolies. To be part of the cooperative, their members pay a fee in order to access renewable energy and other services. Having started with 150 members in 2010, in 2019, the cooperative has more than 58,000 members.

Son Connexió is a non-profit telecommunications cooperative that emerged in Catalonia and now operates throughout Spain. It is the first telecommunications cooperative created in Spain. The reason behind its foundation is the promotion of a responsible consumption within the telecommunications sector. Its purpose is to provide mobile and internet users an alternative to big telemarketers by offering a better quality service, promoting ethical principles and reducing its environmental impact. Unlike traditional telecommunications companies, the cooperative evaluates the needs of its customers to offer the mobile/internet tariff that is best suited to the needs and characteristics of each user. Thus, they try to promote a conscious use of telecommunications that has a positive effect on both the natural environment and customer savings. The cooperative was founded by 100 members and presently (2019) has close to 5000 members.

Som Mobilitat is the first shared mobility cooperative in Spain, created in Catalonia in 2016. The cooperative emerged as a response to the growing demand of consumers with mobility problems and worried about the negative externalities derived from the transport sector. Som Mobilitat emerged with the mission of making the transport sector more efficient (resources distribution), fight pollution, climate change and health problems related to air quality. It also wanted to provide more affordable mobility options for everyone. Specifically, its main economic activity consists of offering shared transportation such as bike-sharing, motorbike-sharing, car-pooling and ride-sharing. They also offer rental of electric vehicles. The company wants to move from a transport model based on private vehicles that use fossil fuels to a transport model based on the principles of the sharing economy and efficiency that helps to address climate change. The business model works through a digital platform and an app.

Data Collection

To analyze the business models of the pro-social organizations described above, secondary data was collected from a variety of sources. Table 2 summarizes and quantifies the data used.

First, information from their official corporate website was extracted, including the main facts about the companies. The websites also contained links to blogs where they regularly post as well as other documents prepared for both internal and external purposes, including annual reports, operating reports and articles of association. This information served to gather the main information about their business models.

Secondly, data from their social network profiles (Facebook and Twitter) and their YouTube channel was collected. Said social media contained interviews with founding members, the coordinators of local groups and annual general meetings. These sources provided relevant and quality internal data about the cooperatives.

Thirdly, newspaper articles about the three cooperatives were gathered using the Factiva database. This is the most comprehensive news database on business covering a large number of countries and containing a wide range of sources including newspapers, industry publications, company reports and magazines. In addition, its articles are published in 28 different languages. Using Factiva, a systematic search was made from the date of the foundation of the cooperatives to the present, resulting in 545 articles about Som Energia, 45 about Som Connexió and 68 about Som Mobilitat. The availability of more articles about Som Energia might be explained by the fact that it was created approximately five or six years before the other cooperatives. These articles helped to find more information about their business models, and, specifically, understand their social activities, participation in events as well as networking and partnership activities. They also served to put their operations into context and helped the authors to triangulate their self-published documents, contents and websites.

Finally, the Web of Science and Google Scholar databases were used to identify academic documents that might be relevant to the analysis. Only four documents addressed Som Energia from a sociological perspective were found, however, they served to obtain extra data. No results were found for the other two cooperatives.

Data Analysis

To analyze the business models of the three organizations the conceptual business model framework developed by Osterwalder & Pigneur (2005) was used. This theoretical framework and its tools are regarded as a benchmark in both the academic and practitioner fields (Joyce & Paquin, 2019; Leisen et al., 2019). This framework has been consolidated by later studies (e.g., Bocken et al., 2014; Richardson, 2008). According to Osterwalder & Pigneur (2005), a business model is how an organization creates, delivers and captures value:

- Value proposition: This element consists of the product/service offered, including the needs or problems that the product/service aims to solve, the customer segments that are served by the organization and the relationships created with the target customers.
- Value creation and delivery: This is composed of all the activities the organization carries out to develop the value proposition, the resources needed to develop such activities, the channels that connect the customer with the organization, as well as key partners and stakeholders networks.
- Value capture: This dimension accounts for the way in which an organization generates revenues and its costs structures.

Table 2. Data sources

	Som Energia	Som Conexio	Som Mobilitat
<i>Archival data</i>			
• Website	yes	yes	yes
• Documents, reports, etc.	19	7	5
• Social networks			
- YouTube channel	318	11	30
- Twitter	yes	yes	yes
- Facebook	yes	yes	yes
<i>Newspaper articles</i>			
• Factiva database • Google news database	545	45	68
<i>Academic works</i>			
• Journal articles	3	0*	0*
• Books, dissertations, etc.	1	0	0

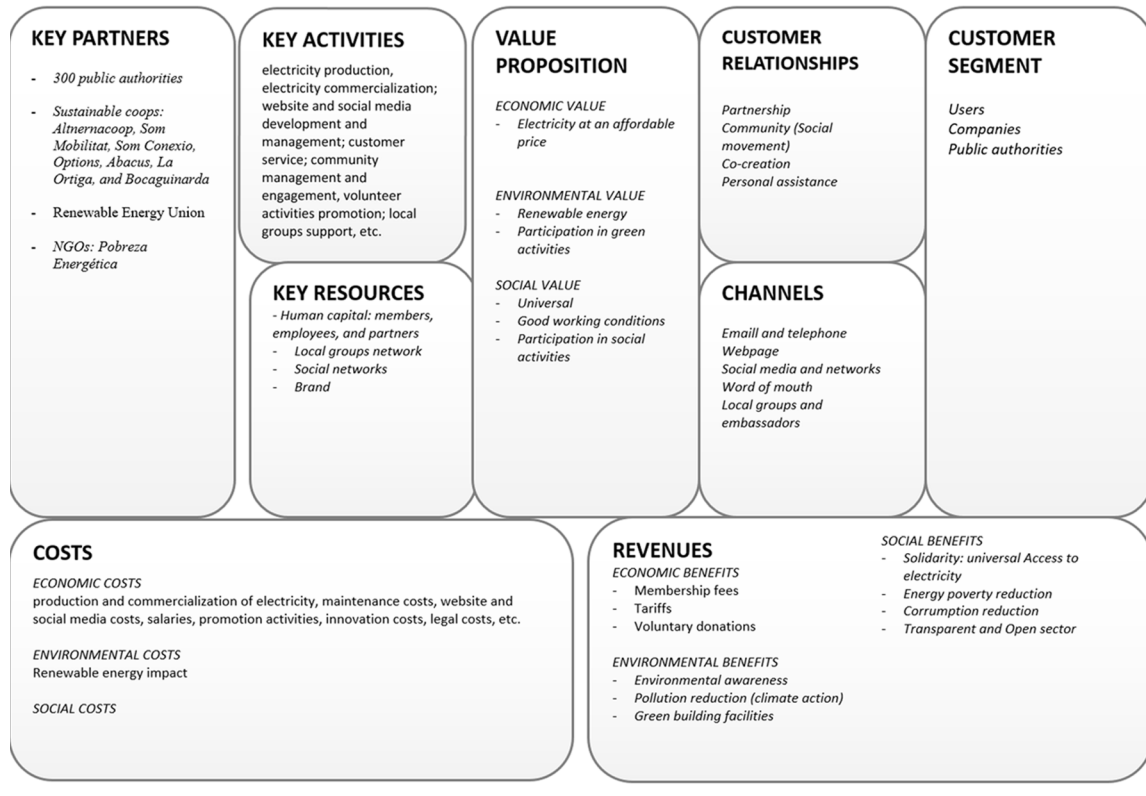
*Some academic outlets were found after the search, however, this outlet did not address the cooperatives instead they just mentioned them as examples without explanation.

Specifically, Osterwalder & Pigneur (2005) created a tool to analyze and describe business models that comprised nine different elements: (1) value proposition, (2) customer segments, (3) customer relationships, (4) channels, (5) revenues, (6) key resources, (7) key activities, (8) partnerships and (9) costs.

However, it has been argued that the business model canvas tool falls short when describing and analyzing the business model of organizations seeking to innovate and contribute to sustainability-related issues, that is, for sustainable business models (Joyce & Pakin, 2016). In fact, scholars have recognized the importance of developing new tools that are better adapted to the triple bottom line sustainable business model are based on (e.g., Lozano, 2014).

Following this logic, in order to explore sustainable business models, Joyce & Pakin (2016) proposed the Triple Layer Business Model Canvas (TLBMC) tool, an adaptation of the business model canvas framework developed by Osterwalder & Pigneur (2005). This tool aims to extend and complement the economically-oriented canvas business model with additional layers that explore environmental and social value creation. The tool is proposed for sustainable product-driven enterprises, which lead us to adapt the TLBMC to the service-driven cooperatives that were used in this case study. Therefore, in addition to the original nine elements of the business model canvas, several dimensions and sub-dimensions were incorporated. First, the value proposition is divided into economic, social and environmental propositions to account for the triple bottom line of sustainable business models. Second, within revenues, environmental and social benefits were included in addition to economic benefits. Third, a broad definition of partners is used that not only includes business partners and suppliers, but also other relevant stakeholders that interact with the organization and exert influence in the creation of value. While economic relationships are built with business partners, social relationships include additional key partners that are relevant for the creation of social and environmental value such as local communities, trade associations, or NGOs. Finally, the cost structure not only accounts for economic costs, but also environmental and social costs associated with the sustainable business model.

Figure 1. Som Energia's canvas model



Finally, to analyze the value proposition, benefits and costs from an economic, social and environmental perspective, the sustainability dimensions classification developed by Antolin-Lopez et al. (2016) was used. This work performs a systematic comparison of the most used scales developed by different stakeholders to measure corporate sustainability to provide a more standardized list of sub-dimensions for economic, social and environmental dimensions.

RESULTS

Som Energia Business Model

Value Proposition

Economic value: A core element of the value proposition of the cooperative is to offer electricity at an affordable price. Som Energia's offer is based on the principle of equality and equity. Their tariffs are established at a price that aims to be fair to the consumer, in contrast to big electric utilities that have been characterized by continual price rises. In addition, the promotion of responsible energy consumption leads to savings in customers' bills. The members also have the opportunity to become investors of particular initiatives and renewable energy projects developed by the cooperative.

Environmental value: The cooperative offers members the opportunity to consume electricity from 100% renewable sources. Being connected to Som Energia's grid means a reduction in the environmental impact associated with their energy consumption. It also offers the possibility of being part of a movement that fights against climate change and the chance to volunteer in different initiatives that aim to create environmental consciousness.

Social value: Som Energia collaborates in reducing energy poverty. Members can be part of an initiative that helps people with limited resources (e.g., older people) who cannot pay their electricity bills. For the cooperative, access to electricity is a human right which should be defended and preserved. Joining the cooperative is also a way to promote organizations that promote transparency, fight corruption and create safe and equal working conditions.

Customer Segments

Som Energia targets the whole population since electricity consumption is considered a basic need. They direct their efforts to all citizens, corporations and all types of public bodies, etc. Customers join for a number of reasons: as a way of fighting climate change, to support a fairer, transparent and open electricity model, or just because of the money savings provided by Som Energia. The cooperative does not segment since they offer the same service to all its members in different Spanish regions. Although it started in the region of Catalonia, the cooperative has expanded to the rest of Spain.

Customer Relationships

The cooperative seeks to develop a long-term relationship with all its members. A real transformation of the sector requires time, effort and commitment. With this in mind, the company develops different mechanisms to build trust and engage with its members. First, Som Energia is focused on building a community identity. The members describe themselves as a social movement that seeks progress in a sustainable way. Each member is part of their decision-making process (one member, one vote) and they give members the freedom to initiate new projects or joining existing ones, becoming investors of their facilities, etc. In addition, members are an inherent part of their marketing strategy. The members formally (ambassadors and local groups) or informally (word mouth or social networks) inform about the existence, activities and projects of the cooperative. They are co-creators. Customers are not just customers; they are members and partners.

Channels

Som Energia reaches customers through a diverse and innovative array of channels. First, its website is very dynamic and it is continuously updated with the latest information about the company, its members, projects and initiatives. It serves to create awareness, attract new members and communicate information to current members. There is also a blog and an integrated news site. In addition, the website provides access to a virtual office where customers can manage their accounts, check their bills, directly contact cooperative members and administrators and receive direct personal assistance. Personal assistance is also provided through a free telephone number. Furthermore, the cooperative is very active on social networks. The amount of content created in Facebook, Twitter and Instagram is outstanding. In particular, they have their own channel on YouTube that includes interviews with members, employees, the board

and all their general meetings. Another interesting channel that the cooperative uses is its network of ambassadors (members that voluntarily participate in events and then broadcast their activities) and local group coordinators in charge of extending the cooperative's activities to other territories. Finally, their physical facilities are another relevant channel where they promote and organize visits.

Revenues

Economic benefits: The cooperative obtains revenues from the payment of an initial member's fee of 100 euros and the monthly payment of electricity bills. Since it is a non-profit organization, all the money is used to first pay salaries and later to improve the organization and support their activities. Som Energia also receives voluntary donations as members can donate money to promote particular social and environmental initiatives, or support the execution of their projects (for example, building generation plants). At a sector level, the cooperative helps to fight against the electricity oligopoly and for the opening of the sector to other economic players.

Environmental benefits: Som Energia contributes to the reduction of CO2 emissions by providing its members with electricity derived 100% from renewable sources and by promoting a more responsible consumption that rejects waste and energy abuse. In addition, all their facilities consist of solar panels and green building efficiency measures. Another societal benefit, derived from their actions, is the creation of a social movement that promotes environmental consciousness and that works for the transformation of the energy sector.

Social benefits: The cooperative helps to fight energy poverty and helps community members to access energy. For example, it gives partners the opportunity to sponsor a maximum of five people to have access to renewable energy without partnership obligations. The company also participates in different events to promote social justice and human rights and pursues to eradicate corruption in the sector.

Key Resources

Human capital might be said to be the main asset of Som Energia. The commitment of their members, employees and board of directors might be regarded as the most important factor contributing to the proper operation of the business model and the reason the cooperative has been able to fulfill its mission. They attract other members, promote activities formally and informally, propose and develop new initiatives and projects and collaborate with money, time and effort in the development of new projects. Many of the partners and employees volunteer in different activities and they are an essential part of the creation of content and awareness in the different channels. This network of volunteers makes Som Energia unique in their sector. They have also been able to develop and position Som Energia as a brand associated with socially-desirable values that are not only recognized in their sector but in other sectors as well. Their members feel proud of belonging to the cooperative and express this in their social networks. Social media are also a key resource as they are the main way the cooperative promotes their activities. Finally, their strategic partnerships with other cooperatives to promote societal change in favor of the natural environment and other people are also relevant to achieve their sustainable development goals.

Key Activities

Som Energia performs a number of activities that help in the proper functioning of the business model: production of electricity; electricity commercialization; website and social media development and management; customer service; community management and engagement; promotion of volunteer activities; support and coordination of local groups; new projects development; innovation and improvement activities; promotion activities; social and environmental events participation (e.g., solar plants rescue) etc.

Key Partners

Som Energia collaborates with a number of relevant stakeholders to fulfill its environmental and social goals. For example, it collaborates with more than 300 public authorities in different campaigns to fight climate change, promote renewable energy and responsible consumption. The cooperative is also very active in supporting other cooperatives that have emerged in other sectors that emulate their business model. For instance, it has been involved in the foundation of Alternacoop a cooperative that promote sustainable transport in Valencia and has agreements with other cooperatives that promote responsible consumption such as Options, Abacus, La Ortiga and Bocaguinarda. It is also part of the Renewable Energy Union movement that fights against polluting energy sources. Finally, it closely collaborates with NGOs, such as Pobreza Energética that helps people with scarce economic resources to access energy.

Costs

Economic costs: The cooperative has a number of costs associated with their operations. It incurs costs associated with the production and commercialization of electricity, maintenance costs, website and social media costs, salaries, promotion activities, innovation costs, legal costs, etc.

Environmental costs: Although renewable energy has a lower environmental impact on the natural environment, there are some unavoidable environmental costs. For example, the consumption of resources to produce solar panels and facilities, the waste generated after the useful life of batteries and components, or even the visual impact of renewable energy plants (e.g., wind turbines). However, the environmental impact of renewable energy is very low compared to the alternative (fossil fuels, nuclear energy, etc.).

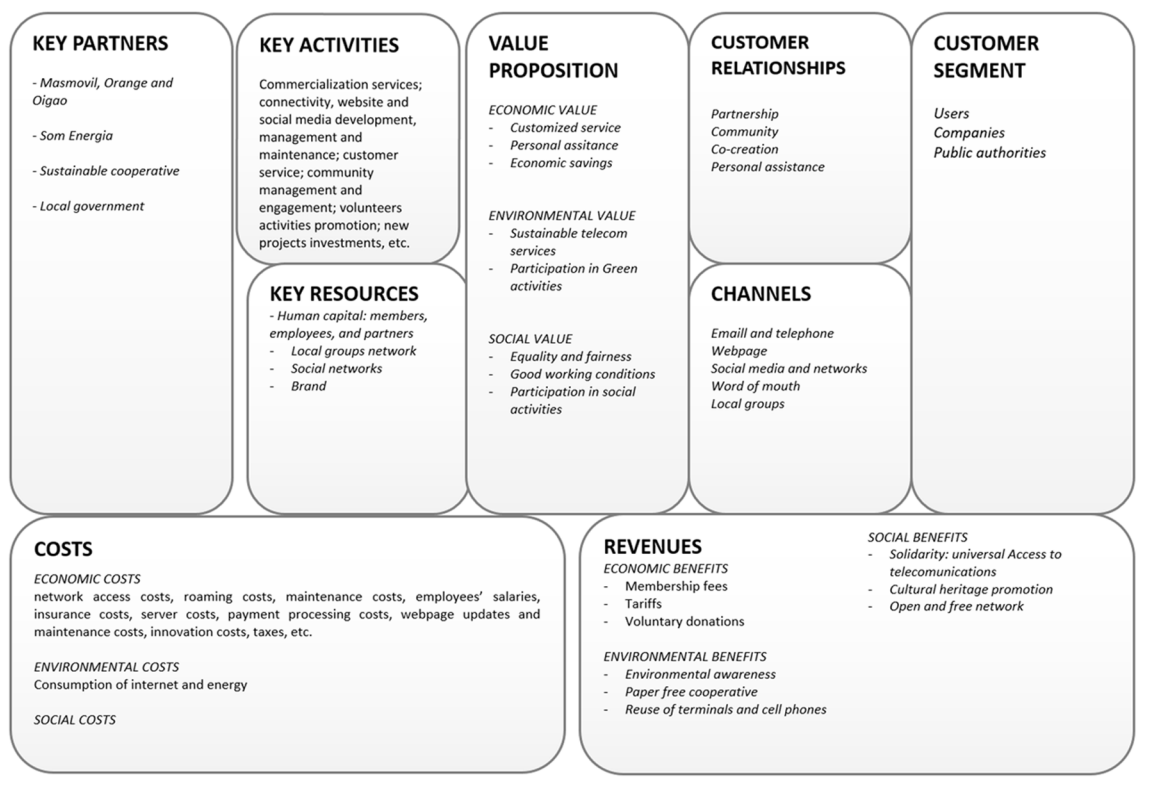
Social costs: On the one hand, the reputation of the business as the first sustainable organization to have emerged in this sector in Spain is growing. It is expected that if the company continues to operate well and attract clients, it can be successful in the long run. On the other hand, this popularity is slow growing, so it will only be in the long term that the social value will be appreciable.

Som Conexió Business Model

Value Proposition

Economic value: The cooperative offers a highly customized service to its customers. First, it helps the consumer to select the ADSL/mobile tariff that better fits their consumption needs, characteristics and budget. This measure offers economic value to the customer as they receive a more personal treatment and can reduce their bills (the consumer only pays for what they really need), but also helps the company to fulfil its environmental mission by creating consciousness and reducing consumption. In addition,

Figure 2. Som Conexio's canvas model



unlike current telecoms companies that have favored the automation of services, where personal assistance is hard to achieve, Som Conexió offers a personalized service that might be perceived as being of better quality because customer contact is based on direct interaction (a professional is always available to serve the customers). It might be said that the cooperative is closer to their customers who are also considered to be partners. In addition, the company helps customers to save money by offering the possibility of obtaining second-hand recycled mobile phones at reduced prices.

Environmental value: Som Conexió offers customers the possibility of reducing their environmental impact with regards to the consumption of telecommunications by reducing and adjusting their consumption to their needs. It also offers the possibility to be part of a movement that fights against climate change and to become a volunteer. It gives voice to consumers, who by means of their votes and opinions, can collaborate with the cooperative to develop initiatives that are more environmentally and socially sustainable.

Social value: Among the main values of the cooperative is the promotion of social model based on equality, where all customers are treated equally, regardless of their resources and social status. They defend the idea that telecoms access is a priority for everyone. Therefore, customers are ensured equality and a fair treatment. Furthermore, joining the cooperative means supporting a company that aims to respect human rights and offers adequate working conditions (e.g., job security, workplace hazard prevention) to its employees. Customers can become involved in different activities and initiatives that

develop and improve their communities. In addition, its customers can enjoy transparency since the cooperative openly shares information about their activities with their customers and partners.

Customer Segments

SOM CONEXIÓ targets mobile phone and internet users that seek to preserve the natural environment, promote social justice and support equal opportunities for everyone, individuals that are looking to reduce their consumption expenses and/or give priority to a personal and quality service. therefore, the cooperative is directed to the mass market since it includes individuals that use mobile phones, internet and/or wi-fi. the cooperative does not segment because they consider all its customers to be equal. in addition, it is not restricted geographically. although it started in the region of catalonia, the cooperative has expanded its activities to the rest of spain. to become customers, individuals must become partners of the cooperative in order to gain access to som conexió's telecoms services and become involved in the cooperatives' decisions (one partner, one vote).

Customer Relationships

Som Conexió aims to develop a long-term relationship with their customers which they consider their partners. Customer relationships are mainly rooted in personal assistance, community building and co-creation. First, as previously mentioned, the cooperative is innovative in the sector through the provision of personal assistance (although self-service is also available for those that prefer that option). This is in contrast to the services currently provided by large mainstream telecoms companies that have been evolving towards self-service and automation, with customer interaction being done mostly through an automated answering machine. In addition, the range of services and products of the big telecoms is standardized with reduced or limited customization of tariffs. An innovative aspect of Som Conexió is the possibility to customize tariffs on the basis of a customer's needs and budget. Secondly, the cooperative is characterized by a strong identity of community belonging. Customers are not just clients but also partners. They can participate in the cooperative's decisions, attend the annual general meeting, collaborate in new investments and propose new projects and initiatives. In addition, the cooperative organizes different events throughout the year for the partners with the objective of reinforcing its sense of community identity. Thirdly, customers are co-creators in that, as partners, they can participate in the promotion of the company by creating awareness of their services and the environmental and social mission it aims to fulfill. They can also contribute by generating content in the different social media channels the cooperative uses.

Channels

The cooperative interacts with its customers through a number of channels. First, customers can use different email addresses depending on the issues they wish to solve and a telephone number that offers direct contact and is available 24/7 for emergencies. The telephone number is administered by human capital with no machines involved. Secondly, the cooperative has a well-designed and dynamic website that offers information (blog, news section) to stay in contact with customers. These channels aim to convert individuals into customers and to improve their consumption process. Second, the company is highly active in social media. It is present in the main social networks such as Facebook, Twitter and

Instagram. These tools are used to create awareness about the cooperative's services and facilitate information about all the projects and initiatives that contribute to sustainable development, thus attracting potential customers in different regions and engaging current customers. Likewise, Som Conexió has its own YouTube channel where it generates a lot of information about the cooperative. Its physical facilities are another relevant channel as they promote and organize visits. Finally, word of mouth developed by the partners and the local groups is also a very important channel used to attract new customers and partners.

Revenues

Economic benefits: The cooperative generates revenue through initial membership fees (100 euros), the customers' payment of the bills or tariffs related to internet and telephone consumption and the sale of recycled second-hand mobile devices. However, as it registered as a non-profit organization, revenues are initially used to cover costs and then, to improve their facilities, networks and to keep innovating ways to provide a quality service, reduce their environmental impact and create social value. In addition, the business model is supported by voluntary donations of their members aimed at achieving social and environmental goals.

Environmental benefits: Som Conexió helps to promote environmental awareness and re-educate consumers to make the sector more sustainable. Specifically, it fosters a conscious use of telecommunication devices and services. Telecoms consumption is thought not to be directly harmful to the natural environment as it is an intangible service where the environmental impact is hard to perceive. However, every time the internet or a mobile phone is used it contaminates the environment. The cooperative even participates in local events to promote sustainability values (e.g., *Rambla del celler*). In addition, it helps to reduce the impact of the sector on the natural environment through different measures: (1) online paper-free bills (and suppression of physical bills) which have a lower impact, (2) recycling terminals and routers, (3) sale of recycled second-hand devices (they do not sell new ones), (4) contracts with networks that are certified by ecological principles and (5) use of facilities with a lower environmental impact. In addition, they have reduced the use of paper in their internal management process, promoting paper-free transactions among employees. Their marketing activities are limited to their social media management.

Social benefits: The cooperative aims to promote social values such as social and economic equality, cooperation, social justice and the protection and respect for human rights. They do this through their social media, development of social activities and the participation in local company events that promote cultural heritage (e.g., Òmnium cultural Sant cugat). The cooperative also develops different initiatives for guaranteeing access to the internet and telephone services to those with reduced economic means such as older people with low pensions that cannot afford telephone lines and who can have their telecoms bills paid by a sponsor. In line with this, the cooperative is working and collaborating to build an open and free telephone network (Guifinet Project). Another line of social action is their investigation into the prevention of illnesses and diseases caused by exposure to radiation from telecoms infrastructure and devices.

Key Resources

Human capital might be regarded as the core resource of the business model of Som Conexió. The partners, employees and board of directors devote their efforts to the promotion of environmental and social values and fight against the principles of the big corporation. They are a fundamental part of the business

model as they promote investment in projects and initiatives that fulfill the mission of the cooperative and the transformation of the sector. Many of the partners and employees volunteer by participating in different activities and they are an essential part of the creation of content and awareness in the different channels, a network of volunteers which is one of the main assets of the cooperative. Their role in attracting new customers and engaging other partners in the cooperative's events and projects is also essential for the success of the cooperative. The brand is another key resource of the business model because the cooperative has associated itself with desired mental schemas such sustainability, equality, innovation and quality service. Customers express pride when they describe Som Conexió as their telecom supplier in their social networks. Their social media channels are also a key resource because they are the main means the cooperative has to connect with customers and the local community. Its successful management has been key to growing their customer base. Finally, strategic partnerships with other cooperatives to promote societal change in favor of the natural environment and other people are also relevant to achieve their sustainable development goals.

Key Activities

There are a number of activities performed by Som Conexió that can be regarded as key for the well-functioning of their business model are: commercialization services; connectivity, website and social media development, management and maintenance; customer service; community management and engagement; promotion of volunteer activities; investment in new projects; marketing activities (e.g., organization and participation in events), innovation processes, assemblies participation.

Key Partners

Som Conexió collaborates with a number of different stakeholders to make their business model successful. First, it has an agreement in place with business partners such as MasMovil, its main mobile phone provider, as well as Orange and Yoigo to provide access to the copper infrastructure throughout the Spanish state. Secondly, Guifi.net, a sustainable and collaborative net provides internet access. Thirdly, the company cooperates with other cooperatives that also aim to promote social and environmental values and have similar missions of transforming the telecoms sector (e.g., Options) or other sectors towards a more sustainable path (e.g., Som Energia in the energy sector). In addition, they provide information in their blog and social media about similar sustainable cooperative models in other sectors so their customers can engage in a more responsible consumption of other product or services categories.

Costs

Economic costs: the company incurs a number of different costs in its operations: network access costs, roaming costs, maintenance costs, employees' salaries, insurance costs, server costs, payment processing costs, webpage updates and maintenance costs, innovation costs, taxes, etc.

Environmental costs: Although the company aims to reduce its environmental impact and promote a more sustainable alternative in the telecoms sector, the environmental impact cannot be completely eliminated. The consumption of internet and energy has an environmental cost to our planet. In addition, the network's points and facilities contribute to land deterioration and have a visual impact.

Figure 3. Som Mobilitat's canvas model



Social costs: Telecoms companies are accused of contributing to a social model based on digital interactions with the subsequent loss of humanity in interpersonal interactions. However, Som Conxio's model promotes a different set of values based on solidarity, shared economy and cooperation that counteract these criticisms. Thus, social costs in this case can be considered inexistent or minimal.

Som Mobilitat Business Model

Value Proposition

Economic value: The cooperative offers mobility products and services that are more sustainable. Som Mobilitat helps customers to meet their mobility needs in a less expensive way. Their members share ownership so they do not need to invest a large amount of money in owned cars, motorbikes and bikes. They can also rent electric cars at reduced prices. Thus, their customers can economize on mobility while helping the natural environment and their community.

Environmental value: Customers using Som Mobilitat transport services can enjoy mobility that is sustainable since their rental vehicles are electric with 0% CO2 emissions, less noisy and contribute to a more efficient use of transport resources when using the car sharing option. Members and customers can also be part of a transformative movement that fights for a transport sector that is more sustainable.

Social value: Members become part of a more supportive, sustainable and healthy transport model and have access to a number of mobility options. They also become part of a company with which they can collaborate, participate in decision-making and that is transparent and respectful. All the members have the same rights. Customers can also participate in different projects and initiatives to promote socially desirable outcomes

Customer Segments

Som Mobilitat is aimed at every individual, organization, or public entity that wants to have access to a mobility model that is respectful to the natural environment and the communities where they live and that also promotes collective motilities. The cooperative was created and commenced its operations in Catalonia and now operates in all Spain. Members are required to be over 22 years old to use the car sharing service and be 18 years old with a driving license.

Customer Relationships

Som Mobilitat aims to establish a long-term relationship with its customers. The goal is to establish a community identity where every member is part of the cooperative and have a vote to participate in existing projects and initiatives or propose new ones. Customers are also co-creators of the service since they are essential for the car/bike or ride sharing services. Finally, the service provided is mainly based on automatization since they can self-select the tariff and options they want through the digital platform or the app. There is also some personal assistance available.

Channels

Som Mobilitat uses a number of channels to promote, manage, service and contact their clients. First, most of the promotion or awareness activities are carried out via their informative and continuously updated website. It also includes an email and telephone to assist both current and potential members. In addition, the company actively uses social networks by creating content in Twitter, Facebook and YouTube. This cooperative also uses a free app through which they offer their main services: car rental, car sharing, bike sharing, carpooling, etc. Finally, they use a distinctive logo on their cars and means of transport that allow consumers to easily recognize the company and their vehicles.

Revenues

Economic benefits: The main source of revenue is the tariff paid by the users. The cooperative offers different tariffs depending on the type of user (individuals, companies, or public organisms). Citizens can also choose between four different tariffs depending on the user needs such as frequency or type of transport. Since it is a non-profit organization revenues are used to cover costs and then they are reinvested in the cooperative to improve their facilities, services and support or initiate new projects. Approximately 15% is distributed in the company and 85% for the development of local groups. Finally, voluntary contributions are useful to fulfill the long term sustainable objectives of the company.

Environmental benefits: Som Mobilitat reduces the environmental impact of the transport sector in different ways. First, it promotes a more efficient use and distribution of resources since they provide car,

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bike and motorbike sharing and ride sharing. Second, it contributes to a reduction in the number of cars that transit in cities which has a positive effect on pollution and noise pollution levels. The promotion of public mobility vs. private mobility also reduces the demand for new cars and its subsequent reduction in production reduces the consumption of natural resources.

Social benefits: Som Mobilitat's business model is based on the principles of solidarity and equality. They aim to provide mobility options for all. The cooperative also contributes to city sustainability. The reduction in the number of cars in transit implies: (1) better air quality which helps to prevent health problems associated with high levels of air pollution, (2) reduced occupation of public spaces, traffic congestion and noise, which enhances city livability. Finally, it promotes responsible consumption of transportation and also contributes 85% its profits to the development of the cities and municipalities in which it operates.

Key Resources

Human capital might also be regarded as Som Mobilitat's main asset as it has been and continues to be essential for their success and the smooth running of the company. First, the cooperative is largely based on a network of volunteers that contribute their time and effort to different aspects of the cooperative. Their members are also vital for attracting more members and customers since they voluntarily promote the cooperative in different events and through the publication of information about the cooperative on their personal social networks. Finally, the work of local group coordinators is vital for the expansion of their activities in other Spanish regions and their growth in numbers. Furthermore, their well-designed app and digital platform is very important for their service offering as it permits drivers and users to match their needs. Their network of partners (Som Energia, Alternacoo, etc.) is also very important to achieve their transformative goals.

Key Activities

The key activities of Som Mobilitat include electric car rental, car/bike/motorbike sharing; carpooling and ride sharing; commercialization of services, sales; website and social networks maintenance; digital platform and app development and maintenance; customer and personal service; innovation processes; development of projects and initiatives; community management and engagement; coordination of local groups; vehicle maintenance; promotion activities, etc.

Key Partners

The success of the Som Mobilitat's business model is supported by the network of partners the cooperative has developed. It collaborates at a European level with other mobility cooperatives and sustainable organizations to share good practices and resources to face worldwide mobility challenges and offers an alternative mobility model to the traditional and highly inefficient mobility model. The result of this collaboration is the emergence of REScoop mobility, which is part of REScoop.eu. It also collaborates with public authorities and other sustainable mobility cooperatives in Spain such as Partagat and Alternacoo and has been involved in the creation of other sustainable cooperatives (e.g., Mobility Factor). Finally, it collaborates with the app, electromaps, to provide an accurate and real time map of free electricity charging points.

Costs

Economic costs: The cooperative has a number of costs associated with its main economic activities: acquisition of vehicles and maintenance costs, parking renting costs, app related costs, website and social media maintenance, employees' salaries, insurance costs, innovation costs, taxes, marketing costs, etc.

Environmental costs: Although Som Mobilitat aims to reduce its environmental impact and the footprint of the mobility sector, there are some unavoidable costs which means that zero environmental impact is impossible (e.g., production of electric cars components and batteries also have an impact on the natural environment). A controversial point is that facilities for electric cars are not fully developed in Spain, making it difficult to find charging points in some locations.

Social costs: Moving from a private mobility model to a public mobility model implies certain individual sacrifices such as loss of autonomy and convenience when travelling or moving. However, individual sacrifices lead to a greater good. Sharing mobility might also negatively impact those individuals that directly depend on the traditional transport model to make a living.

DISCUSSION AND RECOMMENDATIONS

Based on the analysis of the business models of the three pro-social collective organizations, a series of common good practices are identified.

First, our results show that cooperativism is an essential feature for the success of the three business models. As their organizational names suggest, the three models are not just multi-owner companies, their relationships are based on full collaboration. Som Energia, Som Mobilitat and Som Connexió share the first part of their organizational name, Som, which in Catalan means "we". All the members can voluntarily contribute to the cooperative by proposing new projects, leading new initiatives, engage in cooperative management roles, etc. and every member participates in decision-making (one member, one vote). Therefore, the business model promotes an active and strong engagement of all the members.

Second, the business models are rooted in associativism. They have been able to cooperate and partner with a number of institutions and other organizations such as public authorities, NGOs and other cooperatives. This large number of actors and organizations involved in the business model are needed to keep it functioning and growing. Members attract more members and create awareness for the need of change. The size of the organization is also relevant in order to fulfill their sustainability promise and to have a real transformative effect.

Third, the three organizations are created with the goal of transforming their sectors which are characterized by bad practices that perpetuate the degradation of the natural environment and social conditions in their communities. They are not motivated by profit, but rather by the goal to create and deliver social and environmental value not only for their customers but also for society as a whole. The entire business model is designed and implemented around environmental and social goals. Environmental and social aspects are transversally integrated in all the elements of the business model. Thus, they have developed a win-win strategy that allows them to offer more affordable and competitive prices compared to their sector rivals, while at the same time reducing their environmental and social impact.

Fourth, the three cooperatives are organized in territorial or local groups and these members promote and create awareness about their companies and their services in their territories. This decentralized or-

ganizational structure allows them to reach a larger customer base and members in all the territories and adapt to the particularities of each context in order to win more supporters and members to their cause.

Fifth, another thing they have in common are the activities related to training and the creation of sustainability consciousness. In addition to the economic activities their business model undertakes, Som Energia, Som Mobilitat and Som Connexió stand out for their initiatives, projects and activities connected to creating awareness of the unsustainable practices of other companies and the consequences these may have in their communities and the natural environment. They have specifically focused on spreading the idea that we need to change in favor of a more responsible pattern of consumption and have shown that the model they promote is feasible.

Finally, a common aspect of the three business models is their extensive use of information and communication technologies. Social media is a core element of their channels for creating awareness about their business model and communicating with members and society. The three cooperatives are very active in social networks and have a presence in most of them (Twitter, Facebook, Instagram and YouTube).

The best practices described below might be seen as recommendations for other entrepreneurs and practitioners that want to engage in similar types of organizations and that seek to have a transformational change in their communities or economic sectors:

- Developing a democratized leadership. Spreading leadership allows companies to give power to people to engage in action and attract other citizens. Their members are their best ambassadors for promoting their business model.
- Decentralized organization structure. This promotes rapid growth in different contexts since it facilitates adaptation to context related issues.
- Creating a common strong identity. Developing a strong identity around their social and environmental causes is important to coordinate the actions of decentralized organizations with a democratized leadership. The capacity to coordinate members with diverse interests and motivations resides in consistently being committed to a shared superior societal goal: fostering societal change towards sustainability. Their novel societal cause is the glue that unites people.
- Sustaining environmental and social campaigns to create awareness of the need for change. They should act as social movements to promote their social and environmental missions.
- Developing key partnerships. Environmental and social problems are so complex that no single organization can tackle them. Sector disruptions generally need many different players, especially in institutionally stretched sectors. Likewise, being competitive these days requires developing key partnerships.
- Innovate continuously. It is important that these organizations keep innovating and create novelty for their followers and potential customers to keep and attract their interest. Thus, it is vital that they are in the spotlight, gaining presence in the media and social networks.
- Take advantage of information and communication technologies to spread the word rapidly, promote transparency of their activities and reach younger generations that communicate mainly through social media.

SUGGESTED FUTURE LINES OF RESEARCH

This study is based on the analysis of three successful organizations operating in a particular region in a particular context. Future research should also explore similar organizations that emerge in other countries with different contextual factors to confirm the relevance of the business model elements, relationships and strategies considered to be essential elements in this study for the success of pro-social collective organizations. It might also be interesting for future research to explore other types of collective organizations that seek to promote sustainability that have not been able to succeed and grow in the same way as Som Energia, Som Mobilitat and Som Connexió have done in order to identify potential barriers and bad practices. Future entrepreneurs and practitioners should learn from both success and failure. Finally, future studies should try to measure and quantify the real impact of collective pro-social organizations on the sector in which they operate. For example, to what degree do these companies improve environmental and social challenges? Are there negative externalities derived from these business models? Does the improvement of some sustainability dimensions contribute to worsening others?

CONCLUSION

This chapter aimed to analyze the business model of collective pro-social organizations that are emerging with the aim of offering an alternative to capitalism and leading the transformation of their sectors towards sustainability. Specifically, we have dissected the business model of Som Energia, the first renewable energy cooperative, Som Mobilitat, the first sustainable mobility cooperative in Spain and Som Connexió the first sustainable telecommunications cooperative in Spain. Following the exploration of the business model elements, their relationships and strategies, the results show many similarities between the business logic of the three cooperatives and the way they create, deliver and capture value. These similarities can be identified as good practices and can be used as recommendations for organizations, practitioners and other entrepreneurs that wish to develop business models that aim to follow their steps.

Overall, the results show that a high level of associationism is essential for success and growth in strongly stretched capitalist sectors. A significant size in terms of number of members involved is needed for the business model to be feasible and meet its organizational and societal goals. Furthermore, their success is highly dependent on their networking activities and partnerships with diverse actors and organizations, a key factor for achieving their transformational goals.

In summary, this chapter helps to provide some insights on how collective sustainable business models that emerge as an alternative to traditional capitalist organizations can be designed to create and deliver environmental, social and economic value and be competitive over time. The authors aim to extend our understanding of best practices in the functioning of business models that help to address societal grand challenges related to sustainability and have a transformative effect in the sectors in which they operate.

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KEY TERMS AND DEFINITIONS

Collective Business Model: A business model that is strongly based on coordination and collaboration among different actors.

Cooperative: Is an autonomous association of people that voluntarily join to create an enterprise.

Corporate Sustainability: Is the integration of economic, social, and environmental aspects of sustainability in the management of a company.

Sustainability Grand Challenges: Global social and environmental problems that have reach a serious level and need urgent action.

Sustainable Business Model: A business model that creates, delivers and captures economic, social, and environmental value.

Sustainable Cooperative: Voluntary association of people in the form of an enterprise that seek to reduce environmental and social impacts or create sustainable value.

Sustainable Entrepreneurship: Is the phenomenon that includes the recognition, creation, assessment, and exploitation of sustainable opportunities.

ENDNOTE

- ¹ UN Sustainable Development Goals: The Sustainable Development Goals are: (1) No Poverty, (2) Zero Hunger, (3) Good Health and Well-being, (4) Quality Education, (5) Gender Equality, (6) Clean Water and Sanitation, (7) Affordable and Clean Energy, (8) Decent Work and Economic Growth, (9) Industry, Innovation and Infrastructure, (10) Reducing Inequality, (11) Sustainable Cities and Communities (12) Responsible Consumption and Production, (13) Climate Action (14) Life Below Water, (15) Life On Land (16) Peace, Justice and Strong Institutions and (17) Partnerships for the Goals.

Chapter 14

Home Country Institutions and International Entrepreneurship: A Multi-Level Framework – Institutions and International Entrepreneurship

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ABSTRACT

The extent of internationalization by early-stage entrepreneurial firms may depend upon home country institutional conditions. Using insights from institutional theory, this chapter suggests that national-level institutional conditions facilitate or constrain the efforts made by early-stage entrepreneurs to internationalize. Given the strong linkages between entrepreneurs and the enterprises they drive, the multi-level framework proposed in this study suggests that a strong national system of innovation and better regulatory quality, which supports early internationalization by new entrepreneurial firms. Smaller domestic markets induce such firms to explore overseas markets for their products. The framework also suggests that a strong regulatory environment positively moderates the effects of national innovation systems and domestic market size on the extent of early internationalization. While implications for the internationalization process are discussed, specific reference to the importance of policy to support internationalization by early entrepreneurial firms is made.

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INTRODUCTION

International entrepreneurship, which according to McDougall & Oviatt (1997) includes new and innovative activities that have the goal of value creation and growth in business organizations across national borders is attracting increasing attention among scholars since Oviatt and Doughall's (1994) seminal article. Literature suggests that the number of such firms that enter foreign markets soon after inception have increased over time (Singh, 2017). The study of new international ventures has since become an important part of the growing literature on international entrepreneurship (Ibeh, Crick, & Etemad, 2019; McDougall & Oviatt, 2000; McDougall, Oviatt, & Shrader, 2003). At the core of international entrepreneurship research is the examination of and theorization on the internationalization of new ventures (Gabrielsson et al., 2008). Specific to this line of enquiry is understanding the phenomenon of early internationalization by start-up companies. There has been scant research that explains why some firms internationalize early while others do not (Busenitz, Gomez, & Spencer, 2000; Muralidharan & Pathak, 2017a; Zahra, 2005).

In particular, the influence of home-country context on the internationalization of entrepreneurial firms needs to be better understood and integrated into the conceptual frameworks that explain their internationalization (Zander, McDougall-Covin, & Rose, 2015; Hitt, Li, & Xu, 2016). While studies on the impact of the home country context on firms' internationalization (and specifically exporting) have recently gained attention (e.g. Chang, Kao, & Kuo, 2014; Krammer, Strange, & Lashitew, 2018), they are disproportionally leaning towards the effects of host institutional environments or contexts and pay less attention to the characteristics of the firm's home country (Sousa, Martinez-Lopez, & Coelho, 2008). It has been suggested that while the quality of home institutions shapes perceptions of resource allocation decisions in foreign markets directly (Marano et al., 2016), it also does so indirectly through its interaction with other institutions and firm resources (Yi, Wang, & Kafouros, 2013). This chapter attempts to contribute to the above line of research by specifically examining the influence of home country institutional conditions on early internationalization by entrepreneurial firms.

BACKGROUND

Entrepreneurial firms may be compelled to internationalize early in their life cycle in order to recover the high costs they incur in the development of new products (Preece, Miles, & Baetz, 1999). The international perspective adopted by entrepreneurial firms is facilitated by improved communication and low-cost transportation combined with greater liberalization of global markets (Ohmae, 1990). These conditions have led to the emergence of new international enterprises, a new class of firms that crossed international borders early in their life cycle (Fan & Phan, 2007; Oviatt & McDougall, 1994). Early internationalization may be motivated by the desire to leverage managerial and commercial experience in more places (Ganotakis & Love, 2012), spurred by an influx of cash and liquidity after an initial public offering (Filatotchev & Piesse, 2009), or encouraged by threats that force them away from home markets (Autio, Sapienza, & Almedia, 2000).

Keupp and Gassmann (2009, p. 616) suggested specifically that it is availability of opportunities in the international environment that draw entrepreneurs and firms into involvement in operations across national borders, but the external environment of the home country in which entrepreneurial firms operate also plays an important role in understanding such international entrepreneurial behaviors (Szyliowicz &

Galvin, 2010). Institutional conditions have been found to be an important source of variation in cross-cultural research in entrepreneurial behavior (Muralidharan & Pathak, 2017b; Muralidharan & Pathak, 2018; Muralidharan & Pathak, 2019; Pathak & Muralidharan, 2018; Stephan, Uhlaner, & Stride, 2015). Home country institutional conditions therefore, may prove to be an important source of variation in international entrepreneurial activities. Extant research on international entrepreneurship has examined the influences on internationalization of entrepreneurship at the individual and firm levels (Szyliowicz & Galvin, 2010). A few studies have examined this phenomenon at the country level. This country-level research however, is restricted to the effects of factors such as cultural distance and host country issues that drive international entrepreneurship (Keupp & Gassmann, 2009).

Further, the use of institutional theory to understand international entrepreneurship is limited (Muralidharan & Pathak, 2017a). While institutional contexts facilitate or constrain international entrepreneurship (Shane, 2004), only a few studies have used institutional theory to understand international entrepreneurship (Peiris, Akoorie, & Sinha, 2012). This chapter contributes to this stream of literature by examining how home country-level institutional conditions affect internationalization of early-stage entrepreneurs' ventures. The chapter proposes that home country institutional conditions singly and in combination facilitate or constrain early-stage entrepreneurial firms' internationalization. In doing so, the chapter attempts to broaden the theoretical perspective of international entrepreneurship by considering this phenomenon in the wider setting in which this activity is embedded. It specifically focuses on nascent entrepreneurial firms that have not yet launched their ventures as well as new entrepreneurial firms. Both these types of entrepreneurial firms are referred to in this chapter as *early-stage* entrepreneurial firms.

In this chapter, the authors use the rationale behind using multi-level theorizing (Davidsson & Wiklund, 2001) to develop their framework concerning country-level antecedents to internationalization by early-stage entrepreneurial firms and thereby help facilitate an understanding of the reasons and circumstances leading to early internationalization. Typically, the framework considers the assessment of opportunities as an individual-level activity, the construction of opportunity as a firm-level activity, and the shaping of opportunity as an institutional-level activity (Reuber, Knight, Liesch, & Zhou, 2018). Scholars suggest an increasing need to use multilevel theorizing in explaining international business phenomena (Peterson, Arregle, & Martin, 2012). The conceptual framework proposed in the chapter suggests that a strong national system of innovation and a weak domestic market facilitate internationalization by early-stage entrepreneurial firms. Furthermore, it is suggested that in both the above situations, a strong regulatory environment is a requirement for early internationalization by entrepreneurial firms. The framework therefore contributes to generating a more theoretical perspective of international entrepreneurship by identifying some home country drivers of internationalization by early-stage entrepreneurs. Given that there is a strong link between entrepreneurial firms and the entrepreneurs who run these firms, it is important to understand the context in which intentions of these individuals lead to early internationalization (Zahra, Korri, & Yu, 2005).

The chapter is organized as follows. In the next section insights from international entrepreneurship scholarship are discussed followed by a brief discussion on home country context. Thereafter the authors draw theoretical inputs from international entrepreneurship theory and institutional theory to develop a conceptual framework and propose direct effects as well as the interaction effects of country-level factors such as: an innovative environment, market size, and the regulatory environment on the extent of internationalization by early-stage entrepreneurial firms. Finally, the authors present the implications of the proposed conceptual framework, its limitations, and related potential areas that can be explored for developing further scholarship.

INTERNATIONAL ENTREPRENEURSHIP

Oviatt and Douglass (2005) define international entrepreneurship as the discovery, enactment, evaluation, and exploitation of opportunities to market goods and services across domestic borders. The definition of entrepreneurship based on opportunity has become widely accepted in literature (Brown, Davidsson, & Wiklund, 2001). Opportunities exist both in domestic and international markets (Zahra & Dess, 2001). While international entrepreneurship is the creation and internationalization of new firms, the process of internationalization of such firms has been perceived to be different from the traditional patterns of firm internationalization (Oviatt & McDougall, 1994).

The two frameworks used to understand internationalization by new firms are ‘process theories’ and ‘international new venture’ theories (Kalinic & Forza, 2012). While the former argues incremental increase of commitments to foreign markets (Johanson & Vahlne, 1977), the latter suggests firm entry into the international marketplace soon after inception (McDougall & Oviatt 2000). Some key factors that are believed to influence international involvement by startup firms are contextual, industry conditions, and entrepreneurial thinking (Oviatt & McDougall, 2005). Contextual conditions both at home and abroad may influence the extent of internationalization by start-ups (Liu, Xiao, & Huang, 2008). The authors examine some of the contextual conditions at home and their influence on internationalization using insights from institutional theory

HOME COUNTRY CONTEXT

Extant research suggests that home country contexts facilitate or constrain internationalization initiatives. Entrepreneurs who actively seek to minimize the limitations imposed by a small domestic market, consider internationalization as a viable alternative (Ciravegna, Kuivalainen, Kundu, & Lopez, 2018). The heterogeneity of domestic markets in terms of inhibitors and facilitators affect the international performance of firms (Zahra, Neubaum, & Huse, 1997). This chapter examines the influence of contextual factors of innovative environment, domestic market and specifically their interplay with the regulatory context to predict the extent of early internationalization by entrepreneurs.

Innovation and Entrepreneurship

Entrepreneurship and innovation are positively related to each other and interaction of the two is key to a firm’s success in today’s changing environment (Zhao, 2005). Entrepreneurs therefore play an important role in introducing innovations into the market place. Further, studies on the influence of context on innovation and entrepreneurship has gained considerable scholarly attention. Extent of innovation undertaken by entrepreneurs and entrepreneurial firms is a function of the extent of financial resources available in the market place, the ability of regulatory bodies fuelled by government policies that foster innovation, level of generalized trust in society, and the efficient allocation of human capital within the economy (Pezeshkan, Smith, Fainshmidt, & Sedeh, 2016). While the degree of innovation by new ventures differs considerably and that these differences can be related to the individual factors of entrepreneurs, this chapter goes one step further to suggest that the influence of individual factors on innovation is contingent on the institutional context in which the new venture is embedded (Fuentelsaz, Maicas, & Montero, 2018).

Domestic Market Size and Entrepreneurship

Domestic market size is an important factor that receives a great deal of scholarly attention in various strategy, innovation, entrepreneurship, and international business literatures (Murmman, Ozdemir, & Sardana, 2015). While demand considerations appear, in particular, in discussions of the rise of multinational companies from emerging economies (Buckley and Hashai, 2014), it as a concept has also played a significant role in the discussion of rates of innovation (Di Stefano, Gambardella, & Verona, 2012). In export marketing literature it is suggested that entrepreneurs use exports to avoid the high costs of doing business in a home country with hostile institutions (Lee, Yin, Lee, Weng, & Peng, 2015). Further, firms from countries with relatively small domestic markets have been seen to internationalize early in their life cycle or become born global firms (Madsen & Servais, 1997). Examples of such firms are those from Scandinavian countries, especially those in information technology.

Regulatory Institutions and Entrepreneurship

Institutions, which refer to the underlying aspects of social structure, are taken for granted rules perceived by individuals, that act as authoritative guidelines for behavior (North, 2005; Scott, 2005). They act as implicit guidelines for individuals' actions (Powell & DiMaggio, 1991). These institutions have been considered as rules, regulations, customs, and traditions operating in a country (Szyliowicz & Galvin, 2010) and shape the logics that drive economic decision making in the market (Yeung, 2002). Entrepreneurship, like any other economic activity, has been argued to be influenced by formal institutions (rules and regulations) and informal institutions such as norms and values (Baumol, 1990). Formal institutions in particular develop the contexts that facilitate economic activity. Such contexts are therefore institutional conditions that are reflections of regulatory institutions driven by government policy (Pathak & Muralidharan, 2018). While conditions of consistent and liberal regulatory policies facilitate entrepreneurial activity, weak institutional conditions could lead to high transaction costs for establishing entrepreneurial activity (Buckley et al., 2009)

CONCEPTUAL FRAMEWORK

From the preceding discussions it can be inferred that the impact of various home contextual factors and their interplay is helpful to theorize about international entrepreneurship around the world (Hayton & Cacciotti, 2013). Opportunity identification has been established in international entrepreneurship literature to be an intentional process, where intentions are considered to be strong predictors of planned behavior (Krueger, Reilly, & Carsrud, 2000). For the purposes of this study, the authors begin with the assumption that the entrepreneur is able to discover or enact an opportunity, because their objective is not to understand the nature of this discovery or its enactment, but the context in which decisions about the pace at which the firm takes advantage of international opportunities (Oviatt & McDougall, 2005). As such, entrepreneurship scholars have supported the notion that strong entrepreneurial orientation precedes entry into international markets (Ripollés, Blesa, & Monferrer, 2012).

Entrepreneurial mental models directly influence the type of firm, organizational form, governance system, structure, and competitive strategy. Extant research suggests that the firm is an extension of the entrepreneur's ego and that it is also a means of gaining social acceptance and legitimacy in international

markets (Zahra et al., 2005). Further, strategy scholars equate firm intentions with the vision and goals of the founding entrepreneurs (Katz & Gartner, 1988). Literature on international entrepreneurship confirms the positive influences of managerial vision and intention on firm internationalization (Peiris et al., 2012). In view of the above and given the intricate links between the entrepreneurs' personal goals and needs and the objectives of the firms they set up (Zahra et al., 2005), the chapter is focused at the firm level.

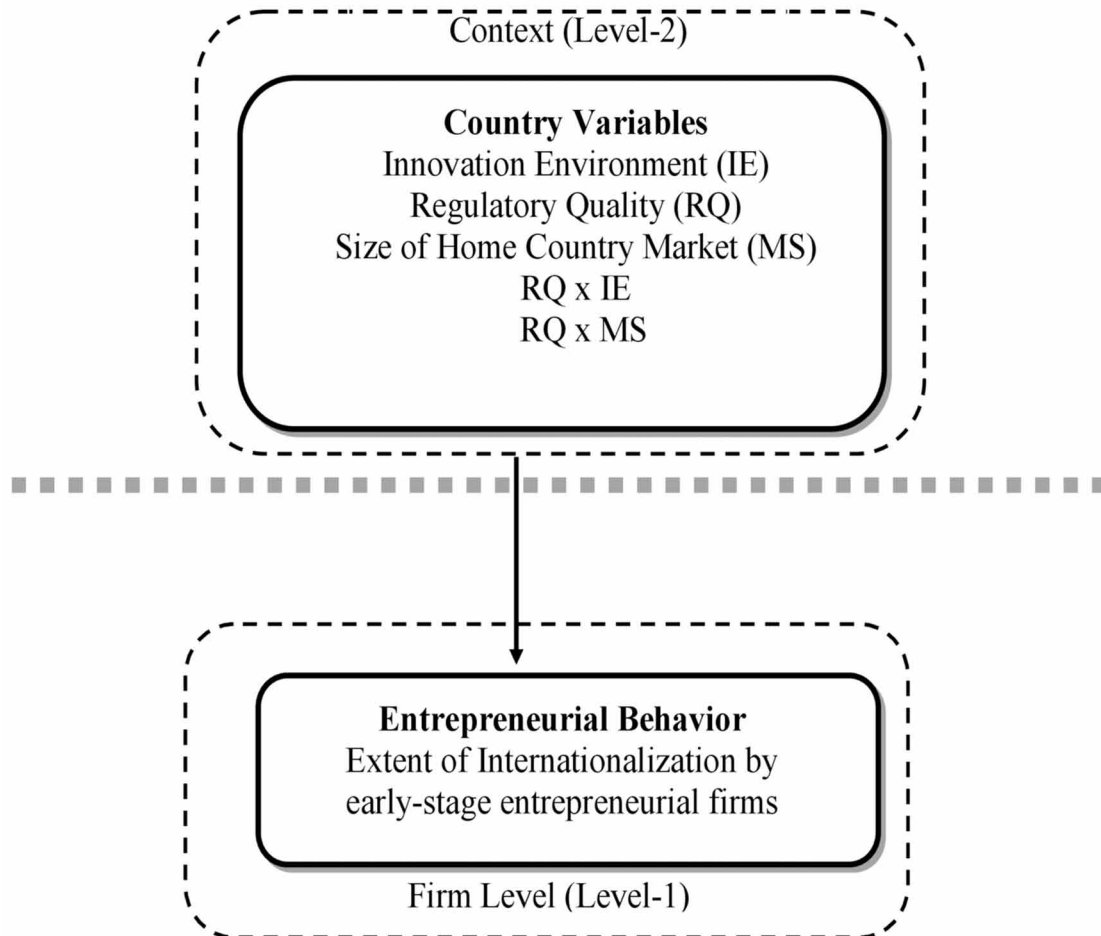
Entrepreneurial activity, as suggested by Aldrich and Zimmer (1986) is a function of "opportunity structures and motivated entrepreneurs with access to resources" (p 3). Extant research suggests that entrepreneurs' motivation to internationalize are deeply embedded in the home country contextual influences that the entrepreneur is located in (Zahra et al., 2005). The market conditions of the home country, the access to resources (for innovation) in the home country, and the support from the home government through friendly business policies are key institutional conditions that define contextual opportunity structures in the home country of entrepreneurs (and the firms which they operate).

Institutional factors of home countries have been suggested to be important determinants of any country's outward direct foreign investment (Buckley et al., 2010). Building on Williamson's (2000) hierarchy of institutions the authors examine how home factors and their interplay predict the extent of internationalization by early stage entrepreneurial firms (Estrin, Meyer, Nielsen, & Nielsen, 2016). The home factors that the authors chose to examine have been classified using Williamson's (2000) theory of institutions. Williamson's theory of institutions suggests a hierarchy of institutions, from macro- to micro-level institutions, as follows: (1) informal institutions (norms, customs, mores, traditions, taboos, codes of conduct, sanctions); (2) formal institutions (constitutions, laws, property rights); (3) institutions of execution (access to financing, supply chains, market conditions); and (4) the production functions of firms and entrepreneurs (resource allocation). Estrin et al. (2013), in their study of entrepreneurial growth aspirations, approximate their predictor variables, intellectual property rights, corruption, and social ties, to Williamson's hierarchy of institutions. Following their lead, the authors classify the firm-level decision to internationalize as a level-4 institution that is affected by the size of the home country market at level-3, the regulatory environment of the home country at level-2, and the innovative environment as a combination of level-2 and level-3 factors. In the following sections, the authors examine the influence of these factors and their interplay on the internationalization of early-stage entrepreneurship. Figure 1 provides a depiction of the conceptual model suggested by the authors.

Innovative Environment and Internationalization

Extending the previous discussions on innovation and entrepreneurship, innovative environment of a country can be considered as the extent of Research and Development (R&D) and innovation related investment encouraged in the country by both private and public enterprises, technological infrastructure available in the country, and the quality of the educational system defined by universities or technical institutions that provide knowledge workers (Colovic, & Lamotte, 2015). Previous studies have examined the impact of these features on entrepreneurship or new venture creation in general. For example, Choi and Phan (2006) have found that R&D investment per capita is positively associated with new venture creation. Using the knowledge-spillover theory (Acs, Audretsch, & Lehmann, 2013) it is suggested that a context rich in knowledge generates entrepreneurial opportunities. Essentially the knowledge created by R&D institutions, universities, and research-intensive firms (that are integral parts of the innovation ecosystem of the country) spills over to other economic agents (entrepreneurs who do not bear the full costs of knowledge development) who convert it to entrepreneurial opportunities (Colovic & Lamotte,

Figure 1. Conceptual Framework



2015). In sum, extant research suggests that stronger the innovative environment in the country, potentially higher would be the rate of entrepreneurship.

Innovation also plays an important role in the internationalization of entrepreneurial activity. Scholars have suggested that in the internationalization process of entrepreneurs there is considerable macroeconomic evidence that suggests differences in levels of innovation along with differences in prices can influence internationalization behavior (O’Cass & Weerawardena, 2009). Specifically, extant studies have found a positive role of innovation in international trade performance. For young technology entrepreneurs, innovation processes and internationalization processes are likely to be quick and inter-related and such decisions are influenced by the context in which they are located (Onetti, Zucchella, Jones, & McDougall-Covin, 2012).

Innovation is therefore one of the main sources of competitive advantage for entrepreneurial firms. It has been considered, in literature, as a generator of competitiveness (Otero-Neira, Arias, & Lindman, 2013). Firms need to keep pace with changing technology and product innovations occurring in their

domains in order to remain competitive in an international environment. They must, therefore, stay abreast of competitors and changing trends (Preece et al., 1999). This can only be achieved through continuous innovation. For entrepreneurial firms to survive and be sustainable, they have to be at the leading edge of product development, by continuously developing and improving products (Madsen & Servais, 1997; Zahra, Ireland, & Hitt, 2000).

The innovation processes of entrepreneurial firms are generally located in their home countries as they are expected to derive firm-specific technological competitive advantages from their home country contexts (Cantwell, 1995). An innovative environment in the home country specifically supports technological development of new products and processes. As mentioned earlier, such an environment is characterized by sophisticated national institutions involved in research and development, high quality universities engaged in research and development, high quality skilled manpower, networking opportunities with other entrepreneurs, and availability of high-quality knowledge workers (e.g. Silicon Valley of the United States). The development of high quality, skilled manpower helps to build the competitiveness of the nation (Bhaumik & Banik, 2006). An innovative environment therefore is key to the development and application of knowledge and is a core resource relevant to international entrepreneurship (Autio et al., 2000). For example, rapid internationalization has been found to occur mainly in high technology industries, where knowledge is the key resource that contributes to the development of innovative products and services required for international markets (Jones & Coviello, 2005). 'Innovation, research and development, knowledge development, and capabilities leveraging' have been found to play key roles in the international success of entrepreneurs entering international markets early in their life cycles (Knight & Cavusgil, 2004: p. 135). Besides, the local research institutions and their connections abroad help new entrepreneurial firms to develop and internationalize their innovations rapidly in the global marketplace (Andersson, Evers, & Griot, 2013). Further, expenses for new research and product development are high. Innovative firms, therefore, need to expand markets beyond their home country markets to maximize utility and realize gains to counter the costs that they have incurred with their innovations.

In summary, the authors argue that for entrepreneurial firms to compete and survive in international markets, it is necessary for them to be at the forefront of development in their domains of specialization. They have to be at the leading edge of product development and innovation. The availability of an innovative environment at home facilitates their endeavours in product development and innovation, thereby making it easier for firms to explore international markets right from inception. It is therefore suggested that:

Proposition One: Home country innovative environment is positively associated with the extent of internationalization by early-stage entrepreneurial firms.

Domestic Market and Internationalization

Entrepreneurial firms, particularly high technology firms, incur high investment costs for their knowledge development by way of new product development, technology development, and process development. Investments include hiring highly qualified researchers, building research and development facilities, and conducting field trials or clinical trials. Further, these firms must continuously invest resources in order to keep pace with the changes in global trends in products and markets. Some examples include wireless data communications, marine sonar technologies, genetic engineering, and drug development. Therefore, financial investments to sustain operations that involve continuous product innovations that keep pace with international demand is expected to be very high (Preece et al., 1999). Entrepreneurial

firms may not be viable in the long run if they are not able to achieve high sales revenues right from their inception (Ohmae, 1990).

For the reasons mentioned above, entrepreneurial firms may need to export their products early to access larger markets in their growth trajectory in order to recover their production, development, and innovation costs (Zahra et al., 2000). Product innovation, which is a required competency for firms to operate in rapidly changing and competitive environments, may entail the use of high technology in their processes, which increases expenditure on research and development and marketing (Hordes, Clancy, & Baddaley, 1995). If domestic markets are not sufficient to generate revenue to cover the above costs, firms may need to internationalize for access to larger markets (and hence, larger revenues), especially when operating in rapidly changing and competitive environments (Jolly, Alahuhta, & Jeannet, 1992).

The above arguments also point to the importance of the economic motives of the entrepreneurs who drive their firms' decisions to internationalize early in their life cycle. Economic motives play a significant role in influencing highly motivated entrepreneurs to internationalize early. These motives represent the profit-maximizing strategic objectives of their firms (Fan & Phan, 2007). This argument is in line with the growing literature on 'born global' firms, which seek to derive competitive advantage by the sale of their products in multiple countries (Rialp, Rialp, & Knight, 2005). Further, the opportunity for sales in international markets addresses the utility maximization motive of the entrepreneurs driving new ventures. Entrepreneurs' decisions to explore international markets for their products are, in consequence, driven by the expected gain, taking into account the opportunity costs of potentially foregone revenues from international markets (Murmann et al., 2015).

As a result, the authors argue that the size of the home market is an important influencing factor that drives early internationalization by start-ups. Home markets need to be large enough to generate revenue for entrepreneurial firms to cover their expenses incurred in product development and innovation and also address the utility maximization motives of the entrepreneurs driving these firms. It is therefore suggested that:

Proposition Two: The size of the home country market is negatively associated with the extent of internationalization by early-stage entrepreneurial firms.

Regulatory Quality and Internationalization

One of the basic contexts on which international business research has been conducted is the country's institutional environment. Entrepreneurial firms are considered to be embedded in the institutional environment of the countries where they originate (Busenitz et al., 2000). The institutional environment of a country consists of its rules, social norms, and cognitive structures (Scott, 1995). It sets the context for market transactions by setting the 'rules of the game' (North, 1990, p. 1). It also specifies the conditions under which firms are considered legitimate (Spencer & Gomez, 2004). Current research reveals that institutional context also influences a firm's strategic initiatives, such as the extent of innovation and the process of innovation (Bartholomew, 1997); the presence of regulatory reforms and restrictions (Banik & Bhaumik, 2014); the growth of foreign alliances (Steensma et al., 2005); and differences in entrepreneurial activities (Bruton, Fried, & Manigart, 2005). The authors examine how a country's institutional environment, as reflected by its level of institutional development, influences early internationalization of entrepreneurship. The regulatory dimension consists of laws, regulations, and policies of the government that promote certain behaviors and restrict others (Busenitz et al., 2000). The role of regulatory agencies has also been debated extensively by scholars (Czinkota, 1983). Specifically, the

authors examine how the extent of regulatory development in the country influences early internationalization of entrepreneurship.

When they address the levels of regulatory development, the authors refer to differences in the regulatory environments amongst countries that either facilitate or constrain their economic activity. These differences in the regulatory environments around the world essentially reflect the existence or the lack of regulatory support for international entrepreneurship (Kiss & Danis, 2008). Countries which have well-developed regulatory environments have sophisticated banking systems and financial institutions, strong and stable public equity markets, and strong venture capital industries (Bruton et al., 2005). They also provide market developmental support for new businesses, provide risk mitigation programs and support for individuals starting new companies, and help entrepreneurs acquire the resources and finances essential for international sales of their products and services (Busenitz et al., 2000). Well-established legal systems also provide protection to entrepreneurial firms and their investments.

Entrepreneurial firms who aim to internationalize early in their life cycle can leverage resources that are available through government-sponsored programs and can enjoy the privileges that regulatory policies offer to entrepreneurs (Rondinelli & Kasaarda, 1992). For example, the U.S. government provides advice and financial assistance to firms starting new businesses; similarly, several European governments provide financial assistance for the export development initiatives of smaller firms (Reynolds, 1997). Specifically, providing entrepreneurs with export resources and assistance through government policies has been widely acclaimed as beneficial in internationalization (Moore & Garnsey, 1993). It is therefore suggested that:

Proposition Three: Regulatory quality in the home country is positively associated with the extent of internationalization by early-stage entrepreneurial firms.

Regulatory Quality and Market Size

Strong regulatory support in the home country facilitates the internationalization of entrepreneurial firms early in their life cycles. Similarly, entrepreneurial firms operating in a small home market are expected to internationalize early or right at inception. The presence of both these influences can lead to a combined effect on early internationalization of entrepreneurial firms. It is suggested that technology entrepreneurs may, out of necessity, choose to go international because of the smaller size of their domestic markets (Ganitsky, 1989). Accessing international markets entails investments in distribution arrangements, foreign sales offices, patent filings, warehousing, and servicing arrangements for the products and services that are being marketed. Access to information and networks on international markets can be improved through assistance from government channels such as foreign offices, trade missions, and diplomatic channels. Investments in resources and capabilities to grow in international markets would be very high for entrepreneurial firms internationalizing early, and protection of such investment may be necessary (Busenitz et al., 2000). While it may be necessary for entrepreneurial firms with a small home country market to internationalize early in their life cycle for revenue, they also need developmental support from their home country regulatory institutions. It is therefore suggested as follows:

Proposition Four: Home country regulatory quality moderates the relationship between home country market size and the extent of internationalization by early-stage entrepreneurial firms; extent is greatest when market size is small and regulatory quality is strong.

Regulatory Quality and Innovative Environment

Both regulatory quality and a strong home country innovative environment increase the extent of internationalization by early-stage entrepreneurs. Entrepreneurial firms need access to resources such as highly qualified manpower, research facilities, sophisticated laboratories, and equipment in order to be at the edge of technological development in their domains (Autio et al., 2000). Further, for internationalization, firms need to make significant investments in market development and distribution and provide services, support, and other technical assistance necessary for their international consumers. Firms also need access to and collaborations with institutions located in international markets (e.g., research and development partners and partners to conduct trials and testing of products in foreign markets). Further, a lack of operating knowledge in international markets may discourage entry by entrepreneurial firms and reduces the probability of success in international markets (Butler, Doktor, & Lins, 2010).

Challenges related to the above may need to be mitigated by strong home country regulatory institutions. Regulatory assistance in terms of foreign exchange availability, strong monetary policies by the government, developed banking channels, availability of venture capital, strong intellectual property rights, prevention of privacy, and other government-level initiatives to facilitate and protect the investments and activities abroad of these entrepreneurs should be easily available (Wang, Yi, Kafourous, & Yan, 2015). Training and development support, which is provided at the national level by export development agencies (such as Export Development Canada) for operating in international markets may be required to gain skillsets in managing international operations. While an innovative home environment provides necessary resources for product development for entrepreneurial firms to be internationally competitive, international initiatives of firms need to be appropriately supported and protected by regulatory bodies in the home country. It is therefore suggested as follows:

Proposition Five: Home country regulatory quality moderates the relationship between home country innovative environment and the extent of internationalization by early-stage entrepreneurial firms; extent is greatest when regulatory quality and innovative environment are strong.

DISCUSSION

The drivers behind firms going international have been a topic of increasing scholarly interest in international business and international entrepreneurship research over the past three decades (Rialp et al., 2005). In particular, understanding the impact of home contextual factors helps to theorize about international entrepreneurship behaviors around the world (Hayton & Cacciotti, 2013; LiPuma, Newbert, & Doh, 2013). More recently, the influence of formal and informal institutions on international strategy of firms has become a prominent line of research (Hitt et al., 2016). The discussions in this chapter refer to literature at the intersection of international business and entrepreneurship. Scholars examining early internationalization seem to agree on the various factors that lead to this phenomenon. Some of the factors include size of the firm's home country market, new market conditions in international markets (e.g. emergence of global niche markets), advancements in production technology and communication, global alliances and networks, and unique firm capabilities (Fan & Phan, 2007; Kiss & Danis, 2008; Oviatt & McDougall, 2005; Rialp et al., 2005). Regulatory and economic contexts suggest a partial explanation of cross-national variability of entrepreneurship (Bowen & de Clercq, 2008; Stephan et

al., 2015; Van Stel, Storey, & Thurik, 2007). The authors have extended the above research to study international entrepreneurship.

Further, extant literature suggests that these national contextual factors help predict early internationalization of entrepreneurial firms over and above individual level factors, such as entrepreneurial orientation and market orientation (Liu, Li, & Xue, 2011), business group affiliation, international experience, and technological and marketing resources (Gaur, Kumar, & Singh, 2014). Thus, the impact of the home country context on the internationalization of entrepreneurship needs to be better understood and integrated into the existing theoretical and conceptual frameworks that explain the degree of internationalization by such firms (Zander et al., 2015). The authors propose in a conceptual framework specific home country factors such as innovative environment, domestic market size, and regulatory quality and their interplay to predict extent of internationalization by early-stage entrepreneurial firms. Drawing from the literature on institutional theory (Williamson, 2000), they characterize three levels of the institutional hierarchy that seem to be involved in the decision of nascent and new entrepreneurs to internationalize their ventures. Entrepreneurs that internationalize contribute to their home economies by providing increasing returns to domestic investors. The extent of internationalization is thus an important study variable for those interested in crafting policy to support it.

The conceptual framework proposed in this chapter suggests that each of the above three levels influences the extent of internationalization by early-stage entrepreneurial firms. The positive influence for the national systems of innovation suggests the importance of an innovative environment at home for encouraging internationalization by early-stage entrepreneurial firms. To take advantage of opportunities in international markets, firms need to be able to sell leading edge products and services facilitated by strong national innovation systems (Carvalho & Galina, 2015; Carvalho, Carvalho, & Nunes, 2015). Similarly, small home markets influence entrepreneurial firms to address international opportunities early in their life cycle in order to cover the costs incurred in product development. Government support facilitates internationalization by early-stage entrepreneurial ventures. The conceptual framework also adds to the extant literature on ‘international new venture’ theories (Kalinic & Forza, 2012) by suggesting how contextual conditions at home have an influence on the extent of internationalization by start-ups (Liu et al., 2008). The framework is appropriate in light of recent research suggesting that individual-level attributes such as risk aversion and self-efficacy may not be the only major influences on internationalization intentions (Ewald, Klyver, & Christensen, 2011).

Finally, moderation effects as suggested in the framework also indicate that each country-level factor does not merely operate in isolation, but that regulatory quality moderates the effects of home country market size and innovative environment. This is consistent with Williamson’s (2000) neo-institutional theory, which posits that each level affects the others either directly or indirectly. In explaining the interplay between the factors, and hence a configurational approach, the authors suggest that while entrepreneurs expand to international markets earlier on in their growth trajectory, they need support from regulatory mechanisms in their home country in to order protect their investments and to support their international market development initiatives. The importance of regulatory mechanisms suggests the relevance of crafting government policy to have strong regulatory institutions that support and protect internationalization operations of early stage entrepreneurs. The authors also believe that this chapter contributes to the scholarship on the process of internationalization by new firms where it is shown that this process for new firms may be different from the traditional, staged-based process of internationalization followed by more mature firms (Johanson & Valhne, 1977).

In summary, the propositions in this chapter suggest joint configurations of institutional conditions. Propositions using the configuration perspective enable better integration of research on institutional conditions and go beyond the debate on whether which institutional conditions are more important for outcomes (Stephan et al., 2015). While theorizing the effect of configuration is a common practice in strategic management and psychology research (Short, Payne, & Ketchen, 2008), it is limited in institutional theory research (Scott, 2005) and in comparative entrepreneurship research (Jones, Coviello, & Tang, 2011).

FUTURE RESEARCH DIRECTIONS

The proposed framework is multilevel in design and conceptual in nature, to examine the influence of national level institutional conditions and their interplay on the extent of internationalization of early stage entrepreneurial firms. Future research may need to empirically test the conceptual framework proposed in this chapter, using advanced quantitative and qualitative methods. Using secondary data sources, empirical testing can be done by constructing a cross-national data set, consisting of population-representative surveys from the Global Entrepreneurship Monitor (GEM) and Global Competitiveness report of the World Economic Forum (WEF). Qualitative analysis using case studies which is specifically suggested for international entrepreneurship research can also be done to strengthen the understanding behind the suggested framework (Ji, Plakoyiannaki, Dimitratos, & Chen, 2019).

The authors of this chapter have not considered other contextual factors such as informal institutions that may interplay with the predictor variables to influence the extent of internationalization. It has been shown by scholars that informal institutions may also influence the extent of internationalization of early-stage entrepreneurial firms (Muralidharan & Pathak, 2017a). Further, national culture plays an important role in international entrepreneurship (Ahmed & Julian, 2012). Informal institutions that shape the inclinations of social groups from which entrepreneurship stems (Dantas, Moreira, & Valente, 2015; Dantas, Moreira, & Valente, 2018; Muralidharan & Pathak, 2017c; Muralidharan & Pathak, 2019; Pathak & Muralidharan, 2016; Pathak & Muralidharan, 2018), the authors believe, may also influence decisions of entrepreneurs to internationalize early in their life cycle.

Other contextual factors, such as direct foreign investment and barriers to technological adoption may be involved in the extent of internationalization by early-stage entrepreneurs. Further, the effect and the interplay of the destination (or host) country's environmental context has not been considered in this study. While scholars have examined the effects of host country environmental conditions on the export performance of a firm (Coeurderoy & Murray, 2008; Keupp & Gassmann, 2009), the degree to which the interaction of a host country's environmental factors with those of the home country affect the extent of early internationalization of entrepreneurship is a possible area for future research. Future research may also distinguish between mature and emerging market conditions (Li, 2013). Doing so would add to the existing debate and theorizing related to internationalization by emerging market multinationals. While mainstream frameworks regarding internationalization/international entrepreneurship are suitable for developed countries, these frameworks may not completely explain such behavior from developing economies (Bruhn et al., 2016). Firms from developing economies face the double challenges of liabilities of foreignness and country of origin (Muralidharan, Wei, & Liu, 2017).

Although the conceptual framework allows for predicting internationalization by nascent and new entrepreneurial firms, it does not consider the influence of other potentially important elements, such as

the strategy of the entrepreneurs, their resources and capabilities, their ability to learn, and their access to knowledge spill overs. The above factors have been found to be important for more mature organizations internationalizing (Keupp & Gassmann, 2009). Some of these factors may also be applicable to early-stage entrepreneurs, and future scholarship may expand the understanding of the suggested framework in this chapter by incorporating them in the framework, either at the individual level or at the firm level of understanding. Finally, while the present discussions revolve around entrepreneurs and the firms they lead, future research may examine the frameworks viability with large multinational enterprises and their early internationalization (Ahsan & Fernhaber, 2019).

CONCLUSION

This chapter, through a proposed multilevel framework, suggests that home country conditions influence the extent of internationalization by early-stage entrepreneurial firms. The framework suggests that strong innovative environment and small domestic market in the home country trigger internationalization by early stage entrepreneurial firms. These effects are stronger when they are supported by a strong home country regulatory framework. The framework is important in the significance of the interplay between institutional conditions to explain entrepreneurial phenomena at the firm level. The authors believe that the framework suggested in this chapter would motivate additional scholarship that examines, through a multi-level perspective, the process of internationalization by entrepreneurial firms.

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KEY TERMS AND DEFINITIONS

Born-Global: An entity that internationalizes right from its inception.

Entrepreneurship: Process of discovery, evaluation, and exploitation of opportunities to produce and market goods and services.

Innovation: Changing, improving, or developing new products and processes.

Institutions: Regulations, norms, and values of society that guide behavior.

Internationalization: Process of marketing, manufacturing, or innovating outside the firm's home country.

Market Size: Demand for goods and services in an economy.

Regulatory: Guiding behavior through formal rules.

Chapter 15

Portfolio Entrepreneurship and Strategic Decision Making in the Global Context

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ABSTRACT

In recent years, emerging trends in entrepreneurial activity have been changing constantly, and new entrepreneurship types are developing in the global world. Especially, a number of studies have drawn attention to the alternative entrepreneurship approaches. This chapter reviews an alternative entrepreneurship opportunity called portfolio entrepreneurship, also known as multiple business ownership. The main purpose of this chapter is to investigate the importance of strategic decision-making of portfolio entrepreneurs. This chapter also aims to provide a framework that is three-box solution for portfolio entrepreneurs to improve their decision-making performance. The results of the study are expected to be a source for researchers and practitioners in the areas of entrepreneurship and decision making.

INTRODUCTION

Entrepreneurship which is acknowledged as a significant tool in economic growth, regional development, innovation, and generating new jobs (Carree & Thurik, 2003; Parker, 2009; Wagner, 2012; Cieslik, 2014; Baptista & Leitao, 2015; Hakobyan, 2017) has been the subject to much research within multiple disciplines for many years. The evolution of entrepreneurship has created new opportunities and led to new managerial challenges due to the globalization of businesses (Etemad & Wright, 2003). The reflections of economic, political, social, and cultural changes on entrepreneurship have revealed new trends in entrepreneurship. In particular, innovative approaches to entrepreneurship and multiple business entrepreneurship have become significant themes in entrepreneurship researches. From the perspective of contemporary entrepreneurship, entrepreneurs are generally categorized in three types: *nascent* who considers establishing a new venture; *novice* who has just started businesses; and *habitual* who always

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starts, or purchases several businesses (Morrish, 2009; Balunywa, Sejjaaka & Ntamu, 2013). Habitual entrepreneurs have multiple businesses either respectively (i.e. serial entrepreneurs), or concurrently (i.e. portfolio entrepreneurs) (Baptista, Karaöz & Mendonça, 2014; Westhead, & Wright, 2015). Among the different types of entrepreneurship, an alternative entrepreneurship approach namely portfolio entrepreneurship is analyzed in this book chapter.

There have been numerous attempts to define and conceptualize portfolio entrepreneurship. The concepts of multiple business starters (Donckels, Dupont & Michel, 1987), or multiple business owners (Rosa & Scott, 1998; Carter, 1999) are also used instead of this entrepreneurship type in the literature. The phenomenon of portfolio entrepreneurship appears when business founders hold, run and control multiple ventures contemporaneously, and that the ownership of the new enterprise differs from existing enterprise (McGaughey, 2007). According to Carter & Ram (2003), portfolio entrepreneurship is the concurrent ownership of a number of businesses. To sum up, portfolio entrepreneurs own several businesses at the same time (Plehn-Dujowich, 2010), and they operate more than one business in parallel (Parker, 2014; Radicic, Bennett & Newton, 2017). Thus, they gain great experience in running the businesses (Carter & Ram, 2003; Thorgren & Wincent, 2015). Moreover, portfolio entrepreneurship represents value-creating behaviors that seek to identify and utilize opportunities. It refers to a process through which product development or diversification occurs (Carter, Ram & Dimitratos, 2004). Importantly too, as the portfolio entrepreneurs can deploy assets from their existing companies, they are less likely to encounter a variety of financial barriers to launch a new initiative. Besides, they have greater network contacts and customer knowledge apart from the necessary skills to deal with financial barriers (Baptista, Karaöz & Mendonça, 2014). In addition to all these, the main motives that drive people to start a portfolio investment can stem from diversification of risk, growth-seeking, easier resource acquisition, and succession (Carter & Ram, 2003; Morrish, 2008). Despite the fact that ownership of more than one enterprise by a single entrepreneur is initially seen as a tool to reduce the operational risk, it is now considered a remarkable growth strategy (Carter, 1998a; Rautiainen, 2012). The potential benefits of portfolio investments are described as risk management through diversification in multiple risk initiatives and economies of scope in entrepreneurship activities (Plehn-Dujowich, 2010). That is why, these investments can be introduced as a significant tool in terms of spreading risk, creating new ventures, lowering average cost, steadily growth, contributing to the survival of firms, and so on.

On the other hand, portfolio entrepreneurs face many potential investment opportunities in a highly complex environment. The ability to identify and implement entrepreneurial opportunities provides competitive edges through innovations that create new line of business to them (Hitt, Ireland, Camp & Sexton, 2002). Entrepreneurs may lose sight of strategic decision-making process, if they only focus on short-term decisions related to daily activities. Whereas, they can realize short-term plans more easily by clarifying the firm's big picture objectives (Gartenstein, 2019). Furthermore, the portfolio decisions (i.e., choice decisions, partial termination decisions, and removal decisions) handle uncertain information, and need a long-term foresight (Kester, Hultink & Lauche, 2009). Hence, unlike nascent and novice entrepreneurs, portfolio entrepreneurs need to make strategic decisions regarding multiple investments involving both current and next business ventures. So, they need to have a strategic decision-making mindset that takes into account past, present and future actions. This indicates that the issue of strategic decision-making concerning with investment areas of the portfolio entrepreneurs has greater importance for the sustainability of the business process. Therefore, there is clearly a need for an understanding of strategic decision-making of portfolio founders, and an innovative structure that will facilitate to make strategic decisions of them.

The objectives of this chapter are to present a general perspective on portfolio entrepreneurship and to specifically analyze the strategic decision-making of portfolio entrepreneurs. In this context, the study is structured to three main sections. First, a theoretical background of portfolio entrepreneurship is explained. Then, the strategic decision-making of portfolio entrepreneurs is investigated. Finally, a new framework called as three-box solution is proposed to support their strategic decision processes.

THEORICAL FOUNDATIONS OF PORTFOLIO ENTREPRENEURSHIP

Although there has been an increased interest in multiple entrepreneurship, the phenomenon of portfolio entrepreneurship is studied relatively less than the other entrepreneurship types. A variety of studies focused on portfolio entrepreneurship in literature are summarized as below.

A number of studies have been performed on large-sized portfolio entrepreneurship. Balunywa (2009) surveyed large-sized portfolio entrepreneurs in Uganda. He ascertained that large-sized portfolio founders have a substantial contribution to the economic growth of a country by means of creating employment, creating wealth, and paying tax so on. The research by Fierro, Noble, Hatem & Balunywa (2018) focused on portfolio entrepreneurship in large-sized enterprises, and its role on job creation in Egypt, Uganda, and Malawi economies through interviews with 65 entrepreneurs. They found out significant connections between portfolio entrepreneurship and the stable wage employment as well as development of new industries. They also pointed out that portfolio entrepreneurship was an effective organizational strategy to benefit from opportunities in developing economies.

Most of the study explored the existence and importance of portfolio entrepreneurship in small and medium-sized enterprises (SMEs). Pasanen (2003) demonstrated that multiple entrepreneurship was common among SMEs in Eastern Finland, and 50 percent of enterprises were run by serial entrepreneurs or portfolio entrepreneurs. In the study on small firms in UK, Carter, Tagg & Dimitratos (2005) highlighted that portfolio activities were employed not only by growth-seeking entrepreneurs, but also by small business starters. They also added that portfolio activities may be used as wealth accumulation, survival mechanism, or long-term stable strategy. McGaughey (2007) introduced portfolio entrepreneurship in international ventures of SMEs in Tasmania, Australia. She clearly indicated that the portfolio activities facilitated the access of international new venturing. Morrish, Levy & Dong (2009) examined the importance of property ownership in the portfolio management of SMEs. Depending on the results of in-depth interviews of 15 successful entrepreneurs in New Zealand, they prominently expressed the strategic importance of property in these portfolios. Iacobucci & Rosa (2010) studied the business creation process of portfolio founders, and the impact of entrepreneurial groups in the formation and expansion of the small firms. They identified the types of portfolio entrepreneurial groups as joint ventures of existing entrepreneurs, intrapreneurship, and employee involvement practices.

Some researchers have shown interest to portfolio entrepreneurship in family firms. For example, Rautiainen, Pihkala & Ikavalko (2007) considered families as actors in portfolio entrepreneurship and presented an ownership matrix to conceptualize family-owned portfolio businesses. They applied this dynamic matrix on a family business, and they concluded that the portfolio activities were continuously restructured due to the changes in family relations. In their research on 119 habitual and novice entrepreneurs in Eastern Finland, Huovinen & Tihula (2008) revealed the widespread presence of portfolio founders in family firms. Plate, Schiede & Schlippe (2010) have investigated which resources and capabilities with respect to social, human, organizational and process factors improved successful

portfolio entrepreneurship in family businesses in Germany. In her study of the Australian wine industry, Gruber-Muecke (2011) pointed out that family portfolio entrepreneurs tended to international markets in times of financial crisis. Akhter (2016) observed portfolio entrepreneurship in family firms of Pakistan by collecting the data on 70 depth interviews with family owners. He stated that family firms engaged in portfolio entrepreneurship activities for leading long-term success, transgenerational entrepreneurship, and contributing to the society. Similarly, Carter & Ram (2003) summarized the reasons of family firms' participation in multiple business as improvement opportunities for family members, business division to ensure success of multiple brothers in succession, and exploring alternative revenue sources when the core business encounters negative market environment. Cruz & Justo (2017) conceptualized decisions of portfolio entrepreneurship as a mixed gamble since family members in portfolio entrepreneurship discussed potential win and loss. They underlined that family entrepreneurs were more engaged in portfolio entrepreneurship, and the presence of uneconomical goals of family portfolio entrepreneurs.

Several researchers have paid particular attention to portfolio entrepreneurship in the agriculture sector. Carter (1998b) who observed ownership structures of 296 farmers in Cambridgeshire, concluded that farmers have a significant role in small business ownership. She revealed that particularly young and well-trained farmers have widely hold ownership of business. Besides, she stressed that additional activities were regarded as a continuity of both the existing assets diversification, and the portfolio ownership. Another study of Carter (1999) analyzed the prevalence of multiple business starters in the farm enterprises and evaluates impact of additional business activities on business and employment. In her study, using a quantitative methodology in Cambridgeshire, she emphasized that multiple business ownership was an entrepreneurial expansion strategy. Vik & McElwee (2011) examined the diversification of farm, and the types of entrepreneurial motivation in Norway. They concluded that social motivations were as significant as economic motivations, and different types of support for farmers were needed so as to improve their entrepreneurial skill set. They pointed out that portfolio diversifiers were more driven by the desire to derive, and the desire to live at the farm than additional revenue. Ndemo & Aiko (2017) stated that necessity-oriented portfolio entrepreneurship was an increasingly common phenomenon in their research on the agricultural services of Kenya. They underlined that agricultural portfolio entrepreneurs can manage multiple businesses by means of information communication technology.

There are also portfolio entrepreneurship studies that make comparative assessment with the other entrepreneurship approaches in the literature. Alsos & Kolvereid (1998) explored new venture thinking process of serial, portfolio, and novice entrepreneurs by examining 160 entrepreneurs in Norway. They demonstrated that the business start-up processes of the entrepreneurs were different from each other. Although government programs have not drawn enough attention to experienced entrepreneurs, they discovered that portfolio founders have a greater possibility of venture execution than the others. Based on data from habitual and novice entrepreneurs in Scotland; Westhead, Ucbasaran, Wright & Binks (2004) determined aspects of similarity and difference of serial, portfolio, and novice entrepreneurs in terms of profiles and behaviors via survey method. They have proven that portfolio entrepreneurs have more various resources and greater growth prospects than the other entrepreneurs. Likewise, Westhead, Ucbasaran & Wright (2005a) showed the similarities and differences of 200 novice entrepreneurs, 66 serial entrepreneurs and 88 portfolio entrepreneurs in Scotland with regards to experiences and cognition. They remarked that multiple business owners attached more importance to human capital resources, innovation, and creativity than others. They added that novice entrepreneurs were less careful than habitual entrepreneurs because of their inexperience. As a continuation of this study, Westhead, Ucbasaran & Wright (2005b) who reviewed their studies on the similar sample, compared the entrepreneurs in

terms of decision, action and performance. They found major differences among the entrepreneur types in the search and recognition of entrepreneurial opportunities. According to the findings of the study, portfolio entrepreneurs were more concerned in starting on further businesses. Since they also had the skill to notice new business opportunities, they described themselves as opportunistic. However, they had practiced difficulties while obtaining capital and resources in some cases. Serial entrepreneurs were generally more careful concerning their following ventures, and showed a less complex behavior of business opportunity-seeking than portfolio entrepreneurs. As for technical or functional expertise, they also had greater strength than other entrepreneurs. In addition, the majority of novice entrepreneurs were unsuccessful in responding to changing market conditions, and adapting to external environment. Masuda (2012) explored the behavioral differences of nascent, habitual, and novice entrepreneurs in Japan. He confirmed that there were significant differences between them such as average age of start-up entrepreneurs, legal status at the embarking, financing sources, location of firm, size of employment, innovation level of enterprises, and the existence of business successor etc. With an occupational choice model, Parker (2014) explained the reasons for choosing to become serial entrepreneurs, portfolio entrepreneurs, or novice founders. He revealed that the difference of preference depends on their opportunity for exploitation abilities, and risk profiles/attitudes. Similarly, Huovinen & Tihula (2007) who underlined that portfolio entrepreneurs have more learning opportunities than the others, investigated the effects of previous experience and failure on portfolio entrepreneurship using case method in their research in Finland. The findings revealed that previous experiences may develop entrepreneurial knowledge, and founding experiences. Cooperation, delegation, and sharing responsibilities were identified as important factors of successful portfolio entrepreneurship.

A number of researches discussed decision-making process of portfolio entrepreneurs. Morris (2009) studied how portfolio entrepreneurs used reasoning in decision-making by employing semi-structured interviews, while developing more than one enterprise in New Zealand. The findings showed that portfolio entrepreneurs had a tendency to admit causation logic while their ventures grew up. She noted that family had highly powerful influences regarding becoming entrepreneurs and continuing their entrepreneurial careers. In their study on processes of entrepreneurial decision, Radicic, Bennett & Newton (2017) investigated the factors of the choice to be single or portfolio founders in farming of England and Wales. They revealed that the important factors which influence choice of business types were especially age, marital status, and gender. Kester, Hultink, & Lauche (2009) identified how firms draw on portfolio decisions by conducting in-depth interview in 11 multinational firms. They categorized portfolio management decisions as formalist-reactive, intuitive, and integrative. They concluded that integrative entrepreneurs were more successful in the long term, while formalist-reactive entrepreneurs had difficulty in achieving strategic goals, and intuitive entrepreneurs had the flexibility to reveal innovation. In their another study about decision-making of portfolio entrepreneurs, Kester, Griffin, Hultink & Lauche (2011) added that effective portfolio decisions, generated a portfolio mentality, concentrated on the suitable projects, and put emphasis on being agile.

In previous studies, some authors have highlighted the impacts of portfolio entrepreneurship on economic development, profit, and employment creation, while some others have drawn the attention that it was an effective organizational strategy, or entrepreneurship expansion strategy. In particular, its presence and its development in the SMEs, family firms, and agriculture sector were discussed in the existing literature. The majority of the prior research has included studies that make comparative assessment between portfolio entrepreneurship and alternative entrepreneurship types such as novice entrepreneurship, or serial entrepreneurship. They have found several similarities, and differences of these entrepreneurship

types from different perspectives. Although researches have been devoted on the success of portfolio entrepreneurs, quite less attention has been paid to the subject of their decision-making process. Only a few studies have directly examined decision-making process of portfolio entrepreneurs. Furthermore, there is a lack of knowledge on the strategic aspect of decision-making of portfolio entrepreneurs in the literature. In the following part of this chapter, this issue will be discussed in detail.

THE STRATEGIC DECISION-MAKING OF PORTFOLIO ENTREPRENEURS

The decision-making is one of the most critical processes in business (Shahsavarani & Abadi, 2015; Omarli, 2017). The route of an enterprise is determined according to the decisions made by the founders. However, the importance degree of given administrative decisions is different from each other. It is a recognized fact that the most significant decisions made in an organization as regards the viability of firms are strategic decisions (Ivan & Ivana, 2012; Gibcus, Vermeulen & Jong, 2009; Vermeulen & Curseuseu, 2010). Strategic decisions are defined as “decisions on what kind of business the firm should seek to be in” (Ansoff, 1965). They refer to solving complex problems with uncertain outcome (Ingenhoff, 2003). The important characteristics of these decisions are related to be long-term, unstructured, complex, and risky (Nooraie, 2012; Nooraie, 2014; Shafie, Muhammad & Ridzwan, 2017). Therefore, they have a notable impact on the development of the organization, and its long-term success (Valentine, 2018).

The major strategic preference for an entrepreneur is probably relevant to the decision to start a new enterprise (Curşeu, Vermeulen & Bakker, 2010; Farsi, Nouri & Kafeshani, 2016). This complex decision requires significant knowledge and skills (Kirkley, 2016). Economic, political, and technological conditions create an ever-changing set of opportunities for entrepreneurs that lead to new possibilities by rendering old opportunities obsolete. Managing growth in such a complex environment creates a serious problem which could lead to venture failure, unless it is handled properly (Bygrave & Zacharakis, 2011). Strategic complexity is also becoming more apparent day by day especially in portfolio management activities (Carter, 1998b) which allow a company to select, develop, and commercialize a new product line that is consistent with its strategy of sustaining profitable growth in the long term (Kester, Griffin, Hultink & Lauche, 2011). Briefly, the strategic and structural changes required with growth in a rapidly changing business environment become a vital challenge for entrepreneurs in today’s world (Thompson, 1999). Hence, primarily an entrepreneurial mindset which uses advantage of uncertainty is required in order to compete successfully in the global context (McGrath & MacMillan, 2000). To make the right strategic decisions, executives should see the big picture, and should take into consideration the impact of potential actions on the firm, competitor and market (Akers, 2018). Consequently, portfolio entrepreneurs’ ability to deliver strategy successfully has great importance in the fast-paced and competitive environment (Jordan, 2018).

Although portfolio entrepreneurs tend to avoid more risk as compared to the other entrepreneurs (Parker, 2014), they have more attractive growth prospects by means of managerial competence and human capital resources (Westhead, Ucbasaran & Wright, 2003). They also attach great importance to the organizational capabilities such as innovation management capability, cost-reduction capability, product/service development capability, and business growth capability (Ucbasaran, Westhead & Wright, 2006). There are several internal and external factors to explain why these entrepreneurs create different business ventures. Internal reasons can be listed as activity diversification, international activities, family reasons, and personal desire, while external reasons can be listed as market niches, competitive factors,

regulating factors, and financial facilities (Donckels, Dupont & Michel, 1987). Nonetheless, the ideal size of a portfolio venture is determined by the market niche, and the sector-specific forces that influence the firm (Carter, 1999). In accordance with these factors, portfolio entrepreneurs aim to choose projects that maximize gains of the firm, while considering the budget restrictions in the portfolio selection process. Therefore, they should pursue an effective decision-making process in order to achieve better return with minimum risk (Belaid, 2011).

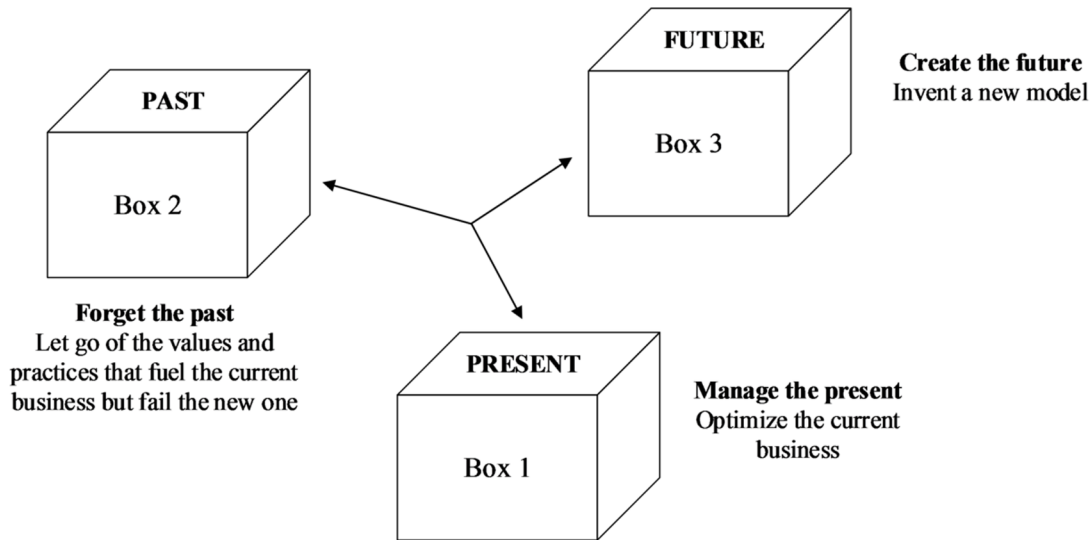
Moreover, it is a known fact that portfolio decisions require long-term decision-making under uncertainty. So, the pivotal factor providing a competitive advantage to portfolio entrepreneurs can be considered as the ability of exploring of future entrepreneurial opportunities that will enable to step forward in the market (Petrakis & Konstantakopoulou, 2015). Opportunity discovery decisions of entrepreneurs are influenced by internal resources (e.g., intuition, experience, knowledge, and business sense of an entrepreneur), and external resources (Qian, Ma & Miao, 2016; Vidal, Rodriguez, Campdesuner & Vivar, 2017). Accordingly, portfolio entrepreneurs must have special decision-making abilities to predict the shape of the uncertain future, exploit opportunities, and create a new business (Gustafsson, 2004; Pech & Cameron, 2006). With respect to this, creative thinking and acting innovative are also among the necessary fundamental entrepreneurial skills for portfolio entrepreneurs (Antonites & Vuuren, 2005). In sum, a successful strategic decision-making process of a portfolio-driven organization is closely linked to the proper understanding of the unstable environment in business with entrepreneurial decision skills (Ivanova & Gibcus, 2003). Furthermore, the main disadvantage of portfolio investments is related to the time allocation for various ventures (Plehn-Dujowich, 2010). Both keeping control of current venture, and being open to opportunities is a big balancing act for portfolio entrepreneurs (Haukas, 2018; Satara, 2019). That is why, the entrepreneurs with more than one venture should run the business without endangering the new venture, or other ventures (Iacobucci & Rosa, 2010). One of the most effective ways of achieving this is to adopt an approach that handles past, present and future actions together.

In conclusion, the strategic decision-making of portfolio entrepreneurs is crucial to the long-term entrepreneurial performance and viability of the business opportunities. If portfolio entrepreneurs are not equipped with an effective mechanism for decision-making, they may not pay sufficient attention to each of their initiatives, and may have uncontrolled expansion (Westhead & Wright, 1998). Besides, they may not be aware of potential growth opportunities while concentrating on their current investments too much. That's why, there is a need for a systematic approach that will help to make decisions of portfolio entrepreneurs, and thus improve the effectiveness of taken portfolio decisions.

SOLUTIONS AND RECOMMENDATIONS

In today's globalized business world, providing competitive advantage and sustaining growth seems to be getting hard (Leavy, 2016). Successful management of ventures in complicated business context requires producing of new approaches to understand the challenges and opportunities (Ahmed & McQuaid, 2005). An entrepreneurial decision-making process focuses on three primary areas; expertise and capability of entrepreneur, the demands of the market, and the best-fit strategic method to access to the market (Kirkley, 2016). In this regard, it should be taken into consideration that entrepreneurs may be influenced by environmental factors while making decisions. The identification of new opportunities by scanning the business area is one of the main tasks of entrepreneurs. Entrepreneurs must both define business opportunities, and understand them in depth so that they can be successful (Wickham, 2001).

Figure 1. The three-box solution (Govindarajan, 2016a)



A systematic rational structure is necessary to make suitable decisions in today's highly uncertain, and complex world (Bhushan & Rai, 2004).

In particular, efforts to improve the decision-making processes of portfolio managers are important in respect of the long-term viability of their businesses. Unlike other types of entrepreneurs, portfolio entrepreneurs should specialize in strategic decision-making of multiple investments. In other words, they are expected to be equipped with effective portfolio management knowledge and skills. The key question for portfolio entrepreneurs is related to how they will find the right business opportunities, while continuing the current business. In order to respond this question, the author of this chapter proposes a three-box solution framework for the portfolio entrepreneurs. The three-box solution has been developed by Govindarajan (2016a) in order to distribute the company's energy, time, and resources in balanced measure for a company to thrive. Govindarajan (2016a, 2016b, 2016c) has clearly shown how companies can manage innovation, and efficiency simultaneously. More particularly, three-box solution approach gives a functional way for transformative innovation (Barabba, 2019), and nonlinear initiatives (Franklin, 2016). It can be considered as a simple approach for building up an active innovation culture, and implementing the planned opportunism (Leavy, 2016). This framework is a strategic structure consisting of present, past and future as seen in Figure 1. The basic idea of this framework is that the companies should take into account their past and present situation, while creating a new future through innovation.

Figure 1 demonstrates that current business performance integrates with forgetting of the past, and creating the future. Accordingly, these boxes can be explained as follows (Govindarajan, 2016a, Govindarajan, 2016b, Govindarajan, 2016c, Govindarajan, 2016d):

Box 1 (The present): Box 1 of framework is about managing the present, and involves operating the core activity at peak profitability and efficiency. Many organizations mainly focus on this box which is regarded as comfort zone, based on activities that are essentially embedded in the business. Thus, they strengthen their current business.

Box 2 (The past): Successful companies assume that their current success is related to their past actions. Then, managers who run current businesses develop their mentality depending on their past experiences. This mentality hinders innovation, and leads to self-sustaining systems, structures, processes, and cultures. Govindarajan's approach suggests Box 2 to overcome the difficulty of unlearning. This box involves abandoning opinions, applications, and behaviors that could hinder innovation.

Box 3 (The future): It is common for companies to face unforeseen risks and threats in a constantly changing environment. Being a leader in the future requires being proactive, and adapting to change. Therefore, the future should not be considered as a thing that is often easily delayed, or deferred. This box deals with the development of long-term strategies of a company against weak signals. It involves converting discovery opinions into new products, and services.

This approach is about resolving tensions among the factors of the preservation of the current activities (Box 1), the destruction of past actions (Box 2), and creation the future (Box 3). According to Govindarajan (2016a), the fundamental management challenges of entrepreneurs are concerning with establishing a new business, while optimizing an existing activities. Entrepreneurs must perform both of them simultaneously. The three-box solution framework is based on the idea of both present time management, and future creation. By balancing these three boxes, entrepreneurs can solve the tension in opening new business lines, while executing a high-performance business. The framework presents one of the best ways for sustainable advancement, and increases flexibility, and agility in today's volatile, ambiguous, and complex environment (Leavy, 2016). Based on the explanations in the previous sections, it can be stated that the basic philosophy of the portfolio entrepreneurship is closely associated with the basic characteristics of the three-box solution framework. For instance, both of them draw attention to features of flexibility, agility, and innovativeness etc. Portfolio entrepreneurs can easily conduct more than one investment at the same time by acting within the framework. Time allocation for various ventures, one of the main problems of portfolio entrepreneurs, is overcome thanks to this strategic approach. Concurrently, on one hand they keep control of the current enterprise, on the other hand they utilize the new opportunities by abandoning the past actions that prevent innovation, managing the present, and creating the future. Therefore, it is clear that this framework may be appropriate for portfolio entrepreneurs. It is anticipated to provide a roadmap for effective portfolio management of businesses.

CONCLUSION

In today's global world, the strategic decisions of entrepreneurs are one of the most substantial elements contributing to sustainable business growth. However, there has been little attention to the way in which portfolio entrepreneurs make strategic choices after starting the business. This chapter attempts to address this gap in the prior literature by exploring strategic decision-making of portfolio entrepreneurs. The author of this chapter highlighted the significance of strategic decision-making in portfolio entrepreneurship and, then proposed that the portfolio entrepreneurs use the framework called three-box solution which is built on the understanding of preservation of the present, destruction of the past, and building of the future. This chapter produces both remarkable theoretical contributions and managerial

implications. The findings of the study present useful insights so as to enhance managerial decision-making process of portfolio entrepreneurs. The proposed framework in this study attempts to offer an innovative approach to them. This approach can be considered as a tool that facilitates the assessment, and selection of multiple ventures to focus on strategic and financially most promising business. It can also provide long-term benefits for portfolio entrepreneurs regarding more effective time management and resource efficiency. In the light of the views above, practitioners may be advised to act within the framework of such a systematic decision-making approach for more efficient applications. Research findings are expected to be a resource in the context of both educational community and entrepreneurs.

However, the chapter has several limitations that need further investigation. The scope of this study is limited to a new proposal of strategic decision-making framework. This proposal can then be tested by practical studies. In addition, lack of prior research studies on the topic is among the other limitations of this chapter. Despite the limitations, the chapter is able to give an overall understanding about strategic decision-making in portfolio business approach. The results from this chapter may expose a number of future research opportunities. First, more attention should be paid to be able to understand how successful entrepreneurs make decisions about business opportunities. In this regard, it would be interesting to investigate the decision-making styles of portfolio entrepreneurs with applied studies. Second, with a more general perspective, future studies may evaluate comparatively strategic decision-making practices of portfolio entrepreneurs in developed and emerging economies. Third, further studies can be carried out with various decision-making methods for portfolio entrepreneurs. These future research directions might shed more light on the issue of strategic decision-making concerning to portfolio entrepreneurship.

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KEY TERMS AND DEFINITIONS

Decision: A certain judgment given about a subject.

Habitual Entrepreneur: An entrepreneur who has experience in business.

Nascent Entrepreneur: An entrepreneur with the idea of launching a new business.

Novice Entrepreneur: An entrepreneur who launches a business for the first time.

Opportunity: A gap in a marketplace where the potential exists to create value.

Portfolio Strategy: An investment strategy which has a collection of multiple businesses.

Serial Entrepreneur: An entrepreneur who launches a new business after abandoning previous business.

Strategy: A long-range plan of action designed to attain the objectives.

Three-Box Solution: A framework that proposes to consider past, future, and present simultaneously.

Section 4

Perspectives on Gender Entrepreneurship

Chapter 16

Perspectives on Female Entrepreneurship in Rural Areas: The Role of Women in Tourism Companies in Sever do Vouga, Portugal

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ABSTRACT

Women are increasingly taking part in the business market, especially in the case of tourism. However, studies reveal that entrepreneurial women, besides the business, have other tasks, such as domestic and family obligations, being the majority responsible for the family management. The main purpose of this chapter is to investigate the contribution of entrepreneurial women in tourism companies in rural areas. A survey was applied, through a semi-structured interview, to a total of 13 tourism companies located in the municipality of Sever do Vouga (Portugal). The results indicate that although women are fewer and working together with their husbands, they are already retired, which facilitates dedication and commitment to the business on a full-time basis. Younger women with children may encounter barriers that make it harder for them to dedicate themselves to the enterprise. This research contributes to a better definition of the profile and behaviour of entrepreneurial women in rural areas, as well as identifying the motivations and barriers to invest in rural tourism.

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INTRODUCTION

Today, the rural world is regarded as a territory that is not only intended for food production and labour supply, but also an increasingly multifunctional area associated with recreation, leisure, well-being and quality of life (Atterton & Ward, 2007; Augusto, Pinho & Rodrigues, 2010; Jepson, 2015; Silva, Figueiredo, Eusébio, & Carneiro, 2016). The population density of rural areas is low, as it is the case of the industrialization process (Ma, Jiang, Li, & Zhou, 2018). Tourism becomes a relevant activity in terms of development and competitive advantage of rural areas due to their relevant resources (Salvatore, Chiodo, & Fantini, 2018). It is a key sector for the development of more disadvantaged areas, stimulating the recovery and preservation of the heritage, the development of the local economy, through the creation of new jobs and the dynamization and diversification of local production (Huang, Beeco, Hallo, & Norman, 2016; Reis, 2012). Given these evidences, the public sector has a supervisory and stimulating role, eventually contributing to incentives and development strategies aimed specifically at rural areas, thus providing the emergence of micro enterprises with the intention of generating tourism flows, strengthening the economy and resources (Lai, Morrison-Saunders, & Grimstad, 2017).

Nowadays, women are increasingly taking part in the business market (Costa, Bakas, Breda, Durão, Carvalho, & Caçador, 2017), especially in the case of tourism companies in rural areas. But studies reveal that entrepreneurial women, besides the business, have other tasks, such as domestic and family obligations, being the majority responsible for all family management (McGowan, Redeker, Cooper, & Greenan, 2012; Toros & Altinay, 2018). This points to the fact that the time available for business is limited, viewing the activity as something to pass the time (Pato, 2012). According to Costa, Carvalho and Breda (2012), men are more likely to get involved in business, while women more easily engage in administrative work.

Given the potential for growth and business development provided by tourism, this work intends to investigate the contribution of women in tourism companies in rural areas. It is questioned whether women have an interventive role in entrepreneurship, both in terms of skills and motivation, and can contribute to the development of rural tourism. In this way, it is necessary to understand the importance of entrepreneurship in rural areas, reconciling the attributes that these areas have to offer. It is intended, therefore, to observe the main motivations and the main reasons for setting up the business. In this context, it is important to focus on the concept of entrepreneur, who is a creative person that likes to set goals and is aware of the environment in which he/she is embedded for the benefit of future businesses (Filion, 1999). By analysing female entrepreneurs, this research can contribute to a better definition of the profile and behaviour of entrepreneurial women in rural areas, as well as the role of gender in these areas.

The chapter is organized as follows: first, the literature on new dynamics in rural areas and the role of tourism is reviewed, following which gender in entrepreneurship is addressed, namely the profile of the entrepreneur, main motivations and barriers. Subsequently, the methodology used for the empirical study is described in more detail. Finally, research findings are reported and discussed, and their implications for further research and applications are highlighted.

BACKGROUND

New Dynamics in Rural Areas and The Role of Tourism

Rural areas can be defined as areas of low density, where agriculture is the main economic engine (Fonseca, Lisboa, & Naik, 2006). Rural is a representation of all the traditional characteristics regarding the proximity to nature, the existence of relationships and exchange of knowledge, a strong sense of community, and landscape composed of agricultural and forested fields (Figueiredo, 2008). The rural world has come to acquire a symbolic value made up of different representations regarding the environment and rural culture. According to Figueiredo (2003, p. 149),

the emergence of this social image of the rural areas as an environmental and cultural reserve seems to be translated by a new dichotomy between city and countryside, at the level of representations, between lifestyles, value systems and social organization. This dichotomy tends to value rural spaces through the most direct relation to nature, which is supposed to be the most intact.

The rural world stands out for its main function – food production, agriculture, peasant family, lifestyles, values and behaviours, and, finally, the landscape with characteristics that depict a balance of the natural and human (Ferrão, 2000). These are features that are clearly opposed to urban.

Rural areas face some problems, particularly in economic and demographic terms, which contributes to territorial inequality in comparison to the more populated and developed urban areas (Ma, Jiang, Li, & Zhou, 2018). However, rural areas have a great potential in terms of natural and cultural resources that, being used and preserved, can contribute to the revitalization of these areas (Yılmaz & Yılmaz, 2019). Resources can be used for multiple opportunities, namely to contribute to the diversity of activities, which tourism is responsible for promoting (Mesquita, 2010).

Local development in rural areas has been a worrying topic because depopulation and aging of inland regions are still a reality today. Tourism is, thus, the driving force for the use of endogenous resources, assuming itself as the sector of activity that can best seize resources and constitute a development factor, adapting itself to the specificities of each region (Reis, 2012).

Tourism and rural areas are two representations where cooperation exists and where there is added value of natural and cultural heritage through economic activities. Rural areas can provide authenticity, peace, tranquillity and recreational and sports activities that constitute growth factors of rural tourism (Mesquita, 2010), being areas where small-scale enterprises dominate, carrying out complementary tourist activities, using local resources (Gartner, 2004).

Rural tourism is a diversified set of activities, with the aim of developing and protecting endogenous products so that tourists enjoy a varied offer and have an active participation in these activities (Carvalho, 2011). Due to the diversification of these activities, tourism in rural areas is a type of tourism with great notoriety and popularity. It was from the 1970s that the search for new products and activities in rural areas began. At present, it is considered that today's tourists are not the ones of the past, being more active and proactive, with a greater interest in recreation and leisure, sports and adventure, greater willingness to know the history, culture and nature of the places they visit. They are also sensitized to the issue of sustainability and heritage protection, and less interested in mass tourism (Carvalho, 2011).

It is important to point out that tourism in rural areas is based on motivations related to culture, landscape, traditional character, healthy lifestyle and a variety of sports and recreational activities. In

this way, the activities “contribute to the valorization of all the endogenous resources, as well as to the creation of a more sustainable local economic base, that unite in a common purpose with regard to the sustainable development of the place” (Ferreira et al., 2003, p. 205).

Tourism can offer a great stimulus for the development of traditional local products, such as culture, heritage and the environment, and therefore the “encouragement to create companies that promote these products by articulating tradition, rurality and heritage, considering them as distinctive elements of a characteristically rural product” (Ribeiro, Freitas & Mendes, 2001, p. 4). The following activities are examples of opportunities and economic alternatives proposed by Pato (2012): (i) pedagogical farms; (ii) nature and mountain campsites; (iii) ecomuseums and interpretation centres; (iv) demonstrations of agricultural practices; (v) ecological routes and thematic itineraries; (vi) songs and traditional dances.

The repercussions for employability are evident, but also because of the innovative character of these activities and the qualification of many professions associated with it. From the sociocultural point of view, rural tourism incites the need for preservation and development of local culture (Yılmaz & Yılmaz, 2019).

Tourism can effectively be a growth factor for areas where the economic fabric is poorly developed, and this activity is a key factor for development, contributing to the quality of life of contemporary societies (Cupeto, 2003). But not everything is positive. Although tourism is an engine for rural development, if not controlled, it can generate negative impacts. One of the problems is the fact that tourism has been regarded as a catalyst activity and unable to exceed the existing expectations. In other words, tourism contributed to the development of agriculture and the generation of income, but, in some cases, there was insufficient population settlement in depopulated areas. One reason for the failure is that rural tourism stakeholders do not have a holistic perspective on the creation of activities that generate experiences, which value all cultural and landscape genuineness.

One possible way to get this image to tourists is to gather a set of factors, where new trends related to leisure, consumption and nature have appeared, and create a new imagery of consumption in rural spaces. Rural tourism can be based on an image or set of images that are shaped by the history, geography and culture of the territory and are promoted and disseminated. But “images are co-constructed by the tourist and the ‘suppliers’”. It is through this collective imagery that a neutral place is transformed into a tourism destination, and rural tourism is an example of this rediscovery of places, from the social and anthropological point of view” (Cánoves, Villarino, Priestley, & Blanco, 2004, p. 756).

The way to “treat” rural areas should be conscious, promoting sustainability. All characteristic and traditional products are an asset to the quality and sophistication of rural tourism. Creativity and the natural presentation of the products, the care for the landscape, the recovery of the heritage and gastronomic products must maintain the originality of the most distant times, as tourists seek and value these elements.

Gender in Entrepreneurship

Entrepreneurship can be understood from several points of view. It can be seen as the process of creating new companies or businesses and / or small business development. As Wortman (2002, cited in Dinis, 2011) explains, rural entrepreneurship is a way of creating new organizations that introduce a new product, serve or create a new market, or use new technology in a rural setting.

Another designation of entrepreneurship is the creation of new businesses that generate new jobs, increase competitiveness and productivity, as well as technological evolution (Acs, 2006). Hence, Schumpeter (1934, cited in Ahl, 2006) has suggested that innovation and development can be achieved in five

different ways: (i) the introduction of new products; (ii) the introduction of new production methods; (iii) the opening of a new market; (iv) the acquisition of a new source of supply of raw materials or semi-finished products; or (v) the completion of a new organization of any industry.

The advantages of entrepreneurship encourage an entrepreneurial spirit and culture. Self-employment, for example, can make it possible to turn innovative ideas into successful companies. For the individual, it allows creating his/her independence and control of his/her own life, overcoming a situation of unemployment or promoting personal realization, while for companies, entrepreneurship is a way to increase creativity and initiative, generating motivation and dynamism. For the community, entrepreneurship positively stimulates society in order to contribute to development, orientation to work, strengthening society to overcome difficulties and ensuring a better standard of living (Bee Consulting, 2014).

As far as rural tourism is concerned, the activity has a responsible role in the creation of wealth, which is associated with the capacity to respond to new demands and markets, contributing to a specialized and innovative offer. These entrepreneurs must identify and understand tourists, who seek a different experience, which is linked to values, such as nature, health, interpersonal relations or self-knowledge, being educated, creative and adventurous (Cunha, Kastenholz, & Carneiro, 2011).

Several authors mention that the terms entrepreneur and entrepreneurship are connoted with the masculine (Sullivan & Meek, 2012; Gupta, Wieland, & Turban 2019), not only by the use of the male pronoun, but by the way entrepreneurs are described. This is because, typically, entrepreneurs are mostly men, but some authors counter-argued that female entrepreneurship is invisible in research, being however fundamental to economic growth (Ahl, 2006). Their companies have a major impact on the economy, in terms of employment, sales and innovation, implying that entrepreneurial women have dynamic and innovative management capabilities.

One of the alternatives considered for the economic development of rural areas is tourism, associated to new business opportunities. Farm activities are important to the tourism sector by providing services and products, which promote local development. Factors that influence this diversification can be internal or external. Internally, we find the model of traditional farms, family-level gender relations and educational experiences of family members. Some studies have shown that women identify more internal factors for the creation of a company, while most men indicate external factors. Economic and social reasons motivate rural tourism entrepreneurs to maintain agricultural activities as a way of continuing family relations (Dieguez-Castrillon, Gueimonde-Canto, Sinde-Cantorna, & Blanco-Cerradelo, 2012).

From the point of view of the promotion of initiatives for female entrepreneurship, in Portugal the motivation for the creation of self-employment among women has been reinforced. Several studies indicate that the number of women who want to enter entrepreneurial life is markedly lower than the number of men (Winn, 2004), since women encounter more barriers to entrepreneurship than men (Carter, Brush, Greene, Gatewood, & Hart, 2003; Marlow & Patton, 2005). In fact, entrepreneurs are not born or become entrepreneurs because they have lived in a culture of great entrepreneurial spirit (entrepreneurial parents) but become entrepreneurs due to an event that triggered their interest in entrepreneurship.

In informal tourism activities (e.g. rental of country houses), which determine collective or individual perception to become an entrepreneur and is culturally accepted, women are more likely to engage in business (Welter & Smallbone, 2008). This is because these are attractive activities for lower income classes, which do not require high level qualifications, there is no need for high initial investment and can be considered as hobbies, not requiring much available time (Wilkinson & Pratiwi, 1995). It is usually the woman who runs the business, being a secondary activity for the family, the husband having another activity. This activity is an opportunity for both to get involved. In the low season, women have

more time available for the family, while in the high season the two work together, which contributes to the distribution of gender roles (Welter & Smallbone, 2008). Rural areas, being poor in technological resources, but rich in primary activities, create conditions that adapt to women who are highly linked to family life.

Entrepreneurship in Rural Areas

Profile of the Entrepreneur

Many programs have been designed to provide women from rural areas the opportunity to obtain supplementary employment and income. As a result, a significant number of rural accommodation establishments are run by women. In the study by Cánoves et al. (2000) in a region of Spain, the presence of women as owners is significant and, in some cases, predominant. Women are usually assigned to receive guests, promote the values of local culture and protect the environment. They often take care of the house and its surrounding, and say that tourists enjoy finding a neat environment, all leading to a change of use in many areas of a rural house (Cánoves et al., 2004).

Gender stereotypes in the labour market still exist, being possible to identify some that are still present in society as a form of discrimination practices and social relations:

1. Women are less able to manage a business;
2. The competence of women is greater in family life than in the professional occupation;
3. Women's professional qualities are not as worthy as compared to men's;
4. Women's domestic work is not work;
5. Men's domestic work, usually lighter, is work;
6. Women are less likely to succeed than men in managing their own initiatives and resolving labour disputes.

There is also an uneven access to institutional resources, market agents and professional organizations (Hespanha, Baptista, Nogueira, & Teixeira, 2008).

Machado et al. (2010, cited in Winkler & Medeiros, 2012) found that most women sought independence in their businesses, but found it difficult to reconcile work and family. According to Ionescu (1999), there is a small number of female entrepreneurs compared to the number of women employed, possibly due to maternity leave or educational reasons. The profile identified in female entrepreneurs is that of women with higher education, while male entrepreneurs have more management experience (Machado et al., 2010, cited in Winkler & Medeiros, 2012). Management practice contributes to accentuate the differences between them (Cramar, 2008, cited in Winkler & Medeiros, 2012).

It is verified, however, that firm size influences the activity and projection in the market. Smaller companies usually have a lower index of entrepreneurial activity, facing several obstacles and difficulties, which can be classified into the following three categories (Moriano, Palací, & Morales, 2007):

- external barriers are problems related to financing, bureaucracy and legal procedures regarding business creation;
- inhibitory barriers refer to the change of lifestyle when starting own businesses. Among women, the fear is stronger because the transition is more complex, the risk of contracting debt, the social

risk of failure, the lack of skills and knowledge to create and run a business and, finally, the fear of not being able to meet the requirements of being an entrepreneur.

- invisible barriers are the ones that the entrepreneur cannot perceive, hence not being aware of them. They may be intentional, created to prevent the entry of new companies in a certain market, or unintentional, arisen from the lack of support to entrepreneurship or when the act of undertaking is not valued, being conditioned by the culture.

Regarding personnel management, women can be more organized and creative, while men are more authoritarian and manipulative (Simão & Breda, 2014).

Motivations

According to the OECD report (Winkler & Medeiros, 2012), the categories of women engaging in entrepreneurial activities can be divided into three groups, depending on the reasons for it: entrepreneurs by chance, forced entrepreneurs and creative entrepreneurs. Entrepreneurs by chance are women who become entrepreneurs without establishing business plans and goals. Forced entrepreneurs are those who have been forced to do it for financial reasons. Finally, creative entrepreneurs are women who start the business on their own initiative, sometimes seeking their independence.

Patterson (2007) argues that the most important motivations for women considering a transition from careers to entrepreneurship are gender issues in organizational culture (the “glass ceiling” phenomenon), domestic and personal circumstances (being fired, family need) and the need for independence and control (about their time and decision making).

Machado (2003, cited in Winkler & Medeiros, 2012) identified some motivations for female entrepreneurs. The reasons may be economic, social, psychological and circumstantial. These include personal fulfilment, the need to increase income, job dissatisfaction, the impossibility of growing professionally, the need for flexible working hours, the desire for independence – a way of reconciling work and family – and the identification of opportunities.

The motivations to invest in tourism in rural areas are diverse. The recovery or dynamization of the family legacy, to promote the beauty of the region and to contribute to the local development, as well as the motivations related to the status are also mentioned. Male promoters, compared to women, attach importance to the definition of economic goals (Pato, 2012).

Barriers

Numerous aspects can explain the discrimination of women when they engage in business. According to Ionescu (1999), in Central Europe there is a large group of women with high qualifications, previous work experience, but their limitations are lack of incentive, lack of support to start a business or lack of initiative or motivation.

Compared to men, women, in addition to their responsibilities as entrepreneurs, have other duties that are not inherently incumbent upon men, namely family duties. According to Foss (2010, cited in Winkler & Medeiros, 2012), women have disadvantages compared to men due to their affection towards their family, which makes it impossible for them, at work level, to create contacts and relationships with other partners, for example, lack of availability and encouragement. According to the author, studies

indicate that men take advantage of these relationships strategically to stimulate business, while women, because they have other intervening roles, their participation in networks is almost null.

Women, when starting their business, encounter limitations, which Silva (2011) considers “tangible barriers” in entrepreneurship:

- Not seeking start-up capital from business angels;
- Having less capital and human resources;
- Having less access to potential customers than traditional customers;
- Having higher interest rates when borrowing.

Nevertheless, one of the reasons why businesses started by women are sometimes weak or even unsuccessful is that they regard entrepreneurship as almost a part-time solution to reconcile work and family life (Leoni & Falk, 2010, cited in Silva, 2011).

METHODOLOGY

Data Collection

For the empirical study it was applied a survey, through the semi-structured interview technique, to the companies located in rural areas of the municipality of Sever do Vouga. Exploratory interviews help to balance knowledge of the problem, as well as broaden the field of research (Quivy & Campenhoudt, 1992). For the selection of the companies, the National Tourism Register was used, from which all tourism firms located in rural areas of the municipality were selected, namely the accommodation establishments, tourist entertainment companies and typical restaurants, totalizing 13 businesses.

The interview script was based on the topics researched on the literature, namely entrepreneurship (Cunha et al., 2011; Pato, 2012; Welter & Smallbone, 2008) and gender (Bruni, Gherardi, & Poggio, 2005; Laure Humbert & Drew, 2010). The interview aimed at analysing rural tourism businesses in the municipality, verifying the role of women in these companies. The interviews were conducted with the owners of the establishments, in person or by phone, between July and September 2014, and had an average duration of 30 minutes.

Data Analysis

The interview technique is a qualitative research method that generates data that must be treated rigorously, since it is verbal and non-quantitative. Thus, the method of data analysis was defined as the content analysis technique. According to Bardin (2002), this technique allows data analysis through speech or images, using systematic and objective procedures to describe the message content. Therefore, this method was chosen because it is the one that best applies to the understanding of the research topics.

All interview content was recorded and then transcribed. Subsequently, the material was read and organized, to follow up the thematic selection and, finally, a careful analysis of the results obtained in the interviews was undertaken. For the interview analysis, the following points were selected: sociodemographic characteristics of the entrepreneurs, gender role in entrepreneurship, namely in terms of motivations and barriers, and gender influence in human resources.

Table 1. Characteristics of entrepreneurs

Code	Sex	Typology of the firm	Age	Academic qualifications	Children
E1	Female	Tourism accommodation	63	Master degree	2
E2	Male	Tourism accommodation	59	Bachelor degree	2
E3	Male Female	Tourism accommodation	53 52	Bachelor degree	2
E4	Male	Nature tourism	48	Bachelor degree	2
E5	Male Female	Tourism accommodation	87 74	Bachelor degree	2
E6	Male	Sport and adventure tourism	37	Bachelor degree	1
E7	Male	Nautical tourism	48	Bachelor degree	2
E8	Male	Sport and adventure tourism	34	Bachelor degree	1
E9	Male	Sport and adventure tourism	52	12 th grade	1
E10	Female Male	Pedagogical and rural tourism	62 64	Bachelor degree	2
E11	Male	Restaurant	43	Bachelor degree	1
E12	Male	Restaurant	48	6 th grade	1
E13	Male	Restaurant	35	12 th grade	0

Source: Own elaboration

RESULTS

Sociodemographic Profile

Respondents are between 46 and 87 years old (Table 1), except for two cases under 40 years old (34 and 37 years old, respectively) and all have children except one (E13). The interviewees have diverse levels of academic qualifications (however, it is possible to verify that almost all of them have higher education) and engage in different types of tourism activities.

The analysis of the characteristics of entrepreneurs reveals that men represent more than 50% of the respondents. Of the 13 companies, only one is totally managed by a woman (E1); three are societies, with women contributing equally (E3, E5 and E10); two are societies in which women do not have an intervening role (E6 and E8); and the remaining seven enterprises are managed by men.

Respondents have a profile of active and dynamic staff, with most of them participating in daily maintenance tasks and collaborating in all activities. Seven of the 13 interviewees are engaged full time in the activity, the remaining six have another parallel activity as their main activity, and partially devote their time to managing the business. There is one case in particular (E9), which although the accommodation establishment is not the main activity, more time is devoted to it. This aspect is interesting because it refers to a situation where the entrepreneur, despite having a main activity which is the main source of income, mentions that he dedicates more time and commitment to the company. This finding could be an indicator of future research to ascertain the number of lifestyle entrepreneurs and the reasons associated with this type of behaviour.

Tourism training was considered an important complement to the acquisition of the essential tools but was not considered a relevant factor by entrepreneurs. The areas of management and economics were considered an asset for those who want to engage with business. Most entrepreneurs have higher degrees in various fields, ranging from economics and management, to architecture, communication, education and languages. Mostly, they have no training in tourism, but have experience that they have been acquiring over time. Occasionally attended workshops related to tourism helping them to have a broader view of the activity.

Motivations

Regarding the motivations, the goal is to understand what motivated the entrepreneurs to create the business and, in particular, in the municipality of Sever do Vouga.

Business Creation

The reasons that led them to become entrepreneurs are mainly related to their love for tourism, especially sports, nature and adventure tourism. Business opportunities, retirement and the interest in history were also mostly mentioned by the interviewees. Other reasons were: (i) public sector financial incentives or support in the form of advisory services; (ii) existing link to the tourism sector; (iii) possibility of generating one's own job; (iv) continuity of the family business; (v) interest in the potentialities of the municipality; (vi) hobby; and (vii) maximisation of family assets.

The entrepreneurs consider that in order to stay in their business area, it is necessary to have an interest for the local history, enjoy working and be persistent. Female entrepreneurs emphasize that customer service is a strong point of the business: "[...] it is always useful for women to learn rules of etiquette, it is important to know how to welcome guests" (E5). Visitors are looking for moments to relax and, at the same time, get to know the municipality.

Reasons to Create the Business in the Municipality

The interviewees generally considered that the municipality has resources, both natural and cultural, which are beneficial for the development of rural tourism activities. They mentioned mainly endogenous products such as gastronomy, handicrafts and nature. The entrepreneurs consider that nature-related products contribute the most for the attraction of visitors. Similarly, the municipality's natural and cultural resources are pointed out as the main motivating factors for their investment, being natural resources the most referenced attribute. Nature is important for the development of sport and adventure activities, as well as for creating a good surrounding for accommodation establishments. Other factors that motivated to invest in the municipality are the conservation of cultural heritage, being a local resident, the desire to explore the natural heritage and landscape, and the local integration to showcase the resources: "[...] I saw a business opportunity and have an interest in history and wanting to keep it the way it was" (E12).

Another relevant motivation is the personal interest in family property, which needed financial investment. The proximity to family was also mentioned by three interviewees. As they do not live in the municipality, through the business, they are closer to other family members and the place where they were born and raised. Finally, accommodation owners mentioned the interest in making available to tourists their family heritage, in order to make it profitable.

Barriers

The most relevant barriers to rural tourism in the municipality of Sever do Vouga are financial and at the family level. These were the most highlighted obstacles by the entrepreneurs, being the ones that mostly affect the development of businesses.

Family and Professional-Related

Few entrepreneurs have experienced changes or difficulties in their personal and professional lives when they become entrepreneurs. Of the thirteen interviewees, ten did not feel any interference, either at family and / or professional level. Three interviewees consider that at family level some inconveniences have arisen. The activity demands more availability on weekends, holidays and vacations, not allowing to be with the family at these times: “[...] I find some barriers, one of them it is at the family level because I am not able to have holidays at the same time, and my job occupies me during the weekends as well” (E4).

Investment and Financing

The results on this point are not unanimous, that is, there are different opinions regarding the type of financing and the entities that intervene in the financing process. Of the total respondents, three invested with their own money and were running the accommodation establishment according to their financial capacity. These entrepreneurs did not feel any barrier to investment. Three of the respondents shared the investment, that is, part was their own investment and the rest was financed. The remaining entrepreneurs received full support from public entities, namely Turismo de Portugal, and European Union’s funding programmes, such as the rural development programme (PRODER), and aid scheme for small business initiatives (SIPIE).

The participants highlight the importance of incentives, because without them they would not have started the activity: “[...] the support is important and if it did not exist, I would not risk it” (E2). On the other hand, they mention that there is little commitment and sometimes interest in speeding up the processes: “[...] many barriers I did not know what there were about” (E7), “[...] there was a limited participation of the entity, it did not provide support at the logistics level” (E10).

Most respondents were unhappy about the lack of support and guidance by public entities to those who want to invest. They consider that there is a delay in obtaining funding, legal barriers and a lot of bureaucracy that show little knowledge of the area. Respondents consider applying for funding a difficult and time-consuming process, requiring investment before receiving funding, which is sometimes painful and unsustainable. Faced with the gender issue, entrepreneurs mentioned that they do not consider the fact that being a woman is an inhibiting element to obtain funding.

Human Resources

Results related to human resources were divided into two parts. The first part, concerning the employees, aims to ascertain whether gender issues have any relevance in the hiring process. The second part is about entrepreneurs, with the aim of determining whether female entrepreneurs can manage the business in the same way as male entrepreneurs, and if they consider themselves to need specific training in the area.

Employees

Respondents pointed out that, overall, they do not distinguish between men and women when recruiting, but preferring to hire workers from the municipality because they know well the culture, the territory and the lifestyle, which, in a way, helps to integrate visitors better in the community.

Regarding their perceptions about gender differences, men are considered to be more capable for strenuous activities: “I mostly subcontract men due to the type of activities that require strength [...]” (E6), while women are regarded as more organized, friendly and sensitive to certain tasks: “I notice that women have more sensitivity [...] but they may have more difficulty because the activities are more radical, which require strength” (E8).

Gender-wise, each entrepreneur considers different criteria in the selection process. In the accommodation sector, the preference for women stands out, as they are perceived as more careful and skilled for the tasks they are being hired for, which are essentially related to maintenance or cleaning. To have training in the field of tourism is not the main criterion. One respondent mentioned having hired a person with training in tourism, however, the fact of being a woman did not influence the selection process. Professionalization in the tourism area was little evidenced by the fact that the functions do not require any specific training – the cleaning or maintenance staff have an average level of education.

Age was not revealed as a preference criterion either. The employees are selected either because they are known to the entrepreneurs or are evaluated by their professional experience and profile. The proximity factor is one of the reasons why interviewees selected certain employees because they have a close relationship with people and guaranteed the absence of travel costs, which is an added value for the employee.

As for the tourism entertainment companies, respondents mentioned the preference for male employees, because the activities they perform require greater control and physical strength. They consider that men are more competent and skilled in these tasks. Mostly, they are subcontracting staff when they need human resources. Women also collaborate but in “lighter” tasks (E7), namely in accompanying tourists, in scheduling and organizing activities. Another respondent mentioned that he considers relevant to have mixed teams. Most employees are trained, although not always in tourism, but in adjacent areas such as sports. The preference in local personnel or with military experience is another specificity that they seek because of their orientation skills.

The most evident reason, by the interviewees, for hiring men, was therefore the capacity of resistance and physical strength. They say that sometimes activities require strength and control, and they think men are more capable for this type of work. One respondent mentioned that his team had already more women than men, but the situation was reversed because female employees: “[...] have children, are married and no longer had time to work, 70% of men are more available” (E9).

The restaurants that participated in the study are family-owned. The owners are male and generally have an active intervention in the activity. They highlight women’s participation as collaborators in the kitchen and serving customers. The employees have no training in tourism, but they have specific training, mainly, in cooking.

It is clear that during the hiring process, the preference for men or women was of little relevance, except in the tourism entertainment companies and accommodation. Little attention was paid to the professional requirements of each person, it only mattered whether the future employee had experience for the intended job. Being a woman did not influence the decision to hire staff. They mainly took into consideration the candidate’s experience and know-how to perform the tasks.

Employers

Entrepreneurs are people who enjoy what they do and do it with pleasure, even without a fixed income. They are aware that work or company takes up a lot of time, but they argue that anyone who wants to succeed in this area must be persistent and really enjoy what they do.

These entrepreneurs, mostly untrained in tourism, have acquired knowledge through work experience. However, they agree that training in tourism is a necessary complement to understand the operation of the activity, not discouraging the management area, which is often referred to for its importance to business success: “tourism training in itself is not enough, the complement with the areas of management and / or economics make the perfect combination” (E8).

Respondents consider the acquisition of management and tourism skills important but direct this acquisition of knowledge to both genders. They know female entrepreneurs who manage their business in a successful way, although they have an household to manage in parallel. All argue that there are no specific barriers for women and male entrepreneurs. They make no distinction either in gender or in barriers.

Comparative analysis of the gender in entrepreneurship reveals that each entrepreneur did not state differences between women and men. Concerning accommodation establishments, respondents face the unnecessary gender distinction, because experience counts. At the educational level, they generally argue that experience is important, but that knowledge in the management area is equally relevant, providing basic and necessary tools to efficiently run a business. Some respondents point out that women have some advantages as entrepreneurs: “[...] I think they are more focused and strategic”. (E10). They report that they know female entrepreneurs, from the same area of business, who have an interest in the activity, high education and take the business seriously, valuing quality, which makes a positive contribution to better qualifications in rural accommodation. Income is not the biggest factor of interest.

Respondents related to entertainment companies have a similar opinion. They make no distinction between men and women when they engage with business and find that they both have leadership and management skills. They consider tourism and management training important, as they are necessary tools for success. In addition, they report that women today are more independent and capable. They recognize that having children can be a barrier, but they regard it as something that could be overcome, that is, if women really want to have their business, they can manage both things.

In restaurants, one interviewee reveals an interesting fact (since it has been found that women have a profile for customer service): he considers men to be the more competent serving at the table, arguing that they are more concentrated and, therefore, more professional. The general opinions of the interviewees reveal that values and education are the essential elements to overcome the barriers they encounter, regardless of whether they are men or women. One interviewee in particular noted “[...] barriers are not about competencies but about the options we take to overcome them” (E12). Training in the area may not be enough and age is an indicator that reinforces experience, i.e., the older the more experienced: “the age difference is already an indicator of knowledge, the younger the less experience” (E13).

DISCUSSION OF RESULTS

Regarding the motivations for the creation of the business, in general, entrepreneurs mention that there are natural and cultural resources that can be dynamized and monetized, helping the development of the

municipality. Being close to the family is stated by some respondents who no longer live in the municipality and claim that working there also becomes a reason to reconnect to the roots. This issue has already been identified by Silva (2006, cited in Cunha et al., 2011), when stating that rural tourism entrepreneurs tend to recuperate and adapt old houses, valuing aspects such as architectural and landscape heritage, contributing to the socio-economic development of disadvantaged regions.

It should be noted that eight of the thirteen male entrepreneurs are residents, two live outside the municipality and three reside outside but are native to the municipality. We can see that the entrepreneurs who live in the municipality have an interest in starting and investing in the area where they live and even those who do not live there, but who are native to the area, showed the same interest. This conclusion does not match with the results obtained by Elder et al. (1993, cited in Dinis, 2011), who states that individuals who live in rural areas show less interest in investing in the locality, concluding that situational factors may influence who wants to start a business.

The entrepreneurs aimed to develop the locality using endogenous resources. In general, the intention of creating the company was not entirely driven by economic interest, but also for pleasure. These entrepreneurs engage with business with an interest for the homeland. They enjoy creating activities using available resources while promoting the locality. We can say that they are “lifestyle entrepreneurs” for starting a business aimed at maintaining the quality of life in the locality, providing necessary services to residents (Dinis, 2011).

The fact that they are happy to engage with business in the municipality, due to its unique characteristics that provide the development of tourism activities, led them to find barriers that limited them in their projects. These barriers are identified at the family / professional level and, especially, at the financing level. Some of the interviewees highlighted, with great determination, the lack of agility in the application process for funding. Bureaucratization is the mostly highlighted barrier, which aggravates the progress of the projects, both in the beginning, in the delay of the start of the financing, and in the end, in the delay of the delivery of the necessary documents for the opening of the enterprises.

With regard to gender, there were no indications by entrepreneurs that there was any distinction between male or female in obtaining funding. They consider that there is equal treatment for both parties. If they consider that there are barriers in terms of funding, both men and women suffer the same barriers, there is no distinction (Welter & Smallbone, 2008).

Other entrepreneurs, on the other hand, considered that they did not face any problem / barrier in acquiring the financing.

Dinis (2011) unveiled, through his study, that institutional support agents should approach individuals who want to engage with business and have a “greater personalization” of relationships, which may result in a better understanding of the specificities of local entrepreneurs and more effective response to their needs. According to Augusto et al. (2010), tourism is a driver for the “refunctionalization” of the rural world, but to be successful, a good performance and an update of the assessment models by public entities is needed for an integrated and territorialized approach to rural spaces.

Family and / or professional barriers, in the specific case of Sever do Vouga municipality, are not highlighted as the main inhibiting factors of business creation. There were two entrepreneurs who stressed the difficulty to be with their family on weekends, because they are working. It is on weekends and during vacations that they have the most business activity and generate the most revenue.

According to Gomes (2005), women tend to have the responsibility in the household, not having the same time availability as men, and men are more relaxed about tasks at home.

When hiring staff, gender is not relevant, that is, the fact of being female or male is not a determining factor in the selection criteria. In the different areas of activity, whether in restaurants or accommodation, entrepreneurs consider that they do not take into account gender while recruitment. However, they mention that women are more skilled and careful to perform the tasks. On the other hand, in tourism entertainment companies, men are preferred because of the strength that the activities require. However, women are perceived to have more skills when dealing with “lighter” activities, such as customer service and organizing and managing activities.

In the tourism area, the hired labour force is mostly female, employing low-educated employees who are not exclusively dedicated to tourism (Ribeiro et al., 2001). Qualifications in the area of tourism have not been stressed, despite being considered an added value. Employees are trained on the job. In the tourism entertainment companies, employees are hired only when the company needs them, or the service is subcontracted.

Entrepreneurs, in general, highlighted the areas of management and economics because they are an added value for offering knowledge at the start of a business. Most of the entrepreneurs are male, however, they consider that they do not distinguish between men and women in the management of a business. They know examples of female entrepreneurs who perform equally or better than men do. The factor of discrimination is not something preponderant in the performance of these companies.

CONCLUSION

This research aimed to analyse gender issues in tourism entrepreneurship in rural areas, addressing motivations and barriers women face when creating their own businesses. They are usually in a more fragile position, since family responsibilities are often infused into them, to which men do not take immediate responsibility. By being more involved in family responsibilities, they must be able to manage both tasks. Over time, however, the status of women has been changing because they want to be more independent and more active in engaging in their own business. Regarding the reasons to engage in entrepreneurial activities, it can be verified that women are motivated by internal factors (family stimuli), while men are motivated by factors external (economic stimuli).

As far as entrepreneurship is concerned, women undertake their businesses cautiously and partially, due to the lack of time available to engage in business. But, as highlighted in the empirical study, it is not evident that women refrain from creating their own businesses. In the study, we verified that, although they are fewer and working together with their husbands, they are already in a retirement situation, which facilitates dedication and commitment to the business on a full-time basis. However, younger women with children may encounter barriers that make it harder for them to dedicate themselves to the enterprise. According to the literature review, these women motivate themselves to create their businesses because they tend to have more control in dividing their time between work and family responsibilities.

This research can contribute to a better definition of the profile and behaviour of entrepreneurial women in rural areas, as well as the role of gender in these areas and in tourism companies. In addition, this study contributes to understand what it takes to engage in tourism businesses in rural areas and what development strategies entrepreneurs use.

Future research could explore the fact that there are entrepreneurs who have parallel economic activities, being the tourism activity a secondary one. They regard this activity as pleasure, devoting to it more time, although not yielding the highest income. The study of this phenomenon may contribute

to understanding the reasons for this type of entrepreneurship in rural settings, which can be regarded as an opportunity for the development of low-density tourism-oriented territories and a way to better structure the tourism supply in these locations.

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KEY TERMS AND DEFINITIONS

Entrepreneurship: The process of developing, organizing and managing a new business venture.

Female Entrepreneurs: Women who own and operate businesses.

Rural Areas: Areas lying outside population centres (towns or cities), possessing low population density and small settlements.

Sever do Vouga: A municipality located in the central region of Portugal, belonging to the district of Aveiro.

Tourism Companies: Firms that provide services for people travelling to places outside their area of residence for less than one consecutive year for leisure, business and other purposes. These mainly operate in the areas of accommodation, transportation, food and beverage, travel agencies and tour operators, and tourist entertainment.

Chapter 17

Gender Differences and Generation of Ideas on Civic Crowdsourcing

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ABSTRACT

Crowdsourcing platforms are being used to increase citizen engagement with the development and implementation of new projects that can improve the community's wellbeing. The use of civic crowdsourcing has also been extended to the younger segments of the population, such as the Youth Participatory Budgeting in Portugal. This research aims to study the ideas developed by young citizens in order to understand whether gender is able or not to influence the ideas generated by the applicants. The study uses a quantitative approach to explore the database of proposals made to this crowdsourcing program. The results show that young men are more involved in the submission of new ideas than women. Also, some differences were found concerning the territory where the opportunities are seized, in accordance with gender. No other significant differences were found in the ideas generated, such as the number of proponents, geographical scope, theme, or budget involved.

INTRODUCTION

Opportunities are critical for entrepreneurship, and its identification is a precondition to the existence of entrepreneurs (Drucker, 1985). Identifying opportunities capable of addressing an unsolved problem or need is the very first step towards social entrepreneurship (Dees, 1998; Brouard & Larivet, 2010; Okpara & Halkias, 2011). Searching for new opportunities is a very contextual-dependent activity, as

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opportunities are shaped by external circumstances and by the characteristics of a community (Corner & Ho, 2010; Guclu *et al.*, 2002). Further, under the presence of the same concrete circumstances, different people can perceive opportunities differently (Austin *et al.*, 2006). The ability to seize opportunities is influenced by several personal factors, such as previous education, past experiences, values and attitudes (Cajaiba-Santana, 2010). Although largely unexplored in empirical studies, gender has been referred as one of these possible variables that could impact the ideas identification process.

The identification and generation of new ideas require individuals a permanent state of alertness (Kirzner, 1979), but also demand creative thinking. Once again, cultural, social and personal contexts play an important role in foster or neutralize idea generation (Csikszentmihalyi, 1999).

A recent trend observed in many European countries is the use of new technologies to attract and bring people together to generate new ideas or mobilize resources. Herein, we are dealing with the concept of ‘crowdsourcing’, that refers to several practices in which an open call is made for anybody (the crowd), to participate in a task open online by submitting information, knowledge, or talent (Aitamurto, 2012; Brabham, 2008; Howe, 2008). Civic crowdsourcing is a sub-type of crowdfunding through which citizens, in collaboration with government, voluntarily participate in projects providing ideas or other kinds of community services that could then be implemented by public entities. Further, the concept of civic crowdsourcing has been applied in different geographical contexts, including either developed or developing countries (Sumra & Bing, 2019).

A particular case of civic crowdfunding is the participatory budgeting that is an alternative political process that involves the citizens in the distribution of a small part of the public funds. Through the implementation of participatory budgeting, governments are fostering citizens (any “ordinary citizen”) to be involved in the design of the proposal, the planning process, and the evaluation of the public policies (Sala, 2014).

Crowdsourcing could be open to all the overall population, or restricted to specific segments, in accordance with the purposes of the crowdsourcing programs. The young participatory budgeting is one of this application, where the call is made to a very specific segment, the young population of a country.

Using civic crowdsourcing platforms to generate ideas for public investment is a promising area for both research and application due to its potential impact on citizen’s engagement, well-being and empowerment. However, academic research remains scarce, and the knowledge about successful civic projects posted to crowdsourcing platforms are relatively ignored. Moreover, understanding gender differences have been a major focus in the entrepreneurship literature (Tsai *et al.*, 2016).

In this scenario, the purpose of this study is to investigate the projects presented by young citizens in the crowdsourcing platform created by the Portuguese government (The Youth Participatory Budgeting Portugal) and to analyse whether gender is able to impact on opportunities identification.

As specific objectives, the study intends to: (i) understand the characteristics of the projects presented through this specific public crowdsourcing platform, and (ii) analyse the characteristics of opportunities found by gender.

Through this analysis, we can infer the ideas generated by young people that can be useful for public entities to invest in or if the implemented ideas have an impact on the quality of life of communities. Also, the role of gender is discerned by evaluating how the ideas generated by females and males differ.

The chapter will be organised into three main sections. In the first part, a literature review will be developed. Specifically, the chapter will analyse the processes of opportunity identification and idea generation regarding gender. The chapter will also analyse the concepts of youth entrepreneurship, civic crowdsourcing and participatory budgeting. Then, the methodology used in the chapter is explained. The

third section presents the main results attained in the research. The chapter ends with the conclusions and final remarks.

OPPORTUNITY IDENTIFICATION AND GENDER

The process of searching for opportunities as a solution for specific problems is a human rational activity. Since the seminal work of Shane and Venkataraman (2000), the concept of opportunity has been recognized as central to entrepreneurial behaviour. According to the most recent literature, the process of discovering opportunities for new ventures will continue to be an important research issue in entrepreneurship over the next few years (Alvarez & Barney, 2019). Opportunities are a desired future state that is possible to be attained (Austin *et al.*, 2006). For Cajaiba-Santana (2010), opportunities emerge because of a combination of favourable circumstances that make possible a certain course of action. For Tsai *et al.* (2016, p. 1130), an opportunity is “a situation where the likely outcomes are perceived as positive and that is deemed to be within a person’s control”. According to González *et al.* (2017, p. 213) opportunity identification refers to “the way entrepreneurs become aware of an opportunity, whether discovered or created”.

The search process begins by identifying a need to be fulfilled or a problem that must be solved. The knowledge to identify or solve a problem is typically idiosyncratic because it is acquired through everyone’s own circumstances including occupation, on-the-job routines, social relationships and daily life (Venkataraman, 1997). Therefore, the possession of that knowledge varies among individuals and strongly influences the search for an opportunity. The ability to make the connection between the knowledge and an opportunity requires a set of skills, attitudes, insights, and circumstances that are not either uniformly or widely distributed. Thus, two people with the same knowledge may put it to very different uses. It is one thing to have an insight, but an entirely different matter to find a solution to a problem. The incentive, capability, and specific behaviours needed to discover an opportunity from knowledge or insight all vary among individuals, and these differences matter for explaining the launch of a social venture (Venkataraman, 1997). An opportunity presupposes actors for whom it is perceived as an opportunity; at the same time, the opportunity has no meaning unless the actor/s actually operate upon the real world within which the opportunity eventually has to take shape (Sarasvathy, Dew, Velamuri & Venkataraman, 2003). Two streams of research emerge from this citation: the opportunity is seen through the eyes of an individual; and, the actor itself is an individual that possesses different abilities to recognize and explore the opportunity. This latter topic will be analysed in the next section.

As earlier recognized by Peter Drucker (1985), entrepreneurs do not necessarily have to provoke changes; rather, they must identify existing changes and exploit the opportunities they bring into society. In this context, a prerequisite to becoming an entrepreneur involves searching for new possibilities, and a capability to identify an opportunity. Shane and Venkataraman (2000) argue that although opportunities are an objective phenomenon on their own, the identification stage is a subjective process that could arise from different circumstances, such as (Austin *et al.*, 2006; Corner & Ho, 2010; Guclu *et al.*, 2002; Popoviciu & Popoviciu, 2011; Kedmenec *et al.*, 2014; González *et al.*, 2017): (i) personal values; (ii) personal and professional experience (training, hobbies or work experiences); (iii) major concerns and interests; (iv) contact with people who recently have started a new business (v) personal relationships and networking (especially weak ties); (vi) characteristics of a given community; (vii) institutional structures and external context as a whole. Therefore, the opportunity identification process is shaped

by the personal characteristics and perceptions, as well as the characteristics of the community that surrounds him/her (Cajaiba-Santana, 2010, Jack *et al.*, 2008, Trivedi & Stokols, 2011). Opportunity identification could also be a cognitive phenomenon that is driven by the perceived competence of the potential entrepreneur (Tsai *et al.*, 2016).

The ability to identify an opportunity is also influenced by the entrepreneurial state of alertness (Kirzner, 1979) that enables him/her to be able to deal with contextual changes. According to several authors (e.g., Alvarez & Busenitz, 2001; Guclu *et al.*, 2002; Popoviciu & Popoviciu, 2011) the alertness state allows the social entrepreneur to: (i) pay attention to new opportunities with positive social impact; (ii) identify an opportunity when it presents itself; and (iii) recognize and formulate the most appropriate strategies for exploiting the opportunity. As stated by Kedmenec *et al.* (2014), in line with human capital theory, education is important to foster individuals' ability to identify opportunities, since knowledge and analytical thinking increase their cognitive abilities to perceive existing opportunities. The same investigation (Kedmenec *et al.*, 2014) found that the increase in education boosts the probability of opportunity identification, reinforcing the relevance of education.

Opportunity recognition is central to the launch of any social venture (Shane & Venkataraman, 2000). Consequently, several definitions of social entrepreneur stress the role of opportunity recognition. For instance, Dees (1998) argues that a successful social entrepreneur will recognize and search actively for new opportunities to accomplish a mission. For Brouard and Larivet (2010), social entrepreneurs will act as change agents and leaders to tackle social problems by recognizing new opportunities and finding innovative solutions. Additionally, Okpara and Halkias (2011) defined a social entrepreneur as one who uses his or her leadership and innovative capabilities to find an opportunity to create a new product, a service, or a new approach to address the most pressing social issue in the society. Thompson *et al.* (2000) associate social entrepreneurs to people who realize where there is an opportunity to satisfy some unmet need that the state welfare system will not or cannot meet, and who gather the necessary resources (generally people, often volunteers, money and premises) and use these to 'make a difference'. Further, Peredo and McLean (2006) claim that social entrepreneurship occurs when someone or a group of people: (i) aims to create social value; (ii) exhibits an ability to recognize and take advantage of a given opportunity; (iii) is creative; (iv) is willing to accept risks to create social value; and (iv) is particularly resourceful in pursuing social ideas, regardless the scarcity of resources. Mair and Noboa (2006) highlight the different motivations of social entrepreneurs to discover and exploit opportunities and the way they pursue opportunities.

Sarasvathy, Dew, Velamuri and Venkataraman (2003) have three different views of opportunity: i) the allocative process view; ii) the discovery process view; and, iii) the creative process view. The allocative process view focuses on the efficiency of markets and its implications for opportunity recognition. In this view, an opportunity is any possibility of putting resources into a better use (optimal allocation of scarce resources). The discovery process view emphasizes the origins of the opportunity, treating the final effects as inevitable products of competitive markets. The creative process view emphasizes the agents' decisions and actions, making both origins and final effects contingent upon those decisions and actions. In this view, opportunities do not pre-exist, but they are created as the residual of a process that involves intense dynamic interaction and negotiation between stakeholders seeking to operationalize their (often vague and unformed) aspirations and values into concrete products, services and institutions that constitute the economy.

The literature recognizes that gender disparity is a persistent feature in entrepreneurship, since women are less likely to become entrepreneurs than men (Cheraghi *et al.*, 2019; Guzman & Kacperczyk, 2019).

Notwithstanding, the process of opportunity identification and the nexus with gender has been scarcely studied in the entrepreneurship literature (DeTienne & Chandler, 2007). Some authors based on the social feminism theory view differences between males and females as a result of learning experiences from the earliest moments of life with consequences in different ways of viewing the world (Fischer, Reuber & Dyke, 1993). Therefore, the differences observed between women and men are due to unique socialization processes that encompass the possession of useful knowledge for search and exploit an opportunity (Venkataraman, 1997; Johnsen & McMahon, 2005; DeTienne & Chandler, 2007).

The social role theory also contributes to explaining the gender gap through the role division between men and women, and the different expectations that society have for men and women (as, for example, family obligations, stereotypes about the behaviour such as competition and aggressivity) (Tsai *et al.*, 2016).

An empirical study developed by DeTienne and Chandler (2007) shows that women and men utilize their unique knowledge to identify opportunities and that they use fundamentally different processes of opportunity identification.

A study by Kedmenec *et al.* (2014) investigate gender differences in opportunity identification in Slovenia and Croatia, and found that men are slightly more actively involved in the opportunity identification process than women, since in both countries men identify opportunities more often than women. The gender opportunity identification gap, according to some authors, is explained by the difference in the level of resources they have access. For instance, the study of Kedmenec *et al.* (2014) found that although a formal education is high in both women and men, human capital is higher in men, as they are more confident on having the skills necessary to start a business.

Tsai *et al.* (2016) found that there are important cultural issues, such as the relevance of subjective norms and the level of collectivism, that impact gender behaviour differently, in different countries.

Detienne and Chandler (2007) discovered that men and women use different processes of opportunity identification, although no differences were found related to the innovation level of the opportunities found.

A different study, carried out in Lebanon, confirms that opportunity identification is a social gender process (Haddad & Loarne, 2015). According to the study, gender differences arise from different socialization experiences and from the way man and woman use their social networks for the development of new opportunities.

GENERATION OF IDEAS AND GENDER

Definitions of creative ideas comprise three components (Kaufman & Sternberg, 2007). First, creative ideas must represent something different, new or innovative. Second, creative ideas are of high quality. Third, creative ideas must also be appropriate to the task at hand or some redefinition of that task. Thus, a creative idea must be original, relevant and useful. However, the process of generating creative ideas is not the product of single individuals, but are derived from cultural and social contexts (Csikszentmihalyi, 1999). The creative idea occurs when a person makes a change in the context, a change that will be transmitted through time. The creative idea has to meet simultaneously social needs (more effectively than alternatives) and create new relationships or collaborations. These creative ideas are not only good for society but also enhance society's capacity to act (European Communities, 2011).

The process of generating creative ideas usually happens by trial and error, learning-by-doing, and exchanging previous ideas within groups where the exchange of opinions assures new ways of functioning

(Bernardino, Meira & Freitas Santos, 2018). However, some individuals are more likely to make such changes, either because of personal qualities or because they have the good fortune to be well-positioned with respect to the problems they pretend to solve (Csikszentmihalyi, 1999). For instance, all the individuals that are affected by different problems where they live are more prone to present ideas to surpass those problems than individuals that live in zones with much fewer problems. Therefore, it seems that a person who is comfortably settled in the bosom of society has fewer incentives to change the status quo. Conversely, persons who are more oriented towards others' problems have additional motivation to face societal challenges. Some of the most prominent societal challenges are presented in the following table.

Besides the cultural and social contexts, it is important to consider the person. Sternberg (2012) in the investment theory of creativity, proposes that intellectual abilities, knowledge, thinking styles, personality, motivation, and environment are factors associated with the capacity to generate new and useful ideas.

In the intellectual abilities Sternberg (2012) identifies three important skills: i) the synthetic ability to see problems in new ways and to escape the bounds of conventional thinking; ii) the analytic ability to recognize which of one's ideas are worth pursuing and which are not; and iii) the practical-contextual ability to know how to persuade others of -to sell other people on- the value of one's ideas. These three abilities are interdependent and must be used simultaneously.

The knowledge is important to generate ideas as one cannot think creatively without it, but people cannot stay closed and entrenched in past knowledge. Thus, one needs to decide when to use him/her past knowledge or not to generate new ideas (Sternberg, 2012).

Thinking styles are related to creativity and idea generation. For instance, the preference for thinking and to make a decision to think in new ways are different from the ability to think creatively. Someone may like to think along new lines, but not think well or vice versa (Sternberg, 2012).

Personality traits related with new idea generation include willingness to overcome obstacles, willingness to take sensible risks, willingness to tolerate ambiguity and self-efficacy. According to the big five personality traits, only the open to experience is clearly linked with creativity, while the relationship with other traits such as extraversion, agreeableness, neuroticism, and being conscientious is more ambiguous (Sternberg, 2012; Costa *et al.*, 2015).

Motivation is not something inherent in a person. It depends if one decides to be intrinsically or extrinsically motivated. The intrinsic motivation includes passion, motivation to undertake a task or solve a problem because it is interesting, involving, personally challenging or satisfying. The extrinsic motivation includes contracted – for rewards, surveillance, competition, evaluation, requirements to do something in a certain way (Amabile, 2012). People rarely generate ideas in an area unless they really love what they are doing and focus on the work, rather than the potential rewards (Sternberg, 2012).

An adequate environment is needed to support and reward the generation of new ideas. One could have all the internal resources needed to generate ideas, but without some environmental support, the creativity that a person has within him or her might never be unleashed (Sternberg, 2012).

In the process of generating new ideas, the person is surrounded by the cultural and social contexts. The cultural context interferes in the way people's think, act, learn and imitate each others' actions. The accessibility of information could be a barrier to individuals that want to contribute with ideas for the community. When knowledge is concentrated in a few centres or public spaces (libraries) and schools are rare, most potentially creative individuals will be effectively prevented from learning enough to contribute to existing knowledge (Csikszentmihalyi, 1999). Cultures also differ in terms of geographical location or economic practices with implications on the diffusion of information. Even now, when the

Gender Differences and Generation of Ideas on Civic Crowdsourcing

Table 1. Societal challenges

Societal Challenges	Description
Community development and mutual aid	Alternative forms of proximity or neighbourhood services of all kinds (ranging from church and non-profit to private sector organizations) were formed to fulfil specific needs and to promote mutual aid (home-based services and provision of help to the elderly).
Cohesion / civic participation	This field support actions that increase cohesion and civic participation at different levels of society (national, regional or local).
Culture and leisure	The main goal is to promote leisure and recreation services, such as arts, music and sports among disadvantaged people.
Economic well-being	Members of disadvantaged social groups are typically subject to higher unemployment rates than the rest of society. Most of the social support is oriented to attenuate poverty-related social needs, social exclusion and long-term unemployment and to promote economic development.
Accommodation/housing	This field includes the satisfaction of basic needs, such as adequate housing and accommodation for different groups of society.
Education and lifelong learning	In this area of work, lifelong learning and education aspire to meet the needs of instruction in general or more specific (professional) education.
Training	People who live in urban areas frequently experience poorly remunerated employment or work in the informal economy and often do not have access to vocational training.
Environment and sustainability	Actions taken are oriented to environmental protection, prevention and repair, as well as long-term sustainability. Energy, transport, water supply and waste disposal are among the issues addressed.
Equality / civil rights	This area addresses the inclusion of people into society and the formal labour market regardless of gender, race or disability.
Heritage	The institutions' work stimulates local cultural activities, such as hand-made artefacts that improve the dissemination of cultural heritage.
Health and well-being (e.g., health, sickness, disability, mental health)	Given the prevalence of poverty in disadvantaged communities, people are frequently confronted with the lack of health and education services, violence, substance abuse, human trafficking, suicides, conflicts or crimes.
International development	International NGOs provide overseas aid, famine relief and assistance in underdeveloped countries, situations of war or weather catastrophes.
Religious / faith-based activity	Most religious services are administered by Catholic-inspired churches that also provide and operate important social services, particularly at the local and community levels.
Criminal justice	Most of the organizations that deal with these issues promote access to justice for poor people.
Animal welfare	Provision of health, shelter and food to different kinds of animals are offered at the municipality level by public and private organizations.

Source: (Bernardino, Meira & Freitas Santos, 2018, pp. 225-226).

diffusion of information is almost instantaneous, useful new ideas are likely to arise from centres where people from different cultural backgrounds can interact and exchange ideas (Csikszentmihalyi, 1999).

The social context can help the generation of ideas (Csikszentmihalyi, 1999). A wealthier society is able to make information more readily available, allowing a greater rate of specialization and experimentation, and is better equipped to reward and implement new ideas. Subsistence societies have fewer opportunities to encourage and reward novelty, especially if it is expensive to produce. Societies located at the confluence of diverse cultural streams can benefit more easily from that synergy of different ideas that are so important for the creative process. External threats also often mobilize society to recognize creative ideas that otherwise might not have attracted much attention. Finally, the complexity of society

also bears on the rates of innovation it can tolerate. Too much divisiveness and, in the opposite, too much uniformity are unlikely to generate novelty that will be accepted and preserved (Csikszentmihalyi, 1999).

In a meta-analysis of personal factors that influence the generation of novel and original ideas, Costa *et al.* (2015) confirm the influence of given characteristics (age and gender) and acquired characteristics (education). In terms of age, some studies suggest a curvilinear progression, peaking between 30 and 40 years of age and declining after 40 (Costa *et al.*, 2015). In terms of acquired characteristics such as education, it has been suggested that the level of education is associated with creativity, although it is not a determining factor beyond a certain level (Costa *et al.*, 2015).

Regarding gender, a brief review of the literature shows that the results of the different studies are not consensual. Some studies revealed no gender difference between males and females (e.g. Baer & Kaufman, 2008), whereas others revealed that gender differences in creative performance do exist (e.g. Matud, Rodríguez, & Grande, 2007). The major reasons for the inconsistencies observed are related to the methods used to measure the ability to generate new ideas and the characteristics of the environment. Many studies use tests of divergent thinking to compare the scores between men and women, but failed to produce clear and consistent gender differences. According to Baer and Kaufman (2008, p. 98) “there are significant numbers of studies in which one group or the other scores higher, but these are generally counterbalanced by studies showing just the opposite”. However, if the measures used focused on external rating of past behaviour (activity checklists), the gender differences are large and significant (Simonton, 1994). There are also studies that suggest a positive relationship between being a woman and the generation of ideas, while narrative reviews find many results with no differences between genders, although some slight favour being female as opposed to male.

In some environments, one gender group may be allowed access to fields involving creative work, with the other gender group denied access. For instance, Asian cultures based on Confucianism have long fostered inequality between men and women. As stated by Baer and Kaufman (2008, p. 99) “assuming any gender differences in creativity are most likely the product of differing environments would represent the best overall synthesis of what we currently know about gender differences in creativity”.

YOUTH ENTREPRENEURSHIP, CROWDSOURCING AND PARTICIPATORY BUDGETING

Youth Entrepreneurship

Youth entrepreneurship is seen as an entrepreneurial activity or behaviour that is embraced by young people. As stated by Adams and Quagraine (2018), there are different ways to define youth, such as age, cultural or economic characteristics. Notwithstanding, the most common definition is based on age (Adams & Quagraine, 2018), according to which the United Nations consider youth those people who are aged between 15 and 24 years old.

In most of the countries, people usually start their entrepreneurial activity between 25-34 or 35-44 years old (GEM, 2019). This pattern is either observed in men and women (GEM, 2016a). According to the GEM report (GEM, 2019), the reasons for a large proportion of people getting involved in entrepreneurship in a period already close to middle age is justified by education, experience, resources, financial stability, credibility or connection to entrepreneurial networks. However, these factors could not be enough for deterring young people from starting an entrepreneurial activity.

Regional differences exist in the way young people perceive their entrepreneurial abilities and the existence of good business opportunities (GEM, 2016b). For instance, in Portugal, following the trend observed in several economies, the most frequent age to start any entrepreneurial activity is between 25 and 34 years old (12.0%) and 35 and 44 years old (10.5%). In young adults, aged between 18 and 24 years old, the involvement in entrepreneurship is just about 7.0% (GEM, 2013). Most of the youth entrepreneurs in Portugal are opportunity-driven (75.6%), rather than necessity-driven (19.5%) (GEM, 2016b). Nevertheless, youth citizens could be particularly promising for entrepreneurship, as they consider themselves to be more innovative than adults (GEM, 2016b).

In this scenario, unleashing the youth potential and involvement in entrepreneurship is critical and should start firstly by stimulating their ability to identify and generate opportunities (Zu, 2020), specifically because young people could be especially sceptic to being involved in entrepreneurial initiatives (Manolova *et al.*, 2019). Moreover, youth have very specific motivations to get involved in entrepreneurship. As found by Zbucka *et al.* (2016), the motivations to develop a social organization is slightly different between millennials and older people. According to the authors (Zbucka *et al.*, 2016) the desire to positively impact society and create value for the common good is the predominant motivation for millennials, while older participants have different motivations, that combine social and personal purposes.

CROWDSOURCING

Crowdsourcing is a concept that was coined by Jeff Howe to include a diverse range of activities and projects involving public participation (Oomen *et al.*, 2014; Ridge 2014). The concept of crowdsourcing is used to define an open call for anybody to participate in a task open online where the crowd is invited to participate by submitting information, knowledge, or talent (Brabham, 2008; Howe, 2008; Aitamurto, 2012).

Crowdsourcing has become popular after the information technologies, such as smartphones and tablets, have enabled people to participate more easily in sophisticated processes of generation of ideas and collective co-creation. In accordance with the purposes of the crowdsourcing programs, the open call could be made to all the overall population or restricted to specific segments. Crowdsourcing can also be used as a standard approach for idea generation in the early innovation phase (Bonabeau, 2009). Indeed, the “idea crowdsourcing” occurs when a public administration invites all citizens to submit ideas for small projects and after a process of evaluating the proposed ideas the projects are selected according to the votes given by the citizens (Aitamurto, 2012). When this occurs, public entities are looking to take advantage of citizens’ ability to generate opportunities to create value, based on their specific knowledge that makes it possible to identify an opportunity.

Civic crowdsourcing is a field of crowdsourcing that aims to involve citizens in ideas generation and resource collection to improve community well-being. Governments and public entities usually have an active role in the design of civic crowdsourcing programs and also in encouraging the participation of citizens to act in the community. Civic crowdfunding platforms foster collaborative and inclusive processes, since all the citizens are asked to participate in the conception and implementation of new social solutions.

Through crowdsourcing, it is possible to bring new insights and innovation to solve specific problems that citizens face at different territorial levels, as well as it favours the participation of citizens that could not be available for public participation in the traditional face-to-face public meetings.

The field of civic crowdsourcing offers enormous potential for development with a proliferation of new technologies and social media connecting residents in neighbourhoods, catalysing community discussions, changing the way governments and citizens interact, and making the community more entrepreneurial and government more transparent. These efforts have different goals, strategies and scopes, but all of them encompass new tools to inspire people to act, to be innovative and have an entrepreneurial orientation.

Participatory Budgeting

The participatory budgeting is one application of the principles of the crowdsourcing, applied into the civic domain. Participatory budgeting is defined as “a decision-making process through which citizens deliberate and negotiates over the distribution of public resources (that) allow citizens to play a direct role in deciding how and where resources should be spent” (Wampler, 2007, p. 21). During the participatory budgeting process men and women are invited to express their opinions about, and then vote on, the most important development projects for their neighbourhood, town or region (Wampler, 2007).

The use of participatory budgeting by governments is a new way of listening to citizens’ opinions that take advantage from the increasing participation of citizens in the public life and their desire to become more active in the political decisions. Participatory budgeting also takes advantage of the citizens’ participation and involvement, both on idea generation and also on the appreciation of the ideas gathered via the crowdsourcing mechanisms (Rexhepi *et al.*, 2018), at the same time that it enables the decentralisation of the decision-making authority to citizens (Wampler, 2007).

Through participatory budgeting programs, all individuals are encouraged to interact more closely and to get engaged in public policy and public decision making. Participatory budgeting also contributes to improving citizens involvement (Moynihan, 2007) and active participation, since citizens are asked to stop exercising their civic right just by voting politicians, but, instead, by becoming part of the decision-making process (Coleman & Sampaio, 2017). In fact, one of the particularities of the participatory budgeting is its ability to enable any “ordinary” citizen to be involved in the conception, planning and evaluation of public policies (Sala, 2014).

Participatory budgeting strongly contributes to citizens empowerment (Shah, 2007) and the promotion of a more vibrant and promising civil society (Wampler, 2007). Based on this participatory process, governments have been stimulating citizens to be engaged in open and public debates, as well as increasing their knowledge of public affairs (Wampler, 2007). Further, participatory budgeting could play the role of “citizens schools” (Wampler, 2007) or to form “better citizens” (Moynihan, 2007), since it leads individuals to have a clear comprehension of their rights and duties as citizens, as well as to exert an active citizenship and get involved in the selection of public policy priorities, where the scarce resources of the State will be employed (Wampler, 2007). Participatory budgeting also contributes to raising individuals contentious and stimulus to involve them in civic life (Moynihan, 2007), as well as in recognition of opportunities to act. In addition, participatory budgeting could foster the development of several citizens capabilities, such as negotiation (between citizens and public entities) (Wampler, 2007), citizens internal efficacy since they feel more confident about their ability to influence decisions (Coleman & Sampaio, 2017), as well as decision-making capabilities related to the improvement of citizens ability to make autonomous, reflective and consequential decision-making (Coleman & Sampaio, 2017).

There is an increasing recognition of the importance of involving youth citizens in the idea generation process and in the participation of governmental decision-making that has been found as very promising (Augsberger *et al.*, 2017). As stated by Augsberger *et al.* (2017, p. 243) “the value of civic participation

is learned and should be practised and encouraged at a young age”. Also, as argued by Collins *et al.* (2016), youth participatory budgeting is an informal way for young people to exercise their citizenship, besides the formal ones that include, for example, paying taxes or obeying laws.

Several authors have recognised the importance of involving young people in active citizenship, engaging them more actively in societal issues and entrepreneurship programs (Matsuda, 2009; Rexhepi *et al.*, 2018; Vázquez-Ceballos, 2011). These processes are also able to promote capacity building and the empowerment of young people. Furthermore, the involvement of young people could take advantage of their entrepreneurial potential to national development, economic and social sustainability and the conception of solutions to attenuate some intergenerational problems (Rexhepi *et al.*, 2018; Vázquez-Ceballos, 2011). The investigation of Augsburg *et al.* (2019, p.462) also found the positive impact of participatory budgeting in youth by improving their feeling that they had been included “in charge of the process, understanding and allocating resources, and influencing positive community change”.

Although participatory budgeting aims to involve a set of entities, such as citizens, non-governmental organisation and civil society institutions (Wampler, 2007), governments usually have a very central role, namely on the design and implementation of participatory programs.

Although different types of participatory budgeting could be conceived (Abreu, 2016; Gomez *et al.*, 2016), a typical participatory budgeting process includes the following stages (Walczak & Rutkowski, 2017): (i) the city/state announces the participatory budgeting program; (ii) citizens make their project’s proposals; (iii) the technical staff confirms and verifies the proposals and discloses the list of proposals considered eligible; and finally, (iv) the citizens vote for projects. These stages are usually implemented through meetings that are public and open to all citizens, and which are mediated by the technical staff or by delegates elected by the participants (Abreu, 2016). Even in the cases where electronic participatory budgeting is implemented, the (co)existence of face-to-face meetings is considered critical to the success of the programs (Nebot, 2018). The combination of these different communication platforms is observed in several successful cases (Sampaio, 2016).

In 2017, the Portuguese government, following the trend observed in some of the most important countries in Europe, has implemented The Youth Participatory Budgeting Portugal. The main purpose of this program was to encourage youth citizens to be more involved in public life and public investment decisions.

The program was launched at the national level, under the supervision of the Portuguese Government and promoted by the Portuguese Institute of Sport and Youth, through the intermediation of an online platform, specifically created for this purpose [<https://opjovem.gov.pt>]. A total budget of EUR 300.000 was available to support the competition and to finance the most voted proposals.

In the Youth Participatory Budgeting Portugal, young citizens aged between 14 and 30 years old are encouraged to present and decide on investment projects. By offering them a stimulus to be creative, the government aimed to involve younger citizens as an important group of Portuguese society, to develop their entrepreneurial potential, as well as involving them in the political decision-making process.

The application of the projects could be made in four main thematic areas: (i) inclusive sport; (ii) education for sciences, (iii) social innovation and (iv) environmental sustainability.

The proposals are realised through the submission of a form in the online platform, created on the Youth Participatory Budgeting and could also be presented in person in the meetings promoted by the organisation throughout the national territory or even at the Portuguese Institute of Sports and Youth Services.

Participants could propose more than one project, which does not have to be restricted to their residence area.

In 2017, a total of 4245 proposals were submitted, although the technical commission approved only 167, once they have met the eligibility criteria. After this pre-analysis, a list of the approved projects was made available in the platform and only these projects could be subject to the national public vote.

METHODOLOGY

The literature review pointed out that the identification and generation of opportunities are critical for entrepreneurship and for having an entrepreneurial behaviour in the future. Some authors have also highlighted the importance of entrepreneurship from a younger age, and with no gender differences, because the gender gap is persistently observed in some types of entrepreneurship. This chapter brings together these issues, by exploiting the role of gender on ideas identification, recognition and generation in the specific context of young civic entrepreneurship. Specifically, by analysing the ideas presented by young citizens in the participatory budgeting, the authors intend to analyse if gender is able to influence the characteristics of the projects submitted to the platform, such as the location of the project to be implemented, the territory where it is applied, the geographical scope, the budget required, as well as the number of entrepreneurs involved in the project. The proposals were submitted by young citizens, individually or collectively, and were made by teams composed of men, women and both. Considering the research purposes, the authors have just considered as the unit of analysis the proposals that have been made by only female or male entrepreneurs (151 cases). In order to assess the impact of gender in a more accurate way, proposals that were developed by teams composed by either women or men were excluded from the sample. The data available at the platform in April 2018 were extracted to a database built by the authors and then analysed.

The information was previously categorised in order to allow the statistical treatment of the data. The codes used are summarised in table 2. The database also included the number of promoters involved in the application.

The investigation uses a quantitative method. This methodological approach has the advantages of objectivity and prediction of the research, as well as the comparison of results that allow its generalisations and ability to be extrapolated statistically (Eisenhardt, 1989; Vissak, 2010).

The statistical analysis was developed on IBM SPSS Statistical Software (SPSS), version 24. Given the nature of the data and the research objectives, descriptive analysis techniques were used (such as mean and frequency analysis), correlation analysis (Cramer's V statistic) and inferential statistics (Person's chi-square test and Likelihood ratio).

RESULTS

Descriptive Analysis of The Characteristics of Projects

The data analysis shows that both genders have actively participated in the entrepreneurship program developed by the Portuguese Institute of Sport and Youth (Table 3). Nevertheless, male youth citizens were slightly more active in the generation of ideas than female (53.6% and 46.4%, respectively).

Table 2. Categorization of the variables

Variable	Code
Promoters' gender	1. Female 2. Male
Thematic area	1. Inclusive sports 2. Education for sciences 3. Social innovation 4. Environmental sustainability
Geographical scope	1. Local 2. Regional 3. Multiregional 4. National
NUTS II territory classification	1. North 2. Centre 3. Lisbon 4. Alentejo 5. Algarve 6. Islands
Territory characteristics	1. Littoral 2. Interior 3. Both
Budget classification	1. 0 - 20.000 euros 2. 20.001 - 40.000 euros 3. > 40.000 euros
Number of proponents	1 2 3 4 5 6

Source: (Authors' own elaboration).

The analysis of the database shows that the applications were made by between 1 and 6 proponents. Notwithstanding, most of the submissions were made individually, by a single promoter (92.1%). The second most frequent situation is the application made by two (4.0%) or three promoters (3.3%). The constitution of teams with 6 or more individuals is less common.

Concerning the thematic area where the ideas were proposed, the authors observe that the projects were developed under the domain of the four areas defined by the leading public institution (Table 3), although it is observed a higher concentration on the themes of environmental sustainability (40.4%) and education for sciences (25.8%).

Most of the projects have a regional nature (47.0%) or intend to be implemented at a national level (32.5%). Less common are the ideas generated by youth citizens to be developed locally (13.9%) or in a multiregional project (6.6%). Projects that aimed to be not developed at a national scale, were proposed to benefit all the different regions of the country, especially Centre (32.7%) and North (24.8%).

The ideas proposed in the platform aimed to benefit both littoral (51.5%) and inner territories (45.5%), although only a small percentage of the projects jointly intended to benefit the two types of territories (3.0%). However, we observe that local projects are mainly developed in littoral areas (85.0% of the cases), while regional and multiregional projects are divided into littoral and inner zones in a more similar way.

Table 3. Characterization of the ideas generated

	N	Percentage (%)
Gender		
Female	70	46,4%
Male	81	53,6%
Number of proponents		
1	139	92,1%
2	6	4,0%
3	5	3,3%
6	1	0,7%
Thematic area		
Inclusive Sport	30	19,9%
Education for the sciences	39	25,8%
Social innovation	21	13,9%
Environmental sustainability	61	40,4%
Geographical Scope		
Local	21	13,9%
Regional	71	47,0%
Multiregional	10	6,6%
National	49	32,5%
The main location of the project a)		
North	25	24,8%
Centre	33	32,7%
Lisbon	14	13,9%
Alentejo	13	12,9%
Algarve	11	10,9%
Islands	5	5,0%
Territory's characteristics b)		
Littoral	52	51,5%
Interior	46	45,5%
Both	3	3,0%
Budget classification		
0 – 20.000 euros	83	55,3%
20.001 – 40.000 euros	34	22,7%
> 40.000 euros	33	22,0%

a) Some projects are in two or more regions; this categorisation was made only for projects that do not work on a national basis;

b) This categorisation was made for projects that do not work on a national basis;

Source: (Authors' own elaboration).

Concerning the budget that the promoters estimate to be necessary to implement the idea, we observe

Table 4. Characterization of the ideas generated by gender

Number of proponents	Female		Male	
	N	(%)	N	(%)
1	63	90,0%	76	93,8%
2	4	5,7%	2	2,5%
3	2	2,9%	3	3,7%
6	1	1,4%	0	0,0%
Thematic area				
Inclusive Sport	15	21,4%	15	18,5%
Education for the sciences	19	27,1%	20	24,7%
Social innovation	13	18,6%	8	9,9%
Environmental sustainability	23	32,9%	38	46,9%
Geographical Scope				
Local	10	14,3%	11	13,6%
Regional	32	45,7%	39	48,1%
Multiregional	6	8,6%	4	4,9%
National	22	31,4%	27	33,3%
Location of the project ^{a)}				
North	17	35,4%	8	15,1%
Centre	15	31,3%	18	34,0%
Lisbon	5	10,4%	9	17,0%
Alentejo	2	4,2%	11	20,8%
Algarve	6	12,5%	5	9,4%
Islands	3	6,3%	2	3,8%
Territory Characterization ^{b)}				
Littoral	32	66,7%	20	37,7%
Interior	14	29,2%	32	60,4%
Both	2	4,2%	1	1,9%
Budget classification				
0 – 20.000 euros	38	54,3%	45	56,3%
20.001 – 40.000 euros	17	24,3%	17	21,3%
> 40.000 euros	15	21,4%	18	22,5%

a) For the first location mentioned in the Portuguese Institute of Sports and Youth website;

b) This categorisation was made for projects that do not work on a national basis;

Source: (Authors' own elaboration).

that applications go from EUR 200 (minimum) and the maximum allowed in the application (EUR 75.000, in 12 cases). Notwithstanding, the average budget was around EUR 28.595. More than half of the youth entrepreneurs (55,3%) have proposed projects that involved less than EUR 20.000 and only less than a quarter of them (22.0%) have proposed projects that have a budget higher than EUR 40.000. Only one (1) application did not indicate the estimated budget that the project needs to be implemented.

Bivariate Analyses of the Characteristics of Ideas by Gender

Contingency Tables

After an overall description of the characteristics of the proponents and the projects, a bivariate analysis is performed in order to analyse the features of the ideas proposed, in accordance with its promoters' gender.

When analysing Table 4, we observe that either female and men young entrepreneurs typically develop the idea individually (90.0% and 93.8%, respectively). Less common are the cases in which submissions are made by teams composed of two or three young citizens. Only a proposal was made by six proponents.

Concerning the thematic area covered, some slight differences are observed by gender. The data shows that compared to women, men tend to develop more ideas in the environmental sustainability area and less on social innovation. No significant differences were found with respect to the themes of inclusive sports and education.

In both cases (female and young male citizens), the higher percentage of the ideas (almost 50%) are developed at a regional level. Multiregional proposals are more common in women (8.6%) than in men (4.9%).

With respect to the main location of the project, Centre is the most common region to men (34.0%), followed by Alentejo (20.8%) and Lisbon (17.0%). For women, the most often locations are North (35.4%) and Centre (31.3%). Thus, we observe that women were involved in generating ideas mainly in two regions, while opportunities seized by men tend to be more widespread all over the country.

Concerning the characteristics of the territory, we observe that female young citizen are more prone to develop ideas to be implemented in the littoral regions of the country (66.7%), rather than in the interior ones (29.2%). Differently, most of the ideas proposed by young men were designed to benefit the inner regions of the country (60.4%). In both genders, the ideas that aim to simultaneously benefit inland and coastal regions are scarce (just 4.2% in women and 1.9% in men).

Further, we observe that both male and female citizens tend to develop low budgeting projects, as applications presented by women involved an estimated budget of less than EUR 40,000 (54.3%), while men account for 56.3%. On the other hand, the percentage of projects involving more than EUR 20,000, or more than EUR 40,000 is quite similar in both genders.

Correlation Analysis

To assess the association between the entrepreneurs' gender and the characteristics of the projects, the authors used the correlations analyses, namely the Cramer's V statistic as the variables were predominantly nominal (Table 5).

The data shows that a statistically significant association is just found in two of the variables: the location of the project ($r \varphi_c = 0,329$, $\alpha = 0,10$) and the territory classification $r \varphi_c = 0,313$, $\alpha = 0,01$).

As previously suggested by the contingency tables' analysis, we observe that there is some gender bias related to the main location of the project, which means that young men and women tend to seize opportunities that will benefit the regions of the country differently. Further, the possibility of identifying entrepreneurial opportunities for different types of regions (littoral versus interior) is influenced by gender, where women are more likely to promote projects in the littoral regions and the reverse is observed for men.

Table 5. Correlations analysis

Variable	Coefficient correlation	Sig.
Number of proponents	0,123	0,514
Thematic area	0,165	0,248
Geographical Scope	0,075	0,837
Location of the project	0,329 *	0,052
Territory Characterization	0,313 ***	0,007
Budget classification	0,036	0,906

*. The result is statistically significant, for $\alpha=0.10$;

**. The result is statistically significant, for $\alpha=0.05$;

***. The result is statistically significant, for $\alpha=0.01$;

Source: (Authors' own elaboration).

The analysis indicates that there is no significant association between gender and other characteristics of the ideas generated, such as the number of proponents, the area covered, geographical scope or budget involved.

Inferential Statistics Tests

As the correlations analysis confirms that there is a significant association between gender and some of the characteristics of the projects presented by young citizens, the authors have used inferential statistics techniques, to assess if the differences found could be statistically generalized (Maroco, 2007).

The chi-square test (Table 6) shows that the proponents' gender is able to impact the projects characteristics, namely the location of the project ($X^2 (5, N= 151) = 10,957, p=0,052$) and the territory characteristics ($X^2 (2, N= 151) = 9,923, p=0,007$). Thus, as suggested by the correlations' analysis, we observe that different types of entrepreneurs (female versus male) are prone to seize opportunities to civic entrepreneurship in a different way, specifically concerning the area that will be benefitted by the project. In other words, the location and specificities of the territory of the opportunities seized are

Table 6. Chi-square test for independence and likelihood ratio by gender

Characteristics of the project	Pearson's chi-square	Sig.	Likelihood ratio	Sig.
Number of proponents	2,293	0,514	2,683	0,443
Thematic area	4,125	0,248	4,152	0,245
Geographical scope	0,851	0,837	0,851	0,837
Location of the project	10,957	0,052 *	11,650	0,040 **
Territory characteristics	9,923	0,007 **	10,122	0,006 ***
Budget classification	0,197	0,906	0,197	0,906

*. The result is statistically significant, for $\alpha=0.10$;

**. The result is statistically significant, for $\alpha=0.05$;

***. The result is statistically significant, for $\alpha=0.01$;

Source: (Authors' own elaboration).

not independent of the young citizens' gender. The same results are attained through the analysis of the likelihood ratio ($LR_{\text{location}} = 11,650$, $\alpha = 0,040$; $LR_{\text{characteristics of the territory}} = 10,122$, $\alpha = 0,006$, respectively).

Differently, gender is considered independent of other features of the ideas identified by the proponents, which indicates that gender is not able to constrain other characteristics of the project, such as the number of proponents, thematic area, geographical scope or budget involved.

SOLUTIONS AND RECOMMENDATIONS

Based on a database of the participants in the youth participatory budget launch in Portugal in 2017, the authors intended to analyse the ideas developed by young citizens and to study whether they were or not gender constrained. The youth participatory budgeting is focused on the discovery process, accordingly with the typology presented by Sarasvathy *et al.* (2003). Youth participatory budgeting is an intensive program developed by public entities that aim to unleash a creative process among youth citizens that are asked to identify and generate ideas able to enhance the common well-being.

Both genders were quite involved in the generation of new ideas. During the 2017 edition, 70 valid ideas were proposed by women and 81 by men. Thus, the public program was able to attract both female and male youth citizens, even though we observe some prevalence of men in the generation of new ideas in the programme, as found in other studies (e.g., Matud *et al.*, 2007; Kedmenec *et al.*, 2014).

Most youth citizens identified and generated the idea individually, either in the male and female cases. The same is observed with respect to other characteristics of the project, such as the budget involved, theme or geographical scope. This finding, suggests that, against the Detienne and Chandler (2007) results, the process of generating new ideas is the same, regardless of the gender of its developer.

It should be highlighted that the ideas seized involve a low budget, either in the female and male cases. The literature emphasizes that one of the major barriers to female entrepreneurship is the lack of resources that is even more severe than in men. The difficulty in accessing resources could discourage women, and very often constraint the type of opportunities pursued, as well as the size of the investment made.

Our findings suggest that youth women capability of seizing opportunities is like youth men and their entrepreneurial capability is also quite equal. It is worthy to emphasize that the program just involved the idea crowdsourcing and, therefore, the authors had just studied the early steps of the entrepreneurial process – the idea generation and development. If the creation of new ventures were also studied, the results possible would be different. Nevertheless, an important finding that was achieved is that the cognitive and creative capacity to generate new ideas is the same between men and women.

Portugal historically over the years has been facing a gender gap that is favourable to men. Under the field of civic entrepreneurship and ideas generation, the gap is very tenuous, which may suggest that women are marginally less reluctant to participate in civic entrepreneurship, via civic crowdsourcing, than in traditional economic entrepreneurship.

The investigation also reveals that most of the proposals have a regional or local nature, that could be explained by the critical importance of knowledge about territory in the idea generation process. Besides, a considerable number of ideas were also generated to have a national scale and benefit all the country. This suggests that two different branches of young entrepreneurs were involved in the idea generation: (i) those who have a closer and more emotional linkage to a given territory, and who are willing to solve their specific problems; and (ii) those who use a more top-down approach and try to explore problems that are cross-cutting the Portuguese society as a whole.

The findings achieved suggest that the accumulation of past knowledge related with the idiosyncrasies of a given territory and the problems faced by its population is critical to capacity building for seizing new opportunities of investment (Sternberg, 2012). It is worthy to note that only a small percentage of the ideas generated under the programme aimed to have a multiregional scope. This result could be justified by the high complexity of the ideas identified across different specific regions.

The results reveal that the only gender differences were found with respect to the location of the project and the characteristics of the territory. The authors observe that most of the ideas generated by youth women intend to benefit the littoral areas, and the reverse is observed in youth men. Indeed, the investigation shows that the number of ideas proposed by women in littoral areas is even higher than the ideas proposed by men. Thus, the low participation of youth women in the program is mainly due to results obtained in the interior regions of the country. Also, there is a prevalence of the ideas generated by women in the North and Centre regions, while there is a higher percentage of male youth entrepreneurship in the Centre and Alentejo areas.

This is an important finding that could be explained by the influence of social context in youth behaviour, as littoral and interior zones are surrounded by different social norms and socialization mechanisms (Haddad & Loarnet, 2015), which could be more harmful to female empowerment and entrepreneurship participation in the inner regions.

Also, the investigation reveals that the ideas developed by women tend to be concentrated in some regions of the country, and, differently, ideas developed by youth men are less territorially oriented. This finding suggests that young women could be more sensitive to local stimuli made to entrepreneurship, and that some regions could be more dynamic in raising awareness about the importance of getting involved in entrepreneurial programs. As argued by Csikszentmihalyi (1999), impressive social differences exist across different geographical locations.

The investigation enhances the empirical knowledge base about how civic crowdsourcing platforms could be used to generate ideas for public investment among the young population. As argued by the European Communities (2011), the development of creative ideas is critical for the country, as they enhance the society's capacity to act and the value that can create. As generating ideas is usually just made possible by trial and error and learning by doing (Bernardino *et al.*, 2018), the investment of public entities to enhance idea generation could be quite promising to promote a more vibrant entrepreneurial society. This is particularly important within the younger segments of the population, which are the more creative ones (GEM, 2016b), especially among millennials. The youth participatory budgeting helps to go forward, and to foster a supportive environment for idea generation, as claimed by Sternberg (2012). The program is also enriched by its capability to take advantage from the synergies created among the young citizens (embedded with their creative and their point of view in the resolution of existing problems) and public institutions.

The practical implications that are derived from the chapter's findings are important for public entities to encourage young citizens, especially women, to adopt an entrepreneurial mindset. Further, the investigation highlights the critical importance of invigorating and extending the programs to support entrepreneurship to all regions of the country, especially the inner regions that are particularly under-exploited in female entrepreneurship. Rising awareness about existing support to civic entrepreneurship could also be very promising.

FUTURE RESEARCH DIRECTIONS

Despite the results attained, this investigation suffers from some limitations. Firstly, the study of the ideas generated by young citizens was limited to Portugal and to a specific program. Moreover, the research is limited by the information provided by the Portuguese Institute of Sport and Youth. In the future, it would be worthy to enlarge the investigation to other locations, in order to assess if gender differences are also observed in other countries.

The study has focused on the proposals presented by men or female but not groups. In the future, it could be interesting to investigate joint teams and to study the interactions between youth men and women in the process of generating new ideas.

Further investigations could go ahead and study other variables such as the proponents' personality traits, personal networks or the academic and family background. It would also be interesting to study the social value that each proposal is able to create, as well as the success or failure of the winner proposals. The process of implementation of these proposals would also be worthy of being studied in further research.

CONCLUSION

This investigation aims to study entrepreneurial ideas generated through civic crowdsourcing, specifically through the Youth Participative Budgeting.

This is an innovative program promoted by public entities in Portugal that aim to encourage young citizens to be actively involved in the generation of new ideas and to stimulate their entrepreneurial potential.

Through the analysis of the proposals submitted in the first edition of the program, the chapter intended to understand the characteristics of ideas generated through this crowdsourcing program and to study whether gender is able or not to influence the way opportunities are perceived among young entrepreneurs.

The investigation reveals that a considerable number of young citizens were attracted to participate in the application. The opportunities were usually seized by a single citizen, that submitted the proposal individually, and most of them involved a small budget. Most of the projects have a regional nature, and all the regions of the country were covered by the opportunities available for action. Further, a considerable number of projects were designed for intervention on a national scale.

The study reveals that both genders have participated in the process of idea generation, even though men were slightly more active in the submission of new proposals. Thus, the research shows that the gender gap also remains in civic entrepreneurship, although in a not so markedly way as in economic entrepreneurship. This finding could suggest that (young) men are more likely to be involved in idea generation and could have a more accurate entrepreneurial behaviour than (young) women.

Besides, the authors observe that gender can impact the way opportunities are identified. In fact, the authors observe that there is some gender bias on the location and characteristics of the territories where the project will be implemented. The investigation observe that women are more prone to seize ideas for projects in the North and the Centre of the country, mainly in littoral regions. Reversely, men are more involved in developing projects in the interior zones, especially in the Centre and Alentejo regions. In addition, the ideas generated by young men are somewhat more evenly widespread across the different regions of the country, while opportunities seized by women are territorially more concentrated.

It is worthy of highlighting that besides the location and characteristics of the territory, no other significant differences were found in the characteristics of the projects generated according to gender. Specifically, the geographical scope, budget and the number of proponents involved in the projects are quite similar between men and women young citizens.

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KEY TERMS AND DEFINITIONS

Civic Entrepreneurship: Field of activity dedicated to identifying and exploit opportunities that can create value for society and enhance the common well-being.

Creativity: Ability to think differently and have a different view of how things can be achieved.

Female Entrepreneurship: Entrepreneurial activity that is encompassed by women.

Idea Crowdsourcing: Process of triggering and collecting ideas generated by a large number of people, usually through an open call that made use of information technologies.

Idea Generation: Step in the innovation process that includes the recognition and discovery of new possibilities.

Opportunity Identification: Process that involve actively searching for a set of circumstances that make it possible to pursue a group of actions able to produce value.

Youth Entrepreneurship: Entrepreneurial activity that is encompassed by young people, typically aged between 15 and 24 years old.

Chapter 18

Women's Self-Perception of Opportunities and Challenges for Entrepreneurship

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ABSTRACT

The figure of the woman, in the business context, has been gaining strength and space, being perceptible its rise in the entrepreneurship, over the last decades. However, this space is still predominantly male, making it harder for women to join this environment. With this in view, several researches propose to study the entrepreneurship of women, however, with a lack of feminist perspective. In this sense, this chapter aims to analyze the self-perception of female students of the course of business administration on their possibilities and challenges of acting as entrepreneurs. This research uses interviews with young women students of a course of business administration as a data, under a qualitative approach and analytical treatment. As a result, it was found that, from the interviewees' perspective, women still have their entrepreneurial ascendancy restricted mainly by prejudice and male discrimination still in force, although they believe that little by little this reality has changed.

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INTRODUCTION

The current success of the discourse on the economic fields of entrepreneurship is determined by the trust placed in the entrepreneurial activity as a generator of innovation, creativity, growth and employment (García & Capitán, 2016). Following this logic, Rubion-Banon and Esteban-Lloret (2016) explain that entrepreneurship is considered a source of economic development, innovation and growth. However, this activity is still predominantly male, as Cabrera and Mauricio (2017) reports, despite the significant contribution of women to economic growth and social well-being, and their progress in the field of entrepreneurship over the last decades, participation in the business world is still lower than that of men.

Understanding the role played by social, cultural and economic factors of entrepreneurship is fundamental to understanding how to encourage entrepreneurial culture and behavior (Amentie & Negash, 2015; Rubion-Banon & Esteban-Lloret, 2016). Regarding the decision to undertake a new business, Moreno (2016) shows that this is related to the attitude of human beings, who seek to be innovative and this positively impact their lives and the communities in which they operate. In this way, entrepreneurship is seen as the action of an individual that has specific characteristics, which ends up being considered the sole responsible for success in business (Ferreira & Nogueira, 2013). Thus, according to Henry, Orser, Coleman & Foss (2017) the characteristics of the entrepreneur are faced with some specific challenges, which may indicate the need to generate specific policies as in the case of women entrepreneurs.

In this way, to support the development of entrepreneurship, especially in women entrepreneurship, Pérez-Pérez and Avilés-Hernández (2016) argue that policies that facilitate work and family reconciliation are also necessary, since the unequal responsibilities between men and prevent (or block) their entrepreneurship. According to the authors, research on entrepreneurship from a gender perspective reveals significant differences not only between the levels of participation of men and women in business, but also between the orientations, motives and business opportunities for both. In this perspective, the authors argue that the lack of entrepreneurial culture and social support largely influences female entrepreneurship, with education and training playing a key role.

In addition, Cabrera and Mauricio (2017) report that, together with basic entrepreneurial skills, women's **self-perception** is a relevant factor in this environment. It is perceived, then, that the entrepreneurship of women is in evidence, due to the process of inclusion of gender of the labor market, and occurs from a gradual increase of enterprises organized by women, becoming increasingly important to know importance in the economic scenario. In addition, the reasons women have to be an entrepreneur are relevant in this context, coupled with the particularities of women entrepreneurship (Amorim & Batista, 2012).

For Mesquita, Matos and Rechene (2018, p. 22), there are indications that "the negative self-perception of women in relation to the possibilities of development of their companies, their self-efficacy and their intentions" act as determining factors in gender differences presented in the theme of entrepreneurship for women, presenting as a consequence their reduced participation in entrepreneurial activities. This chapter aims to analyze the self-perception of female business management students about their possibilities and challenges as entrepreneurs.

The chapter presents as results an overview of the entrepreneurship of women with a specific focus on the self-perception of women on entrepreneurship. That is, how these young women, bachelor's degree students in business administration, who will enter the labor market, visualize their future possibilities in the area of entrepreneurship from the empirical results of a field research developed. In addition, the text of the chapter, in line with the proposed objective, addresses the theme of women entrepreneurship at the international level, and how their difficulties and prejudices in this area are addressed in the aca-

demographic literature. Therefore, the chapter will provide contributions to the literature on the subject from an innovative proposal, broadening the horizon of discussion of the theme of women entrepreneurship, establishing perspectives of women from Brazilian contexts.

The Overview of Women Entrepreneurship

Entrepreneurship is, according to Moreno (2016), based on a person's desire and objective to be an agent that promotes development, seeking self-benefit or rewarding improvement of living conditions.

The figure of women, in this context and over the last decades, has been gaining strength and space, and their rise, both economically and socially, over the years has been perceptible (Vale, Serafim & Teodósio, 2011). In the last decades, society has witnessed a substantial increase in the participation of women in the labor market (Mesquita et al., 2018), however, they still face barriers related to discrimination (Pérez-Pérez & Avilés-Hernández, 2016). In these studies women's entrepreneurship was analyzed (Cabrera & Mauricio, 2017), analyzing and comparing the gender difference but "with little or no feminist perspective" (Mesquita et al., 2018, p. 3) from the point of view of the criticism of academic production, and yet there is scarce research that addresses this question.

In some respects, the entrepreneurship of men is similar to that of women (Henry et al., 2017), although, traditionally, the male presence in this area is greater (García & Capitán, 2016). Thus, it is notorious that the entrepreneurship of women exposes certain particularities, as opposed to men (Cabrera & Mauricio, 2017). In this way, Vale, Serafim & Teodósio (2011) suggest a classification between two types of entrepreneurial women, presenting, on the one hand, highly engaged women with advancement in the organizational hierarchy, acting in a more professional and objective way and women starting a productive activity, with an informal bias and, from this unfolding, they undertake, creating their own businesses. According to Amorim and Batista (2012), women tend to have greater participation in the retail trade and in the services sector, this is due to the greater participation of men in other areas (Henry et al., 2017).

On the other hand, the review of the international literature on women entrepreneurs highlighted the segregation of the labor market, age, educational level, work experience and previous influences as determinants of productive activity (Moreno, 2016). As Suárez-Ortega and Gálvez-García (2017) explain, the motives and decisions that drive women entrepreneurship are more associated with the obligation than with the vocation, since the offer of market access opportunities for paid employment is limited. In addition to this, Gouvêa, Silveira & Machado (2013), through the studied women, report that, as a rule, the need to become an entrepreneur can relate to the opportunity itself, where the need can be the motivating factor.

Another important factor in the entrepreneurship of women is the accumulation of activities in their day to day lives that, according to Gouvêa, Silveira and Machado (2013), they have, given the several parallel daily activities - activities typically associated with the female figure, such as care the home and motherhood - to their entrepreneurial function, but also cling more to the details in the process of running their own business. Another point that can be taken into account in the entrepreneurship of women is the opportunity to supplement their income and achieve financial independence (Suárez-Ortega & Gálvez-García, 2017). Although for the authors like García and Capitán (2016) the financial question is not so present in this subject, there are other authors (Pérez-Pérez & Avilés-Hernández, 2016; Suárez-Ortega & Gálvez-García, 2017; Mesquita, Matos & Rechene, 2018) that emphasize the importance of this aspect.

According to Mesquita, Matos and Rechene (2018), the environment and the figure of the entrepreneur are still predominant places of men, because the socio-cultural construction of the masculine gender and of this field encompasses elements that contribute to a strong masculine representation. However, the women studied by Gouvêa, Silveira and Machado (2013), showed positive characteristics to the development of entrepreneurship, where they have creative abilities, business vision, and understand the process of undertaking in its initial stages. On the other hand, it is reported by Navarro and Jiménez (2016) that aspects such as education, age, social class, are considered, for women, as variables that can affect the entrepreneurial action of these people.

Difficulties, Barriers and Prejudices

Henry et al. (2017) report that gender barriers suggest that women entrepreneurs, despite their increasing numbers and contributions, are still not valued and recognized as an integral part of the ecosystem and the entrepreneurial environment. In this way, gender issues can also be considered as social constructions of symbolic space produced by culture. For Moreno (2016), society has created a stereotyped image of women, associating them with delicacy and fostering care, thus hampering their rise to developing stereotype “non-standard” activities. Thus, based on these naturalizations of feminine characteristics, it is shown by Moreno (2016) that the motivations and objectives for women to undertake are different in relation to men, since many seek an increase in income, or come for reasons of need, which differs from men, adding more difficulties to the way negotiations are carried out, as cultural barriers form.

In Pérez-Pérez and Avilés-Hernández (2016, p. 6), the factors that justified the entrepreneurship of women were from several categories, and “not all influence the intention to start the new activity with the same intensity”. Another study related to the entrepreneurship of women was carried out by Navarro and Jiménez (2016), through a review, through an analysis of competencies and the factors that favor the entrepreneurship of women. The authors have shown that relational capital, ideology, education, social class and age are important variables that can stimulate or restrict entrepreneurship among them. These obstacles or factors of motivation can be categorized into four dimensions: social, personal, family and economic.

In relation to the social dimension, the women entrepreneurial network tends to be different from men (Henry et al., 2017). In this way, it can be seen that one of the challenges that women are facing is related to the creation and diversification of networks and connections between different agents involved in the process of being an entrepreneur (Vale, Serafim & Teodósio, 2011). It is easier and safer for a person to start a business, if they already have contacts with the business world (Suárez-Ortega & Gálvez-García, 2017), however, entrepreneurial women receive little support and orientation in matters (García & Capitán, 2016). Moreover, they are still much discriminated in the labor market, restricting their active participation in company affairs, and thus frustrating them (Pérez-Pérez & Avilés-Hernández, 2016).

Regarding the family aspect, according to García and Capitán (2016), family support, although not very recurrent in the discussion about entrepreneurship, is a motivating factor for the insertion of women in this business environment. According to the reports of a woman entrepreneur, presented by Suárez-Ortega and Gálvez-García (2017), being around a supportive family environment motivated her to continue on.

Maternity is another factor that can lead women to the opening of a company, since it allows them to control their routine, providing more flexibility and freedom (Pérez-Pérez & Avilés-Hernández, 2016). However, for García and Capitán (2016), since there is no equality in the distribution of domestic obliga-

tions between men and women - a situation in which women receive greater responsibility - maternity and other domestic matters can be a hindrance to entrepreneurship of women. In this sense, the more men participate and share responsibility for caring for domestic affairs, the easier it would be for them to occupy prominent positions in companies or to succeed in their own (García&Capitán, 2016). In the social dimension, women do not feel prepared to undertake, having a negative self-perception about their self-efficacy (Mesquita et al., 2018). For them, adequate training and training would be needed to develop a "entrepreneurial spirit" (García & Capitán, 2016). Thus, the ideal to promote women's entrepreneurship would be the adoption of policies and actions aimed at women's skills and attitudes (Henry et al., 2017).

For Mesquita et al. (2018), the difficulty in obtaining credit is still a barrier to the reality of entrepreneurial women, and even Cabrera and Mauricio (2017) mention that lack of opportunity and unemployment impel women to entrepreneurship, but the restriction of capital hinders their action. In addition, according to Navarro & Jiménez (2016), in order for women entrepreneurship to occur, there must be financial benefits granted, this can be positively reflected so that these people can start their productive activities of generating wealth with a greater ease and safety. Thus, Navarro and Jiménez (2016), in their study, report that the obtaining of financing by women is described as something difficult to be achieved, hindering even more in the entrepreneurship of women.

Another point that can be approached in this field, from a gender perspective, would be the separation of the places of performance. For women surveyed by Gouvêa, Silveira and Machado (2013), the worlds (public and private) must go together, which demands effort in creativity and flexibility in the daily life of these people. Women still face the issue of accumulation of functions because they perform various activities such as the role of wife, businesswoman, mother, etc. (Gouvêa, Silveira & Machado, 2013).

Some aspects that hinder the entrepreneurial action of women can be related to the market conditions, where it is not restricted only to a class of people, but which encompasses the entrepreneurial environment as a whole, a macroeconomic and social context. Thus, one can cite as an example the tax conditions of countries to which there is entrepreneurial activity, which may present high tax burdens. Added to this is business competition and the difficulty of acquiring specialized labor (Vale, Serafim & Teodósio, 2011).

In addition, another difference is the question of people's involvement in the business environment being understood as rooted in the family tree that, according to Vale, Serafim & Teodósio (2011), families stimulate the male audience differently and with greater emphasis on entry into the business environment, thus making it easier for them to enter the business environment. For the authors this is different in relation to women.

However, based on the research of Ferreira and Nogueira (2013), women seek information or help through people with a stronger bond or close to them, in addition, women enter more in the market where there are people with some social bond with them, like colleagues and friends, who are in their client pack. Thus, Ferreira and Nogueira (2013) affirm that women could count on the assistance of these individuals in their initial period of gaining market space, generating a competitive advantage.

There are those who consider that the differences are subtle and are more related to management style and vision, because space exists for everyone, regardless of gender. This is the position of women entrepreneurs researched by Gouvêa, Silveira and Machado (2013). According to Vale, Serafim and Theodosius (2011), many of the barriers limiting the reach of women's networks could exist because of their lack of initiative, although there are still some barriers that restrict women's ascension today, such as discrimination in certain work environments - and that must be eliminated through collective action.

Thus, the importance of women for the promotion of an entrepreneurial culture that channels the formation of this spirit and helps to highlight and recognize the role of women in entrepreneurship values the action of social agents (groups, organizations and public and private institutions) in promoting and diffusion of women entrepreneurship (García & Capitán, 2016). Thus, the lack of policy for women entrepreneurship is related to the important role women play in this environment (Rubion-Banon & Esteban-Lloret, 2016). In this way, the importance of social support and comprehensive training in the creation of a culture that promotes and makes visible the role of entrepreneurial women is emphasized (García & Capitán, 2016).

METHODOLOGY

Qualitative research is a research approach that seeks to understand subjective world and reality issues, establishing an intimate contact between investigator and investigated (Mesquita & Matos, 2014). Considering the objective of this research, to analyze the self-perception of women students of the course of business administration on their possibilities and challenges of acting as entrepreneurs, an approach with an interpretative character was necessary, allowing greater access to the subjective aspects that are associated with the characteristics sought (Denzin & Lincoln, 2006).

In this research, the data were collected through unstructured interviews during the months of April, May, and June of 2019. This type of interview provides the interviewee with more freedom to construct their response, based on possible interventions during the interview, by the interviewer (Silva, Godoi & Bandeira-de-Mello, 2000). The qualitative interview, according to Bauer and Gaskell (2012), is a data collection technique that uncovers perspectives and points of view on a specific subject. Thus, this method seeks to facilitate a more detailed understanding of people's beliefs, values and attitudes in certain social contexts (Bauer & Gaskell, 2012). The interview script was structured based on theoretical reflections, established *a priori*.

In order to select the interviewees, sociodemographic variables are defined as inclusion criteria for subjects that, for Bauer and Gaskell (2012), are variables of more traditional use, such as: gender, age, schooling, according to the interests of the research work. Specifically, the following variables were used: the gender variable, being considered suitable for the interview the person who identifies with the female gender; schooling, delimiting people enrolled in business administration courses, a group in training that studies entrepreneurship, and depending on the direction of the course may cause greater or lesser motivation and intention to undertake (Rocha & Freitas, 2014); the geographical variable, defined by criteria of convenience and accessibility, with the participants enrolled in the Federal Institute of Piauí – *Campus* Piripiri and are studying the final periods of the course that during the research were the fifth and seventh period of the course.

The criterion for completing the data collection was defined by the theoretical saturation that, according to Minayo (2017), is perceived when the contributions of the various ways of reporting a particular object or situation in the data do not add anything new or nothing very relevant, and this reveals that the study is saturated. Following these guidelines, the study counted on 11 participants, with saturation perceived from the 9th interview. Despite this, the research was continued to guarantee greater validity to the findings. Data collection was carried out from March to May 2019.

To analyze the corpus formed by the transcribed interviews, with an average of 30 minutes duration, the text resulting from these transcriptions was read several times and, during the readings, categorized

in coding units according to the theoretical reflections (Braga, Machado, Moreira, Mesquita, & Matos, 2018). This technique is based on the qualitative analysis of content (Bardin, 2000; Mattos, 2010), whose fragmentation stage of the text into small parts categorized must obey the criteria of homogenization, exhaustion of content, exclusivity, objectivity and pertinence. The results and discussion are presented below.

RESULTS AND DISCUSSION

The categories were defined based on the *corpus* of the interviews, being the following: characteristics of the entrepreneurial woman; support and family; barriers to women's entrepreneurship; and challenges of women entrepreneurs. In the first category were gathered characteristics that women consider important for the opening of a venture, as well as the idiosyncrasies perceived by women about other women entrepreneurs. The second category refers to all types of support cited for the activity of women entrepreneurs, be it financial, institutional or motivational support, including maternity and reconciliation between family, academic life and company. In the third category, the social and cultural constructions that impede the involvement of women in entrepreneurship were discussed, addressing issues such as prejudice, discrimination and stereotypes created over time. The last category is related to the personal obstacles faced by women in thinking about starting a business, asking questions about their dedication to the enterprise and reconciling with other activities of relevance to them.

The results and discussion on each category are presented in the following subsections.

Category 1 - Characteristics of the Entrepreneurial Woman

The women involved in the research reported a number of characteristics that they consider important within the entrepreneurial environment. In general, the interviewees report that the essential characteristics of a successful enterprise can be acquired, in particular, having "holistic vision", "planning", "creativity" and "persuasiveness", since they are the most cited characteristics. As for creativity, one of the interviewees says:

Women are very creative right, and even more so than men, because women are more detailed, but I do not see them exercising that much because they are very stagnant. The staff does not create new ideas, it's always the same (Interviewed 7)

In her perspective, the "detailing" of women is a positive point, although it is not used so often perhaps because women still do not have as much commercial space as men. This limits it to the particular market segment and cannot fully exploit that creativity. However, another interviewee points out that attention to detail can interfere with a woman's activity.

Not the woman! You have all that planning. As I say, for me to open a business today I could, but I think this, "going that does not work", there is a whole planning, not the man, already enters "face". Then the woman will not, she will be planning, most of the time, when she will open her business, it is very difficult not to work, because she already has all this planning, is preparing [...] (Interviewed 8).

It is noticed that the view of young students on entrepreneurial women shows a stereotyped bias of the woman, being sometimes too detailed and thus risk-averse, as well as Suárez-Ortega and Gálvez-García (2017) in terms of behavior entrepreneur, men accept risks more than women.

They detail the issue more risk because there are many women who have the idea, but when they put the risk on paper ... This ends up impacting negatively, because they do not realize this kind of dream, and something that I believe the man has more like that, go there if you risk and do so I think I know more entrepreneurs men than women. The woman is not that she needs to have stability, but it is because I believe she is very thorough, that is, taking a risk is very dangerous (Interviewed 2).

The risk perceived by the interviewee may also be related to the social issue of domestic and maternal responsibilities. As the social perception of the role of the woman corroborates that this is the main active subject in the care of the home and of the children, its motivation to open a company and to have a variable income is diminished, seeking first stability. This observation goes to Garcia and Capitán (2016), and in contrast to the results presented by Pérez-Pérez and Avilés-Hernández (2016), that motherhood would be a motivating factor for the woman to undertake. Support for women in family and institutional settings is addressed in the following subsection.

As to the entrepreneurial characteristics, the interviewees cited differences in the way of management and relationship between a female boss and a male boss.

[...] I think that the time, responsibility and much the human issue of seeing the human side of people do not treat them as objects within the company because I had a very bad experience at the time I worked on that my bosses were dealing with people as objects, "I'm paying you, you're a machine, you have to work, you turn," you understand? So, I think this is a very important feature: you take very into account the employee issue. Perhaps the most important (Interviewed 6).

I think the woman has these two sides, she knows how to be more careful and know to be "strong pulse", since most men only know to be "strong pulse". As there where I worked, the man was just in time to "put pressure," he did not know how to praise people for the good work, since the woman she was always praising when we did a good job, she was always there now the man she is more on the pressure side (Interviewed 7).

I believe that we women have a more holistic view, from the business I believe the woman has more sensitivity in the business, more than men, I believe women she has more of this issue of the presence of holistic vision (Interviewed 10).

In the comparison between men and women, the perception of the characteristics that describe them reveals own conceptions of the interviewees, with the difference of treatments towards the employees as the main aspect considered. Thus, they report that they seek to develop a more human notion of business and pass it on to their employees and to their management mode.

Category 2 - Support and Family

The difficulty in obtaining resources through loans or financing is one of the barriers that makes it difficult for women to enter the entrepreneurial environment (Mesquita et al., 2018). Accordingly, the women interviewed reported the difficulties related to obtaining credit from financial institutions such as banks or microcredit companies, this difficulty in obtaining financial help to start a new business was recurrent among the women interviewed. This difficulty could also be linked to the business proposal presented by them, in which, depending on what would be proposed by these people, this type of support or incentive would be difficult to achieve. They report:

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[...] From financial institutions I'm sure I would not have at that time, because I was starting out and being very young. Usually they ask for a specific time in the labor area, so I certainly would not have (Interviewed 5).

[...] taking a proposal often hits the barrier that the person who is going to release the investment does not like the idea of the proposal and thinks that it is not a viable idea or that it brings a return, so investing today, undertaking is a bit complicated (Interviewed 1).

It is noticeable in the speech of these people that it is not enough to have the idea of an enterprise, it would be necessary to have some extra income, or a fixed job, to facilitate the obtaining of a line of credit. However, some of the answers go beyond the rule and demonstrate that the question of the loan or credit to open a business would be possible, once it is known at the institution, a merit of network, because the respondent who mentions this informs that he had already participated in an internship program within this organization and that this can be a facilitating factor in opening up this line of credit or loan. She says that:

[...] If I were to start a business today and I was going to need credit, I'm pretty sure practically that one of the companies that would open the door [to me] would be Bank X because he works with micro and small businesses and I also already know the institution, I already did internship there, so I know I would have support (Interviewed 4).

The question of the difficulty in obtaining financial incentives can be linked to the social formation of women, since the debate on this subject is still much discussed in contemporary society, since women, throughout their construction as a category, have a strong association with issues family, caring for family members and doing housework (Rubion-Banon& Esteban-Lloret, 2016). In this discussion, many of the interviewed women discuss family relationships, their difficulties and their perception of the relationship with the business environment. In this, what has been repeated is that in some cases the family would be a motivating agent, encouraging woman to pursue their goals or dreams, which demonstrates a change of social paradigm, in which the woman starts to have greater autonomy and support in pursuit of her goals.

[...] my family would help me in the matter of investing to seek some support that she believes that each one has her dream and that she is looking for and just having the beginning foot (Interviewed 1).

[...] I feel that I would have a support, even because my family is one of the ones that most encourage my things and yes I would have support yes (Interviewed 9).

However, it was also presented that there are some cases of families that do not show interest in encouraging or supporting these women in their journey within the entrepreneurship, as it is reported in the speech of some of the interviewees. With this, in one of the lines it is shown that it would be easier to get support from friends or colleagues than from relatives.

On the part of the family, I believe that they would lack some of their confidence to believe me and I could get this support (Interviewed 11).

[...] I think it would be easier to have the support of my colleagues here who have experienced these things with me than with my family because they are kind of “out of the way” (Interviewed 7).

Still within the family context is reported, in the view of Gouvêa, Silveira & Machado (2013), that women face a double work day, in which they divide their attention between family, work and as wife, thus increasing their burden activities to be carried out on a day-to-day basis. The interviewees report this issue, but they point out that, over time, there have been changes in these relationships, in which she describes that the woman starts to have a greater professional engagement with work, besides not wanting to have a large number of children.

[...] the family context changes, today you do not see any more women having “50 children”, they have 3 and “bursting”, when the family is already well ... but really it is 1 child or 2, because no more the mother You have time to dedicate yourself to being a mother. I’ve seen a lot of people say, “Motherhood changes and everything else ... they have a greater concern for their child and everything,” because sometimes the father does not have so much because [of worrying] he knows that his mother is there to help his son, only if he needs it so, to help both. And today no, they will work, children normally now I believe they grow up - our very generation - was “planned”, and after a long time people working saying now: “one of the two can stop to take care of the child, or stay with the nanny, that kind of thing, because the two will not have time, and as you asked me: “you opened a company you would have to leave the family a little bit”, you end up having to leave, if the people look at our parents and grandparents, sees that they were not so present in this context of the family, the child saw the mother more. Now, if you have a child who grew up with a working mother, that child also did not see much of the mother, so he ends up having a distance (Interviewed 4).

In understanding these women, financial support is something that can disrupt when deciding to start a business because it is very important that there is startup capital to start the entrepreneurial activity. Another important point is the family support that many reports have within their family, which can serve as an aid when it comes to opening an enterprise. However, it is not possible to find this type of aid in all the cases presented, which indicates another possible difficulty in the entrepreneurship of women.

Category 3 - Barriers to women entrepreneurship

As for the obstacles that can interfere in the entrepreneurship of women, many interviewees point out social issues that have been constructed in socio-cultural and historical contexts, such as “sexism”, “prejudice” and “discrimination”. The interviewee 1 shows that:

[...] they often say that women are not practical, that women do not know how to handle business, that business is man’s business, that only man who knows how to solve things, that only man can undertake and it is not quite like this (Interviewed 1).

The image of man as dominant in the business environment is corroborated. Historically, it is known that the participation of men is greater than that of women in the context of entrepreneurship and this causes society to establish the relationship between man and entrepreneur, curbing the activity of women in this environment. This argument appears in the interviewee’s report 1:

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[...] they themselves say "the woman is not capable, this is not woman's service", so, there is a lot of this prejudice rooted mainly here in the northeast region in poorer regions that kind the man goes out to work and the woman stays at home taking care of the house and taking care of the children [...] (Interviewed 1).

Another recurring factor that impedes the full entrepreneurial exercise of women is domestic care, which makes it difficult to reconcile family and company. Whereas, domestic responsibility assumption is more recurrent for women, whereas for men it is the obligation to provide for the family by facilitating male participation. Although less mentioned, some interviewees stated that they could organize themselves and be able to reconcile their company with the family aspect. One of the interviewees still reports a greater participation of women in so-called "feminine" sectors:

I see many makeup biju stores growing things that we did not see before, because the makeup was usually avon and natura isn't [...] It's the question is this, it's more feminine side, more makeup, clothes these things, there is nothing innovative yet for the man question as well (Interviewed 9).

With the male presence still predominant in many sectors, the largest share of female entrepreneurs is in markets where there is a greater presence of the female public. Thus, as the greatest difficulty for them is the entry into traditionally male sectors, this "escape" from them to the sectors where there is less male participation, represents an alternative of entrepreneurship, a way to bypass business inaction.

Being this prejudice arising from a social construction, and despite the advancement of women in entrepreneurship, this is still a factor present in their lives, both in the market and in the family environment.

I think it's kind of ...support, you know, because there are some people in my family who like to make carpets and nets, but their husbands do not support them, because they say it's for them to take care of their house, and they always have that machismo (Interviewed 7).

The sexism, even of the own husbands, ends up suppressing the participation of women in entrepreneurial activities. With the masculine predominance in the market, the woman sees obstacles to the business question. However, many interviewees stressed the direction of women in the opposite direction, breaking with social barriers:

[...] I believe that with time this will change, this scenario will change, but now at the moment, even with so much information, even with so much news we realize that nothing changes, you know, there is a drastic change. [...] Because big companies have changed that view of salary, but now, for example, if you have other business support for women, so they start doing it, I do not believe they have it, who knows in the future that will change (Interviewed 5).

And there are many other things that make even women, not only men, diminish women's ability, even women to diminish women, I have seen it (Interviewed 4).

The interviewees' perception of possible changes is positive, and although they agree that this is a slow process, they acknowledge that progress has been made on this issue, and possibly in the future, they see equality between men and women in the market. However, the negative self-perception of some women is one of the main impediments to their entrepreneurship, since this exerts influence to other women, as in a relation of network connection, giving continuity to the paradigm already established by society. Thus, it is interesting that there is a greater range of examples of successful entrepreneurial

women, the more good examples younger entrepreneurs will be inspired. It is perceived that having a model to mirror is a motivating factor for these young women who seek a path in entrepreneurship, as a matter of representativeness.

Category 4 - Challenges of Entrepreneurial Women

Women throughout their history have been barred or decelerated for several reasons, as reported by Henry et al. (2017), women are still not recognized as an integral part of the ecosystem of organizations and these difficulties, for other authors, can be found in both entrepreneurial women and entrepreneurs, where, according to the position of women surveyed by Gouvêa, Silveira and Machado (2013), the entrepreneurial environment exists for all and is not something specific to a genre. Based on this, many of the women participating in this paper report certain difficulties that can be applied day-to-day, but which are not directly related to their gender, however, can be considered as another aggravating factor when deciding to start a business. Thus, it is exposed by some of them the management of their time, with the factor of availability throughout the day understood as something that could prevent their rise in the entrepreneurial environment. However, they also consider it important beyond their time and dedication to gain market knowledge and know who their customers are.

Yes, for example if I was going to start a business at that time, some things, some even college activities, I was leaving behind to dedicate myself to the business (Interviewed 10).

[...] I believe that yes, because besides the business I really like research, and then when you have two points you have to persist in one, and I believe that you could not leave neither one nor the other. So I think this, this variable of researching and trying to make and open a business would hinder me (Interview 2).

[...] for me to open a company I need a dedication I need to know my market, I need to know who my clients are and it takes time, so I would have to dedicate myself to do this endeavor and do it myself would have ... every choice has a waiver for this I would have to give up some things of my life (Interviewed 1).

In the perception of these young women, entrepreneurship requires prior marketing experience, or even a more consolidated study than they are likely to face. Thus, they prefer to continue their studies before starting a business, highlighting the points reported in the first category, where women are perceived as more or even risk-averse. The challenge of reconciling non-business activities with a business is presented by the sixth interviewee:

I think my time for my responsibilities, because as it was mine, I left very aside, did when I had time, then when I stopped many customers complained because they liked the service I provided, and I felt that question of lack of responsibility or even time to touch the business (Interviewed 6).

As perceived by many interviewees, a business activity takes time. Thus, it is difficult for them to reconcile studies and the obligations of an enterprise, especially when they do not have market knowledge, in this case, needing to spend more time to get to know the clients, the segment and plan their activities. Therefore, taking the risk and trying to balance the activities of the enterprise with those of the study can discourage them, even before starting a business, or even - as is the case of the interviewee 6 - to have them give up one to continue the other. Taking this into account, perhaps for the sake of stability, they prefer study to business.

Single women I do not know yet because I do not have very direct contact, the ones I have, think about studying and have a basic job, do not think about having a venture. The ones I know here from the institute maybe, but most of them that are older, for example, they just really think about stabilizing and gaining a little bit more in their employment (Interviewed 5).

Leave that certainty of salary every month, and when opening the business itself “ah that month may not be that much”, in the other month can not cover the bills, have to look for some loan ... something. So, in all this it has to do the planning (Interviewed 8).

Stability is one of the most recurring challenges reported by respondents. Many of them show that they prefer a salaried job to open their own business. This goes against what Vale, Serafim and Theodosius (2011) argue, that lack of initiative on the part of women themselves is also a challenge to be overcome. Being the uncertainty of income when having an enterprise, a factor that discourages the entrepreneurship of women.

CONCLUSION

The figure of women, over time, has been increasingly present in the business and entrepreneurial environment. However, there are still prejudices and discrimination in relation to women entrepreneurs, since the male presence is still dominant in this environment. Difficulties and barriers to the rise of women prevent them from becoming an integral part of the ecosystem and the entrepreneurial environment. Network, ideology, education, social class and age are elements that stimulate or restrict the entrepreneurship of women.

Thinking about this, the present chapter analyzed the self-perception of female business management students about their possibilities and challenges as entrepreneurs. According to the results, prejudice and machismo, still existing in the market, hinders their action, often discouraging them even before they open their businesses. Thus, from the corpus of the interviews were made four categories of analysis: characteristics of the entrepreneurial woman; support and family; barriers to women's entrepreneurship; and challenges of women entrepreneurs.

Category 1 brought together characteristics that women considered important to start a new business, among these characteristics it was possible to find creativity, attention to details, as well as attention to the risks that reveals to us, that women seek to develop ideas that are innovate, besides paying attention to the small details or to the process of planning and executing the idea created.

In category 2, it is allocated and described based on the women interviewed, the support that these people could have from their families, friends, or financial institutions, in this way the women mostly describe that their families would give motivational support in the opening of a possible business, but this aspect was not applied in all situations studied and as to financial support, we were shown that it is possible that there is a financial incentive through loans or even help in this direction promoted by the family itself, however this situation of financial support also does not apply to all women studied.

Category 3 encompasses cultural and social conditions that hinder the rise of women in the business environment. These difficulties are cited as the prejudice rooted in society, gender discrimination, as well as the stereotypes to which the woman is still subjected on the days despite the difficulties, women affirm that there are changes in these aspects, which shows that women are gradually gaining more space within civil society with greater voice power and greater freedom for them to decide to be what they want.

In category 4, personal obstacles are placed, which can make it difficult for women to enter the business environment, among the difficulties can be found the lack of time and the necessary market knowledge, this reveals that women seek to know their target public well as the own business before starting an economic activity, but also reveals that the modern woman has a very high number of daily activities.

In this way, women still have their ascension in the entrepreneurial environment restricted by numerous difficulties that were shown in this work, but above all, they believe that little by little this reality is changing, allowing them to acquire space within the business environment, in addition to seeking inspiration in other cases of entrepreneurial women who have succeeded in their personal and professional lives.

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KEY TERMS AND DEFINITIONS

Gender Barriers: Socially constructed obstacles that obstruct a particular group of people by gender bias. In this case, the difficulties experienced by women entrepreneurs because of their gender. Thus, it is noticeable that even with the rise of women in the business environment, these gender barriers hinder their full development.

Prejudice: Discriminatory act conceived without proper knowledge of a given subject. Employed in this chapter as one of the difficulties of inserting women in the market as entrepreneurs. This is because throughout the history of women a stereotype has been created about these people, so when the woman begins to ascend is created a preconceived concept that women should or should not perform certain activities in society, and this is another barrier to be overcome in women's entrepreneurship.

Women Entrepreneurship: Entrepreneurship practiced by women. The term entrepreneurship has always been linked to the male figure or to a neutral perspective, however, women are gaining ground in this formerly almost strictly male environment. Nevertheless, they still face certain gender barriers that hinder their rise.

Chapter 19

May That Nothing Limit Us, May That Nothing Define Us: The Context of Women Entrepreneurs in Startups

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ABSTRACT

The act of undertaking entrepreneurial activity comprises taking advantage of market opportunities, but this does not occur indiscriminately in relation to the gender of the entrepreneur. This chapter aims to analyze the context of the development of startups from the perspective of the women participation in this scenario. Thus, an overview of the development of startups in an international context and their relationship with the characteristics of entrepreneurship as a theoretical background involving this panorama is presented as results. In addition, specifically in relation to the purpose of the study, the text of the chapter deals with the issue of women in the development of startups, the theoretical discussions about women entrepreneurship, and how the experience of female participation in the development of startups is characterized in the academic literature. The chapter situates Brazilian contextual information but brings it to a broader discussion of entrepreneurship under the gender bias.

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INTRODUCTION

It is in the scenarios of revolution that innovations arise. Population expansion from field-to-city migrations, the Industrial Revolution, the discovery of electricity and oil, the technological revolution with the personal computer and the internet, are some contextual examples of this argumentation. Consequently, these transformations have modified social paradigms, but not only of relationships, because innovations "are not restricted only to the idea of technological capabilities" (Dullius & Schaeffer, 2016, p.37). Maia (2016, p.23) complements that innovation is "a dynamic element of the economy and the entrepreneur is the one who performs it", corroborating Schumpeter (1988) who believes that innovation promotes change, combining resources in a differentiated and original way and promotes economic growth. Innovations are part of the process of creative destruction and the entrepreneur is the one who performs it.

With origins in the medieval era, it was in the context of innovations, especially in the period of accelerated industrialization, that the meaning of entrepreneurship arose (Franco & Gouvêa, 2016). This is characterized as a process that starts from the identification of a business opportunity, accompanied by the development of an idea and evaluation of its feasibility, development of products and services that will be offered, assembly and fundraising and search for clients (Albuquerque & Teixeira, 2016). In this way, entrepreneurship is a complex activity that involves a challenging execution process.

According to Silva, Furtado & Zanini (2015) in the 1990s and 2000s entrepreneurship underwent a process of growth acceleration and increase of proportion in the world context. Several actions justify these events, such as the development of incubators and technology parks, incentives for entrepreneurship at all educational levels, government incentives through programs to support technology and innovation, subsidies for the creation and development of new businesses, and creation of business development agencies and support to entrepreneurship (Silva, Furtado & Zanini, 2015). The authors also point out that at the same time, there is a worldwide interest in the subject, both by national governments and by multinational organizations and entities, since both believe that the economic power of countries depends on future entrepreneurs and the competitiveness of their businesses.

In Brazil, entrepreneurship gained attention in the 1990s, when the internal market was opened for external competition, the economy was also opened and the state privatization process had begun (Bracht & Werlang, 2015). In this way, the country presented itself in favorable circumstances to the development of entrepreneurial activities, given the greater freedom for new entrepreneurs to act. Over the past years and combined with technological development, the scenario of Brazilian enterprises has evolved. According to Costa (2018), Brazil had a rate of entrepreneurship that was among the largest in the world in 2016, made up of 35% of the adult population. In addition, 55% of the population believed in the hypothesis of undertaking entrepreneurial activities in their regions. In 2013, 40 million new entrepreneurs emerged in the country (Cavalheiro, 2015), demonstrating the growth of activities in the national context. From this scenario, where the search for opportunities gains prominence, entrepreneurship transmutes and marks the national and international context, where the conditions for the emergence of startups were born (Carvalho et al., 2018). "Startups are considered to be nascent technology-based companies that have in their disruptive technological innovation the foundations of their competitive strategy" (Dullius & Schaeffer, 2016, p.36).

Maia (2016) argues that startups take ownership of these technological advances to serve the market through innovative practices, taking high risks. These companies appear around the period from 1996 to 2001, with the so-called "internet bubble" in Silicon Valley in the state of California, USA, with companies such as Google, Facebook, eBay, among others based in information technology. The innovative

business model of these companies meant that in a short time they could achieve results close to those of large companies, such as “in December 2014 General Motors, founded in 1908, was valued at 53.2 billion dollars, startup Uber founded in 2009, was valued at 50 billion dollars in May 2015” (Maia, 2016, p. 20).

In Brazil, the startups arise late. In his research, Maia (2016) points out that until the year 2012, the term “Startup” did not add more than a dozen of the mentions made in the newspaper *Folha de São Paulo*, a national printed newspaper of great circulation, in a research timecut between the years of 1995 and 2015, indicating the lack of knowledge of the term until the year 2012 by Brazilians, and what makes the subject new in a context of Brazil.

According to data presented in a mapping of Brazilian startups made by the Brazilian Association of Startups (ABSTARTUPS), in 2017 conducted with 1000 companies, only 15.66% of the startups achieved gender equality within the teams. In the year 2015, according to the Global Entrepreneurship Monitor (GEM, 2017), “85% of startups in Chile were led by men and 15% by women” in which “they were concerned about making programming acceleration equally available to both men and Start-Up Chile launched the S-Plant in 2015 as a pre-acceleration diversity program “(GEM, 2017, p.22). In Brazil, according to reports published in LINKLAB in November 2018, “female entrepreneurship has been growing rapidly. Currently, about 30% of private businesses are run or have a woman as the creator of the project. Despite the promising scenario, women in startups still face challenges”. Carreira et al. (2015, p.7) argue that “entrepreneurship considers those people who generate or seize opportunities in society and, from there, develop an organized economic activity, creating value for themselves and for society.” In this way, the act of undertaking entrepreneurial activity comprises taking advantage of market opportunities, but this does not occur indiscriminately in relation to the gender of the entrepreneur. According to the latest survey of the GEM World Report in 2017, the rate of female entrepreneurship grew by 10% among the 63 economies presented, compared to the previous report.

Given this scenario, where women are still in a smaller number of job positions, which may be due to the various challenges of the entrepreneurial activity, especially with regard to their performance in startups, the following problem arises: how the experience of women entrepreneurs in developing startups is featured in the academic literature? Based on the question, this chapter aims to analyze the context of the development of startups from the perspective of the participation of women in this scenario

Thus, an overview of the development of startups in an international context and their relationship with the characteristics of entrepreneurship as a theoretical background involving this panorama is presented as results. In addition, specifically in relation to the purpose of the study, the text of the chapter deals with the issue of women in the development of startups, the theoretical discussions about women entrepreneurship and how the experience of female participation in the development of startups is characterized in the academic literature. The chapter thus contributes to the literature on the subject from a proposal of synthesis, situating Brazilian contextual information, but bringing it to a broader discussion of entrepreneurship under the gender bias.

ENTREPRENEURSHIP AND STARTUPS

Entrepreneurship is a practice that offers great opportunities for expansion, as well as contributing to society (Garg & Agarwal, 2017). According to Machado et al. (2016) the establishment of new companies entails the possibility of generating social and economic contributions. In the world scenario, entrepre-

neurs provide diverse employment opportunities through micro, small and medium-sized enterprises created in urban and rural areas, making people have their living standards high (Garg & Agarwal, 2017).

According to Tambunan (2007), entrepreneurship, concomitantly with capital and labor, is one of the driving forces for economic growth in countries around the world. In this way, the entrepreneurial activity presents itself as an essential activity for the countries to obtain a strong socioeconomic development, and they are able to maintain adequate standards in this aspect. According to Shane & Venkataraman (2000), the creation and establishment of companies is based on the identification and exploitation of opportunity by various agents, influenced by factors such as culture, availability of resources, public policies (Machado et al., 2016) which vary from the reality of each country.

According to Shane & Venkataraman (2000) business creation occurs due to a number of reasons that differ according to the intentions of each person. Thus, it is important that the study of entrepreneurship focuses on the reasons that lead people to create business, which makes the emergence of academic research in the identification and understanding of these motives. Oliveira et al. (2018), in their study, revealed relevant data on the area of entrepreneurship by carrying out a systematic review of published research on entrepreneurship in the main Brazilian business journals (MBBJ). According to the authors, few articles on the subject have been published in the MBBJ when compared to other areas of research, showing that the area is still little explored. It has also been reported that the level of impact of the MBBJ is low in relation to international journals specialized in entrepreneurship. Scholars suggest that for research in entrepreneurship to gain space in Brazil, it should move towards international publications. In addition, the best articles in the area and those with the greatest influence were written at the initial stage of the research on the subject (Oliveira et al., 2017), revealing the importance of resuming academic performance towards relevant and influential researches today.

In the current context, innovation is important for business (Pinochet et al., 2018), and this relevance was characterized mainly by the emergence of startups. According to Rocha, Olave & Ordonez (2019), startups are companies that focus on innovation and are directed to the use of information technology, in addition to having high commercial potential. According to Blank (2013), startup is a business model that emphasizes service and product innovation embedded in constant risk environments, aiming to establish and consolidate itself as a business with strong growth potential.

In the results of the study conducted by Pinochet et al. (2018) the context of startups in Brazil was revealed through the identification of several difficulties faced by young entrepreneurs in the area. Some of these challenges are: the predominance of entrepreneurship by necessity, lack of working capital to invest in business, and lack of alignment between the professional and personal interests of the founders. When the investment agenda was approached, this was pointed out as one of the main challenges and as the cause of interruption of startup activities, given the great capital needed to start a business of this type, causing companies to seek investors who are willing to take many risks at first, which are termed ‘angel investors’. The factors identified as most relevant to the survival of startups were: acceptance of products, Technologies and/or services, adaptability to the market and harmony between the founders in running the venture.

In the study by Adler et al. (2019), based on the perspectives of economist Joseph Schumpeter (1883-1950), the authors argue that organizations of “Schumpeterian entrepreneurship” occur on two scales: macro geographic and microgeographic. In its results, 170 metropolitan areas worldwide had venture capital investments in high-tech early-stage organizations, with the top five being located in the USA, with an area located in England and China in the top 10.

According to reports by Adler et al. (2019), the cities of New York, London and Paris, which are among the 5 most powerful global capitals in the world, are among the 16 cities that receive the most investment in venture capital for companies. According to the authors, Sweden is a country with a high level of activities in innovation and entrepreneurship, and has received 100 venture capital investments by 2017, distributed among 91 companies, where 57% correspond to software publishers. In the country, 80% of venture capital investments were concentrated in digital industries, with the capital Stockholm and the Malmö-Lundregion accounting for 90% of startup investments.

In the study by Olokundun et al. (2018) in south western Nigeria, a set of data was presented on the extent to which the entrepreneurial experiential teaching methods adopted by the country's universities stimulate entrepreneurial interest and startups. The authors reported that non traditional teaching methods, also called experimental ones, have received considerable attention from educators and universities in entrepreneurship teaching. They also emphasize the importance and necessity of entrepreneurship development by university students and should be considered as an element in which universities should focus their attention, given their effects on entrepreneurial interests and startups by undergraduate students in Nigeria.

In Brazil, specifically in the state of Minas Gerais, Carvalho et al. (2018) studied the profile of entrepreneurs in a startup acceleration program called Startup and Entrepreneurship Ecosystem Development (SEED). Twenty-nine entrepreneurs from the program were interviewed, including Brazilian and people of other nationalities. The predominant sectors identified in the survey were information technology, business software, finance and education. About 86% of the entrepreneurs interviewed were males with a mean age between 25 and 34 years, and 48% had higher level education with predominance in the area of exact sciences.

In the study, motivational factors were also analyzed. The main characteristics of the entrepreneurs that had relevance were: passion for what they do, search for autonomy and a spirit of leadership. The most outstanding experiences in the decision to create a startup were: prior knowledge of the business, skills developed in previous companies and formation of a business partnership with experienced people. The most influential environmental factors in the decision to undertake a startup were: identification of unexplored business niches, pursuit of dedication to a career “dream”, and use of a business opportunity in line with personal and professional interests.

Guimarães, Gonçalves & Vale (2018) carried out a research in Minas Gerais, where the community of startups called San Pedro Valley (SPV) was the study site, where exchanges of knowledge and other resources were analyzed within the community. In analyzing the Community of Practice (COP), which is a set of informal networks where individuals cooperate with each other through their activities (Guimarães, Gonçalves & Vale, 2018), the authors observed that relationships and exchanges between members of COP are the main motivations of the participants of the group, making it a source of inspiration for its members. Scholars have also identified that the exchange of knowledge between startups occurs between companies of different levels of experience and maturity.

The mentioned community managed to realize the economic development of the startups and assumed and maintained an organizational commitment, besides the political and social role in the place. The COP is characterized by being an important channel of exchange of information, with national recognition, where the main elements of its history are shared among its members (Guimarães, Gonçalves & Vale, 2018).

WOMEN ENTREPRENEURSHIP

As already mentioned, entrepreneurship generates great impacts that transform the economy and society. In this context, the social scenario is undergoing sociocultural transformations and, among them, the insertion of women in the corporate market is gaining strength and notoriety (Garg & Agarwal, 2018). Their entrepreneurial activity is moving toward growth and becoming increasingly consistent (Demartini, 2018).

In some countries, the increase in the presence of women in business activities stems from some important aspects, such as India, where social development and progress from industrialization, urbanization, education and entrepreneurship (Kanze et al., 2017). However, this phenomenon remains at an early stage, as firms were historically dominated by male presence in high-ranking positions, while women were engaged in domestic activities (Garg & Agarwal, 2018). It is important to note that they can receive up to 50% less financing capital than men in the world (Coleman & Robb, 2014).

According to Kanze et al. (2017), women-based businesses in the US make up 40 percent of privately held organizations. In India, they have 26,600 units of micro, small and medium-sized enterprises, while in the United States they are responsible for generating 1.5 trillion dollars from 9 million women-led enterprises (Garg & Agarwal, 2018), in addition to employing approximately 7.8 million people (Malaga, Mamonov & Rosenblum, 2018). Thus, they play an important role in the new business landscape, once dominated by men, where they generate jobs and income through their initiatives.

Some factors motivate women to move towards the business landscape. In the research results of Machado et al. (2016), who sought to understand their reasons and difficulties in setting up businesses, the main reasons for starting them were: desire to be financially independent, dissatisfaction with previous work, market opportunities, challenges, dedication to what if it's making, make money, and make lots of money. In some developed and developing economies, such as Greece, Ghana, Japan, Oman and Bahrain, women are motivated to enter entrepreneurial activities when they have a guarantee of capital, initial funds, and the development of work-family balance (Qiu, 2018).

According to Machado et al. (2016), they are faced with a lack of family support, lack of adequate preparation, capital shortages to start businesses, as well as obstacles related to gender, as well as association with a 'fragile sex'. The authors also point out in their results that factors such as lack of confidence in their own capacities, lack of confidence of the people, lack of knowledge of the market in which the company was being implemented and lack of contact with other companies are also part of the difficulties faced by women entrepreneurs.

In the study by Mesquita, Matos & Rechene (2018), they reported that the negative self-perception of the entrepreneurs regarding the perspectives of their business development, their intentions and self-efficacy were pointed out as determining factors in the gender differences presented in the research, revealing one of the difficulties faced by them. Consequently, even in different contexts, whether they are from strong economies or countries of the so-called global south, women entrepreneurs face several challenges that affect their entrepreneurial trajectory.

Obtaining financing and the impacts caused in the enterprises when they manage to capture few resources are challenges that also mark the itinerary of them in the businesses. In the United States, women who were benefited by angel investors financing reached 15.2% of the offers, down from 26.7% of women entrepreneurs seeking such investment (Sohl, 2018). One of the factors that can contribute to this data is the decision-making by investors based on vague perceptions, especially in scenarios

characterized by lack of data, where speech patterns, gestures, attractiveness and gender can be used as elements that serve as in the decision making process (Kanze et al. 2017).

In their studies, Fairlie and Robb (2009) reported that entrepreneurs have lower capital at the onset of entrepreneurial activities than male entrepreneurs, either themselves or with loans. However, in the study by Farhat and Mijid (2018) a comparison was made between men’s and women’s properties, where profitability, financial growth, capital injections and survival rates were analyzed. The results show that there were no differences between organizations in terms of business performance.

According to reports by Kanze et al. (2017) some research chains claim that they create modest businesses with personal funds that can cater to the low growth of “women’s” industries. In this way, the intention would be to satisfy the need to balance the work with the family. However, the authors report that other currents challenge the previous assumptions, but also present unfavorable results on financing for women entrepreneurs.

One of the factors that corroborate the negative results is the discrimination, which appears in the financing scenarios based on personal preferences (Marom, Robb & Sade, 2016), by male investors who prefer to invest in men-led entrepreneurship, particularly in sectors dominated by them such as venture finance (Greenberg & Mollick, 2015) and through perception, which is based on stereotypes where investors view entrepreneurship as a phenomenon in which women have a disability to act and succeed (Balachandra et al., 2013). Thus, the capture of financial resources by the entrepreneurs remains a challenge to be faced so that they can initiate, implement and carry out their activities in an egalitarian way in the world scenario.

In India, the role of women in the country’s economic expansion has become essential, prompting local government to adopt measures to create a favorable environment for the development of micro, small and medium-sized enterprises owned by them, resulting in an index of 10% of the total companies of the size mentioned (Garg & Agarwal, 2017). Government incentives are relevant to overcoming the economic dilemmas experienced by them.

Social aspects are also components of the group of challenges of women entrepreneurs worldwide. Using data from Canada, Egypt, Morocco, Poland, Turkey, South Korea and China, Welsh, Kaciak & Thongpapan (2016) analyzed the relationships between the stages of economic development and the subjective variables that influence the career of women entrepreneurs, being: personal problems, family moral support and instrumental family support. Family moral support consists of actions of emotional assistance or psychological assistance, also called intangible support (Eddleston & Powell, 2012). Instrumental support refers to the actions of ideas for business ideas, advice or help in managing the business (Eddleston & Powell, 2012).

The results obtained in the study demonstrated that in innovation-oriented economies, women entrepreneurs need smaller instrumental family support and perceive a low level of gender discrimination in obtaining financing. However, in countries that are transitioning from the efficiency phase to the innovation-based stages, conditions in the external environment force them to seek instrumental family support (Welsh, Kaciak & Thongpapan, 2016). The authors also report that in countries with low levels in the Global Competitiveness Index (GCI) they are forced to open businesses by necessity. On the other hand, when countries achieve an efficiency and innovation-oriented state, women have the possibility of not being dependent on high-frequency family aid, as government incentive policies tend to improve.

Several studies point out that it is necessary to achieve a balance between work and family, and this is a barrier to the success of entrepreneurs, making it necessary for personal problems not to hit the business

because they generate negative impacts (Welsh, Kaciak & Thongpapan, 2016). In this sense, avoiding such unfavorable impacts can reduce the difficulties on the road to success in the business led by them.

According to Malaga, Mamonov & Rosenblum (2018), in the United States, women generally hold less than men-owned ventures, as well as being concentrated in the health, welfare, wholesale and retail sectors, and educational services. The predominance of performance in the mentioned areas can be hypothesized by Demartini (2018), where the companies led by them are more directed to objectives that have more social impact than the organizations led by men.

According to the results of the research conducted by Qiu (2018), social support for women entrepreneurs is successful in more egalitarian societies, highlighting the relevance of a well-designed, decentralized and consultative social control structure, making it possible to favor the strategic initiative of women entrepreneurs. However, social practices that are characterized by unequal levels of hierarchy and power are unfavorable to spreading good support to them and are detrimental to the evolution of women's entrepreneurship.

In a study conducted in Brazil, specifically in Rio de Janeiro, with 15 women, Hryniewicz & Vianna (2018) sought to identify the barriers faced by them throughout their careers and to understand how they recognize themselves in the leadership position, their main challenges and how they can overcome them for equality. The results revealed that the respondents recognized that women earn less money than men, but they were not aware of their disadvantages, since only one knew concrete cases about the fact. In addition, personal appearance has been highlighted as an issue in which prejudices frequently arise, as in the relationships made between “beautiful woman as woman without intelligence”, where they were seen as people who prefer to use time by taking care of beauty in study or work. It was also reported that they were always encouraged to look good, but men would not suffer so much annoyance if they were careless with aesthetics.

According to Hryniewicz & Vianna (2018), the demands of their family lives have also been presented as barriers in their careers to most of them. Most occupy many hours of their days with domestic activities, especially married women with children. Among them, only one affirmed that they shared homework equally with the spouse. However, they all had maids, although they still managed the household activities on weekends and were responsible for communicating with the maid.

In the studies carried out by Ferreira & Nogueira (2013), with some entrepreneurs in Paraná, southern region in Brazil, the authors sought to identify elements that would allow the knowledge of the subjectivity of entrepreneurs. One of the interviewees was 60 years old and her entrepreneurial career was limited by the social representations regarding the role of women. However, she noted in her work and studies the possibility of transcending her traditional roles, although some activities were denied to women of her day. The entrepreneur initially sought to break the gender barriers imposed on the labor market, starting to carry out door-to-door sales activities, until the need to open a company emerged. Family needs were factors that propelled her on her journey.

Another interviewee by Ferreira & Nogueira (2013), at age 44, became a successful businesswoman, working in professional activities early on and made no mention of possible parental restrictions on her professional actions. However, her father considers the business activity risky, unlike the interviewee, who had the initiative to pursue the desired career, even with a different view of the area in relation to her father. Her company was created from the acceptance of an offer from an investor who considered it appropriate to invest in the business of manufacturing planned kitchens.

From the stories of each entrepreneur's story, Ferreira & Nogueira (2013) stress out the importance of knowing the trajectories of each one of them, so that the reasons why they enter the world in busi-

ness can be identified. Thus, it is also possible to understand their characteristics and perceptions about entrepreneurship, making their difficulties more noticeable in the different contexts in which they place their professional activities.

WOMEN LEADING STARTUPS

Women entrepreneurship is not limited to retail, manufacturing and service companies. This is because women are present in the most diverse segments, including those of technology, scientific production, as well as so-called more technical job (Demartini, 2018). According to data from the GEM, women entrepreneurship has grown in recent years, and they have been entering the startups scenario, as they have sought to navigate new seas, and in this context, they also start investing in this specific type of technology companies that emerged after “Internet bubble”. Just as women entrepreneurship has its own characteristics, the context of women leading startups is no different.

Authors such as Demartini (2018), in his research with startups led by women in Italy; Kanze et al. (2017) in working with the venture community examining the most prestigious startups competition; Qiu (2018) in their assumptions about startup leader characteristics; Malaga, Mamonov & Rosenblum (2018) in a study on gender and funding collection; and Pinochet et al. (2018) in Brazil, in their theoretical model about characteristics present in women who decide to open a startup, bring similar aspects about women startups as: aversion to risk, difficulties in acquiring financing and little experience in management activities.

Women’s leadership in startups has been characterized as risk-averse because women seek scalable growth, that is, women seek to position themselves in a way that feels safe taking into account risk and return (Malaga, Mamonov & Rosenblum, 2018). The culture is based on security, which promotes the low commitment to high risks, which generate greater results. The low profitability associated with high risk avoidance generates low return curves when compared to the male audience (Demartini, 2018). It concentrates the scalable thinking of success, measuring the risks, which interferes in the results, that do not become as attractive as in companies that do the opposite.

But this is not to say that female-led startups show poor results, since, according to Demartini (2018) research, although 12% of startups are led by women in Italy, their results are equated with those led by men. What makes one think about a study of the style of governance adopted within companies. According to Malaga, Mamonov & Rosenblum (2018, p. 7) “in technology startups, only 15.8% had at least one women founder.” The authors also note that although women have low representativeness in areas such as social media; application software; and digital media/new media, its average success rate is above average. Therefore, it can be considered that these companies have only a different way of the concept of being led. For Kanze et al. (2017) the choice for low risks is associated with the need to be able to reconcile work and family.

However, choosing not to take such high risks impacts the search for angel investors financing. In the classification of risk investments, there two main types, the first one is linked to the promotion and in it entrepreneurs follow the thought of achieving high profits avoiding losses, based on hope and achievement. The second type is the prevention, which seeks security, in which the thought is of not having losses, in it seeks responsibility and security. For some investors, the entrepreneurship of women in startups would focus on the second line, while in the first there is a greater male presence. This leads to the thought that women startups are in the game not to lose, as they are more cautious and seek safety,

while men are in the game to win, as they risk much more. In this logic, investors see the entrepreneurship of women in startups as a scenario of “walking on eggs” (Kanze et al., 2017).

In Demartini’s (2018) study in Italy, the author found that although women’s enterprises have fewer resources than men’s, they have more efficient outcomes than men’s. However, they are more indebted because of the need for leverage. With regard to financial performance, they present themselves well in size, profitability and management, not lagging behind those led by men. Kanze et al. (2017) identified a bias based on gender, which perpetuates on investors, which weaken the idea of women startups as to their ability to survive, productivity, ability generate employment and GDP.

The initial phase of these ventures depends on the risk financing of these investors, without such support it becomes difficult for these companies to grow strongly (Kanze et al. 2017), since angel investors are those who “bet on the idea of the startup, but without much guarantee of return, incurring risks” (Pinochet et al., 2018, p. 45). Investment is one of the determining factors for the continuity of a startup due to the need for capital in its initial phase (Pinochet et al. 2018), the disparity found in the funding of women startups occurs in the fact that investors seek entrepreneurship led by men (Kanze, et al. 2017).

For Qiu (2018), it is necessary to invest and support them, as they have boosted the economic growth of countries around the world, generating jobs and promoting development. In the study by Pinochet et al. (2018), 49% of respondents who wished to start startups in Brazil were women. In this way, the stereotyped view of investors has led women to seek other tools for attracting resources, such as crowdfunding, which, due to its variety of practices, allows women entrepreneurs to raise capital.

Crowdfunding emerges as a funding opportunity for women-led startups as it offers a lower funding barrier. Since they require less funding and have more modest growth, this is because they are more risk-averse (Malaga, Mamonov & Rosenblum, 2018). The number of crowdfunding platforms has increased, reducing barriers and promoting fundraising for women startups. However, the data found on these platforms showed that “crowdfunding had limited impact on the democratization of access to capital for women-owned and small-sized startups” (Malaga, Mamonov & Rosenblum, 2018, p.9).

Although they are able to show good results in their companies, women still have to prove to their investors that their startup will be able to promote a safe return to their investors (Kanze et al., 2017) and this is due to the fact that their experience in management activities, as discussed by some authors. Johnson, Stevenson, & Letwin (2018) argue that the man is still seen more experienced as a result of holding higher executive positions than women, directly impacting the funding as well.

Although there is still a stereotyped view of women’s leadership, and they are still seen as inexperienced in the direction of a company, as discussed earlier, Demartini (2018) found in her work that, unlike what is established in social representation stereotyped, women startups have an efficient financial management, liquidity and the incidence of interest expenses on revenue.

CONCLUSION

With the initial interest of answering the question: how the experience of female participation in the development of startups is characterized in the academic literature, this chapter concludes by presenting the main recent debates around the theme. In contrast to what is expected of investments in startups, due to its characteristics that have in the disruptive technological innovation the basis of its competitive strategy, the entrepreneurship of women in these businesses has been affected by the little positive image that one has of them in the market.

Risk aversion, a feature that is antagonistic to the concept of entrepreneurship *per se*, when thinking about financing possibilities implies low credit limits available to women whom intend to start their entrepreneurial activities. Still in relation to the financial support that can be received, this situation has been circumvented by the use of crowdfunding, used with a fundraising strategy. With few resources and a social perception of little experience in business management functions triggered by gender bias-based biases, their results become scalable steadily.

Generally, the challenges faced by people seeking to undertake a new business are: predominance of entrepreneurship by necessity, lack of working capital to invest in business, and lack of alignment between the professional and personal interests of the founders. For women, these problems are accentuated by double routine, by gender discrimination in the search for support and in the difficulty of taking risks. This last barrier is related to responsibility, which they attribute to themselves, of the group they manage, implying caution. As already mentioned, these characteristics provoke fear in investors, as if women were not in the game to win, but not to lose. However, the performance, marker of the results of these activities, has been shown to be superior, with an efficient management, when compared to men-led startups.

It was not the intention of this text to exhaust the subject, but to open possibilities of future studies and continuities. In this sense, the main aspects still scarce in the literature are: a Brazilian national discussion, which can be extended to other countries, on the particularities of women entrepreneurship and their performance in startups, for although recent studies have presented relevant research on the subject, literature is very new and still fragmented; the proposition of models of analysis, that aid in the understanding of the phenomenon; and the critical appreciation of the origins and unfolding of prejudices that imply gender discrimination in the most varied stages of the development and maintenance of startups.

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KEY TERMS AND DEFINITIONS

Entrepreneurship: Process in which a business opportunity is identified, followed by the development of an idea and evaluation of its viability, being materialized through products and services that will depend on fundraising for its assembly and execution, culminating in the search for customers and their loyalty.

Gender: Noun that identifies and socially differentiates men and women, traditionally used as a synonym for sex: male and female.

Startup: Technology-based companies that have the foundations of their competitive strategy in disruptive technological innovation.

Women Entrepreneurship: Entrepreneurial process where women create and lead businesses, transcending the barriers of male hegemony in entrepreneurship.

Chapter 20

Innovative Contribution of Women in Spanish Companies

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ABSTRACT

Official data in Spain show that women's activity rate is increasing, and women's unemployment rate is decreasing during the last years. Nevertheless, both of these indicators continue being higher in men, although this difference is reduced over time because the women's participation in the labour market continues growing. In this chapter, the main objective is to analyse the added value that women bring to organisations. A qualitative study is carried out, based in an in-depth interview conducted for women that work in the Autonomous Community of Madrid (Spain). Results show the women's perception about their added value in the organisations that is mainly manifest in aspects such as commitment, equanimity, work organisation, creativity, collaboration, and empathy (called "velvet management"). Women bring innovation and creativity in an environment of diversity. Nevertheless, there are still some cultural barriers that affect the family and professional life of women that limit their professional career.

INTRODUCTION

In recent years, numerous economic, social, political and technological changes have been taken place, generating a new work-family relationship (Álvarez & Gómez, 2010). One of the main manifestations of this binomial has been the *incorporation of women into the labour market*. The women's incorporation into the labour market is considered, on the one hand, positive, because it enhances their personal and professional development, adds more talent to organisations, and contributes to economic and social well-being due to the active population increases. Families gain more money because a new job and, therefore, due to greater purchasing power, the consumption increases (Álvarez & Gómez, 2010).

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However, on the other hand, there is also a negative aspect, in the sense that women must carry out the double responsibility of work and family (Aguirre & Martínez, 2006).

This fact has awakened a recent interest in research, focusing especially on the role of the women's incorporation in the work-family binomial. This has led to studies that have emerged mainly since 2000's (Ng et al., 2005, Terjesen, 2005, Agut & Martín, 2007, Zabludovsky, 2007, Mateos de Cabo, Gimeno & Escot, 2010, Selva, Sahagún and Pallarès, 2011; Mensi-Klarbach, 2014).

Nowadays, women are still in the minority compared to men in the business and labour framework, due to the numerous obstacles they run into in the development of their professional career, especially in regard to their managerial career (Cachón, 2019).

All of this despite the measures that are being carried out in order to balance the role of women in the workplace, especially at senior management levels. In this sense, the United Nations Organisation (UN) established, in the Fourth World Conference in Beijing held in 1995, a global strategy to promote the gender equality. Equality between women and men is also one of the objectives of the European Union (EU). Within the EU, equality is recognized as a common value, being one of the fundamental principles of community law. The adoption of measures through several actions has been recommended. As example, in 2010, the Women's Charter was approved by the European Commission, underlining the need to consider equality in all its policies, with five areas of actions. One of them is the representation of women in decision making and positions of responsibility.

Some relevant examples are also observed in several countries such as Norway, where since 2003, the quota system has been imposed on the Boards of Directors. By 2011, it had reached 42% of overall participation. France is incorporating the quota system and is the country that has experienced the highest growth, going from 12% to 17% in the number of female directors of listed companies. United States presents very acceptable data of 16% of female participation in management positions, higher than the European average (close to 14%). The Securities and Exchange Commission (SEC) approved a rule in 2010 that requires companies to clarify if the nominating committee considers diversity in the selection of directors, and whether there is a policy in relation to this issue that must be detailed in its implementation and effectiveness. The cases of Finland and Sweden show higher figures of 26% and 27% of the shares of participation of women in positions of responsibility, respectively.

In the case of Spain, the Organic Law 3/2007, for the effective equality of men and women, highlights the balance of the Boards of Directors in the companies that present not abbreviated accounts, limits the conditions in contracts and public subsidies, and sets up the obligation to develop equality plans in organisations with more than 250 employees. The Equality Plan approved in 2007 established monitoring indicators, required that the number of women be published annually on the Boards of Management, and established the necessary measures to implement for promoting gender diversity. Despite this, Spanish companies still fail in initiatives linked to the creation of infrastructures that allow a balance between work and private life. On average, 37% of Spanish companies have six initiatives or more, compared to 55% of the rest of Europe.

The Spanish Government also promotes educational programs to promote gender equality such as training teachers and reviewing textbooks to ensure a gender-neutral vision. The European Parliament has recognized the progress made in Spain, which has moved from a trailing situation to a leading country. However, official incentives can still improve significantly. Public expenditure in the area of family benefits is 1.5% of GDP in Spain, well below the OECD average of 2.3%, and even further from the 3.6% of Sweden and 4.3% of Great Britain.

Taking into account these considerations, the main objective of this research is to analyse the added value, in terms of innovation, that women bring to companies. The contribution of women to the development and innovation in the company coincides in time with the rise of the large company. The percentage of women graduating from higher education in 2010 was 60%, and with post-graduate qualifications, 56%, outstripping men by 3:2 and 5:4 respectively (PwC, 2012).

The study is both interesting and relevant on a number of levels: a) Sociological. The contribution of women to the Society as an active component thereof is an ever-present phenomenon; b) Economical. The contribution of women to the added value to the company and to national GDP in the broader context; c) Organisational. The contribution of women through a particular work style (*velvet* management) compared to that traditionally established by men and in which diversity opens channels to innovation, especially in terms of organisation.

In order to address this general objective, firstly, in the next section, the theoretical framework that will be applied to the study is presented; in this sense, an exhaustive review of the relevant bibliography is made: the researchers are not, hitherto, aware of any studies that deal with the specific aspect of the innovative contribution of women in the companies in Spain. Then, the aspect of women's insertion into the Spanish labour market is analysed. As methodology, an in-depth interview was conducted for women with management responsibility in companies of different sizes and sectors. The study was applied in the Madrid Region as a framework for later developing it in other regions in Spain. This interview was distributed in different sections by areas of activity, making special mention of the added value and innovative contributions in terms of organisational approach, decision making and cooperation in the working environment of the organisation. The authors consider that this methodology is also a novel contribution in this issue. The results are later presented in such a way as to allow conclusions to be drawn, especially with reference to the objectives proposed in this chapter.

The authors understand that the conclusions reached in this document can serve, firstly, as a basis for developing a plan to eliminate barriers to women's access and "glass ceilings" and, secondly, as a compendium of valid arguments in order to serve as an enabler of the innovative role that women can develop in the field of the company in Spain.

BACKGROUND

There are numerous studies that analyse the relationship between women's participation in the labour market and the factors that influence this decision.

Martínez (2001), in Spain, estimates a work life model for married women. Two main results were obtained: first, the elasticity of the labour supply with respect to wages is positive, significant and varies with the personal characteristics of the woman; second, the elasticity of labour supply with respect to other household incomes tends to be negative and increase with age. It concluded that the variables that have a greater influence when making the decision to participate in the labour market are age, educational level, wealth, child care, and marital status.

Ferrada and Zarzosa (2010) found that only the educational level variable has a positive influence on female labour participation in Chilean regions. Likewise, in González, Prieto and Pérez (1999), female labour participation between the community of Castilla-León and Spain is compared. The study concluded that women with higher education have a higher probability of participating in the labour market, while married women with children have a lower probability. Age and educational level are also

found to be determinants of participation in the labour market in the studies of Sanz (1997) and Arrazola, Hevia and Sanz (1999). According to the perspective of the theory of human capital, the level of studies improves the salary and employment expectations and, in addition, it makes the inactivity of women more expensive via opportunity cost. Therefore, education increases, inescapably, female participation in the labour market. In addition to education, other factors such as the lack of real conciliation of men and women in unpaid work, or the increase of single-parent families supervised by women are factors that also determine the participation of women in the labour market (De Pablos, 2004).

There are also numerous studies that address the issue of the professional career of women from a social and psychological point of view. Most of the studies focus on the inequality between the professional career of women and men (Ramos, Barberá, & Sarrió, 2003; Ackah & Heaton, 2003), as well as establish the barriers that women must face throughout their professional career (Doubell & Struwig, 201; Anca & Aragón, 2007). The origin of these studies is found in the concept called “glass ceiling” (Burke & Mackeen, 1992; Powell, 1999). Díez, Terrón and Anguita (2009) explain that the “glass ceiling” serves to justify the scarce managerial positioning of women in organisations due to the existence of invisible obstacles that limit their access. Bendl and Schmidt (2010) indicate that it is not only the glass ceiling that limits women but the entire organisational structure. Eagly and Carli (2007) change the term “glass ceiling” with “labyrinth”. With this concept, the difficulties faced by women are highlighted. More than a glass ceiling, the authors talk about a labyrinth whose obstacles are multiple and they are not always invisible to them. Among the barriers faced by women throughout their professional careers, in Cachón (2019) the following classifications are determined:

- i) External and internal barriers (Anca & Aragón, 2007; Agut & Martín, 2007 ; Ariza-Montes, Casademunt, & Morales-Gutiérrez, 2013; Moncayo & Zuluaga, 2015);
- ii) Personal and professional barriers (Ng *et al.*, 2005);
- iii) Social or cultural and organisational barriers (Oakley, 2000; Mensi-Klarbach, 2014);
- iv) Internal, external, personal and cultural barriers (Doubell & Struwing, 2014).

Thus, in the literature a different terminology is identified for each type of barrier. On the one hand, a distinction is made between internal and external barriers. Internal barriers are those that refer to internal psychological characteristics and fears such as lack of self-esteem or fear of success (Oplatka, 2006, Díez *et al.*, 2009). External barriers are constituted by external factors to the person and related to the social or organisational nature (Agut & Martín, 2007; Moncayo & Zuluaga, 2015). Other authors differentiate between cultural or behavioral and organisational barriers (Oakley, 2000; Mensi-Klarbach, 2014); barriers related to sociodemographic factors, human capital, organisational, relationship, and motivation (Nyberg *et al.*, 2015); or barriers based on personal, cultural factors, and external and internal support (Doubell & Struwing, 2014).

Finally, there are also studies that highlight the need of the presence of women in the organisation due to their repercussion on the organisation itself and business results, as well as the labour potential that women can assume. These studies reveal that women not only have capacity, but also do not differ from men in terms of work motivation (Barnett, 2004).

In this sense, the Pricewaterhouse Coopers report (PwC, 2012) analysed the impact of gender diversity in working teams. The report determines that this diversity fosters positive synergies in the organisations in which it is implemented, because the working teams are better prepared for analysis and decision making. Women bring a style of action that has aspects as valued as: empathy, team management, risk

analysis, flexibility, organisation, planning, people management, active listening, consensus, communication, detailed analysis, social network management, intuition or commitment (aspect that it is brought as a novelty, following our study). However, there are auto barriers that limit the full development of this style of management. Some of them are:

- a) Women do not usually make the results of their work visible, in many cases because they do not dare to transmit their expectations of growth in their professional career;
- b) Women have less visibility, demand less than men and focus more on the development of work than on personal relationships in the professional field;
- c) Sometimes women think that if they accept some measure of conciliation, their managerial career could be slowed down, although achieving balance is more the combination of several management skills such as planning, prioritization, delegation of functions, the vision of the business, etc.; and,
- d) Women are less willing to accept professional changes that imply changes of residence.

The study of McKinsey & Company (2007) in 280 companies showed that the organisations that maintain greater female representation at the executive levels show a financial performance in terms of ROE of 7% higher than that of organisations that do not keep women in their executive committees. The report of McKinsey Global Institute (2015) presents the economic benefits that result from developing gender diversity in companies. It is determined that if Spain manages to reach the levels of incorporation of women in the most advanced countries of Western Europe, it would obtain an additional 110 billion euros (8%) in terms of GDP by 2025. In a more recent report from McKinsey & Company (2017) analyses some aspects of our study objective and presents a relevant fact: the impact on Spanish GDP of the incorporation of women in the labour market in the 90s is estimated at 18%. This statement offers a numerical assessment of the economic contribution of women in society. Additionally, the positive correlation that exists between the economic and organisational impact on the Spanish company is highlighted. In this sense, when at least three women hold leadership positions on Boards of Directors, it improves the work environment and the development of values. However, the so-called “leaky pipelines” are evident, since in the trajectory of the professional career of women, only about 10% of them achieve positions of senior management, when close to 60% of the university population are women.

Under these perspectives of analysis, in this study, the added value that, in terms of innovation, women contribute to companies is analysed, something that, to the best of the authors’ knowledge, has not been previously studied.

WOMEN’S INSERTION INTO THE LABOUR MARKET IN SPAIN

According to the Women’s Labour Market Report (Ministry of Employment and Social Security, 2018, the population in Spain grew in 2017 thanks to the increase in the number of women, reaching 50.97% of the total population. The greatest increase occurs in women older than 45 years, due to the greater longevity of this group (Table 1).

The position of women in the Spanish labour market has evolved gradually and unevenly over the last years (Cebrián and Moreno, 2008). Various social, economic and political factors that have affected the Spanish economy have determined the incorporation of women into the labour market. In 2017, the female active population (women over 16 years of age and available to enter in the labour market) regis-

Table 1. Female population by age

Age	Women	Rate women	% variat. 2017/16
<16 years old	3,605,408	48.62	-0.36
16-24 years old	1,979,334	48.79	0.15
25-45 years old	6,959,195	49.46	-1.81
>45 years old	11,195,334	53.24	1.49
Total	23,739,271	50.97	0.11

Source: Observatory of SEPE based on NSI data. Municipal census: January 1st, 2017.

tered a slight inter annual increase for the first time since 2012, reaching 46.59%, the highest percentage of the decade. The activity rate, however, remains eleven points lower than that of men. In the last ten years the evolution of the number of active women has been very conditioned by the economy. During the 2008-2012, as a consequence of the crisis, 565,000 women were incorporated into the Spanish active population. However, in the following period (2012-2016), coinciding with the economic recovery, the number of active women decreased by 107,000 (Ministry of Employment and Social Security, 2018).

The incorporation of women into the labour market is manifested from 1984 and, especially, from 1986 with the inclusion of Spain in the European Union (EU). During the period from 1991 to 1994, as a consequence of the global economic crisis, there was a destruction of employment that affected mainly the male population. However, during this period, the female activity rate increased (Cebrián & Moreno, 2008). From 1994 to 2007, a stage of great economic growth began that brought with it an increase in female employment. An important event at this time was the Constitutional Organic Law 3/2007, which favored the effective equality of men and women. As of 2008, however, due to the economic-financial crisis, a period of job destruction begins. Jobs also become more precarious; wages are reduced and turnover increases, and these events being more damaging for women than for men (Millán, Santo, & Pérez, 2015). It is already from 2014 (and after from the labour reform started in 2012) when the Spanish economy seems to recover with a growth in the employment rate of women and men. Currently, the number of women workers is still lower than that of men.

The Report on Women and Men in Spain (Woman Institute, 2018) provides data (latest data as of May 28, 2018) showing the difference between men and women in Spain with respect to the employment rate, according to age, number of children, educational level, type of occupational and professional situation, type of contract, and family conciliation. These aspects are analysed below with special reference to the period 2012-2017.

Rate of Employment and Age

In the period 2012-2017, with data from the Active Population Survey, elaborated by the National Statistical Institute (NSI), the Spanish employment rate increased by 4% in men over 16 years of age, and by 2.6% in women. When analyzing the employment rate evolution by age groups, the highest increase occurred for men in the age group of 25 to 54 years (7.9%) and for women in the age group of 55 to 64 years (7.6%). The employment rate of women is lower than men of all ages in this period of time.

In 2012, the gender gap (difference in percentage points between the men's employment rate and the women's employment rate) reached a value of 10.1%. In the 2012-2017 period, it increased by 1.4 percentage points, reaching a value of 11.5% in 2017. By age group, the greatest decrease in the value of

Table 2. Employment rate and gender gap by age groups (%)

Years	2012	2013	2014	2015	2016	2017
Men						
>16 years old	50.6	49.4	50.3	52.1	53.3	54.6
16-24 years old	20.4	19.1	19.3	20.9	21.8	23.8
25-54 years old	71.3	70.4	72.5	75.1	77.4	79.2
55-64 years old	52.1	50.5	51.2	54.0	55.7	57.8
Women						
>16 years old	40.5	39.6	40.0	41.1	42.2	43.1
16-24 years old	20.1	18.0	17.7	19.2	19.2	22.0
25-54 years old	62.0	61.2	62.3	63.7	65.6	67.1
55-64 years old	36.0	36.3	37.8	40.2	42.8	43.6
Gender gap (men-women)						
>16 years old	10.1	9.8	10.3	11.0	11.2	11.5
16-24 years old	0.4	1.2	1.6	1.7	2.6	1.7
25-54 years old	9.3	9.3	10.2	11.4	11.8	12.1
55-64 years old	16.1	14.2	13.4	13.8	12.9	14.2

Source: Active population survey (NSI)

the gender gap in the 2012-2017 period occurred in the group from 55 to 64 years old (1.9% decrease) (Table 2).

Rate of Employment and Number of Children

In 2017, as it is shown in Table 3, the employment rate of men aged 25 to 49 years without children was 83%; in the case of having children under 12 years, the employment rate was higher (88%). The highest value in men is reached with one or two children under 12 years old (88.4%). In the period 2012-2017 an increase in the employment rate is observed, which is higher in the case of men with children (increase of 9.1 points).

In the case of women, the employment rate among women aged 25 to 49 years without children in 2017 was 72.4%. Conversely to men, as the number of children younger than 12 years increases, the

Table 3. Rate of employment of people from 25 to 49 years of age without children/with children under 12 years of age (%)

Years	2012	2013	2014	2015	2016	2017
Men						
Childless	74.8	74.4	76.8	79.0	81.2	83.0
With children	78.9	78.9	80.9	84.3	86.3	88.0
1 child	78.4	78.3	81.0	84.5	86.4	88.4
2 children	80.6	80.6	81.7	85.3	87.6	88.4
3 or more children	72.3	72.8	74.6	75.5	78.0	81.7
Women						
Childless	67.6	66.9	67.8	69.0	71.6	72.4
With children	59.9	59.5	61.1	62.8	64.8	66.6
1 child	62.2	61.2	62.4	64.9	67.7	68.6
2 children	57.5	58.2	61.4	62.2	62.3	66.0
3 or more children	47.0	47.0	44.2	43.8	49.0	50.3

Source: Active Population Survey (NSI)

employment rate decreases to 50.3% in the case of having three or more children. However, in the period 2012-2017 there is an increase in the employment rate, higher in the case of women with children (increase of 6.7 points), although lower than that of men. In the case of men with three or more children, the increase in the period (9.4 points) was considerably higher than that of women with three or more children (3.3 points).

Rate of Employment and Educational Level

In relation to levels of education and data of Spain, EU27 and UE28, in the period 2012-2017 (Table 4), the rate of employment of men in all educational levels increased, but to a greater extent in the corresponding to pre-school, primary and secondary education of 1st stage educational level (0-2) with an increase of 8.2% than in secondary education 2nd stage educational level (3-4) (increase of 4.7%). The increase was lower in the level (5-8) corresponding to the first and second cycle of higher education and PhD (increase of 4.6%).

In the same period, the employment rate of women increased at all educational levels, but to a greater extent at the highest level of education (5-8) and lowest in the first level of education (0-2). In level (3-4) the employment rate of women increased by 1.9%, lower than the employment rate of men.

On the other hand, the gender gap in the employment rate of the level (0-2) increased by 4.2%, reaching a value of 19.4% in 2017. The gender gap in the level of education (3-4) increased by 2.8%, reaching a value of 12% in the year 2017. Finally, the increase in the gender gap at the level (5-8) corresponding to higher education, although still positive, was lower, of 1.2%.

In general, in recent years, differences in the levels of education of men and women have been considerably reduced, and women have nowadays higher levels of education than men.

Table 4. Employment rates by level of education and period. Spain, EU27 and UE28 (from 20 to 64 years old)

Years	2012	2013	2014	2015	2016	2017
Men						
Total	64.6	63.4	65.0	67.6	69.6	71.5
Level (0-2)	55.5	54.1	55.6	59.0	61.6	63.7
Level (3-4)	64.7	63.0	64.2	66.4	68.1	69.4
Level (5-8)	78.7	77.7	79.0	80.5	81.6	83.3
Women						
Total	54.6	53.8	54.8	56.4	58.1	59.6
Level (0-2)	40.3	39.4	40.0	41.2	42.8	44.3
Level (3-4)	55.5	53.7	53.9	55.1	56.4	57.4
Level (5-8)	72.1	71.0	72.1	73.4	74.8	76.1
Gender gap (men-women)						
Total	10.0	9.6	10.2	11.2	11.5	11.9
Level (0-2)	15.2	14.7	15.6	17.8	18.8	19.4
Level (3-4)	9.2	9.3	10.3	11.3	11.7	12.0
Level (5-8)	6.6	6.7	6.9	7.1	6.8	7.2

Source: European Labour Force Survey (ELFS). Eurostat.

Employment by Sectors, Professional Situation, and Type of Job

In recent years, therefore, there has been an increase in the participation of women in the labour market. However, another characteristic of this market is the concentration of men and women in different economic sectors and occupations, as well as different working conditions due to gender. This is determined by various conditioning factors, both on the side of demand and labour supply, as well as factors external to the labour market (social, cultural). By economic sectors, in 2017, almost nine out of ten women worked in the service sector (83.57%). It is the only sector where employed women have a greater representation than men. Industry (7.26%) and agriculture (8.08%) are far behind, with the construction sector where women have the lowest representation (1.08%) (Ministry of Employment and Social Security, 2018).

Despite the fact that women currently have higher levels of education than men, there is still a discrepancy between the level of education attained by women and their professional situations and job positions. There are gaps in salaries, responsible positions, the distribution of family burdens, children, etc.

According to the NSI (Table 5), in 2017, the highest percentage of employed women corresponded to salaried women, of which 68.1% corresponds to employees of the private sector. 12.2% were self-employed, of which 8.2% were entrepreneurs without employees or independent workers; 3.4% were employers; 0.5% were family businesses; and 0.1% were members of a cooperative.

Table 5. Employed by professional situation (%). 2017

	Men	Women
Self-employed	20.1	12.2
Employer	6.5	3.4
Entrepreneur without employees or independent	13.0	8.2
Member of a cooperative	0.2	0.1
Family business	0.4	0.5
Employees: Total	79.9	87.8
Employees: public sector	13.1	19.6
Employees: private sector	68.8	68.1

Source: Active Population Survey (NSI)

Table 6. Employed by type of job (%). 2017

	Men	Women
Employee (with heads and without subordinates)	63.6	76.1
Manager, head of workshop or office, foreman or similar	7.6	5.1
Middle manager	7.4	6.1
Director of small company, department or branch	8.1	4.5
Director of a large or medium company	1.0	0.3
Self-employed (without heads or subordinates)	12.0	7.7

Source: Working conditions. (Active Population Survey, NSI)

Regarding the type of job, in 2017, 7.7% were self-employed (without heads or subordinates), and 76.1% were employed (with heads and without subordinates). 6.1% were middle managers; 5.1% managers, heads of workshop or office or similar; 4.5% small company directors, departments or branches; and only 0.3% were in management positions in large or small companies. Except in the case of employed women (with heads and without subordinates) the percentages of women are lower than men, especially in the case of management positions (Table 6).

Part-time Workers with a Temporary Contract

In the period 2012-2017, the participation of men part-time employed over total men employment increased by 0.7%, and by 0.3% in the case of women. It is higher, however, the percentage of women working part time in relation to the total employment, with a gap of 7.3% in 2017 (Table 7).

By age groups, the highest percentages of men part-time employed correspond to the youngest ones from 16 to 19 years old. In women, the percentages are significantly higher than men at all ages. In 2017, in women between 25 and 44 years old the percentage stays around 25%, and from 45 years old up to 64 this percentage decreases slightly (NSI).

Therefore, in Spain the activity rate of working women is increasing and their unemployment rate is decreasing (except during the economic crisis). Employment rates are lower in women with children and it is reduced, also, when the number of children increases compared to men. A high percentage of women between the ages of 25 and 49 with children leave work to take care of their family while the woman without children continues her professional career. Both the employment rate and the activity rate continue to be higher in men, although this difference is reduced over time because the introduction of women into the labour market continues growing. Women show an increase in the employment rate at a higher educational level. The gender gap has also been reduced in higher education levels. The type of contract by which the woman predominates over the man is the part-time contract. Likewise, there are differences according to economic sectors and occupations. The sectors of activity in which women are located are eminently from the tertiary sector (commerce, health, education and hospitality). Finally, another noteworthy fact is that women have less representation in management positions compared to men.

Table 7. Percentage of part-time workers in total employment

Years	2012	2013	2014	2015	2016	2017
Men						
% with respect to the total employment of same-sex personnel	6.6	7.8	7.8	7.9	7.8	7.3
% with respect to total employment	3.6	4.3	4.2	4.3	4.2	4.0
Women						
% with respect to the total employment of same-sex personnel	23.9	25.3	25.6	26.2	24.1	24.2
% with respect to total employment	10.9	11.5	11.7	11.4	11.0	11.0

Source: Active Population Survey (NSI)

METHODOLOGY

The theoretical framework analysed will be applied to a study that shows the innovative role and the contribution of women in the companies. A qualitative study is carried out, where the main instrument for gathering information is an in-depth interview conducted for women that work in companies in the Autonomous Community of Madrid (Spain). This research strategy is justified for two reasons: first, because alternative information is not available in the target population; second, because the need to collect data that may encompass the complexity of the phenomenon that surrounds women in companies (Pizarro and Guerra, 2010).

To prepare the in-depth interview the authors make special mention of the innovative contributions in terms of organisational approach, third party negotiation, decision making and cooperation in the work environment of the organisation. There are also considered the barriers to access to certain professional careers and the *glass ceiling* barriers maintained over time, which make the woman still disadvantaged as against men, as men reach these positions more readily than women merely because they are men. It is intend to analyse, as two of the most important barriers to access: to get harmonisation and the work-family balance, both of which have been limiting factors to the access of women to certain areas of the productive sectors. This constitutes a limitation for society in two directions: firstly, a restriction on the investment returns in the training of women; secondly, the opportunity cost of their contribution in other areas, such as the way of performing certain tasks. The next step, then, is to prepare a list of barriers that restrict the incorporation of women to the areas of innovation in the company, and a catalogue of differential aspects of the feminine management style to the organisation (*velvet management*). It is also be aware that the effective exclusion of women from the most senior levels of the workplace has driven them to be the architects of their own innovative enterprises, often as sole traders, especially in business sectors where their communication skills represent a major differential factor: Retail, Home selling, Telephony etc. The analysis of these two aspects points to the importance of drawing women into the organisation in general, and in all productive areas. This aspect could release their intrinsic skills and qualities for innovation, as well as grow their influence relative to their male counterparts, balancing their rather more traditional view of business and its management.

A social and economic sense of this scenario will build from the answers, being able to make an inference about the studied target group. The in-depth interview is elaborated within a semi-structured framework, where some questions were previously defined; direct and non-directive phases were alternating during the process, allowing the inclusion of new questions that arise from the answers of the interviewee.

The interview is structured around 5 blocks of questions. First, interviewees were asked about their *personal and family situation* (age, marital status, number of children, family dependents, level of studies, work situation, distribution of domestic tasks; care of children, and help for domestic chores). These variables represent the objective conditions in which the woman finds herself, and allow knowing the moment in which the women take the decision to assume a greater responsibility, the academic conditions that facilitate this fact, and the family demands to which they are subject.

The second block of questions was oriented towards the *current professional situation of the interviewee* (sector/activity of the organisation, functional position, type of organisation: startup, NGO, multinational, etc.), age of the company, years of experience in the current position, age at which the current position was accessed, job changes, area of knowledge and training, use of their knowledge and training in the current job, number of employees in charge, distribution between sexes). It was inquired

about the situation and career, type of organisation, and seniority in the current position, all characteristics of which show the degree of preparation with which the woman comes to the job and the objectives pursued in the process.

In the third block, interviewees were asked about their *perceptions and opinions about their professional and organisational environment* (professional relationship with people abroad; regular performance evaluation; opinion about the working environment; professional opinions in strategic decisions; open opinion of their teams; valid opinions in the decisions; diversity in the teams: sex, nationality, special areas of expertise, etc).

Next, the fourth block of questions was about the *style of management* developed being questioned that examine more deeply the opinion or personal perception of the person interviewed. Internal and personal factors are also sought in the way they perform their current activity, and aspects that are perceived as distinctive in this performance.

Finally, in the last block, *generic questions of opinion* were raised about the added value generated by gender diversity in the teams. The following questions were posed: Do you consider that the contributions made by women are more positive and generate innovation?; In what areas? In what aspects?; What have been your most outstanding professional achievements?; Do you consider yourself an innovative professional?; Are companies with more diversity more innovative?; Those innovative ideas translate into turnover?; Have you had the use of a mentor in your professional career?; What profile did this mentor have?; Do you consider that being a woman has penalised or not your professional career? In what sense?; In what professional aspects do you consider that a woman can contribute more added value to a man?; Why do you think that if 60% of graduates are women and they represent 45% of the workforce, only 15% of the managers are women?; Women of middle or higher level, are in the organisation by internal promotion or external contracting; Are you hired, trained and promoted in your company taking into account diversity as a strategic objective?; What factors affect the situation of women in your company: personal, family, your own organisation or social?

In total, 14 women were interviewed. Based on the diversity of responses, on the one hand, it is possible to establish the scenario in which women operate in different organisations, how they reconcile the different roles to which they are confronted in the current world, and what are the main contributions of women in organisations. Table 8 shows the main characteristics of the sample.

Although the sample is significantly representative, a limitation that the authors consider to use this methodology is to run the risk of generalising certain aspects. However, the richness provided by the qualitative information provides a basis and a first approximation to future studies that may involve another type of methodology.

RESULTS

In this section, the results of the interviews are shown. In the different subsections we analyse the answers to the questions posed.

Personal and Family Situation

Firstly, with regard to age, 14% of the interviewed women are less than 40 years old, 36% are between 40 and 50 years old, 43% are more than 50 years old, and 7% did not answer this question. All of them

Table 8. Characteristics of the sample

Interviewee	Age	Educational level	Position in the organisation	Type of organisation	Size
Woman 1	NC	High education	Technical	Public organisation	Large
Woman 2	47	High education	CEO	NGO	Large
Woman 3	63	High education	Financial director	Multinational	SME
Woman 4	43	High education	Executive director	Family business	Large
Woman 5	48	High education	Logistics	Multinational	Large
Woman 6	62	High education	Human resources director	Spanish company	Large
Woman 7	65	High education	Administrative	Family business	Large
Woman 8	28	High education	CEO	Family business	SME
Woman 9	52	High education	Human resources director	Multinational company	Large
Woman 10	48	High education	Financial director	Family business	SME
Woman 11	64	High education	Senior inspector civil servant	Public organisation	Large
Woman 12	49	High education	Financial director	Multinational company	Large
Woman 13	32	High education	Lawyer	Spanish company	Large
Woman 14	64	High education	CEO	Multinational company	Large

Notes: Large (>200 workers); SME (small and medium enterprise: less than 200 workers)

have high education levels. 65% of the women live without a couple (men in all cases), and 70% do not have dependent children. According to the distribution of family responsibilities, single women have to assume 100% of them, and 78% of women with couple indicate that more than 75% of family responsibility lies with for her. In these cases, 56% of the women's couples have high education level, and 55% of them are self-employed. Only one of the interviewees has help for the care of the children, and those that have external help for housework is 72%.

Only one of the women would leave his professional career for the care of her children and the house. It is interesting to highlight that 50% of women are not defined in this issue. 40% of women indicate that they would not leave their professional career.

Current Professional Situation

The predominant sector where women work is the service sector (86%) followed by industry (14%). The position of 71% of the interviewed women is senior management, and 21% to middle management levels. The type of organisation in which women work is mainly multinational company (36%), followed by family business (29%), public organisation (21%), and traditional Spanish company (14%).

By size of the organisation, the majority are large companies (with more than 200 employees). Regarding the distribution of gender in the companies, 50% of the staff has a proportion of women compared

to men over 50%. 43% of women indicated that they had worked in the same company for more than 20 years. Half of the interviewed women have changed jobs less than 5 times.

Concerning the areas of knowledge and type of degree, 46% of the women are economists; 36% have studied disciplines related to the humanities (law, psychology, politics, assistance, social, etc.); and 12% other several disciplines as criminology or geology. No women have an engineering degree. 57% of the women apply their university knowledge in more than 75% in their current employment, but 36% use less than 50%.

79% of the interviewed women lead teams of less than 50 people. The distribution by gender in the teams is uneven: in 36% of cases there is less than 50% of women's participation; in another 36% of the cases the women's participation is higher than 50%.

Regarding their professional objectives, the most repeated ones are to improve work and professional development. In this sense, Women 9 commented: *"To make my work something useful, that helps others, and allows me to continue learning, innovating and growing professionally"*.

Perceptions and Opinions about the Current Professional Environment

Regarding the current professional and organisational environment, more than half of the women (57%) are evaluated by the performance of their work; and 86% give opinions about the working environment of their company. Women opinions are taken into account in 79% of the cases. 86% of the interviewed women also accept opinions from their teams and include them in the strategy of their area. All of the interviewees considered that their organisation could be managed in another way. In 71% of the cases, women indicated that, in their organisations, there is diversification (by gender, nationality, etc.) in their work teams. In this sense, the relationship with people from other countries occurs in 50% of cases.

Management Style

When women were asked about the activities in which they feel more confident, they considered that the first is management. This is followed by other activities as the relationship with people, and the tasks that require analysis, training, and reporting as a strategy.

The majority of women (86%) considered themselves objectives in their decisions; 65% good negotiators; and 79% of them thought over their positive influence in crisis situations.

More than half of the interviewed women (64%) stated that they extend the workday beyond the stipulated timetable. The reasons given for this are tenacity, job pleasure, work well done, and work visibility. In this sense, Woman 6 commented: *"I extend my workday a lot because I really like what I do. Everything I do seems little and I want to do more, invent more, propose more and improve all "*.

Finally, a set of items related to a series of personal qualities that women perceive in themselves is included in this block of the interview. These questions are posed in a Likert scale with the scores 0 (not identified at all with this personal quality) to 10 (fully identified with this personal quality). In Table 9 the average values of the women self-assessment perception about personal qualities are shown. It is observed that, on average, the personal qualities with which the interviewees feel most identified are the ability to solve problems, cooperation and understanding, the ability to work in teams and empathy; Conversely, the personal qualities less identified are individualism, ambition and control.

Table 9. Women self-assessment about personal qualities (averages)

Personal quality	Average Value
1. Cooperation	8.9
2. Teamwork ability	8.3
3. Problem solving	9.0
4. Intuition	7.8
5. Understanding	8.4
6. Communication	8.0
7. Risk Assumption	7.6
8. Listening ability	8.1
9. Participative management	8.1
10. Empathy	8.2
11. Assertiveness	7.9
12. Ambition	6.3
13. Control	6.6
14. Self-confidence	7.7
15. Individualism	5.3

Contribution of Women in Organizations

This block of questions of the interview is the most interesting to analyse from the point of view of the objectives of the present research. Firstly, regarding the question about the added value that is generated by the contribution of women to the organisation, the answers were not uniform. In this sense, slightly more than half of the respondents (57%) considered the added value of women as positive, especially highlighting the following aspects: commitment, equanimity and balance, working organisation, sales quality, decisiveness, creativity, empathy, collaboration and proactivity.

According to professional achievements, a common denominator is identified, which is the victory over men in certain issues as: Negotiation with politicians; The networking creation of organisations to fight against poverty; The overcoming of gender and age barriers in a male-dominated industrial sector; Their problem solving ability; Avoidance of staff reductions; The development of an own company; The achievement of gender parity; The opening and developing of an establishment in Africa; The achievement of professional recognition in a sector traditionally dominated by man as it is the construction sector; Develop a brilliant professional career in a multinational; The motivation of a deflated team; Be the first woman in Spain to achieve the category of partner in her sector.

Most of the women (79%) considered themselves an innovative professional and the majority of them (93%) found that there is a clear correlation between innovation and diversity in organisations. Nevertheless, only 43% of the women believed that this type of innovation turns into an effective turnover, although indicate the difficulty in the determining its percentage.

A large number of the interviewees (71%) indicate being supported by a mentoring program, which was usually led by senior managers.

More than half of the interviewed women (64%) considered that the fact of being a woman has not meant a penalty in their professional career. Those that do not believe this argue that women have to prove more than men their worth with facts due to a great distrust in their capacities.

Despite this, more than half of interviewees (64%) indicated that women provide a greater added value in the professional field due to a series of qualities that make them more appropriate in some issues, propitiating an innovative environment, and what the authors called *velvet management*. Some of these aspects are:

- Improve the working environment through greater participation and listening;
- Greater capacity for organisation and balance; long-term vision;
- Defend of the family conciliation; and,
- Taking care of the details and of the colleagues' collaboration.

The "leaky pipelines" concept, that represents the loss of female talent in the professional promotion of women, was treated in a question in the interview. It is interesting to gather women's opinion about the reasons that cause that, in Spain, 60% of graduates are women and represent the 45% of the workforce, but they only occupied 15% of the management positions. In this sense, there was a diversity of answers: 36% of the interviewees consider that the reasons are personal-family; 29% consider social-cultural reasons; 14% indicate that are the organisations who cause these "leaky pipelines"; and 21% did not answer. Regarding this issue Women 9 commented:

I believe that these percentages have to be changed, and in my company we are concerned about this; however, we must take into account the base numbers. We incorporate the same number of graduate men and women in our company for several years, and we hope to demonstrate that same or similar percentage in the Directing Committee within a few years. If not, we will have to study the causes. If this is done in all companies, we will certainly evolve in this aspect.

These percentages are similar when the interviewees are asked directly for the reasons of the barriers to access and the professional promotion of women ("glass ceiling"). In this case, 36% of the women explain that the barriers are due to social-cultural reasons: 29% of the women indicate personal-family reasons; 29% explain that it is due to the organisations; 6% of the women did not answer. According to this, Women 12 commented:

As I indicated, my company takes several measures to promote women. However, the principle of merit governs the decisions when deciding who holds positions and when responsibilities are assigned. Great value is given to women, who have the same rights and possibilities as men. There is still a way to go to increase the percentage of women in management positions, but we are on the right way. The (international) territorial mobility is quite usual in my company. Nevertheless, I detect that, for family reasons, it is easier for men (as the family goes with them in most cases) than for women. My company provides facilities for families that move. I observe that the women's families have more difficulties than those of men. This is especially a cultural issue. Although it is changing there is still a long way.

In another aspect, when the interviewees were asked about their access to their organisations, 29% were through external selection, 36% were through internal promotion on a priority basis, and 29% were through both ways.

Finally, interviewees were asked about the search for gender diversity as a strategic objective. More than half (57%) thought that it is an organisations' strategic objective; but another 36% of the women said that companies do not hire workers taking into account count this strategic objective.

General Women Profile

To sum up, the following characteristics about women's participation in companies have been found. First, interviewed women are, in their majority, older than 40 years old. They have high education levels. They would not leave their professional career to attend to their family. The majority economic sector is services, and they applied their university knowledge for their current job.

Their main objectives are to improve the work and their professional development. They are objectives in their work, decisive, and cooperatives. They neither assume risks nor are ambitious. Nevertheless, they are considered as creative and innovative. In general, they think about the great added value that women bring to their professional field and their organisations. The added value is manifested in aspects such as commitment, equanimity, organisation of work, creativity, collaboration and empathy. The authors call this kind of added value aspects provided by women in the organisations as "*velvet management*". It is believed that women bring innovation and creativity in an environment of diversity. Finally, they do not consider being disadvantaged in her professional career because of being a woman, although there are cultural barriers that affect companies and the family and professional life of women, resulting in a limit their professional career.

SOLUTIONS AND RECOMMENDATIONS

There are several measures that can alleviate the limiting barriers of women in their jobs and recognise the added value that they generate in the organisations. First, from the companies and the organisations in general, the commitment of the direction at the maximum level has to be obtained through the elaboration of strategic plans of incorporation of female talent and the promotion of the intermediate levels in order to create working teams with enough gender diversity.

Second, it is mainly the field of education where it can be advance more. Educational programs should include clear messages in this sense, allowing next generations to collect the fruits.

Third, government support is also essential through incentives, policies and labour laws. Best practices include the public spending (family benefits, childcare, tax incentives, etc.) and specific measures to improve the representation of women in, for example, the quotas on boards of directors.

Finally, media, headhunters, business schools or civic associations have an important responsibility to eliminate, or at least alleviate, the cultural barriers so deeply rooted in the society.

FUTURE RESEARCH DIRECTIONS

The authors are aware that this study has some limitations. First, the difficulty of the collection of data because there is no information available in the target population. This is the main reason to carry out a qualitative study where the instrument for gathering information was an in-depth interview. Second, the restricted geographical scope, because the population is limited to women that work in companies of the Autonomous Community of Madrid (Spain).

Despite these limitations, the results obtained provide us with the basis for further studies and lines of research founded on several directions as the following:

1. It would be very interesting, based on the available data from the interviews, to delve into the specific managerial characteristics and the barriers detected and perceived by women through the elaboration of a questionnaire that allow having access to certain continuous variables to obtain more detailed results.
2. Further extend in analysis, we believe that the opinion of men who hold executive positions, can provide a more complete vision of the objective analysis.
3. Further extend the methodology and analysis to other Spanish regions.

The aim is to advance in the analysis of all these aspects by expanding the range of future data, reviewing those variables of the questionnaire for which there was no adequate response in the interview, and deepening in the analysis of the women's barriers in their working positions and the measures to reduce them taking into account the added value that women bring to organisations. Finally, to examine in greater depth in what kind of public policy actions can be carried out to promote and stimulate the diversity of gender that encourages innovative activity in the organisations.

CONCLUSION

A clear correlation between the presence of women in positions of responsibility in organisations and the good financial performance of these organisations have been found in previous studies and reports.

This research confirms that women working in an environment of gender diversity, provides an added value in the form of innovation, which in many cases generates additional profitability from the organisations that promote it.

The authors consider that the results reached in this study can serve, firstly, as a base for developing a plan to eliminate barriers to access and glass ceilings for women, given their added value and innovative aspect in the Spanish company; secondly, as a starting point of valid arguments that can serve as an enabler to the innovative role that women can develop in the field of the business in Spain.

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KEY TERMS AND DEFINITIONS

Activity Rate: Effective active population divided by potential active population. It is measured in percentages.

Added Value: Advantage that is perceived in a service or product by the client or end user, which is more interesting than the competition.

Employment Rate: Employed population divided by potential active population. It is measured in percentages.

Gender Gap: Difference in percentage points between the men's employment rate and the women's employment rate.

Glass Ceiling Barriers: Veiled limitation of women's job promotion, which bounds the development of their professional careers.

Innovation: Changes that introduce novelties and modify the existing ways to work (in management styles, attitudes, etc.) in order to renew or improve those ways of work.

Labour Market: Interrelationships that occur between the job providers (employers that offer employment) and people who demand a job in exchange for remuneration.

Leaky Pipelines: It refers to the phenomenon of leakage or reduction of the presence of women in the workplace, according to access to greater responsibilities within companies.

Velvet Management: Intrinsically feminine qualities that make up a certain way of facing the different challenges within organizations.

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