Premier Reference Source

Global Campaigning Initiatives for Socio-Economic Development

Lusa Cagica Carvalho and Maria José Madeira

Global Campaigning Initiatives for Socio-Economic Development

Luísa Cagica Carvalho
Instituto Politécnico de Setúbal, Portugal & Universidade de Évora, Portugal

Maria José Madeira
University of Beira Interior, Portugal

A volume in the Advances in Electronic Government, Digital Divide, and Regional Development (AEGDDRD) Book Series

Published in the United States of America by
IGI Global
Information Science Reference (an imprint of IGI Global)
701 E. Chocolate Avenue
Hershey PA, USA 17033
Tel: 717-533-8845
Fax: 717-533-8661
E-mail: cust@igi-global.com
Web site: http://www.igi-global.com

Library of Congress Cataloging-in-Publication Data

Names: Carvalho, Lusa Cagica, 1970- editor. | Madeira, Maria Jose, 1963- editor.
Title: Global campaigning initiatives for socio-economic development / Lusa Cagica Carvalho and Maria Jose Madeira, editors.
Description: Hershey, PA : Information Science Reference, [2019]
Identifiers: LCCN 2018041826| ISBN 9781522579373 (hardcover) | ISBN 9781522579380 (ebook)
Subjects: LCSH: Economic development--Developing countries. | Economic development--Developing countries--International cooperation.
Classification: LCC HC59.7 .G5626 2019 | DDC 338.009172/4--dc23 LC record available at https://lccn.loc.gov/2018041826

This book is published in the IGI Global book series Advances in Electronic Government, Digital Divide, and Regional Development (AEGDDRD) (ISSN: 2326-9103; eISSN: 2326-9111)

British Cataloguing in Publication Data
A Cataloguing in Publication record for this book is available from the British Library.

Advances in Electronic Government, Digital Divide, and Regional Development (AEGDDRD) Book Series

Zaigham Mahmood
University of Derby, UK & North West University, South Africa

ISSN:2326-9103
EISSN:2326-9111

Mission

The successful use of digital technologies (including social media and mobile technologies) to provide public services and foster economic development has become an objective for governments around the world. The development towards electronic government (or e-government) not only affects the efficiency and effectiveness of public services, but also has the potential to transform the nature of government interactions with its citizens. Current research and practice on the adoption of electronic/digital government and the implementation in organizations around the world aims to emphasize the extensiveness of this growing field.

The Advances in Electronic Government, Digital Divide & Regional Development (AEGDDRD) book series aims to publish authored, edited and case books encompassing the current and innovative research and practice discussing all aspects of electronic government development, implementation and adoption as well the effective use of the emerging technologies (including social media and mobile technologies) for a more effective electronic governance (or e-governance).

Coverage

- Public Information Management, Regional Planning, Rural Development
- E-Government in Developing Countries and Technology Adoption
- Citizens Participation and Adoption of E-Government Provision
- Current Research and Emerging Trends in E-Government Development
- Case Studies and Practical Approaches to E-Government and E-Governance
- Knowledge Divide, Digital Divide
- E-Governance and Use of Technology for Effective Government
- E-Citizenship, Inclusive Government, Connected Government
- Online Government, E-Government, M-Government
- Frameworks and Methodologies for E-Government Development

IGI Global is currently accepting manuscripts for publication within this series. To submit a proposal for a volume in this series, please contact our Acquisition Editors at Acquisitions@igi-global.com or visit: http://www.igi-global.com/publish/.

The Advances in Electronic Government, Digital Divide, and Regional Development (AEGDDRD) Book Series (ISSN 2326-9103) is published by IGI Global, 701 E. Chocolate Avenue, Hershey, PA 17033-1240, USA, www.igi-global.com. This series is composed of titles available for purchase individually; each title is edited to be contextually exclusive from any other title within the series. For pricing and ordering information please visit http://www.igi-global.com/book-series/advances-electronic-government-digital-divide/37153. Postmaster: Send all address changes to above address.

Titles in this Series

For a list of additional titles in this series, please visit: www.igi-global.com/book-series

Private Sector Innovations and Technological Growth in the MENA Region
Maryam Ebrahimi (Azad University, Iran)
Information Science Reference • copyright 2019 • 217pp • H/C (ISBN: 9781522570868) • US $195.00 (our price)

Multi-Level Governance in Developing Economies
Tugba Ucma Uysal (Mugla Sitki Kocman University, Turkey) and Ceray Aldemir (Mugla Sitki Kocman University, Turkey)
Information Science Reference • copyright 2019 • 303pp • H/C (ISBN: 9781522555476) • US $195.00 (our price)

Security Frameworks in Contemporary Electronic Government
Ryma Abassi (Carthage University, Tunisia) and Aida Ben Chehida Douss (Carthage University, Tunisia)
Information Science Reference • copyright 2019 • 306pp • H/C (ISBN: 9781522559849) • US $195.00 (our price)

Optimizing Regional Development Through Transformative Urbanization
Umar G. Benna (Benna Associates, Nigeria)
Information Science Reference • copyright 2019 • 348pp • H/C (ISBN: 9781522554486) • US $215.00 (our price)

Strategic Management and Innovative Applications of E-Government
Andreea Molnar (Lancaster University, UK)
Information Science Reference • copyright 2019 • 308pp • H/C (ISBN: 9781522562047) • US $180.00 (our price)

Economic and Geopolitical Perspectives of the Commonwealth of Independent States and Eurasia
Oxana Karnaukhova (Southern Federal University, Russia) Alexandra Udovikina (Independent Researcher, Russia) and Bryan Christiansen (PryMarke LLC, USA)
Information Science Reference • copyright 2018 • 323pp • H/C (ISBN: 9781522532644) • US $200.00 (our price)

Innovative Perspectives on Public Administration in the Digital Age
Aroon P. Manoharan (University of Massachusetts – Boston, USA) and James McQuiston (Kent State University, USA)
Information Science Reference • copyright 2018 • 332pp • H/C (ISBN: 9781522559665) • US $195.00 (our price)

Handbook of Research on Urban Governance and Management in the Developing World
Joshua Mugambwa (Makerere University, Uganda) and Mesharch W. Katusiimeh (Makerere University, Uganda)
Information Science Reference • copyright 2018 • 491pp • H/C (ISBN: 9781522541653) • US $265.00 (our price)

701 East Chocolate Avenue, Hershey, PA 17033, USA
Tel: 717-533-8845 x100 • Fax: 717-533-8661
E-Mail: cust@igi-global.com • www.igi-global.com

Table of Contents

Detailed Table of Contents

and economic inequalities within and across countries. However, current data still reflects that, despite gained access to social uplifting tools, individuals from less favored backgrounds appear to not have been able to close the various gaps separating them from the more privileged ones. In this chapter, the authors analyze recent data to characterize higher education attendance in Portugal, highlighting some factors that may still block the socio-economic improvement of the less favored students and suggesting policy measures to overcome them.

This chapter describes that the innovation has been increasingly becoming a major competitive differential for companies. However, innovation alone is not enough. Innovations encompass from new products to new business models, but they need well-defined strategies to deliver value according to the market needs and to be well accepted. Innovations looking at differentials for the users should consider their problems, including products and services, so that they can promote solutions to meet the users' expectations. Therefore, the involvement of stakeholders in the innovation process who are beyond the organisation's frontiers, such as users, is important as it allows the inclusion of new abilities, resources, and knowledge in the process of development.

This chapter describes that the competition in the distribution sector is becoming increasingly more cut-throat and consumers have multiple channels to choose from for making their purchases, each with different characteristics and use methods. The objective of this work is to obtain information and identify the elements that allow for highlighting the ability of the grocery retailers who use the web and the social media to expand their own reference markets and establish lasting relationships with the consumers, establishing high loyalty rates of the same. The basic idea is that of verifying the importance for the enterprises operating in the grocery sector both in Italy and Belarus of setting up an e-commerce website, and of making the means and instruments available to the clientele to allow them to shop in different ways to the traditional one. The information will be acquired by means of interviews with customers of a retailer in Italy and a retailer in Belarus. The analyses of the results will provide useful indications concerning the marketing activities of the retailers in both countries.

Preface

Social economic development incorporates global campaigning advantages in developing social policy and economic initiatives. The purpose of this book is to provide insights and discussion about how to foster the social economic development is to bring about sustained improvement in the well-being of the individual, companies, community and, in parallel, with its sustainability. It involves that the book covering as key topics in value creation through innovation and innovative practices, social innovation and entrepreneurial and investment opportunities. It also addresses issues related to human resources: cross-cultural issues, global challenges and opportunities to improve quality of life. In addition, this book aims to support researchers and academics' work by sharing the latest research on themes and issues that promote social and economic development, among companies and society at large, enabling evidence for public policy implications, especially for stakeholders, entrepreneurs, directors and lawmakers, aiming to improve sustainable value creation.

Chapter 1, titled "Social Innovation as a Promotor of the Welfare: The Case of One Dollar Glasses in Brazil" by Carvalho and Viana, give us important learnings about social innovation. Although there is already much literature on innovation, the term social innovation is still relatively recent and under-explored. According to Bignetti (2011) social innovation refers to ideas, actions and new or improved knowledge with the goal of overcome the social needs in several areas of cooperation and participation of the intervenient. It is consensual the impact of social innovation in the world and this influence on the improvement of welfare, mainly through some regional projects that diagnosis high priority needs of the most vulnerable population. This chapter aims to discuss the influence of social innovation in the improvement of daily life of population and present the case study of the project one dollar glasses in Brazil. This project developed initially by the German researcher Martin Aufmuth that design the production of resistant glasses with a lower cost. This project names Renovatio in Brazil deliver about 12 000 glasses and cover a gap of ophthalmologist (85% of municipalities in Brazil don't have this speciality), and the access to this fundamental product.

Chapter 2, with the title "Management Innovation and Business Performance in Services: Economic and Social Potential" proposed by Simão, Madeira and Carvalho, provides a analysis the concept of management innovation; the characteristics of the services; as well as the multiple ways in which innovation can occur in services, make it difficult to measure the result of the influence of management innovation on performance. Based on the rational and institutional perspectives, relevant in the study of the effects of management innovation, the objective of this work is to analyze how the introduction of this type of innovation determines the performance of service firms. Thorough analysis of the literature suggests that the innovative challenge of service firms focuses not only on technological innovation but also on management innovation focused on economic and/or social potential. The characteristics of

management innovation, as well as the ability of service firms to integrate different types of innovation, enable them to achieve distinct competencies and high sustainable performance in the form of economic and social gains.

Chapter 3, titled "Profile of Top Companies Compared to the Most Valued Companies for Professional Performance in Spain" written by Seoane, offer the analyze the profile of the hundred most valued companies in terms of job performance in Spain in the 2013-2016 period, comparing it with those who have been in the ranking every year, which are called "Top". The study compared the 400 most valued companies with the 160 "Top" companies and classified them by nationality, location, size, share price and economic activity, through the measurement of seven factors: Talent Management, Retribution, Work environment, RSC, Education, Employee perception and Total value, using unifactorial variance analysis and Multiple linear regression techniques. It is concluded that size, nationality, location and sector have no relevance and only the share price shows the influence. It is an innovative and quantitative work that allows measuring the characteristics of the most attractive companies in terms of professional performance and those companies that always appear in that ranking as the "Best".

Chapter 4, titled **"**Sustainable European Companies Market Value: Effects of Emissions Eficciency" proposed by Pache-Durán, Pérez-Calderón and Milanés-Montero, describes the extent to which the companies with the best eco-efficiency indicators have found their market value positively or adversely affected. The authors will analyse whether one of the main stakeholders in business attitude and activity towards the environment, i.e., capital markets, are rewarding companies for their excellent eco-efficiency performance. The paper will be explicitly examining the hypothesis that a higher degree of eco-efficiency is associated with a greater recognition by the stock market. The study sample will comprise a data panel from European companies indexed in the DJSWI, for the years ranging from 2011-2015. The findings obtained indicate that the capital markets are giving recognition to the European companies that achieve greater eco-efficiency levels where emissions are concerned. The previous behaviour will be rewarded by the capital market, which can contribute to improving its reputation, reducing its financing costs and generating wealth for its shareholders

Chapter 5, with the title **"**The Policy of Technological Innovation and Economic Trajectory of Portugal: Analyzing the Context of the Algarve Region" by Engel, Noronha and Deponti, present the result of an interuniversity exchange doctoral research project carried out in the Algarve region, Portugal, in 2017. Its objective was to discuss the economic trajectory of Portugal and its implications for those political strategies encouraging technological innovation. Our empirical research used interviews and the analytical results were based on the path dependence theory. The outcomes of this study point to the dependence of the Algarve region from external investments.

Chapter 6, titled "New Approach to Detect and Select Technology-Based Firms: Value Creation Factors in a Follower Technology Country" presented by Garrido-Prado, Delgado-Rodríguez and Romero-Jordán, provides the study of technology-based firms (TBFs) is essential to assess the growth potential of a country due to their capacity to introduce radical innovations and value into the economy. In this chapter, the authors propose a definition for TBFs based on their strategies that makes possible to identify the companies with advanced use of technology (including knowledge) in all the sectors of the economy. For follower countries in terms of technology and innovation, as it is the case of Spain, to identify this kind of companies and to orientate special public policies that foster their development may be crucial to address the growth and value creation potential of the country. Thus, the authors propose a method to detect TBFs in not only high technological sector using a Technological Innovation Panel (PITEC)

in Spain. This chapter confirms that there are TBFs in many activities outside the high technological sectors that can be of interest for public institution and investors.

Chapter 7, **"**The w-HEALTHQUAL: A Measurement Scale for Analysing Patients' Satisfaction With Primary Healthcare" developed by Godoy Caballero and Murillo Zamorano, presents a new scale that adequately measures patients' satisfaction with the health care from the user's perspective. Using information reported by patients about their experience and about the importance of certain aspects of primary care, a new measurement instrument is built: the w-HEALTHQUAL. It allows to adequately measuring patients' satisfaction with primary health care, and is used to identify different areas of satisfaction in the health map of the Spanish region of Extremadura by means of a two-stage cluster analysis. Three groups of patients, that differ between them in patients' level of satisfaction, are identified, allowing for the categorisation of each the centres in the region based on the satisfaction level of the patients they treat. The analysis suggests that a different distribution of health care may be needed so that a more effective health care can be delivered.

Chapter 8, with the title "Educational Choices, Family Background, and Social Mobility: Education and Social Mobility" by Rego, Vieira, and Isabel Vieira, describes the evidence that education is generally considered a valuable tool to improve individual socio-economic status. In European peripheral countries, up to the late 1970s, only a small elite had access to higher education and such privilege guaranteed a comfortable socio-economic position, not only via the job market, but also by allowing the sustainability of pre-existing social links. From then on, democratization of access to higher education should have prompted a decrease in social and economic inequalities within and across countries. However, current data still reflects that, despite gained access to social uplifting tools, individuals from less favored backgrounds appear to not have been able to close the various gaps separating them from the more privileged ones. In this chapter we analyze recent data to characterize higher education attendance in Portugal, highlighting some factors that may still block the socio-economic improvement of the less favored students and suggesting policy measures to overcome them.

Chapter 9, titled **"**Recommendations to Enhance Communication With Users Through Prototypes and to Assist Open Innovation: A Case Study in a Developing Country" by Santos, Olivan, Carvalho, Costa and Ricz, describes that the innovation has been increasingly becoming a major competitive differential for companies. However, innovation alone is not enough. Innovations encompass from new products to new business models, but they need well-defined strategies to deliver value according to the market needs and to be well accepted. Innovations looking at differentials for the users should consider their problems, including products and services, so that they can promote solutions to meet the users' expectations. Therefore, the involvement of stakeholders in the innovation process who are beyond the organisation's frontiers, such as users, is important as it allows the inclusion of new abilities, resources and knowledge in the process of development.

Chapter 10, titled "Digital Marketing and Grocery Retailing Evidence From a Large Retailer in Italy and Belarus" by Tongiani, Carfora and Reut, describes that the competition in the distribution sector is becoming increasingly more cut-throat and consumers have multiple channels to choose from for making their purchases, each with different characteristics and use methods. The objective of this work is to obtain information and identify the elements that allow for highlighting the ability of the grocery retailers who use the web and the social media to expand their own reference markets and establish lasting relationships with the consumers, establishing high loyalty rates of the same. The basic idea is that of verifying the importance for the enterprises operating in the grocery sector both in Italy and Belarus of setting up an e-commerce website, and of making the means and instruments available to the clientele to

allow them to shop in different ways to the traditional one. The information will be acquired by means of interviews with customers of a retailer in Italy and a retailer in Belarus. The analyses of the results will provide useful indications concerning the marketing activities of the retailers in both countries

Chapter 11, with the title "Fashion Design Entrepreneurs: A Case Study" proposed by Fernandes, Madeira and Pereira, present the fashion industry is experiencing a new dynamic as many professionals have decided to take the risk to create fashion-related businesses. As universities and private schools provide fashion courses, many paths can be taken by graduates in this vast and challenging industry, including careers as fashion design entrepreneurs. However, the lack of information regarding networking and business-creation can be a hard wall to come across, as fashion designers are not prepared in that sense by higher-education courses. Fashion education is still very focused on hard skills, forgetting to teach students to be pro-active and forward-thinkers, yet a new generation of fashion designers has transformed past experiences and professional vision to become entrepreneurs. This study provides results obtained through interviews of these fashion entrepreneurs in Portugal, as well as other countries around the globe. This work observes this ever-changing industry and suggests the rise of a new entrepreneurial reality in fashion design, as well as the multi-disciplinary people who are changing it.

Chapter 12, titled "Social Entrepreneurship and Innovation: Strategic Management for Tourism, Hospitality in Western Amazon" by Benevides, São Pedro Filho, Madeira, Sakuno and Arenhardt describes a study on the analyse the main strategies for the qualification of inbound tourism and hospitality. This study is supported by the Theory of Planned Behaviour and concepts of inbound tourism, hospitality, creativity and innovation. The study uses Method of Case Study, as methodological procedures workshops were held with stakeholders of Rondônia tourism trading; there were collection of data, participant observation and an analysis of documents, allowing critique about the causal relationship. The SWOT matrix was applied in the production of the survey report. As a result, there has been a recognition of the tourism potential in the scenario and the necessity for strategic planning of the attributes; valid elements for social innovation by qualifying strategies for inbound tourism and hospitality are indicated. The originality is on proposing strategies that empower the marginalized and socially excluded population, promoted the touristic resources, indicate management alternatives to qualify the inbound and hospitality and contribute to the regional development.

In Chapter 13, titled "The Multiculturality Issue on Globalization," the author Vieira present a study on the globalization of markets emphasize the entrepreneurship phenomenon, although he exists since long-standing - Cantillon is identified as one of the pioneers in the subject - has now an increased relevance. In this chapter, we work this subject in the field of Sociology, focused on agency and structure pleadings, understandable as a human action, which starts from a rational choice and with an action sociology. Based on a doctoral research carried out with the objective of identifying the profile of women entrepreneurial, this script seeks to stylize some material that was left open in the empirical elements collected, namely the role of entrepreneurial immigrant communities in the Algarve region and the interculturality present in the behaviors observed.

Chapter 14, titled "Local Development and Poverty Reduction in Low-Income Rural Communities in the Northeast Brazil" and developed by Carvalho, describes the problem of poverty is becoming a concern worldwide for the potential for its dissemination. The phenomenon affects not only the less industrialized countries, but also those that have overcome the stage of underdevelopment. This paper describes three case studies to understand how low income rural communities in the Brazilian Northeast managed to mitigate their problems of social exclusion from a set of actions involving several agents. The

results showed that the joint application of actions, such as the settlement of producers in expropriated lands, the installation of basic infrastructure, investments financed in irrigated agriculture, technical assistance, training, marketing support and self-management are sufficient to reduce poverty and present results satisfactory.

Chapter 15, with the title "Roles of Market Orientation and Social Orientation on Sustainability: Case Studies in Rural SMEs in Cáceres" proposed by Vaz, and Santiago, is an exploratory study that aims at analyzing proactivity as a condition of the dynamics to which organizations are obliged to search for, devise and generate an adequate response, accompanied by the capacity for innovation and sustainability in the nature of the response to achieve a competitive advantage. This study contributes to the understanding of small business innovation capacity. It is proposed a model that starts from the market orientation and the social orientation, as variables that enhance the innovation capacity of the companies, impelling in this way, their response to the needs of the customers. A multi-case study is used to validate the said model in the SMEs rural in Cáceres. The results show a reactive market orientation and a high awareness of generating sustainability conditions. This means that environmental and social orientation should be maintained or adapted to so innovation can be sustainable in the long run.

Chapter 1
Social Innovation as a Promoter of the Welfare:
The Case of One Dollar Glasses in Brazil

Luísa Cagica Carvalho
Instituto Politécnico de Setúbal, Portugal & Universidade de Évora, Portugal

Adriana Backx Noronha Viana
University of São Paulo, Brazil

ABSTRACT

Although there is already much literature on innovation, the term social innovation is still relatively recent and underexplored. Social innovation refers to ideas, actions, and new or improved knowledge with the goal of overcoming the social needs in several areas of cooperation and participation. This influences the improvement of welfare, mainly through some regional projects that diagnose high priority needs of the most vulnerable population. This chapter aims to discuss the influence of social innovation in the improvement of daily life and presents a case study of the project one dollar glasses in Brazil. This project was developed initially by the German researcher Martin Aufmuth, who designed the production of resistant glasses with a lower cost. Renovatio in Brazil delivers about 12,000 glasses and covers a gap of ophthalmologists (85% of municipalities in Brazil don't have this specialty) and the access to this fundamental product.

INTRODUCTION

Nowadays it is consensual the role of social innovation to solve several problems mainly when state fail in assist poor and excluded people. Nevertheless, we don't have a single definition for social innovation, however most of the definitions provided by the literature highlight that this type of innovation provides solutions for societal problems and involves multiple stakeholders in networking, such as, social enterprises, non-profits, individuals, universities, government agencies, volunteers, etc. These kinds of solutions have a huge societal impact on the day life of the citizens and could be replicate in different contexts and geographies.

DOI: 10.4018/978-1-5225-7937-3.ch001

This chapter aims to discuss the influence of social innovation in the improvement of daily life of population and present the case study of the project one-dollar glasses in Brazil. To achieve the objectives this chapter is divided in two main parts. The first part presents a literature review about social innovation. And the second part present the case study of one-dollar glasses and in the context of Brazil. The chapter also provide some considerations about learning objectives and outcomes and also some questions to discuss to allow the application of this chapter as a pedagogical case study.

BACKGROUND

Social Innovation

Nowadays it is possible to find an extended literature about innovation, nevertheless the concept of social innovation still underexplored. According to Pol e Ville (2009) social innovation it is a concept that everyone like however nobody knows really whom this concept means. In the last decades social innovation has receive several contributes from different fields such as, local development studies, urban studies and studies of labour organization (Moulaert et al, 2013). Nevertheless, the scholarly literature on social innovation in the field of social policy and welfare studies still scarce (Jenson, 2014).

A study developed by BEPA (2010) suggest that Max Weber was the first author that introduce this concept, when defined the relation between social order and innovation through the impact of the behaviour in the social. Nevertheless, Bernatchez (2006) referred that Taylor (1970) and Gabor (1970) are the pioneers in the use of the social innovation concept, due this author understudied how new ways to do things could response to the social needs and highlight the importance of the new social arranges reflected in the law and technology and their social impacts. In the fact the earlier studies associate social innovation to social change and are more linked with sociological studies.

However, during the last years the theories evolution and it is possible to find three blocks:

1. Theories of social change focusing on practice theory, institutionalisation and development theories;
2. Theoretical approaches in the different fields of social innovation research (social entrepreneurship, social economy, local and regional development, design thinking, development studies);
3. Innovations studies including science and technology studies (STS), management and business innovations.

In the fact, social innovations cover new practices (concepts, policy instruments, new forms of co-operation and organisation,) methods, processes and regulations that are developed and/or adopted by citizens, customers, politicians etc. in order to meet social demands and to resolve societal challenges in a better way than existing practices (European Commission, 2013).

Bignetti (2011) defined social innovation as new ideas, actions and new or improved knowledge to overcome social needs in several areas of cooperation and participation in society. Mulgan (2006) highlighted that the actual business models tend to become outdated and limited in their use and focused the importance of innovation followed social innovation patterns in the last decades. The same research referred huge limitations associated to: population ageing, diversity of cities and countries around the world, increase in chronic diseases, behaviour problems, difficulties in transition to adult age, crime,

mismatch between GDP growth and happiness index, climate change, etc. In the fact social innovation could provide solutions long-term results to part of these problems and societal challenges.

The societal challenges that society face nowadays, mobilize societies to solve a set of problems and need through creativity of civil society, public and private institutions and reinforce the importance to follow for a more solidarity, innovative and knowledge based society, BEPA (2010) argued that society challenges are opportunities due the social and economic opportunities created and justified the needs to promote public policies that encourage social innovation to achieve:

1. Provision of services for society and persons, usable and useful in quotidian life;
2. Provision of these services by the government, making social innovation sustainable in the long term;
3. Creation of new business opportunities and entrepreneurship.

Ruede and Lurtz (2012) complements the approaches presented and group social innovation according to the preliminary categories that help to understand and organize this concept:

1. Do something good for the society
2. Change practices and/or social structures;
3. Contributes for the urban and communitarian development;
4. Reorganize the work processes;
5. Provide a cultural relevance to technological;
6. Implement changes in the field of social work;
7. Innovate through social connectivity

Zapf (1987, 1991) found seven different (in part overlapping) approaches to social innovations more focused on the content of the social innovations. Social innovation as:

1. … Restructuring organizations or relationships
2. … New services offered (compared to new goods)
3. … Technologies used to solve social problems
4. … The inclusion of the people involved with the innovation process
5. … Larger political innovations (compared to regular political decision and reforms)
6. … Changing patterns of goods and services structure in an economy
7. … New lifestyles expressing one's values and status aspirations, observable through changes in one's spending of resources.

Additionally, Moulaert et al. (2005) distinguishes four strands of social innovation. The first strand belongs to the field of management science related with enhancements in social capital that lead to more effective or efficient work organization. The second strand is multidisciplinary and associated commercial success in line with social and environmental progress. The third strand supported on arts and creativity is related with intellectual and social creativity, addressing how people should interact among each other. At last, the fourth strand is reported with local development in territorial and regional studies. Additionally, Pol and Ville (2009) provided a list with four conceptualizations of social innovations to exemplify different patterns identified in different disciplines:

1. Social innovation as a synonymous of institutional change. Institutional change in this sense means the change in the regulative, normative or cultural structure of a society.
2. Social innovations as a social purpose to improve quality of life.
3. Social innovation as a pubic good.
4. Social innovation as a way to cover needs not addressed by the market.

In the fact social innovation is a topic under review and often receive new contributes and improvements and could be analysed through different perspectives.

SOCIAL INNOVATION AS A PROCESS

Social innovation it is a holistic phenomenon (Kanter, 1999) that could be understood is a process that identify solutions for social problems and cover three dimensions as a process. In this sense of view social innovation (Cloutier, 2003):

- Social innovation centred on the individual. In this case the changes introduced influence directly the world perspective of the individual, help them to solve problems and to become more autonomous.
- Environment-oriented social innovation. In this case social innovation could bring changes for the territory, helping to solve and / or prevent social and economic problems and improve the quality of life, and is generally developed through the cooperation of various stakeholders.
- Social innovation in companies, this aims to meet the needs of employees in order to improve work productivity and can propose a new work organization focused on innovation and productivity that fosters creative knowledge exchange relationships, among others.

Hence, in social innovation development process we can find different steps that front societal challenges. Hubert et al (2010) resume this process in the following phases:

1. Development of an idea based on the diagnosis of the problem and the structuring of the question, checking the symptoms and their origins;
2. Generation of ideas to solve the problem;
3. Testing ideas through pilot projects with feedback from users and experts;
4. Transformation of the pilot project into social innovation by identifying legal, fiscal and income streams that ensure the long-term sustainability of the entity driving social innovation (e.g. NGO, community, business, etc.);
5. Dissemination of the social innovation by disseminating the results obtained to other national or international communities;
6. Establishment of new ways of thinking and doing involving different elements (social movements, business models, laws and regulations, research, infrastructures, etc.) and various actors from the public, private, nonprofit sector or even more social structures.

To exemplify phases presented, let us consider the case of Renovatio. The description presented was developed based on available material on this initiative [1].

METHODOLOGY

This chapter aims to study a case of social innovations. This case also presents features associated with a social business model. The case using descriptions of the international case one dollar glasses .The study is based on information available on website of this association, videos and on documental information.

This exploratory study is supported on a qualitative research applied to this project in Brazil. The empirical part of this research was carried out by applying case study methodology, which, according to Yin (1989), it refers to empirical research that investigates a contemporary phenomenon within a real-life context when the boundaries between the phenomenon and context are not clearly evident and where multiple sources of evidence could be used. Comparing case study methodology with other methodologies, Yin (1989) states that in order to define the method to be used, issues that are raised by the research must be analysed. This method is specifically suitable for answering explanatory 'how' and 'why' questions and deals with operational facts that occur over time rather than frequencies or incidence. To achieve a better understand about social innovation.

CASE STUDY: RENOVATIO

The Story

Two friends met One Dollar Glasses at the end of 2013, at the worldwide award-winning Enactus, a social organization that one of the creators of the idea was already part of[2]. At the event, they were impressed by the numbers that the NGO presented - 150 million people worldwide have serious vision problems and have no means to afford a glass.

Still, without the definitive project to begin Renovatio in Brazil, but interested in this cause, the pair went to research the Brazilian visual situation. In Brazil, about 27.5 million people of economically active age need glasses and do not know. The limitation caused by the lack of glasses has a great socioeconomic impact: it increases unemployment, the fall of productivity and more accidents at work, besides the effect on the quality of life. According to the Solidarity Literacy Program, the greatest reason for school dropout in the country is related to visual impairment.

The Problem

The high cost of glasses and the lack of structure to manufacture are some of the factorst limit access. The lack of access to glasses makes many children unable to read, making the educational development of these children impossible. Data have shown that 22.9% of the reasons that lead to school dropout are linked to vision problems. And when they do not do well in school, what future do they have?

The Solution

Faced with this problem, a German inventor Martin Aufmuth, created the One Dollar Glasses - technology that allows the production of extremely resistant and inexpensive grade glasses. The NGO One Dollar Glasses proposed the development of glasses using Swedish wire, French plastic, Chinese lens and a lot

of creativity. The glasses were developed using a steel rod. In 23 minutes, it is possible to make glasses with lenses that is very light. It is a craft technology. The cost of the glasses is almost $ 1.00 (with data released in 2014).

THE BRAZILIAN CONTEXT

In 2014, Renovatio, a non-profit association, brought this technology to Brazil and has since brought the vision to thousands of people. So, they decided to invest in the idea. They raised 45 thousand (R$) in a crowdfunding and had Bank of America like the first sponsor and began to produce glasses. To manufacture the glasses, the project trained and paid salaries for the unemployed and ex-homeless. The happiness of many workers was managing to get a job and still help other people to see better.

During the work developed, another problem was identified. According to information presented by Renovatio, 79% of municipalities do not have an ophthalmologist available from SUS (acronym of the Brazilian public health system). 45 million Brazilians (almost 20% of the population) need to wear glasses and do not know. Renovatio then identified that the problem was not only lack of access to glasses. But also, that it was, in fact, a lack of access to visual health as a whole.

THE SOLUTION AND IMPACTS

They brought a new solution. They developed an ophthalmic bus equipped with two complete offices with a capacity to attend more than 200 people per day. As observed by Renovatio, the impact is felt instantly, because, in a community service, the patient goes through the triage, consults with the ophthalmologist and is already going home with his donated glasses. To expedite the delivery process, lenses with varying degrees of myopia accompany the frames and can be docked on time. In the case of astigmatism, they are sent after diagnosis.

They noted that getting money from a company to make glasses and donate would not be feasible. For this, they created a social business - VerBem, consisting of an optics popular network giving access to glasses of quality and low cost.

According to Renovatio, through the program VerBem, it was possible to improve the vision of about 15,000 people, to carry out another 2400 free examinations with itinerant ophthalmological offices and to generate more than $ 30 thousand of income for the Producers, all made by people in a situation of social vulnerability, thus closing the virtuous cycle they wanted.

Thus, the project proposed the creation of a network of popular optics formed by community sellers to give access to the population that cannot afford the high prices, using a self-sustaining model. According to Renovatio[3], "*We work in the social insertion of marginalized people, giving them opportunities for work, study and professionalization.*"

Currently there are two production units in São Paulo, one in the Vision Institute and another in the Vila Nova Esperança community. There are six employees, who produce 140 pairs of glasses per month. After going through a selection process that includes tests, interviews and vocational guidance, the selected ones create, together with the members of the NGO, an individual development track.

"The person works on the project, which generates income for him or her, causes impact, studies at night and participates in educational projects on Saturdays," explains the young man. Visits to museums

and universities are part of the itinerary. "The idea is to get her out of the environment she is in, whether it's a hostel, a community or a homeless shelter, and show that there are different things."[4]

What most motivates one of the founders of Renovatio is the possibility that children no longer need to leave school because they do not see. Or people do not have to stop working because they do not see.

Currently, Renovatio's goal is until 2021 to distribute 1 million glasses to those who cannot afford it. In 2017 they won the Folha Empreendedor Social de Futuro (Brazil) Award.

CONCLUSION

This chapter presented and discussed a case of social innovation that could be label as an environment-oriented social innovation. In this case social innovation bring changes for the territory, helping to solve and / or prevent social and economic problems and improve the quality of life and welfare of the people that sometimes could not have a regular work or children that reveal apprenticeship problems due their vision problems. This low cost and smart solution allow provide a vision for poor population around the world.

In the description of this case, based on real facts, it is possible to identify the phases in the process of development of social innovation, as described by Hubert et al (2010).

At first, an idea developed based on the diagnosis of the problem and the structuring of the question, checking the symptoms and their origins. For the case presented, the problem identified was the issue of visual health, that is, lack of glasses, which makes vision difficult and worsens the quality of life.

The second phase consists of generating ideas to solve the problem. In this case, the knowledge of another work developed by another NGO, allowed the creation of Renovatio and bring possibilities of creation of glasses of low cost. The third phase is to test ideas through pilot projects with feedback from users and experts. In this case, Renovatio developed its first glasses, which were distributed through the donation process. But to continue the project, they would need company donations that could not be something viable and sustainable. In this way, they enter the fourth phase, where they sought to transform the pilot project into social innovation. Renovatio then created a popular network to give access to the population that cannot afford the high prices, using a self-sustaining model. In the fifth and sixth stages, which correspond to the dissemination of social innovation and the establishment of new ways of thinking and doing, once again Renovatio stands out. It publicizes its work through various videos, website, and partnerships. It establishes new ways to reach its target public, through the development of an adapted bus with an office and infrastructure, enabling the poorest population to be served and the Revovatio fulfils its mission. They also tell stories of impact, like a young woman who dreams of being a doctor and was the best student in the school even with 8 degrees of myopia; a lady who lost the fear of leaving home because she could now see the holes in the street.

ADDITIONAL NOTES FOR THE CASE

This case could be used as a teaching case study, in this situation please consider:

- Learning objectives;
  - Understanding the phases of the development of a social innovation

    - Learning to identify the possibilities of impact of a well-developed social innovation;
- Set of questions (suggestion);
    - What were the possible difficulties in the development of Renovatio?
    - How does the development of Renovatio relate to the phases of the process of developing a social innovation?
    - What are possible ways for the growth of Renovatio?
- **Media:** Websites, news and videos:
    - http://www.renovatio.org.br/
    - http://fas-amazonas.org/2017/05/parceria-entre-renovatio-e-fas-realiza-exames-de-vista-e-entrega-oculos-para-ribeirinhos-em-manaus/?lang=en
    - https://www.youtube.com/watch?reload=9&v=cCZq0KPdvIs
    - https://www.youtube.com/watch?v=jDgFbOmmMoY
    - https://www.youtube.com/watch?v=5B_PFknwf9U
    - https://www.napratica.org.br/historia-renovatio/
    - https://www.youtube.com/watch?v=270JzqZyDOg
    - https://www.youtube.com/watch?v=Yfd5a80ZT2g

REFERENCES

BEPA. (2010). Empowe6ring people, driving change: Social Innovation in the European Union. BEPA – Bureau of Policy Advisers, European Commission.

Bernatchez, J. (2006). L'innovacion sociale et l'université au Québec: Le défi de rendre opératoire un concept polysémique. École nationale d'administration publique (ENAP) de l'Université du Québec.

Bignetti, L. P. (2011). As inovações sociais: Uma incursão por ideias, tendências e focos de pesquisa. *Ciências Sociais Unisinos*, *47*(1), 3–14. doi:10.4013/csu.2011.47.1.01

Cloutier, J. (2003). *"Qu'est-ce que l'innovation sociale?" Cahier du CRISES – Centre de Recherche sur les Innovations Sociales*. Québec, Canada: Collection Études Théoriques.

European Commission. (2013). Social innovation research in the European Union. Approaches, findings and future directions. *Policy Review*. Retrieved from http://ec.europa.eu/research/socialsciences/pdf/social_innovation.pdf

Jenson, J. (2014). *Modernising paradigms. Social investments via social innovation.* Paper presented at the Towards Inclusive Employment and Welfare Systems for a Social Europe Conference, Berlin, Germany.

Kanter, R. M. (1999). From spare change to real change. *Harvard Business Review*, *7*(3), 122–132. PMID:10387574

Moulaert, F., MacCallum, D., Mehmood, A., & Hamdouch, A. (2013). *The international handbook on social innovation. Collective action, social learning and transdisciplinary research*. Cheltenham, UK: Edgar Elgar. doi:10.4337/9781849809993

Moulaert, F., Martinelli, F., & Swyngedouw, E. (2005). Social Innovation in the Governance of Urban Communities: A multidisciplinary perspective. *Urban Studies (Edinburgh, Scotland)*, *42*(11), 1969–1990. doi:10.1080/00420980500279893

Mulgan, G. (2006). *The process of social innovation. MIT Press*.

Pol, E., & Ville, S. (2009). Social innovation: Buzz word or enduring term? *Journal of Socio-Economics*, *38*(6), 878–885. doi:10.1016/j.socec.2009.02.011

Ruede, D., & Lurtz, K. (2012). *Mapping the various meanings of social innovation: Towards a differentiated understanding of an emerging concept* (Research Paper Series 12-03). EBS Business School, World Vision Stiftung.

Yin, R. K. (1989). *Case Study Research - Design And Methods*. Sage Publications Inc.

Zapf, W. (1987). *On social innovations*. Frankfurt am Main: Sonderforschungsbereich 3, Mikroanalytische Grundlagen der Gesellschaftspolitik, J.-W.-Goethe-Universität Frankfurt und Universität Mannheim.

Zapf, W. (1991). The role of innovations in modernization theory. In International. *Review of Sociology*, *1*(3), 83–94.

ADDITIONAL READING

Barraket, J., Mason, C., & Blain, B. (2016). *Findings of Australia's Social Enterprise Sector 2016: Final Report*. Melbourne: Centre for Social Impact Swinburne University.

Bocken, N. M. P., Short, S. W., Rana, P., & Evans, S. (2014). A literature and practice review to develop sustainable business model archetypes. *Journal of Cleaner Production*, *65*, 42–56. doi:10.1016/j.jclepro.2013.11.039

Haigh, N., Kennedy, E. D., & Walker, J. (2015). Hybrid organizations as shape-shifters: Altering legal structure for strategic gain. *California Management Review*, *57*(3), 59–82. doi:10.1525/cmr.2015.57.3.59

Weerawardena, J., McDonald, R. E., & Sullivan Mort, G. (2010). Sustainability of nonprofit organizations: An empirical investigation. *Journal of World Business*, *45*(4), 346–356. doi:10.1016/j.jwb.2009.08.004

KEY TERMS AND DEFINITIONS

Case Study: Is a descriptive, exploratory, or explanatory analysis of event.

Social Innovation: Is process of developing and arranging successful solutions to stimulating and often systemic social and environmental issues in support of social progress and welfare.

Societal Challenges: Are opportunities due the social and economic opportunities created and justified the needs to promote public policies that encourage social innovation.

ENDNOTES

[1] https://www.youtube.com/watch?reload=9&v=cCZq0KPdvIs
https://www.youtube.com/watch?v=jDgFbOmmMoY
https://www.youtube.com/watch?v=5B_PFknwf9U
https://www.napratica.org.br/historia-renovatio/
https://www.youtube.com/watch?v=270JzqZyDOg
https://www.youtube.com/watch?v=Yfd5a80ZT2g

[2] https://www.napratica.org.br/historia-renovatio/

[3] https://www.napratica.org.br/historia-renovatio/

[4] https://www.napratica.org.br/historia-renovatio/

Chapter 2
Management Innovation and Business Performance in Services:
Economic and Social Potential

Lurdes Barroso Simao
https://orcid.org/0000-0002-9703-1481
University of Beira Interior, Portugal

Maria José Madeira
University of Beira Interior, Portugal

Luísa Cagica Carvalho
https://orcid.org/0000-0002-9804-7813
Instituto Politécnico de Setúbal, Portugal & Universidade de Évora, Portugal

ABSTRACT

The concept of management innovation, the characteristics of the services, as well as the multiple ways in which innovation can occur in services make it difficult to measure the result of the influence of management innovation on performance. Based on the rational and institutional perspectives relevant in the study of the effects of management innovation, the objective of this chapter is to analyze how the introduction of this type of innovation determines the performance of service firms. Thorough analysis of the literature suggests that the innovative challenge of service firms focuses not only on technological innovation but also on management innovation focused on economic and/or social potential. The characteristics of management innovation as well as the ability of service firms to integrate different types of innovation enable them to achieve distinct competencies and high sustainable performance in the form of economic and social gains.

DOI: 10.4018/978-1-5225-7937-3.ch002

INTRODUCTION

For experts, policy makers, business executives, innovation is crucial in organizational performance (Prange & Schlegelmilch, 2016), economic growth (Gunday, Ulusoy, Kilic & Alpkan, 2011), sectoral changes (Tidd & Thuriaux- 2016), competitive advantage (Tidd, 2001) and business competitiveness (Gallego, Rubalcaba, & Hipp, 2013).

Organizations innovate due the competitive and/or institutional pressure from the external environment, or by adopting new services and practices attending to the internal organizational options (Damanpour, Walker, & Avellaneda, 2009). The innovative challenge of the firms is not only to offer new products or new forms of production, but also to change organizational practices, processes and structures (Birkinshaw, Hamel, & Mol, 2008, Hecker & Ganter, Jansen, Van Den Bosch, & Volberda, 2012), premeditated and focused on the economic or social potential of the firm (Drucker, 2002).

Organizations to achieve and/or to maintain distinctive competencies that allow them to function continuously (Damanpour et al., 2009) integrate technological and management innovation to create complex higher-level capabilities and positive complementarities that enhance performance (Hervas-Oliver, Boronat-Moll, & Sempere-Ripoll, 2016).

Historically, research about the types of innovation has followed a technological trend, focused on a stricter definition of product and process innovations associated with research and development in productive enterprises (Damanpour & Aravind, 2012), while management innovation studies have been scarce (Volberda, Van Den Bosch, & Heij, 2013), particularly in the services sector (Walker, Chen, & Aravind, 2015). In this sector, this shortage is even more evident, considering its role in the creation of new services that, in turn, affect the financial performance of firms (Nieves, 2016).

In the context of innovation, this work focuses on the debate about non-technological innovation and specifically on the integration of management innovation and technological innovation and business performance; contributing to the research of management innovation and its consequences, analyzing its interdependence with technological innovation and complementarity in organizational results (Damanpour, 2014).

This work articulates the relationship between technological and management innovation, through a theoretical framework that integrates two different but interrelated perspectives, relevant in the study of the additional and potential effects of the joint adoption of technological and management innovation. Based on these approaches, it is contributed by comparing the consequences of the performance of the innovation activity, in the firms that seek to balance different types of innovation.

The studies about the relation between management innovation and performance focused on the industrial sector (goods) (Walker et al., 2015), although researchers emphasized the importance of developing innovation models for services, suitable for both goods, as well as, to services, without neglecting the peculiarities of the services, taking into account technological and non-technological innovation (Gallouj & Weinstein, 1997; Vergori, 2014). In the service sector, the effective way to gain competitive advantage is to move away from the technology-based approach to innovation and adoption more complex strategies (Evangelista & Vezzani, 2010).

Management innovations are not associated to infrastructures, they are abstract and intangible. Which makes them potentially complex and ambiguous (Vaccaro et al., 2012) and often unique to the firms that adopt them, making it difficult to replicate (Birskinshaw, 2006). These characteristics make manage-

ment innovation one of the main sources of competitive advantage of firms (Mol & Birkinshaw, 2009; Volberda et al., 2013); however, this type of innovation remains as a poorly researched subject (Hollen, Van den Bosch, And Volberda, 2013), although in the services, play a relevant role (Aas & Pedersen, 2011; Gallego et al., 2013).

The intangible nature of the services (Evangelista, 2000) makes product innovation in this sector easily copied by competitors (Sundbo, 1997) and difficult to protect (Gallouj & Weinstein, 1997), despite the possibility of using brands (Schmoch & Gauch, 2009), or belong to professional associations (European Commission, 2012). As services are actions or processes (Gallouj & Weinstein, 1997), there is difficulty in distinguishing product and process (Hipp, Tether, & Miles, 2003; Miles, 1999). In addition, the services are characterized by close contact with clients, especially the process orientation of most services requires involvement (Hipp & Grupp, 2005), taking into account the convergence in meeting customer needs (Damanpour et al., 2009), particularly in the business services (Miles, 2008).

In summary, considering organizations as open systems and innovation as a way to facilitate adaptation to the environment, this study proposes that in the services sector: (1) the adoption of management innovation benefits firms; (2) the impact of management innovation on performance is equivalent to that of technology; (3) there are potential sources of inconsistency in the relationship between management innovation and performance.

This chapter is structured as follows: the next section provides a theoretical overview of management innovation; and this type of innovation is distinguished from the technological. The follow section approaches the relationship between management innovation and business performance, starting from the prevailing rational and institutional theoretical perspectives. Next section refers the integration of management and technological innovation in services and their consequences on business performance. Finally, we discuss the implications of this study in theory, research on innovation and performance in service firms.

Management Innovation

Management innovation differs from technology in that it refers to new practices, processes and management techniques, and organizational structures (Birkinshaw et al., 2008), which aim to improve organizational functioning (Volberda, Van Den Bosch, & Mihalache, 2014). It is evident a renewed interest in the study of management innovation (Hervas-Oliver, Sempere-Ripoll, Boronat-Moll, & Rojas-Alvarado, 2017; Nieves, 2016; Walker et al., 2015), reviewing themes previously named organizational or administrative innovation (Damanpour & Evan, 1984; Kimberly & Evanisko, 1981; Lam, 2004).

The literature presents two perspectives, from the novelty degree of management innovation (Birkinshaw et al., 2008): new in the state of the art, which means that there are no known precedents; and new in the adopting organization. Both perspectives consider innovation as a significant improvement in previous management activities and competencies, favouring a closer alignment to the competitive environment (Hollen et al., 2013). Thus, management innovation refers to the introduction of new management practices, whose goal is to increase the effectiveness and efficiency of internal organizational processes (Volberda et al., 2013), aiming to improve business performance (Mol & Birkinshaw, 2009), in terms of innovation (Camisón & Villar-López, 2014), productivity and competitiveness (Hamel, 2006). Therefore, management innovation involves relevant changes, implying a departure from traditional

processes (how the organization is managed), practices (routines), structures (attribution of responsibility), and techniques (procedures for completing a task or goal) (Volberda et al. al., 2013). Conceptually or empirically, the distinction between practice, process, structure and techniques is not clear, so it is difficult to define management innovation by excluding any of them (Birkinshaw et al., 2008).

Management innovation encompasses changes in "how" and "what" managers do when they define guidelines, make decisions, coordinate activities, and motivate people (Hamel, 2006). These changes are context specific (Mol & Birkinshaw, 2009), ambiguous and difficult to replicate (Birskinshaw, 2006), making it a source of competitive advantage (Birskinshaw, 2006; Hamel, 2006). Even if the firm is based on the management innovations of other firms, its adoption is determined in which these management innovations are adapted to the specific context of the firm (Ansari & Zajac, 2010), and cannot be imitated without significant modifications that make them compatible with the organization's structure, culture, and systems of the adopting organization (Damanpour & Gopalakrishnan, 2001).

Management innovations are new approaches and practices to motivate and reward organizational members; outline strategy and structure tasks and units; and modify the management processes of the organization (Birkinshaw et al., 2008; Damanpour et al., 2009). Management innovation involves changes in management systems, knowledge used in management, organizational structure, internal processes and management skills, with the goal of using resources effectively and achieving superior performance. Improved coordination and cooperation mechanisms within the organization are the cornerstones of this effectiveness and performance (Pino, Felzensztein, Zwerg-Villegas, & Arias-Bolzmann, 2016).

Different typologies of management innovation have been analyzed. For example, the Oslo Manual (OECD, 2005) and the Community Innovation Survey provide a list of management innovations grouped into three categories: (1) business practices in the organization of procedures (*e.g.*, business reengineering, knowledge management); (2) methods of organization of responsibilities and decision-making (*e.g.*, employee accountability, integration or disintegration of services); and (3) methods of organizing external relations with other public enterprises or institutions (*e.g.*, alliances, partnerships). Armbruster et al. (2008) differentiate organizational innovation into structural intra-organizational (*e.g.*, multifunctional teams, decentralization of planning functions); structural inter-organizational (*e.g.*, outsourcing, relocation); intra-organizational process (*e.g.* teamwork in production, process of continuous improvement); inter-organizational process (*e.g.*, just-in-time with customers, supply chain management). Hollen et al. (2013) distinguish management activities associated with goal setting, employee motivation, activity coordination, and decision making, which are intended to support the achievement of organizational goals. As these examples demonstrate, the typologies of management innovation are dispersed and there is no commonly accepted one, differing in their conceptualization and measurement (Damanpour, 2014).

Part of research on innovation management has focused on its determinants. Thus, several authors have demonstrated that management innovation is a consequence of the internal context of firms and external knowledge demand (Mol & Birkinshaw, 2009), human resources qualifications (Orfila-Sintes & Mattsson, 2009), organizational memory and learning capabilities (Camisón & Villar-López, 2011), transformational and transactional leadership (Vaccaro et al., 2012), the human resources system based on commitment (Ceylan, 2013), internal sharing of knowledge (Černe, Jaklič, & Škerlavaj, 2013).

In parallel, the consequences of management innovation activities have also been evaluated. In this context, the literature shows that management innovation, for example, improves corporate reputation (Staw & Epstein, 2000), contributes to increased productivity (Mol & Birkinshaw, 2009); allows to achieve sustainable competitive advantage (Camisón & Villar-López, 2011); power the development of dynamic capabilities (Gebauer, 2011); supports process innovation and marketing activities (Ceylan,

2013); favours the development of technological innovation capabilities (Camisón & Villar-López, 2014); integrated with technological innovation, form complex top-level capabilities and positive complementarities (Hervas-Oliver, Ripoll-Sempere, & Moll, 2016); favours the introduction of product learning and innovation capacity (Nieves, 2016); increases export performance (Azar & Ciabuschi, 2017).

Although management innovation supports technological innovation (product and process) and also have important impact on business performance (OECD, 2005); most of the studies on innovation continue to focus on technological innovation, neglecting management innovation (Hervas-Oliver et al., 2017), so this article analyzes these relationships and their impact on performance in service firms.

Technological and Management Innovation

The innovation activities of firms have focused on technological innovation (Drejer, 2004), which encompasses product and process innovation (Mothe & Nguyen Thi, 2012).

Product innovation is new or significantly improved goods or services, introduced to the market, to meet customer needs, and process innovation are new elements introduced into the firm's production or service operation to produce a product or provide a service (Damanpour, 2010; Walker et al., 2015). Together, they constitute the technological innovation used in this study.

Arguments that identify management innovation as a prerequisite for technological innovation are found in the articles about the organizational changes published in the 1950s (Lawrence, 1954). Since the last century the relationship between management innovation and technology (Damanpour & Evan, 1984; Kimberly & Evanisko, 1981) has been investigated, knowing that they are interconnected (Lam, 2004), however, innovation is scarce (Damanpour, 2014).

The difference between technological and management innovations is related to the broader distinction between technology and social structure (Evan, 1966). At the entrepreneurial level, technological innovations are associated with the technological core or technical system of the organization and management innovations are associated with the social system (Daft 1978, Damanpour & Aravind, 2012). The theory of the sociotechnical system (Trist & Bamforth, 1951) challenged the technological imperative, postulating that the social and technical system must form a single integrated system; whose relationship between organizational subsystems is correlated, a change in one subsystem requires changes in other subsystems. In particular, the social system refers to the people who work in the firm and its relations, while the technical system consists of techniques, procedures or knowledge used by the social system to achieve organizational goals (Trist & Bamforth, 1951).

Management innovations affect the technological core (Daft., 1978), suggesting that innovation in the technical system of the firm is frequently impelled by the innovation of its social system (Damanpour & Evan, 1984). Management innovation does not provide a new product or a new service but influences indirectly the introduction of new products and/or services or its production process (Subramanian & Nilakanta, 1996).

Firms that gather technological and management innovations, improve/sharpen their social (management) and technological systems, developing complex and integrated systems of innovation capacities and, therefore, they are able to obtain higher incomes that come from the complementarity of capacities of technological and management innovations (Hervas-Oliver, Ripoll-Sempere, et al., 2016).

The term used in this article, corresponds to the terms administrative innovation and organizational innovation, as already applied in previous researches (Damanpour, 2014). Different from the innova-

tions of product, service and process, the definitions of organizational, administrative and management innovations overlap significantly (Damanpour & Aravind, 2012).

According to the seminal work of Birkinshaw et al. (2008), management innovation consists in the creation and implementation of management practices, processes, structure or techniques which are new to the "state of the art", aim to reach the organizational purposes (*e.g.* divisional structure, Toyota's production system, total quality management, the costing based on activities, the modern assembly line, the balanced scorecard, the professional quality of life). As these examples suggest, management innovation is a multidimensional construction that includes structural, operational and administrative processes, based mainly in non-technological factors.

This definition, new at the "state of the art" means management innovation without known precedents (Abrahamson, 1996; Birkinshaw et al., 2008). In what concerns the novelty degree of management innovation, it might be completely new to the world or to the firm. Innovation only occurs when the change is firstly inserted, all the remaining events are subsequent adoptions (Leiblein & Madsen, 2009). Being new to the firm, means that the level of adaptations to the specific context of the organization is high and its result may be uncertain (Birkinshaw et al., 2008).

In this study it is used the definition of Birkinshaw et al. (2008) but, as well as Walker, Damanpour e Devece (2011) e Vaccaro et al. (2012) with two modifications: focuses in the adoption of innovation (not in the creation) and it is an innovation in the adopting organization (not in the state of the art). This distinction is convenient because the management innovations are mainly incremental; and services organizations frequently adopt innovations developed in other sectors of activity (Barras, 1990; Damanpour & Schneider, 2009; Walker et al., 2011) and adapt themselves to the firm's specific context (Ansari & Zajac, 2010).

Comparatively to the services innovations that have external focus, are mainly directed to the market, its introduction results in the differentiation of the organizational results, for the consumers or clients (Damanpour et al., 2009); management innovations have a crucial role in the changing process of organizations, facilitating the organizational adaptation to the external environment (Walker et al., 2011) and increasing the efficiency and efficacy of the internal processes (Birkinshaw et al., 2008; Kim, Kumar & Kumar, 2012; Volberda et al., 2013). Therefore, management innovation acts as a mechanism of support that helps to create a favorable environment (Gunday et al., 2011) to the development of technological innovation (Khanagha, Volberda, Sidhu & Oshri, 2013; Pino et al., 2016; even though in services little is known about the complementarity of this kind of innovation in the technological innovation (Ostrom et al., 2010).

Considering the existing literature, it is argued that management innovation, that is, the organizational renovation under the form of structural improvements that lead to improvement of the intra-organizational coordination and cooperation, contribute to the formation of an internal environment adequate for the adoption of technological innovation.

RATIONAL AND INSTITUCIONAL EXPLANATIONS FOR THE RELATIONSHIP OF MANAGEMENT INNOVATION AND PERFORMANCE

There are several explanations for adopting the management innovation. From the four literature perspectives: institutional, modern, cultural and rational, it is highlighted the rational perspective (Birkinshaw et

al.; 2008); comparing the rational approach to the psychodynamics perspectives, dramaturgical (rhetorical), political, cultural and institutional, it is concluded that the rational vision is the dominant one (Sturdy, 2004); in the synthesis of the main developments in the management innovation field, it becomes clear that the field has branched out in four main theoretical perspectives (rational, institutional, international business and theoretical development) (Volberda et al., 2014). Since the rational and institutional approaches are the most used in the research of management innovation in the organizations (Damanpour, 2014; Kennedy & Fiss, 2009; Walker et al., 2015), as well as its defenders consider management innovation as generator of positive results in innovating enterprises (Birkinshaw et al., 2008) therefore these theories are enhanced in this study.

Rational Perspective

The rational perspective (Alänge, Jacobson, & Jaryehammar, 1998; Lieberman & Montgomery, 1988) base on the principle that management innovations (new practices, processes, structures or techniques) (Birkinshaw et al., 2008) are introduced, deliberately by key individuals, with the goal of making organizations more effective (Vaccaro et al., 2012). The decisions that lead to management innovation are made in a rational way, based on the analysis of the costs and perspectives of better efficiency and effectiveness (Volberda et al., 2014; Walker et al., 2015).

Adopting new management innovations affects positively the sales growth (Evangelista & Vezzani, 2010); increases productivity (Mol & Birkinshaw, 2009); promotes the organizational purposes, which may include traditional development aspects (*e.g.*, financial purposes) and other more flexible (*e.g.*, workers satisfaction) Birkinshaw et al., 2008).

Although in this perspective the adoption of the management innovation is associated with the immediate economic performance (profitability, productivity, growth and competitive advantage) (Walker et al., 2015), however, to underline that not all management innovations are, at the latest extent, well succeeded (Birkinshaw et al., 2008). Regardless of the expected or unexpected results, the purpose of introducing management innovation is to enable the organization for performance. This perspective takes the introduction as way for a greater end, to maintain or improve the organizational performance or efficiency of management innovation (Damanpour & Aravind, 2012).

This view of the management innovation is influenced by the perspective of organizations as open systems (Walker et al., 2015). The adoption of innovation is considered as a way for the organization to adapt or anticipate a change in the environment, seeking to increase or to maintain its efficiency and competitiveness (Damanpour et al., 2009). Thus, the organizations are seen as open systems which introduce changes for working effectively.

Institutional Perspective

Since the seminal paper of Meyer and Rowan (1977) about the formal structures of organizations as open systems that reflect the rules of their institutional environments, the organizational analysis proliferates, based on the institutional perspective.

The institutional perspective enhances that the adoption of organizational practices is shaped by institutional factors such as the mentality of the local organizations' elites; the professional and educational network; state bodies (*e.g.*, regulators) (Sturdy, 2004) arguing that organizations introduce innovations

based on approval or social legitimacy, instead of more objective criteria (Staw & Epstein, 2000). This theory became dominant in the organizational studies (Sturdy, 2004) and provides an alternative theoretical explanation, which distinguishes the influence of management innovation from the technological in firms performance (Walker et al., 2015).

This perspective has been applied mainly to management innovations, because, in comparison with technological innovations, those are intangible, operationally more complex and easier to modify (Armbruster et al., 2008; Damanpour & Aravind, 2012; Walker et al., 2015). In the adoption of the management innovations, in uncertainty conditions concerning its efficiency, organizations are influenced by the behavior of other organizations (Abrahamson, 1991). The organizational practices are adopted for symbolic reasons – seeking to obtain legitimacy of partners and capital holders, regardless of the efficiency or control results (Sturdy, 2004). Subsequently there may appear economic gains, but not at the moment of adopting (Walker et al., 2015), because de focus is on the imitative behavior (Dimaggio & Powell, 1983) for legitimation purposes, (*e.g.* improve firms' reputation Staw et Epstein, 2000).

The scope of management innovation is broad, its research is multidisciplinary and multileveled (Brikinshaw et al., 2008); the concept is complex, ambiguous and difficult to measure (Lam, 2004; Sapprasert & Clausen, 2012); and the theoretical antagonist arguments are doubtful about the motif for its adoption and its contribution for the adopting organization (Damanpour, 2014; Lam, 2004).

In the adoption of management innovation, both rational and institutional perspectives explain the decisions for adopting innovation under different conditions (Ansari & Zajac, 2010); they contribute to the organizational behavior and in the results (Kennedy & Fiss, 2009; Walker et al., 2015); and to the evolution of management innovation (Volberda et al., 2014).

MANAGEMENT INNOVATION AND PERFORMANCE IN SERVICES FIRMS

The literature about innovation has been focused, essentially, on the technological innovation (Damanpour & Aravind, 2012), even though management innovation being widely recognized as a potential source of competitive advantage (Battisti & Iona, 2009; Birknshaw et al., 2008; Hamel, 2006), the studies are rare (Volberda et al., 2013) but increasing (Hervas-Oliver, Ripoll-Sempere, et al., 2016; Walker et al., 2015), particularly after the publishing of the articles of Birkinshaw et al. (2008) and Hamel (2006), however, little empirical studies have been focusing in the analysis of how the introduction of new practices and processes of management, influence the different measures of performance of services firms (Nieves, 2016).

Service Innovation

As already observed, the prominent innovation theories have been developed from studies of innovation in manufacturing.

In services, the approach of assimilation/technologists with higher number of studies (Gallouj, 1998), consider services in a manufacturing perspective. It focuses on the impact of technology in services (*e.g.*, Evangelista, 2000; Miozzo & Soete, 2001). In the past, services have been considered as users of technology "supplier dominated firms" (Pavitt, 1984), rather than innovators.

It is considered that innovations in the manufacturing sector follow a technological trajectory, but innovations in the services sector don't. Therefore, the predominant logic on the creation of innovations in manufacturing organizations cannot be the one to explain the adoption of innovations in services' organizations (Damanpour et al., 2009).

In innovation services, only a small segment is similar to the classic model of the manufacturing, in which innovation is greatly organized and led by departments of research and development and production engineering (Miles, 2008). The process of services innovation is, generally, less systematic than in manufacturing, it is rarely based on research and development, but rather in quick practical ideas and evolvement of workers and clients (Sundbo, 2009).

It was highlighted the distinguishing character of innovation in services comparing to technological innovation in manufacturing (Gallouj, 2002; Gallouj & Weistein, 1997; Van Der As & Elfring, 2002), and it was also highlighted the understanding in innovation beyond the technological advancement and of research and development (Djellal & Gallouj, 2001). In fact, the process of innovation in services is strategically defined and impelled by clients, competitors and market (Sundbo, 1997).

The distinction between the types innovation in the services sector, can be more problematic than in the manufacturing sector, due to the peculiar characteristics of services. Although not generalized to all kind of services (Lovelock & Gummesson, 2004), characteristics such as the contact and interaction with clients, customization, intangibility and limited appropriability (Evangelista, 2000), simultaneous production and consumption, narrow connection between products and processes, difficult the measurement of the result (Hipp & Grupp, 2005).

Innovation in services is frequently less organized, more incremental and less technological (OEDC, 2005; Tether, 2005), it also tends to be a continuous process, consisting in a series of incremental changes in products and processes (OECD, 2005). The production of the service consists in placing a set of capacities and competences (human, technological, organizational) available to clients and to structure a solution with different degrees of precision (Gadrey, Gallouj, & Weinstein, 1995). However, due to the narrow interaction between the service providers and clients, there are activities of innovation viewing the adaptation of services to the needs of clients, whose analyzes of the economic effects of the new products and processes may be questioned (Hipp & Grupp, 2005).

The studies started to focus in the learning with clients and how to involve them systematically in the innovation process (Carlborg, Kindström, & Kowalkowski, 2014). The research moved forward with the perception that innovation is not merely technological (product or process) (Drejer, 2004; Hipp & Grupp, 2005). On the other hand, management innovations (*e.g.* interfunctional integration, Perks & Riihela, 2004) have come to integrate services innovation (Carlborg et al., 2014) turning it multidimensional (Amara, Landry, & Doloreux, 2009; Rubalcaba, Gallego & Hertog, 2010). The success in the organization of services depends on the adoption of technological and non-technlogical innovations (Damanpour et al, 2009). Thus, there emerged new ways of defining service innovations (*e.g.*, Rubalcaba, Gago, e Gallego, 2010) highlighting that technological innovation should not be independent but rather reflect a perspective of synthesis (Gago & Rubalcaba, 2007) in which services and manufacturing follow specific approaches of innovation (Coombs & Miles, 2000; Coombs & Tomlinson, 1998), combining the acquired information with the studies of technological and services innovation.

The foundations of the integrating or of synthesis perspective comprehend products and services and it is applied to both technological and non-technological innovation (Gallouj & Weinstein, 1997). This

approach enhances the convergence between products and services and develops a conceptual common framework which considers the amplified view of innovation applicable to any tangible or intangible product (Coombs & Miles, 2000; Gallouj & Savona, 2009; Gallouj & Windrum, 2009). This approach allows the integration of the technological and non-technological dimensions of innovation in a unique perspective that eventually will clarify the multidimensional facet of innovation.

Even if the availability of technical skills may prevail in the creation of the same services, the social skills and knowledge related to social sciences are extremely important in the integration and efficient use of new technologies (Gallouj, Weber, Stare, & Rubalcaba, 2015). From this point of view, service innovation must involve different dimensions (products, processes, managements and services of intensive knowledge) (Gago & Rubalcaba, 2007) and can influence the organization's performance in different ways, as to improve quality, range, easiness for using services, quickness of production and/or the delivery of service, as well as bigger temporal and space availability of the provided services (Hipp et al, 2003) and economical positive performance (Cainelli, Evangelista, & Savona, 2006). However, due to the multiple ways in which service innovations may occur, it is difficult to measure it (Gotsch & Hipp, 2012) due to the restrictions of data and methodological issues related to the availability of the suitable indicators (Evangelista & Vezzani, 2010).

Type of Performance

In the seminal work, (Downs Jr & Mohr, 1976) there have been distinguished the primary and secondary attributes of innovations. The primary attribute of innovations, such as the cost or its communicability are inherent to innovation and invariable among the organizations. On the other hand, the secondary attributes, for example, the complexity or compatibility are subjective evaluations of the innovation, based on the individual or organizational cognition and dependent on the characteristics and circumstances of the evaluator.

As always as possible subjective or objective, measures of performance must be used (Wall et al, 2004) because they may not be permutable as it has been implicitly assumed in the research of innovation (Walker et al., 2015) even though the managers, aware of the performance data, may present precise subjective evaluations (Choi & Eboch, 1998).

The managerial performance, measured with the combination of objective and subjective measures, is significantly affected by management innovation (Camisón & Villar-López, 2014), while the positive effect of management innovation in the performance, is more relevant with subjective measures than with objective ones (Walker et al., 2015). It is difficult to establish a strong empirical connection between innovation and performance due to the methodological failures (*e.g.* measuring constructions) (Sapprasert & Clausen, 2012), technological and market contingencies, which turn the impact of innovation unpredictable (Tidd, 2001). In management innovation, these shortcomings are exacerbated because they are not quantifiable (Damanpour & Aravind 2012).

If management innovation is considered an institutional change (Hargrave & Van De Ven, 2006) the rational and institutional views explain this process and the results of its adoption. The distinction between the kinds of performance exemplifies the contrast between the rational and institutional perspectives. From the rational point of view, the indicators of performance, usually used in management innovation measurement, are potential economic gains such as profitability, productivity, growth and competitive advantage (Walker et al., 2015) reduction of administrative or transaction costs (OECD, 2005) but can also include the institutional perspective, social gains (Kennedy & Fiss, 2009) such as the workers

retaining, client's satisfaction, relation with the stakeholders, environmental impact (Voldberda et al., 2013), reduction of time of response to clients and suppliers, improvement in the quality of services (Evangelista & Vezzani 2010), satisfaction in the workplace (OECD, 2005); which justify the adoption of management innovation (Staw & Epstein, 2000) and contribute to its performance (Hervas-Oliver, Boronat-Moll, et al, 2016).

The result of management innovation, adds value directly to the firm or indirectly to its clients (Kim et al. 2012). In services, the evaluation of the impact of the innovation must correspond to its wide dimensions (products, processes, management and services of intensive knowledge) so that the indicators based on co-productive nature of services (*e.g.* quality, trust, time, motivation) may be so important as other traditional indicators (*e.g.* costs, productivity, employment, business volume, internationalization) (Gago & Rubalcaba, 2007).

Usually, a period of time may pass until the positive impacts of the innovations in the performance of the firm are observed (Damanpour & Evan, 1984). For this reason, the impacts of the innovation performance are firstly associated to the non-financial aspects of the organizational performance, such as the increase of client's satisfaction or of the production rhythm, that later will lead to bigger financial return (Gunday et al. 2011).

The economic and social gains aren't mutually exclusive, they may exist in parallel and even reinforce themselves, that is, the economic performance may increase the social gains and vice versa (Kennedy & Fiss, 2009). It can be anticipated that, should the rational perspective influence the adoption of management innovation, the economic performance is then affected; if the institutional approach is dominant, then the social results precede initially, the economic performance benefits (Walker et al. 2015).

Management and Technological Innovation and Performance

The application of the resource-based view of the firm (Barney, 1991; Peteraf, 1993) to the innovation activity, at a managerial level, enhances the complementary role of the types of innovation and its gathered influence in the organizational result (Damanpour & Avarid 2012). The complementary introduction, rather than a substitute of management and technological innovation (Battisti & Stoneman, 2010; Camisón & Villar-López, 2014) improves the technological performance of innovating firms, providing higher profits to the exclusive introduction of technological innovation (Hervas-Oliver, Ripoll-Sempere, et al. 2016). The joint adoption of the technological and management innovation capacities allows the integration of several assets, building a coherent system of interrelated activities which reinforce themselves mutually (Porter, 1996; Rivkin, 2000; Siggelkow, 2001) but only up to a certain level of complexity and of resources (Hervas-Oliver et al., 2018).

The perspective of the different types of innovation is supported by the theory of socio-technical systems. The concept (Trist & Bamforth, 1951) highlights the interrelation of the social and technical subsystems at the range of the organizational objectives. This relation is equivalent to the changes on the technical operational system that must be accompanied by changes in the social system (administrative) of the organization, aiming to optimize its result (Damanpour et al., 2009). Thus, the concept of the socio-technical system enhances the interrelation of the social and technical subsystems constituted by people and technology (Trist & Bamforth, 1951), that optimized together, are the key factor on the general performance of the system (Pasmore & Khalsa, 1993). Any change in a system requires a correspondent change in another system to produce positive results (Damanpour & Aravind, 2012).

The joint optimization of policies or practices socially and technically orientated is the key factor of determination of the general performance of the system (Cua, McKone, & Schroeder, 2001; Pasmore & Khalsa, 1993). Thus, it is needed a synchronized adoption of the management and technological innovation or incremental and radical, that reinforces the interdependent capacities in the social and technical systems of the organizations, seeking to obtain more precise (Walker et al., 2015) results (Evangelista & Vezzani, 2010; Hervas-Oliver, Ripoll-Sempere, et al., 2016), despite the difficulty in isolating the effects of innovation (service process and management), since the measures of firms performance are not connected to specific innovations (Hipp et al., 2003).

Despite of scarce the empirical evidence of the interactive or combined effects of the management innovation (Walker et al., 2015), the literature has underlined the importance of management and technological innovation in the competitive advantage (Evangelista & Vezzani, 2010), as promoters of the organizational purposes (Battisti & Stoneman, 2010; Camisón & Villar-López, 2014; Mol & Birkinshaw, 2006; Sapprasert & Clausen, 2012) and enable the organization in the service delivery to clients (Damanpour et al., 2009). Concretely the knowledge-intensive services and the management innovations, will play an essential role in the transformation of the potential of the new technologies in the firms' results (Gallouj et al., 2015).

Thus, the research and the development of the conceptual synchronized innovation, in the composition of the types of innovation in the organizational development, facilitate the understanding of the balance between management and technological innovation in the organizational conduct and in the results.

SOLUTIONS AND RECOMMENDATIONS

The typologies of management innovation are scattered and are not commonly accepted, differing in their conceptualization and measurement (Damanpour, 2014), however, it is frequent to focus on the social system of the firms, with the aim of improving its performance.

These challenges arise, in part, from the unfounded perception that management innovation is not has essential in organizational conduct as technological innovation, and the results of their adoption is motivated by the desire for social status and reputation rather than efficiency and organizational effectiveness.

Therefore, management and technological innovations introduced simultaneously can better explain performance consequences of innovation in service organizations.

FUTURE RESEARCH DIRECTIONS

Special issues on management innovation provide ideas and directions for future researches. Such research is important because the adoption of management innovation and their social and economic gains, can be explained by the joint application of rational and institutional approaches (Kennedy & Fiss, 2009). Further researches should investigate the role of additional moderators such as private versus public organizations.

The institutional perspective enhances that the adoption of organizational practices is shaped by institutional factors (Sturdy, 2004), further research should investigate the differences in performance of management innovation between different services, namely those based on new technologies (T-KIBS)

and traditional professional services (P-KIBS), given that the latter are shaped by institutional factors, such as the professional regulators (*e.g.*, accounting and legal activities).

The measurement of management innovation is more complex than that of technological innovation, and it is difficult to assess its effect on organizational behavior and performance (Damanpour, 2014), and it may itself also be subject to moderation by other variables. For instance, institutional context may moderate the performance, just as, management innovation measurement, could be an important research question.

This chapter clarifies the research on management innovation and opens the pathway for future empirical researchers to understand the mechanisms involved in it.

CONCLUSION

The characteristics of management innovation, such as the intangibility, complexity and ambiguity, make difficult its imitation, turning this kind of innovation, one of the main sources of competitive advantage of firms. From the perspective of innovation, management innovation can be seen as a process for creating innovation throughout the whole chain of operations at the micro and/or macro levels, which allows entrepreneurs and organizations to produce specific and novel results.

From the resource-based view, the capability of service firms to integrate different kinds of innovation is unique and rare, obtaining distinctive competences and high sustainable performance. The joint adoption of the capabilities of technological and management innovation, allows the integration of several assets, building a coherent system of interlinked activities which reinforce themselves mutually, promoting the organizational goals, maximizing the performance and enabling the organizations in the service delivery to clients. In this sense, signaling the capabilities that will influence service economy, includes the indication of socioeconomic transformations where services will play a key role, due to the complex interlinkages they create among stakeholders.

This chapter focuses in the rational and institutional perspectives of research and in the theoretical fundaments of the joint adoption of different types of innovation, which generates organizational capabilities and affects the organizational conduct and the results. It aims to integrate different perspectives of management that approach the performance as economic and social gains and depending on the adoption of technological and non-technological innovations in the firms' services.

This study introduces the concept of management innovation in the diversified mainstream of the literature, contributing to the construction of the theory for a better understanding of the resources and the complementary capabilities and the consequences on the performance, when technological and management innovations are adopted together. When the interplay of technological and management innovations, in order to obtain sustained competitive advantage of firms, results in socioeconomic gains that have long-term implications and affect a number of actors on a global scale, then important developments are likely to emerge.

ACKNOWLEDGMENT

NECE-UBI, this paper is financed by National Funds provided by FCT - Foundation for Science and Technology through project UID/GES/04630/2013.

REFERENCES

Aas, T. H., & Pedersen, P. E. (2011). The impact of service innovation on firm-level financial performance. *Service Industries Journal*, *31*(13), 2071–2090. doi:10.1080/02642069.2010.503883

Abrahamson, E. (1991). Managerial fads and fashions: The diffusion and refection of innovations. *Academy of Management Review*, *16*(3), 586–612. doi:10.5465/amr.1991.4279484

Abrahamson, E. (1996). Management fashion. *Academy Ol Management Review*, *21*(1), 254–285. doi:10.5465/amr.1996.9602161572

Alänge, S., Jacobsson, S., & Jaryehammar, A. (1998). Some aspects of an analytical framework for studying the diffusion of organizational innovations. *Technology Analysis and Strategic Management*, *10*(1), 3–21. doi:10.1080/09537329808524301

Amara, N., Landry, R., & Doloreux, D. (2009). Patterns of innovation in knowledge-intensive business services. *Service Industries Journal*, *29*(4), 407–430. doi:10.1080/02642060802307847

Ansari, S. M., & Zajac, E. J. (2010). Made to fit: How pratices vary as they diffuse. *Academy of Management Review*, *35*(1), 67–92.

Armbruster, H., Bikfalvi, A., Kinkel, S., & Lay, G. (2008). Organizational innovation: The challenge of measuring non-technical innovation in large-scale surveys. *Technovation*, *28*(10), 644–657. doi:10.1016/j.technovation.2008.03.003

Azar, G., & Ciabuschi, F. (2017). Organizational innovation, technological innovation, and export performance: The effects of innovation radicalness and extensiveness. *International Business Review*, *26*(2), 324–336. doi:10.1016/j.ibusrev.2016.09.002

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, *17*(1), 99–120. doi:10.1177/014920639101700108

Barras, R. (1990). Interactive innovation in financial and business services: The vanguard of the service revolution. *Research Policy*, *19*(3), 215–237. doi:10.1016/0048-7333(90)90037-7

Battisti, G., & Iona, A. (2009). The intra-firm diffusion of complementary innovations: Evidence from the adoption of management practices by british establishments. *Research Policy*, *38*(8), 1326–1339. doi:10.1016/j.respol.2009.06.002

Battisti, G., & Stoneman, P. (2010). How innovative are UK firms? Evidence from the fourth UK Community Innovation Survey on synergies between technological and organizational innovations. *British Journal of Management*, *21*(1), 187–206. doi:10.1111/j.1467-8551.2009.00629.x

Birkinshaw, J., Hamel, G., & Mol, M. J. (2008). Management innovation. *Academy of Management Review*, *33*(4), 825–845. doi:10.5465/amr.2008.34421969

Birskinshaw, J. (2006). How management innovation happens. *MIT Sloan Management Review*, *47*(4), 81–88.

Cainelli, G., Evangelista, R., & Savona, M. (2006). Innovation and economic performance in services: A firm-level analysis. *Cambridge Journal of Economics*, *30*(3), 435–458. doi:10.1093/cje/bei067

Camisón, C., & Villar-López, A. (2011). Non-technical innovation: Organizational memory and learning capabilities as antecedent factors with effects on sustained competitive advantage. *Industrial Marketing Management*, *40*(8), 1294–1304. doi:10.1016/j.indmarman.2011.10.001

Camisón, C., & Villar-López, A. (2014). Organizational innovation as an enabler of technological innovation capabilities and firm performance. *Journal of Business Research*, *67*(1), 2891–2902. doi:10.1016/j.jbusres.2012.06.004

Carlborg, P., Kindström, D., & Kowalkowski, C. (2014). The evolution of service innovation research: A critical review and synthesis. *Service Industries Journal*, *34*(5), 373–398. doi:10.1080/02642069.2013.780044

Černe, M., Jaklič, M., & Škerlavaj, M. (2013). Management innovation in focus: The role of knowledge exchange, organizational size, and IT system development and utilization. *European Management Review*, *10*(3), 153–166. doi:10.1111/emre.12013

Ceylan, C. (2013). Commitment-based HR practices, different types of innovation activities and firm innovation performance. *International Journal of Human Resource Management*, *24*(1), 208–226. doi:10.1080/09585192.2012.680601

Choi, T. Y., & Eboch, K. (1998). The TQM paradox: Relations among TQM practices, plant performance, and customer satisfaction. *Journal of Operations Management*, *17*(1), 59–75. doi:10.1016/S0272-6963(98)00031-X

Coombs, R., & Miles, I. (2000). Innovation, measurement and services: the new problematique. In J. S. Metcalfe & I. Miles (Eds.), *Innovation Systems in the Service Economy* (pp. 83–102). Dordrecht: Kluwer. doi:10.1007/978-1-4615-4425-8_5

Coombs, R., & Tomlinson, M. (1998). Patterns in UK company innovation styles: New evidence from the CBI innovation trends survey. *Technology Analysis and Strategic Management*, *10*(3), 295–310. doi:10.1080/09537329808524318

Cua, K. O., McKone, K. E., & Schroeder, R. G. (2001). Relationships between implementation of TQM, JIT, and TPM and manufacturing performance. *Journal of Operations Management*, *19*(6), 675–694. doi:10.1016/S0272-6963(01)00066-3

Daft, R. L. (1978). A Dual-Core model of organizational innovation. *Academy of Management Journal*, *21*(2), 193–210.

Damanpour, F. (2010). An integration of research findings of effects of firm size and market competition on product and process innovations. *British Journal of Management*, *21*(4), 996–1010. doi:10.1111/j.1467-8551.2009.00628.x

Damanpour, F. (2014). Footnotes to research on management innovation. *Organization Studies*, *35*(9), 1265–1285. doi:10.1177/0170840614539312

Damanpour, F., & Aravind, D. (2012). Managerial innovation: Conceptions, processes, and antecedents. *Management and Organization Review*, *8*(2), 423–454. doi:10.1111/j.1740-8784.2011.00233.x

Damanpour, F., & Evan, W. M. (1984). Organizational innovation and performance: The problem of "organizational lag.". *Administrative Science Quarterly*, *29*(3), 392–409. doi:10.2307/2393031

Damanpour, F., & Gopalakrishnan, S. (2001). The dynamics of the adoption of product and process innovations in organizations. *Journal of Management Studies*, *38*(1), 45–65. doi:10.1111/1467-6486.00227

Damanpour, F., & Schneider, M. (2009). Characteristics of innovation and innovation adoption in public organizations: Assessing the role of managers. *Journal of Public Administration: Research and Theory*, *19*(3), 495–522. doi:10.1093/jopart/mun021

Damanpour, F., Walker, R. M., & Avellaneda, C. N. (2009). Combinative effects of innovation types and organizational performance: A longitudinal study of service organizations. *Journal of Management Studies*, *46*(4), 650–675. doi:10.1111/j.1467-6486.2008.00814.x

Dimaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, *48*(2), 147–160. doi:10.2307/2095101

Djellal, F., & Gallouj, F. (2001). Patterns of innovation organisation in service firms: Postal survey results and theoretical models. *Science & Public Policy*, *28*(1), 57–67. doi:10.1093pp/28.1.57

Downs, G. W. Jr, & Mohr, L. B. (1976). Conceptual issues in the study of innovation. *Administrative Science Quarterly*, *21*(4), 700–714. doi:10.2307/2391725

Drejer, I. (2004). Identifying innovation in surveys of services: A Schumpeterian perspective. *Research Policy*, *33*(3), 551–562. doi:10.1016/j.respol.2003.07.004

Drucker, P. F. (2002). The discipline of innovation. *Harvard Business Review*, *80*, 95–104. PMID:12195923

European Commission. (2012). *EUR 25189 — Knowledge-intensive (business) services in Europe*. Luxembourg: Office of the European Union.

Evan, W. (1966). Organizational lag. *Human Organization*, *25*(1), 51–53. doi:10.17730/humo.25.1.v7354t3822136580

Evangelista, R. (2000). Sectoral patterns of technological change in services. *Economics of Innovation and New Technology*, *9*(3), 183–222. doi:10.1080/10438590000000008

Evangelista, R., & Vezzani, A. (2010). The economic impact of technological and organizational innovations. A firm-level analysis. *Research Policy*, *39*(10), 1253–1263. doi:10.1016/j.respol.2010.08.004

Gadrey, J., Gallouj, F., & Weinstein, O. (1995). New modes of innovation: How services benefit industry. *International Journal of Service Industry Management*, *6*(3), 4–16. doi:10.1108/09564239510091321

Gago, D., & Rubalcaba, L. (2007). Innovation and ICT in service firms: Towards a multidimensional approach for impact assessment. *Journal of Evolutionary Economics*, *17*(1), 25–44. doi:10.100700191-006-0030-8

Gallego, J., Rubalcaba, L., & Hipp, C. (2013). Services and organisational innovation: The right mix for value creation. *Management Decision*, *51*(6), 1117–1134. doi:10.1108/MD-11-2012-0446

Gallouj, F. (1998). Innovating in reverse: Services and the reverse product cycle. *European Journal of Innovation Management*, *1*(3), 123–138. doi:10.1108/14601069810230207

Gallouj, F. (2002). Innovation in services and the attendance old and new myths. *Journal of Socio-Economics*, *31*(2), 137–154. doi:10.1016/S1053-5357(01)00126-3

Gallouj, F., & Savona, M. (2009). Innovation in services: A review of the debate and a research agenda. *Journal of Evolutionary Economics*, *19*(2), 149–172. doi:10.100700191-008-0126-4

Gallouj, F., Weber, K. M., Stare, M., & Rubalcaba, L. (2015). The futures of the service economy in Europe: A foresight analysis. *Technological Forecasting and Social Change*, *94*, 80–96. doi:10.1016/j.techfore.2014.06.009

Gallouj, F., & Weinstein, O. (1997). Innovation in services. *Research Policy*, *26*(4-5), 537–556. doi:10.1016/S0048-7333(97)00030-9

Gallouj, F., & Windrum, P. (2009). Services and services innovation. *Journal of Evolutionary Economics*, *19*(2), 141–148. doi:10.100700191-008-0123-7

Gebauer, H. (2011). Exploring the contribution of management innovation to the evolution of dynamic capabilities. *Industrial Marketing Management*, *40*(8), 1238–1250. doi:10.1016/j.indmarman.2011.10.003

Gotsch, M., & Hipp, C. (2012). Measurement of innovation activities in the knowledge-intensive services industry: A trademark approach. *Service Industries Journal*, *32*(13), 2167–2184. doi:10.1080/02642069.2011.574275

Gunday, G., Ulusoy, G., Kilic, K., & Alpkan, L. (2011). Effects of innovation types on firm performance. *International Journal of Production Economics*, *133*(2), 662–676. doi:10.1016/j.ijpe.2011.05.014

Hamel, G. (2006). The why, what, and how of management innovation. *Harvard Business Review*, 72–84. PMID:16485806

Hargrave, T., & Van De Ven, A. H. (2006). A collective action model of institutional innovation. *Academy of Management Review*, *31*(4), 864–888. doi:10.5465/amr.2006.22527458

Hecker, A., & Ganter, A. (2013). The influence of product market competition on technological and management innovation: Firm-level evidence from a large-scale survey. *European Management Review*, *10*(1), 17–33. doi:10.1111/emre.12005

Hervas-Oliver, J. L., Boronat-Moll, C., & Sempere-Ripoll, F. (2016). On process innovation capabilities in SMEs: A taxonomy of process-oriented innovative SMEs. *Journal of Small Business Management*, *54*(S1), 113–134. doi:10.1111/jsbm.12293

Hervas-Oliver, J. L., Ripoll-Sempere, F., & Moll, C. B. (2016). Does management innovation pay-off in SMEs? Empirical evidence for Spanish SMEs. *Small Business Economics*, *47*(2), 507–533. doi:10.100711187-016-9733-x

Hervas-Oliver, J. L., Sempere-Ripoll, F., Boronat-Moll, C., & Rojas-Alvarado, R. (2017). On the joint effect of technological and management innovations on performance: Increasing or diminishing returns? *Technology Analysis and Strategic Management*, *0*(0).

Hipp, C., & Grupp, H. (2005). Innovation in the service sector: The demand for service-specific innovation measurement concepts and typologies. *Research Policy*, *34*(4), 517–535. doi:10.1016/j.respol.2005.03.002

Hipp, C., Tether, B. S., & Miles, I. (2003). Effects of innovation in standardised, customised and bespoke services: evidence from Germany. In J. Tidd & F. M. Hull (Eds.), *Service Innovation: Organizational Responses to Technological Opportunities & Market Imperatives* (pp. 175–210). London: Imperial College Press. doi:10.1142/9781848161306_0007

Hollen, R. M. A., Van Den Bosch, F. A. J., & Volberda, H. W. (2013). The role of management innovation in enabling technological process innovation: An inter-organizational perspective. *European Management Review*, *10*(1), 35–50. doi:10.1111/emre.12003

Kennedy, M., & Fiss, P. (2009). Institutionalization, framing, and diffusion: The logic of TQM adoption and implementation decisions among U.S. hospitals. *Academy of Management Journal*, *52*(5), 897–918. doi:10.5465/amj.2009.44633062

Khanagha, S., Volberda, H. W., Sidhu, J., & Oshri, I. (2013). Management innovation and adoption of emerging technologies process innovation: An inter-organizational perspective. *European Management Review*, *10*, 51–67. doi:10.1111/emre.12004

Kim, D.-Y., Kumar, V., & Kumar, U. (2012). Relationship between quality management practices and innovation. *Journal of Operations Management*, *30*(4), 295–315. doi:10.1016/j.jom.2012.02.003

Kimberly, J. R., & Evanisko, M. J. (1981). Organizational innovation: The influence of individual, organizational, and contextual factors on hospital adoption of technological and administrative innovations. *Academy of Management Journal*, *24*(4), 689–713. PMID:10253688

Lam, A. (2004). *Organizational innovation. BSBM Working Papers* (Vol. 1, no. 3). Uxbridge.

Lawrence, P. R. (1954). How to deal with resistance to change. *Harvard Business Review*, *32*(3), 49–57.

Leiblein, M. J., & Madsen, T. L. (2009). Unbundling competitive heterogeneity: Incentive structures and capability influences on technological innovation. *Strategic Management Journal*, *30*(7), 711–735. doi:10.1002mj.746

Lieberman, M. B., & Montgomery, D. B. (1988). First-mover advantages. *Strategic Management Journal*, *9*(S1), 41–58. doi:10.1002mj.4250090706

Lovelock, C., & Gummesson, E. (2004). Whither services marketing? *Journal of Service Research*, *7*(1), 20–41. doi:10.1177/1094670504266131

Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, *83*(2), 340–363. doi:10.1086/226550

Miles, I. (1999). Foresight and services: Closing the gap? *Service Industries Journal*, *19*(2), 1–27. doi:10.1080/02642069900000016

Miles, I. (2008). Patterns of innovation in service industries. *IBM Systems Journal*, *47*(1), 115–128. doi:10.1147j.471.0115

Miozzo, M., & Soete, L. (2001). Internationalization of services: A technological perspective. *Technological Forecasting and Social Change*, *67*(2-3), 159–185. doi:10.1016/S0040-1625(00)00091-3

Mol, M. J., & Birkinshaw, J. (2006). Against the flow: reaping the rewards of management innovation. *European Business Forum*, (27), 24–29.

Mol, M. J., & Birkinshaw, J. (2009). The sources of management innovation: When firms introduce new management practices. *Journal of Business Research*, *62*(12), 1269–1280. doi:10.1016/j.jbusres.2009.01.001

Mothe, C., & Nguyen Thi, T. U. (2012). Non-technological and technological innovations: Do services differ from manufacturing? An empirical analysis of Luxembourg firms. *International Journal of Technology Management*, *57*(4), 227–244. doi:10.1504/IJTM.2012.045544

Nieves, J. (2016). Outcomes of management innovation: An empirical analysis in the services industry. *European Management Review*, *13*(2), 125–136. doi:10.1111/emre.12071

OECD. (2005). *The measurement of scientific and technological activities. Oslo Manual. Guidelines for collecting and interpreting innovation data* (3rd ed.). Paris: OECD EUROSTAT.

Orfila-Sintes, F., & Mattsson, J. (2009). Innovation behavior in the hotel industry. *Omega*, *37*(2), 380–394. doi:10.1016/j.omega.2007.04.002

Ostrom, A. L., Bitner, M. J., Brown, S. W., Burkhard, K. A., Goul, M., Smith-Daniels, V., ... Rabinovich, E. (2010). Moving forward and making a difference: Research priorities for the science of service. *Journal of Service Research*, *13*(1), 4–36. doi:10.1177/1094670509357611

Pasmore, W. A., & Khalsa, G. S. (1993). The contributions of Eric Trist to the social engagement of social science. *Academy of Management Review*, *18*(3), 546–569. doi:10.5465/amr.1993.9309035150

Pavitt, K. (1984). Sectoral patterns of innovation: Towards a taxonomy and a theory. *Research Policy*, *13*(6), 343–374. doi:10.1016/0048-7333(84)90018-0

Perks, H., & Riihela, N. (2004). An exploration of inter-functional integration in the new service development process. *Service Industries Journal*, *24*(6), 37–63. doi:10.1080/0264206042000299176

Peteraf, M. A. (1993). The cornerstones of competitive advantage: A resource-based view. *Strategic Management Journal*, *14*(3), 179–191. doi:10.1002mj.4250140303

Pino, C., Felzensztein, C., Zwerg-Villegas, A. M., & Arias-Bolzmann, L. (2016). Non-technological innovations: Market performance of exporting firms in South America. *Journal of Business Research*, *69*(10), 4385–4393. doi:10.1016/j.jbusres.2016.03.061

Porter, M. E. (1996, November). What is strategy? *Harvard Business Review*, 61–78. PMID:10158475

Prange, C., & Schlegelmilch, B. B. (2016). Towards a balanced view of innovations. *Management Decision*, *54*(2), 441–454. doi:10.1108/MD-05-2015-0198

Rivkin, J. W. (2000). Imitation of complex strategies. *Management Science*, *46*(6), 824–844. doi:10.1287/mnsc.46.6.824.11940

Rubalcaba, L., Gago, D., & Gallego, J. (2010). On the differences between goods and services innovation. *Journal of Innovation Economics*, *5*(1), 17–40. doi:10.3917/jie.005.0017

Rubalcaba, L., Gallego, J., & Den Hertog, P. (2010). The case of market and system failures in services innovation. *Service Industries Journal*, *30*(4), 549–566. doi:10.1080/02642060903067571

Sapprasert, K., & Clausen, T. H. (2012). Organizational innovation and its effects. *Industrial and Corporate Change*, *21*(5), 1283–1305. doi:10.1093/icc/dts023

Schmoch, U., & Gauch, S. (2009). Service marks as indicators for innovation in knowledge-based services. *Research Evaluation*, *18*(4), 323–335. doi:10.3152/095820209X451023

Siggelkow, N. (2001). Change in the presence of fit: The rise, the fall, and the renascence of Liz Clairborne. *Academy of Management Journal*, *44*(4), 838–857.

Staw, B. M., & Epstein, L. D. (2000). What bandwagons bring: Effects of popular management techniques on corporate performance, reputation, and CEO pay. *Administrative Science Quarterly*, *45*(3), 523–556. doi:10.2307/2667108

Sturdy, A. (2004). The adoption of management ideas and practices: Theoretical perspectives and possibilities. *Management Learning*, *35*(2), 155–179. doi:10.1177/1350507604043023

Subramanian, A., & Nilakanta, S. (1996). Organisational innovativeness: Exploring the relationship between organisational determinants of innovation, types of innovations and measures of organisational performance. *Omega*. *International Journal of Management Sciences*, *24*(6), 631–647.

Sundbo, J. (1997). Management of innovation in services. *Service Industries Journal*, *17*(3), 432–455. doi:10.1080/02642069700000028

Sundbo, J. (2009). Innovation in the experience economy: A taxonomy of innovation organizations. *Service Industries Journal*, *29*(4), 431–455. doi:10.1080/02642060802283139

Tether, B. S. (2005). Do services innovate (differently)? Insights from the European Innobarometer Survey. *Industry and Innovation*, *12*(2), 153–184. doi:10.1080/13662710500087891

Tidd, J. (2001). Innovation management in context: Environment, organization and performance. *International Journal of Management Reviews*, *3*(3), 169–183. doi:10.1111/1468-2370.00062

Tidd, J., & Thuriaux-Alemán, B. (2016). Innovation management practices: Cross-sectorial adoption, variation, and effectiveness. *R & D Management*, *46*(S3), 1024–1043. doi:10.1111/radm.12199

Trist, E. L., & Bamforth, K. W. (1951). Some social and psychological consequences of the long wall method of coal-getting: An examination of the psychological situation and defences of a work group in relation to the social structure and technological content of the work system. *Human Relations*, *4*(1), 3–38. doi:10.1177/001872675100400101

Vaccaro, I. G., Jansen, J. J. P., Van Den Bosch, F. A. J., & Volberda, H. W. (2012). Management innovation and leadership: The moderating role of organizational size. *Journal of Management Studies*, *49*(1), 28–51. doi:10.1111/j.1467-6486.2010.00976.x

Van Der Aa, W., & Elfring, T. (2002). Realizing innovation in services. *Scandinavian Journal of Management*, *18*(2), 155–171. doi:10.1016/S0956-5221(00)00040-3

Vergori, A. S. (2014). Measuring innovation in services: The role of surveys. *Service Industries Journal*, *34*(2), 145–161. doi:10.1080/02642069.2013.763343

Volberda, H. W., Van Den Bosch, F. A. J., & Heij, C. V. (2013). Management innovation: Management as fertile ground for innovation. *European Management Review*, *10*(1), 1–15. doi:10.1111/emre.12007

Volberda, H. W., Van Den Bosch, F. A. J., & Mihalache, O. R. (2014). Advancing management innovation: Synthesizing processes, levels of analysis, and change agents. *Organization Studies*, *35*(9), 1245–1264. doi:10.1177/0170840614546155

Walker, R. M., Chen, J., & Aravind, D. (2015). Management innovation and firm performance: An integration of research findings. *European Management Journal*, *33*(5), 407–422. doi:10.1016/j.emj.2015.07.001

Walker, R. M., Damanpour, F., & Devece, C. A. (2011). Management innovation and organizational performance: The mediating effect of performance management. *Journal of Public Administration: Research and Theory*, *21*(2), 367–386. doi:10.1093/jopart/muq043

Wall, T. D., Michie, J., Patterson, M., Wood, S. J., Sheehan, M., Clegg, C. W., & West, M. (2004). On the validity of subjective measures of company performance. *Personnel Psychology*, *57*(1), 95–118. doi:10.1111/j.1744-6570.2004.tb02485.x

KEY TERMS AND DEFINITIONS

Financial Business Performance Measures (Examples): Productivity, return on investment, profitability, profit, sales.

Innovation: Creation of premeditated changes focused on the economic or social potential of the firm.

Management Innovation: Change of traditional management principles, processes and practices, which significantly change the way the management work is carried out (e.g., problem solving by workers, strategic analysis, leadership).

Non-Financial Business Performance Measures (Examples): Increased customer satisfaction, consumer loyalty, reputation and perceived image, the satisfaction of workers and consumers, and the quality of service.

Service Innovation: Such as new knowledge or technologies that companies incorporate into their service offerings, which results in value for both customers and businesses.

Service Innovation Capability: Routines and processes that service companies implement to develop, create, and/or improve the services they deliver.

Social System: Consists of the organizational members and the relationships between them.

Technical System: Consists of the equipment and methods of operations used to transform raw materials or information into products or services, respectively.

Technological Innovation: Product and technological process innovations.

Chapter 3
Profile of Top Companies Compared to the Most Valued Companies for Professional Performance in Spain

Francisco J. Ferreiro Seoane
University of Santiago Compostela, Spain

ABSTRACT

The objective of this chapter is to analyze the profile of the hundred most valued companies in terms of job performance in Spain in the 2013-2016 period, comparing it with those who have been in the ranking every year, which are called "top." The study compared the 400 most valued companies with the 160 "top" companies and classified them by nationality, location, size, share price, and economic activity through the measurement of seven factors—talent management, retribution, work environment, RSC, education, employee perception, and total value—using unifactorial variance analysis and multiple linear regression techniques. It is concluded that size, nationality, location, and sector have no relevance and only the share price shows the influence. It is an innovative and quantitative work that allows measuring the characteristics of the most attractive companies in terms of professional performance and those companies that always appear in that ranking as the "best."

INTRODUCTION

There are multiple companies that offer their products or services day by day to their customers, trying to survive in the market where the competition is growing. The number of companies operating in Spain is around 3.5 million, from which only 100 are in the list that the Revista de Actualidad Económica (*RAE*) publishes every year. If having a job in Spain is complicated, considering the structural levels of unemployment with a 14,55% in the third quarter of 2018, playing a professional career in the most attractive companies to work means an extra incentive to the professionals. But what are these companies? What is their profile? In which economic sectors do they operate? Is the size of the company relevant or listed on the stock market?

DOI: 10.4018/978-1-5225-7937-3.ch003

The goal of the present article is to analyze the profile of the one hundred most valued companies in labour performance in Spain during the period 2013-2016, taking into account the list published every year by the Revista de Actualidad Económica (*RAE*), and comparing those that have been all years in that ranking. The *RAE* elaborates the ranking based on the valuation of six variables and the total sum of them, such as the Management of the Talent, the Retribution, The Work Environment, Corporate Social Responsibility, Education, Valuation of Employees and the Total.

The study starts with a theoretical framework about the different contributions made by authors experts in the matter. After that, the objectives of this work as well as the methodology used are specified exposing the simple employed, the variables used, the procedure of analysis and the method of study. Then, the qualitative analysis is made, in which there will be a comparative analysis between the most valued companies of the ranking and the "Top" companies, according to their nationality, their location by Autonomous Community, their size, their share price, their economic activity and, finally, their global valuation. Similarly, it will be studied which the "Top" companies are according to their valuation and average position in the ranking along the four years selected, as well as the activity sector they belong to.

The study will end with a section of limitations and discussion with the pertinent conclusions.

THEORETICAL FRAMEWORK

Globalization and competitiveness make working in the most valued companies for job performance a relevant fact, which according to Friedman (2014) and Morgan (2014) depend on new behaviors, technology, the degree of mobility and the level of globalization achieved. There are several rankings that establish which are the most outstanding companies for job performance, such as the Fortune 100 Best Companies to Work for, Glassdoor which publishes annually for the United States and some European countries, Best Places to Work lists, Marcaempleo which publishes its Merco Talento ranking, which orders by rating the "100 best Spanish companies to work for". Universum, which develops rankings of "top employers" for several countries. The Top Employers Institute publishes a list of companies certified by them for "creating optimal conditions for the development of their employees, both personally and professionally". For its part, Workforce magazine produces a ranking of The World's Top Companies for HR through the combination of several indexes or rankings, including Great Place to Work.

Hinkin and Tracey, (2010) highlight that being in some ranking make companies the best in their human resources practices. Guinot, Chiva and Mallén, (2015), in their work on organizational learning capacity, have used rankings of the best companies to work for in Spain to select their cases, among them the RAE. Empirical research is found on the association between the status of a company's large workplace, attributed by the presence in the Fortune ranking, and its performance (Fulmer, Gerhart and Scott, 2003, Romero, 2004), the satisfaction of the clients (Simon and DeVaro, 2006), their resilience in times of financial crisis (Carvalho and Areal, 2016); or about the human resource practices that make the companies in that list "the best" (Hinkin and Tracey, 2010). The recent literature highlights the need for companies to universally standardize (international) practices and adjust to the local context (specific markets) (Amossé et al., 2016, Gallie, 2007, Ibrahim and Shah, 2013, Quintanilla and Ferner, 2003)

Work satisfaction has been and is an abundantly used concept. Its emergence is due to Hoppock, who developed his first studies about this topic in 1935 covering different groups of population. Spec-

tor (1997) defines how a person feels in different aspects of his job and what motivates him to be more efficient, productive and loyal. According to Aziri (2011) the idea of satisfaction comes from the comparison between the real job and the expectations the employee had, in such a way that the worker will be unsatisfied if he believes to be in disadvantage compared to his colleges or if he considers that his previous work offered better conditions. Also, the employees will not be satisfied with their job if they have a bad relationship with their partners and an inadequate communication about the decisions that directly affect the performance of their tasks, according to the investigations made by Gliem and Gliem in 2001 and Gray and Laidlaw in 2002.

The conduct of the company is shown in the behaviour of its employees and therefore, the directors need to create satisfied workers that represent the Company in an efficient way in any interaction with the clients and other interested parts (Bateman and Órgan 1983; Fryxell and Gordon 1989; Kim 2002). Satisfied employees have a higher devotion for their job and are more productive, which is appreciated in their motivation at the time of striving in their tasks and taking responsibilities, and in their willingness to learn how to do their job the best way possible (Baron 1991; Nijhof et al. 1998). The researches of Aristovnik and Jaklič (2013) enhance the idea that satisfied employees are more motivated and get better results.

The employees contribute to create a corporate reputation through the quality of their interactions with clients (Davies et al. 2003; Helm 2007). According to Jitpaiboon et al. (2006) the employees that feel proud of their company tend to participate in activities that support the organization's goals as the affiliation to a reputable company improves their self-esteem (Elsbach and Glynn 1996; Riordan et al. 1997; Cable y Turban 2003). In his study, Poggi (2010) says that the 79.8% of employees highlight that work conditions are quite important. Bešlić and Bešlić (2008) explain that satisfaction at work will increase if employees believe the rewarding system is fair, according to the methods used to determine the incentives, the rewards and the benefits.

Another very important variable when analysing work satisfaction is the Corporate Reputation (CR), which authors as Fernández et al. (2016) define as a "collective representation of past actions and results of a Company that describes its ability to distribute the value created, among the shareholders". According to Kotha et al. (2001), the Corporate Reputation is an inimitable and irreplaceable asset for the company and the source of barriers inside and between sectors due to the differentiation, as in accordance with Capraro and Srivastava (1997) and Fombrun and Shanley (1990), the CR provides a company with a sustainable competitive advantage and with value. Fombrun et al. (2000) and Pfeiffer et al. (2012) establish that a good Corporate Reputation increases the reward expected in future interactions with the others. Fernández et al. (2016), after their research about their relationship and the market value of the companies, affirm that the presence of companies in rankings of reputation leads to a higher value.

As final statement authors should be mentioned as Brown (2001) and Clark et al. (2007), which testify in their studies that the salary affects the motivation of the employees in the sense that those are satisfied with their job, if there are not discrepances between their monthly income and the income they would obtain in other companies, which is evidenced by the results of the last study made by Kabak et al. (2014), that shows a significant correlation of 0.062 between work satisfaction and salary.

In the theoretical framework we have not found any model or work that studied the same thing that is tried in this article, in spite of the existence of several lists of the most attractive companies for professional development or the numerous contributions related to human resources in general, so we are facing a novel job.

OBJECTIVE AND METHODOLOGY

The aim of this article is to analyze the profile of the one hundred most valued companies in labour performance in Spain within the period 2013-2016, published by the RAE, differentiating and comparing those that have been in that ranking all years, which are called "Top", with the total of companies that have ever been in it.

Each year, the most-valued hundred companies regarding labour performance in Spain are selected, in such a way that for the period 2013-2016 there is a total sample of 400 companies that includes 182 different organizations, which reveals that they are not always the same. Therefore, it has been selected the companies that have appeared in the ranking all those years, resulting in a simple of 160 companies in four years that can be summarize in 40 different organizations (Appendix). Thus, the study will compare the profile of the 160 companies, called "Top", with the total of 400 that have been in the ranking between 2013 and 2016.

To carry out this ranking, a questionnaire has been sent by the RAE to the companies that have been in Spain more than five years and have more than 100 employees. Expert consultants and professionals of Human Resources analyze the questionnaires giving a weighting to the following variables:

- **Talent Management:** Independent variable used in the evaluation of companies with a weight of 240 points and which measures the projection of the employees, the performance and the unwanted rotation of the companies object of study. The importance of this variable was already reflected by Alles (2006).
- **Retribution and Compensation:** Independent variable used in the evaluation of companies with a weight of 225 points that results from the combination of fixed and variable salaries, remuneration in kind and social benefits of the companies object of study, whose relevancy was highlighted in works of Brown (2001), Clark et al. (2007) and Kabak et al. (2014).
- **Work Environment:** Independent variable used in the evaluation of companies with a weight of 205 points that analyzes the hours, teleworking, family conciliation and working conditions of the companies object of study, as it was reflected in the study of Loscocco y Spitze (1990).
- **Corporate Social Responsibility (CSR):** Independent variable used in the evaluation of companies with a weight of 50 points that measures social and volunteer policies which involves the staff of the companies object of study as it was reflected by numerous authors as Hall (1992) and Rose and Thomsen (2004).
- **Training:** Independent variable used in the evaluation of companies with a weight of 220 points that measures the investment received in training for each employee of the companies object of study, which values the investment received by the employee (Sánchez and LLoret, 2010).
- **Employees:** Independent variable used in the evaluation of companies with a weight of 60 points that measures the assessment of the professionals of the company object of study in which they work.

Once the variables are identified and valued, they have been classified according to the total average by country, by location in Autonomous Communities, by size, by listed or not listed and by economic activity, differentiating and comparing the total most valued companies regarding professional performance in Spain with the "Top" companies.

Nationality. Ibrahim and Shah (2013) do not find a relationship between nationality and the human resources of companies; On the other hand, Ferner (1997) did see differences in the management of human resources in multinational companies depending on the country of origin. In this work, each company is identified with the country of origin, which will allow us to obtain statistics grouped by nationality of the variables under study and to consider whether nationality influences the valuation of the companies that are in the ranking of the companies in the RAE.

Territorial location: In some studies, there are certain differences between human resource practices according to the place where they operate (Amossé et al., 2016, Conway et al., 2008, Fields, Chan and Akhtar, 2002, Paawee and Boselie, 2007). For this reason, all the companies were classified according to the geographical location of the head office in Spain and to see the possible impact that this could have on the valuation of the companies.

Size of the company: Is size a factor that influences the professional attractiveness of companies? According to Fields, Chan and Akhtar, (2002), It is. On the other hand, Kortekaas (2007), concludes that there is a relationship between the size and behavior of employees. Morgan (2014) highlights that in small companies there is greater flexibility. In contrast, Ibrahim and Shah (2013) argue that small businesses lack the necessary resources that limit their human resources policy.

Quotation in the stock market: Despite the work of Conway et al. (2008, pp. 638) there are no clear conclusions about whether the fact of listing on the stock market increases the professional attractiveness of companies, therefore, we think it is key to ask ourselves whether quoting on the stock exchange has an influence on the valuation of companies that publish the RAE.

Economic activity: Jackson and Schuler (1995, pp. 251 et seq.) Include in their analyzes the characteristics of the sector of activity. According to Conway et al., 2008 can be categorized in several ways: services / industry. In this study, companies are classified according to the sector of activity using the National Classification of Economic Activities (CNAE) in order to determine if these could have relevance in the assessment of companies from a human resources perspective.

For these analyzes, statistical techniques have been used grouping the companies by the variables (nationality, location, economic activity, size and stock market quotation) in order to better know the profile of the companies that are listed in the RAE and see the possible influence in the result obtained by the companies. We will use unifactorial variance to determine if there are significant differences between the companies in the general list and the "Top" (those listed every year), given that there are no previous studies of these characteristics and this research is a contribution to science

STATISTICAL ANALYSIS OF THE MOST ATTRACTIVE COMPANIES FOR PROFESSIONAL DEVELOPMENT

When analysing the total companies that appeared in the ranking as the most valued ones for the period 2013-2016, against the "Top" ones that appear every year according to their nationality, it can be appreciated in Table 1 that from the first group there are seventeen nationalities, mostly European, being reduced to ten countries if we compare them with the second group. States as China with a 0.3% of participation, Denmark with 0.5%, Japan with 1.0%, Luxemburg with a 0.3%, Portugal with a 1.0% and Sweden with a 3.0% are losing now their positions in the ranking. The most remarkable case is Sweden's which, with a total of 12 companies among the most valued ones, none of them has kept their presence in the ranking the four years.

From the "Top" companies that appear those four years in the ranking, only a bit more than a third have Spanish nationality (37.5%), very similar if compared it with the total of companies (38.8%); followed by UE (20.0%), which has improved its position when comparing it with the total simple as well as the UK (12.5%), the location does not vary if we focus on the global computation of attractive companies.

It must be highlighted that the "Top" companies reach a higher global average valuation in most of the nationalities, except Switzerland which is three points under the global average of all the most valued companies to work. Therefore, it can be assured the positive tendency of a favorable valuation of those companies that maintain their position year by year. If attention is paid on the country with a higher valuation within the "Top" companies, the most valuable companies are located in the Netherlands which reaches a punctuation of 843.5 points of global average, followed by those from South Korea with 828.8 points. The most representative ones are the Spanish companies, among which fifteen companies keep their presence during the years of study (Appendix), reaching a global average valuation of 818.6 points and in which we can highlight financial and insurance companies as the energy ones. If the global calculation is observed of the most valued companies to work in, the differences compared to the previous case are salient as obtaining as result that South Korea, is the country with a higher valuation with 828.8 points, followed by Switzerland with 14 companies, which obtains a global average of 799.9 points and where it can be highlighted the pharmaceutical economic activity.

Table 1. Comparison between the most value companies for professional performance and those who appear all years according to their nationality (2013-2016). Average valuation.

	Companies Listed Every Year "Top"			Companies Listed in Any Year (Global Sample)		
Nationality	**Total**	**N. Companies**	**%/Total**	**Total**	**N. Companies**	**%/Total**
Germany	768.9	12	7.5%	760.3	28	7.0%
China				650.0	1	0.3%
South Korea	828.8	4	2.5%	828.8	4	1.0%
Denmark				634.5	2	0.5%
EEUU	808.3	32	20.0%	773.9	65	16.3%
Spain	818.6	60	37.5%	767.2	155	38.8%
Finland				775.0	2	0.5%
France	805.4	16	10.0%	759.1	34	8.5%
Ireland	789.0	4	2.5%	789.0	4	1.0%
Italia	764.5	4	2.5%	761.8	9	2.3%
Japan				777.3	4	1.0%
Luxemburg				722.0	1	0.3%
Netherlands	843.5	4	2.5%	761.1	21	5.3%
Portugal				731.5	4	1.0%
Sweden				721.2	12	3.0%
Switzerland	796.3	4	2.5%	799.9	14	3.5%
UK	796.7	20	12.5%	765.6	40	10.0%
Total	807.0	160	100.0%	765.8	400	100.0%

Source: Compiled by author with data from the journal of Actualidad Económica 2013, 2014, 2015, 2016.

Regarding the territorial analysis by Autonomous Community, in Table 2 it is observed that there are thirteen over a total of seventeen Communities in which the total most valued companies to work are domiciled in Spain are located and how it is just four Communities when analysed the "Top" companies. Madrid, capital of the kingdom of Spain, (77.5%) is the Community that embraces the highest number of companies and with the highest number of international companies from nine different countries; followed by Cataluña with a 15.0% of companies of four different nationalities. País Vasco with a 5.0% and Cantabria with a 2.5% have only domiciled Spanish companies. Regarding the global computation of attractive companies domiciled in Spain, the tendency is similar to the previous one, resulting that Madrid is the Community with a higher number of companies (76.8%), followed by Cataluña with 12.8% and the País Vasco with a 3.0%. Hence, it seems to there be a direct close relationship between economic performance and the average of value of the "Top" companies that are more attractive for labour performance.

Analysing the total value of the companies that appear the four years in the ranking, we see that the País Vasco is the community that obtains a higher punctuation with 842.6 point, highlighting BBVA, which is the "Top" company with the best valuation (880 points), and Iberdrola, which is in the 20th position (Appendix). This one is followed by the Autonomous Community of Cantabria with Santander Bank in position 12 (841.5 points). The next community by valuation is Madrid (805.5 points) whose main companies occupy from the second to the seventh position (Appendix).

Nevertheless, if attention is focused on the overall average rating of the companies in the ranking, the community with the highest value would be Cantabria (785.0 points), followed by Cataluña 775.5 points and País Vasco with 771.6 points.

Table 2. Comparison between the best valued organizations for professional performance and the ones that appear all years in the ranking according to their location (2013-2016). Average valuation.

	Companies That Appear as "Top" All Years			**Companies That Appear Some Year (Global Sample)**		
AACC	**Total**	**N. Companies**	**%/Total**	**Total**	**N. Companies**	**%/Total**
Andalucía				718.0	4	1.0%
Aragón				716.5	2	0.5%
Asturias				692.0	2	0.5%
C. Valenciana				718.7	3	0.8%
Cantabria	841.5	4	2.5%	785.0	6	1.5%
Castilla y León				711.0	2	0.5%
Cataluña	796.8	24	15.0%	775.5	51	12.8%
Galicia				771.0	3	0.8%
Islas Baleares				757.2	6	1.5%
Islas Canarias				710.0	1	0.3%
Madrid	805.5	124	77.5%	766.6	307	76.8%
Murcia				635.0	1	0.3%
País Vasco	842.6	8	5.0%	771.6	12	3.0%
Total general	807.0	160	100.0%	765.8	400	100.0%

Source: Compiled by author based on data published in the journal Actualidad Económica 2013, 2014, 2015, 2016.

It is noted that, as it happened with the analysis by nationality, the average valuation of the companies that keep their position in the "Top" is considerably superior in all Autonomous Communities with respect to the global computation of companies.

Hereafter, the differences by size between the most valued companies for professional performance in Spain and companies in the "Top" are analyzed. The variable size refers to the number of workers that the most attractive companies have in Spain, classifying them into two large groups, medium and large.

As shown in Table 3, the percentage of companies with a large size in the markets is much higher than the percentage of medium-sized companies compared to the most valued companies with 87.3% of the total, as well as the companies that maintain your positions in the market. "Superior" with 95%.

Regarding the total average valuation, it is noteworthy that for the group of most valued companies, the best score corresponds to the large companies with 768.3 points, while, if you look at the companies in the "Top", the medians companies obtain a slight advantage over the other group with 816.0 points.

It is also notable that companies in the "Superior", medium and large sizes alike obtain an average value higher than the total set of companies.

Now the similarities and discrepancies that exist between the set of companies best valued to work in Spain and the companies in the "Top" with respect to whether they are on the list or not will be studied. In both cases, the presence of companies listed is clearly higher than those that are not listed (Table 4). However, as in the previous section, the "Top" companies that are not on the list (22.5%) get a higher score compared to those listed (804.1). In the case of the total set of most valued companies, companies within the stock market have a higher total average value (774.1 points).

Table 3. Comparison between the best valued organizations for professional performance and the ones that appear all years in the ranking according to their size (2013-2016). Average valuation.

	Companies That Appear as "Top" All Years			Companies That Appear Some Year (Global Sample)		
Description	**Total**	**N. Companies**	**%/Total**	**Total**	**N. Companies**	**%/Total**
Middle	816.0	8	5.0%	749.0	51	12.8%
Big	806.5	152	95.0%	768.3	349	87.3%
Total	807.0	160	100.0%	765.8	400	100.0%

Source: Compiled by author based on data published in the journal Actualidad Económica 2013, 2014, 2015,2016.

Table 4. Comparison between the best valued organizations for professional performance and the ones that appear all years in the ranking according to their share price (2013-2016). Average valuation.

	Companies That Appear as "Top" All Years			Companies That Appear Some Year (Global Sample)		
Description	**Total**	**N. Companies**	**%/Total**	**Total**	**N. Companies**	**%/Total**
Not listed	817.0	36	22.5%	748.8	131	32.8%
Listed	804.1	124	77.5%	774.2	269	67.3%
Total	807.0	160	100.0%	765.8	400	100.0%

Source: Compiled by author based on data published in the journal Actualidad Económica 2013, 2014, 2015, 2016.

In the following paragraphs, it is shown a comparison according to their economic activity. As seen in Table 5, analysing the companies that appear in the ranking some year, there are 15 economic sectors at level 1 according to the CNAE and as a result it is observed that the 24.3% of the most attractive companies operate in financial and insurance activities, in second place, professional, scientific and technical activities appear with a 16.3%; in third place are the wholesale and retail commerce with a 14.3%. Focusing attention only on companies that remain in the "Top", it is reduced to nine sectors (Table 5), showing a trend similar to the previous one: financial and insurance activities with 32.5%, followed by professionals, scientists and technical activities with 20.0%; and finally, presenting as a difference that the third place is occupied by the manufacturing industry (12.50%).

Analysing the average valuation of all the companies from the ranking, there are four activities as the most valued and with little difference between each other, highlighting in the first place, the health sector with 783.6 points; the energetic sector with 782.5 points; the sector of financial activities with 781.3 points; and the sector of professional activities with 779.7 points. However, these positions change if you focus on those companies in the "Top", in such a way that the first position corresponds to health activities with 844.3 points, the second position would be for professional activities with 820.5 points,

Table 5. Comparison between the best valued organizations for professional performance and the ones that appear all years in the ranking according to their economic activity (2013-2016). Average valuation.

	Companies That Appear All Years in the "Top"			**Companies That Appear Some Year (Global Sample)**		
Description CNAE	**Total**	**N. Companies**	**%/Total**	**Total**	**N. Companies**	**%/Total**
Agriculture, farming, forestry and fishing				715.0	1	0.3%
Manufacturing industry	788.9	20	12.5%	771.5	47	11.8%
Electric power supply, gas, steam and air conditioner	802.6	16	10.0%	782.5	21	5.3%
Construction	773.0	4	2.5%	743.1	7	1.8%
Wholesale and retail commerce	795.1	16	10.0%	751.9	57	14.3%
Transport and storage			0.0%	731.7	7	1.8%
Catering	775.0	4	2.5%	746.4	9	2.3%
Information and Communications	805.3	12	7.5%	755.5	49	12.3%
Financial and insurance activities	813.2	52	32.5%	781.3	97	24.3%
Real estate activities				729.4	7	1.8%
Professional, scientific and technical activities	820.5	32	20.0%	779.7	65	16.3%
Administrative activities and auxiliary services				737.3	23	5.8%
Public administration and defence; mandatory social security				645.0	1	0.3%
Education				672.0	2	0.5%
Healthcare activities and social services	844.3	4	2.5%	783.6	7	1.8%
Total	807.0	160	100.0%	765.8	400	100.0%

Source: Compiled by author based on data published in the journal Actualidad Económica 2013, 2014, 2015, 2016.

where there are consulting companies and the financial and insurance activities appear in the third place with 813.2 points.

It is noted that there is a clear favourable tendency of high valuation towards sectors of activities related to the companies at the "Top" with respect to the sectors that encompass the global computation of all the companies.

Using the Unifactorial Variance and the comparison of means between the "Top" companies and the rest, it can be seen in Table 6 that for all the variables measured: Talent, Retribution, Environment, CSR, education, value given by the employees and the Total, the numbers are in favor of the "Top" companies in a significant way, so it can be concluded that in this section that the companies that appear permanently in the ranking are more attractive than the rest, regarding labor performance.

LIMITATIONS

This article reveals a series of limitations in relation to the established objective. First, it is a quantitative work conditioned by the independent variables published by the RAE. Another limitation is determined by the selection of objective and quantifiable variables, such as sector, nationality, size, stock market quotation or regional location, while avoiding factors such as leadership, management capacity, qualitative variables and whose evaluation is more complex. Another limitation is temporary, since they are data for a specific period comprised between the years 2013 and 2016. This is added to the national limitation since they focus on companies that operate in a European country and the data may be different in other countries.

Table 6. Statistics of group and test of independent samples of the "Top" companies to work against those that appear some year in the ranking 2013-2016.

Measures		N	Average	F.	Sig.	Test of Levene	Sig. (bilateral)
Talent	Top	160	184.1688	9.966	.002	Do not assume similar variances	.000
	Rest	240	171.7958				
Retribution	Top	160	172.0938	5.223	.023		.000
	Rest	240	153.0833				
Environment	Top	160	168.6688	.290	.590		.000
	Rest	240	151.7792				
CSR	Top	160	43.7938	2.837	.093		.000
	Rest	240	40.4875				
Education	Top	160	183.1563	1.522	.218		.000
	Rest	240	169.9417				
Employees	Top	160	55.1063	17.396	.000		.000
	Rest	240	51.3208				
Total	Top	160	806.9875	.178	.674		.000
	Rest	240	738.4083				

Source: Compiled by author based on data published in the journal Actualidad Económica 2013, 2014, 2015,2016.

DISCUSSION AND CONCLUSION

The first conclusion would be that the 182 companies in the ranking of the most valued ones for the period 2013-2016 are reduced to 40 companies when talking about the "Top" ones which means that only the 21.9% remains the four years, which is indicative of the difficulty of ever being in the ranking and much more being several years in a row.

Attention is focused on the analysis by nationality, there are 17 countries among the most valued companies, being reduced to 10 nationalities if attention is focused just at the "Top" companies, and where the Spanish ones are predominating in both cases, followed by the American and the British ones. The reasons why companies come from few countries are related to the multinational nature of the same and that these are more typical of developed countries.

However, after analysing the average valuation important differences are found as the values increase when only the companies that appear in the ranking all years are considered, highlighting the Netherlands, South Korea and Spain.Therefore companies that are in the "Top" are more valued than those that do not manage to stay in the ranking usually. On the other hand, it is significant that those from the north or central Europe, such as the United Kingdom, France, Germany, or Switzerland, are not among the most valued in the "Top" ranking, whereas they are from Italy or Ireland. It is clear that countries with less economic development may have companies present in the "Top" list. In any case, they do not appreciate significant differences, which is consistent with the conclusions of Ibrahim and Shah (2013).

Another conclusion to note is that when the analysis by Autonomous Communities is made, from the 13 companies in the global simple the number is reduced to 4 when focusing on the "Top" ones, being Madrid, Cataluña, Cantabria and País Vasco, which also obtain the highest value. With the exception of Cantabria, this is related to economic development being the most prominent regions of the Kingdom of Spain. In any case, it can not be concluded that they are significant differences, which would not be in line with the studies of Amossé et al., 2016; Conway et al., 2008; Fields, Chan and Akhtar, 2002; Paawee and Boselie, 2007.

By analysing the size it is concluded that big companies are the ones with a higher predominance in the market, even higher if attention is focused at the "Top" companies (95%), even though the middle-size companies are more valued (816) than the 806.5 points of the big ones.

When the sample is that of all the companies, the larger ones are more valued, being in the opposite direction when we stick to the companies "Top. It can be concluded that, in general terms, size has a positive influence on the most attractive companies to work for in the companies of the general list. This conclusion confirms the previous findings of Fields, Chan and Akhtar, (2002) And of Ibrahim and Shah (2013) and stress that large enterprises, which Internationals predominate, they have a policy of human resources that tend to be more valued than those of smaller dimensions.

It can be also concluded that the profiles of the most attractive companies for labour performance is favourable towards listed organizations, with a higher percentage in "Top" with a 77.5%. Regarding the valuation, the same thing happens as with the size, in the general list the companies that are listed on the stock market come out more valued; instead, focusing on the ones that always appear, the result is favor to those that do not quote. The conclusion is that it does seem significant in the general listing, a fact that has its explanation in that companies that have the ability to quote on the stock market have a general khow how superior to those that are not quoted.

However, in the case of the size, those not listed obtain a higher valuation with 817 points against the 804.1 points of those that are listed.

The profile of the companies according to their economic activity does not change in any group as among the 400 organizations in the ranking, the financial, insurance, professional, scientific and technical activities have predominance, and the same happens in the "Top" group. Regarding their valuation, it must be included the healthcare activity as the most value one as well as the energetic sector, aspect that without being significant is remarkable and with a solid argumental base. Healthcare companies demand qualified professionals as top medical graduates. In Spain the access to the faculties is very complicated with minimum court notes above 12 points on 14 points (2018 year on the first list has been 12.11), together with six years of harsh demands, the preparation of the MIR (Internal Medical Resident) and five years of residency. That gives us an idea of the level of qualification of the health sector. The energy sector is supported by the presence of engineers who also have a high degree of qualification, as well as that of professionals and scientific activities.

Another conclusion is that "Top" companies have an average valuation that is significantly superior to the rest, in all parameters and with bilateral meaning in such a way that they are more attractive for professional performance that those in the global simple.

It is appreciated that neither the nationality, nor the location, nor the activity sector, have a relevant influence at the time of valuing the most interesting companies for professional performance. On the other hand, if the size and the quotation in the stock market seems to show a relevance in the companies that appear in the ranking for the period 2013-16, it does not appear in the ones that appear in all the years ("Top")

Despite the statistical limitations, it could be configure the profile of the most attractive companies for labour performance, they are mainly Spanish, even though the Dutch, Korean and Swiss companies obtain a good valuation; located in Madrid, Cataluña, País Vasco; big-sized, listed and whose main activity is either the financial and insurance business, or the professional, healthcare or energetic sector, As a final conclusion we can highlight the contribution of this research, since it had not been done by any other author in similar terms. It has allowed to identify a profile of the most attractive companies for work performance and assess which variables have more influence in said valuation. In addition, the quantitative value of the work must be highlighted, which makes it possible to better technify the conclusions.

It is recommended that the future data published by the RAE journal will be analyzed and compared with the results obtained in this study, as well as identifying new variables that could explain the results obtained by the most attractive companies to work in Spain. Another recommendation would be to carry out similar studies in other countries and make an international comparative analysis.

REFERENCES

Alles, M. (2006). *Desarrollo del talento humano basado en competencias*. Buenos Aires, Argentina: Ediciones Granica S.A.

Amossé, T., Bryson, A., Forth, J., & Petit, H. (2016). Managing and working in Britain and France: An introduction. In T. Amossé, A. Bryson, J. Forth, & H. Petit (Eds.), *Comparative workplace employment relations. An analysis of practice in Britain and France* (pp. 1–26). Palgrave MacMillan. doi:10.1057/978-1-137-57419-0_1

Aristovnik, A., & Jaklič, K. (2013). Job satisfaction of older workers as a factor of promoting labour market participation in the EU: The case of Slovenia. *Revija za Socijalnu Politiku*, *20*(2), 123–148. doi:10.3935/rsp.v20i2.1126

Aziri, B (2011). Job satisfaction: A literature review. *Management Research and Practice, 3*(4), 77-86.

Baron, R (1991). Motivation in work settings: Reflections on the core of organizational research. *Motivation and Emotion, 15*(1), 1-8. doi:10.1007/BF00991472

Bateman, T., & Organ, D. (1983). Job satisfaction and the good soldier: The relationship between affect and employee "citizenship". *Academy of Management Journal*, *26*(4), 587–595. doi:10.2307/255908

Bešlić, I, & Bešlić, D (2008). Zadovoljstvo poslom. *Škola biznisa, 3*, 154-162.

Brown, M. (2001). Unequal pay, unequal responses? Pay referents and their implications for pay level satisfaction. *Journal of Management Studies*, *38*(6), 879–896. doi:10.1111/1467-6486.00263

Cable, D., & Turban, D. B. (2003). The value of organizational reputation in the recruitment context: A brand-equity perspective. *Journal of Applied Social Psychology*, *33*(11), 2244–2266. doi:10.1111/j.1559-1816.2003.tb01883.x

Capraro, A. J., & Srivastava, R. K. (1997). Has the influence of financial performance on reputation measures been overstated? *Corporate Reputation Review*, *1*(1), 86–92. doi:10.1057/palgrave.crr.1540023

Carvalho, A., & Areal, N. (2016). Great places to work: Resilience in times of crisis. *Human Resource Management*, *55*(3), 479–498. doi:10.1002/hrm.21676

Clark, A., Kristensen, N., & Westergard-Nielsen, N. (2007). Job satisfaction and co-worker wages: Status or signal? *Economic Journal (London)*, *119*(536), 430–447. doi:10.1111/j.1468-0297.2008.02236.x

Conway, N., Deakin, S., Komzelmann, S., Petit, H., Rebérioux, A., & Wilkinson, F. (2008). The influence of stock market listing on human resource management: Evidence for France and Britain. *British Journal of Industrial Relations*, *46*(4), 632–673. doi:10.1111/j.1467-8543.2008.00698.x

Davies, G., Chun, R., Vinhas da Silva, R., & Roper, S. (2003). *Corporate reputation and competitiveness*. London: Routledge.

Elsbach, K. D., & Glynn, M. A. (1996). Believing your own "PR": Embedding identification in strategic reputation. *Advances in Strategic Management*, *13*, 65–90.

Fernández-Gámez, M. A., Gil-Corral, A. M., & Galán-Valdivieso, F. (2016). Corporate reputation and market value: Evidence with generalized regression neural networks. *Expert Systems with Applications*, *46*, 69–76. doi:10.1016/j.eswa.2015.10.028

Ferner, A. (1997). Country of origin effects and HRM in multinational companies. *Human Resource Management Journal*, *7*(1), 19–37. doi:10.1111/j.1748-8583.1997.tb00271.x

Fields, D., Chan, A., & Akhtar, S. (2002). Organizational context and human resource management strategy: A structural equation analysis of Hong Kong firms. *International Journal of Human Resource Management*, *11*(2), 264–277. doi:10.1080/095851900339864

Fombrun, C. J., Gardberg, N. A., & Barnett, M. L. (2000). Opportunity platforms and safety nets: Corporate citizenship and reputational risk. *Business and Society Review*, *105*(1), 85–106. doi:10.1111/0045-3609.00066

Fombrun, C. J., & Shanley, M. (1990). What's in a name? Reputation building and corporate strategy. *Academy of Management Journal*, *33*(2), 233–258.

Friedman, R. (2014). *The best place to work. The art and science of creating an extraordinary workplace.* Penguin.

Fryxell, G, & Gordon, M (1989). Workplace justice and job satisfaction as predictors of satisfaction with union and management. *Academy of Management Journal, 32*(4), 851-866. doi:10.2307/256571

Fulmer, I. S., Gerhart, B., & Scott, K. S. (2003). Are the 100 Best better? An empirical investigation of the relationship between being a "Great Place to Work" and firm performance. *Personnel Psychology*, *56*(4), 965–993. doi:10.1111/j.1744-6570.2003.tb00246.x

Gallie, D. (2007). Production regimes and the quality of employment in Europe. *Annual Review of Sociology*, *33*(1), 85–104. doi:10.1146/annurev.soc.33.040406.131724

Gliem, R., & Gliem, J. (2001). Job satisfaction of civil service and administrative and professional staff in the College of Food, Agricultural, and Environmental Sciences. *28th Annual National Agricultural Education Research Conference.*

Gray, J., & Laidlaw, H. (2002). Part-time employment and communication satisfaction in an Australian retail organization. *Employee Relations*, *24*(2), 211–228. doi:10.1108/01425450210420929

Guinot, J., Chiva, R., & Mallén, F. (2015). Altruismo y capacidad de aprendizaje organizativo: Un estudio en las empresas mejor valoradas por los trabajadores en España. *Universia Business Review*, (45): 92–109.

Hall, R. (1992). The strategic analysis of intangible resources. *Strategic Management Journal*, *13*(2), 135–144. doi:10.1002mj.4250130205

Helm, S. (2007). One Reputation or Many? Comparing Stakeholders' Perceptions of Corporate Reputation. *Corporate Communications*, *12*(3), 238–254. doi:10.1108/13563280710776842

Hinkin, T. R., & Tracey, J. B. (2010). What makes it so great? An analysis of human resources practices among *Fortune*'s Best Companies to Work for. *Cornell Hospitality Quarterly*, *51*(2), 158–170. doi:10.1177/1938965510362487

Hoppock, R. (1935). *Job Satisfaction*. New York: Harperand Brothers.

Ibrahim, H. I., & Shah, K. A. M. (2013). Effects of organizational characteristics factors on the implementation of strategic human resource practices: Evidence from malaysian manufacturing firms. *Economia. Seria Management*, *16*(1), 5–24.

Jackson, S., & Schuler, R. S. (1995). Understanding human resource management in the context of organizations and their environments. *Annual Review of Psychology*, *46*(1), 237–264. doi:10.1146/annurev.ps.46.020195.001321 PMID:19245335

Jitpaiboon, T., Park, J. A., & Truong, D. (2006). The effects of employee autonomy, top management support, and pride on performance of hotel employees. *Review of Business Research*, *6*(3).

Kabak, K.E., Sen, A., Gocer, K., Küçüksöylemez, S., & Tuncer, G. (2014). Strategies for employee job satisfaction: A case of service sector. *Procedia - Social and Behavioral Sciences, 150*(15), 1167-1176. doi: .sbspro.2014.09.132 doi:10.1016/j

Kim, S. (2002). Participative management and job satisfaction: Lessons for management leadership. *Public Administration Review*, *62*(2), 231–241. doi:10.1111/0033-3352.00173

Kortekaas, F. (2007). *HRM, organizational performance and the role of firm size* (Master's thesis). Erasmus School of Economics, Rotterdam, The Netherlands.

Kotha, S., Rajgopal, S., & Rindova, V. P. (2001). Reputation building and performance: An empirical analysis of the top-50 pure internet firms. *European Management Journal*, *19*(6), 571–586. doi:10.1016/S0263-2373(01)00083-4

Loscocco, K., & Spitze, G. (1990). Working conditions, social support, and the well-being of female and male factory workers. *Journal of Health and Social Behavior*, *31*(4), 313–327. doi:10.2307/2136816 PMID:2135934

Morgan, J. (2014). *The future of work. Attract new talent, build better leaders, and create a competitive organization*. Hoboken, NJ: Wiley.

Nijhof, W., De-Jong, M., & Beukhof, G. (1998). Employee commitment in changing organizations: An exploration. *Journal of European Industrial Training*, *22*(6), 243–248. doi:10.1108/03090599810224701

Paawee, J., & Boselie, P. (2007). HRM and societal embeddedness. In P. Boxall, J. Purcell, & P. Wright (Eds.), *The Oxford Handbook of Human Resource Management* (pp. 166–184). Oxford, UK: Oxford University Press.

Pfeiffer, T., Tran, L., Krumme, C., & Rand, D. G. (2012). The value of reputation. *Journal of the Royal Society, Interface*, *9*(76), 2791–2797. doi:10.1098/rsif.2012.0332 PMID:22718993

Poggi, A (2010). Job satisfaction, working conditions and aspirations. *Journal of Economic Psychology, 31*(6), 836-849. doi: .joep.2010.08.003 doi:10.1016/j

Quintanilla, J., & Ferner, A. (2003). Multinationals and human resource management: Between global convergence and national identity. *International Journal of Human Resource Management*, *14*(3), 363–368. doi:10.1080/0958519022000031799

Riordan, C. M., Gatewood, R. D., & Barnes, B. J. (1997). Corporate image: Employee reactions and implications for managing corporate social performance. *Journal of Business Ethics*, *16*(4), 401–412. doi:10.1023/A:1017989205184

Romero, E. J. (2004). Are the great places to work also great performers? *The Academy of Management Perspectives*, *18*(2), 150–152. doi:10.5465/ame.2004.13835923

Rose, C., & Thomsen, S. (2004). The impact of corporate reputation on performance. *European Management Journal*, *22*(2), 201–210. doi:10.1016/j.emj.2004.01.012

Sánchez, A. A., & Lloret, N. N. E. (2010). La formación en la empresa española: ¿sólo se busca mejorar los resultados organizacionales? *Universia Business Review*, *2*(26).

Simon, D. H., & DeVaro, J. (2006). Do the best companies to work for provide better customer satisfaction? *Managerial and Decision Economics*, *27*(8), 667–683. doi:10.1002/mde.1303

Spector, P. E. (1997). *Job satisfaction: Application,assessment, causes and consequences*. Thousand Oaks, CA: Sage Publications.

APPENDIX

In the appendix we can see the 40 companies that appear in the four years of the ranking classified by the average value obtained in that period. Given that the ranking is composed of 100 companies per year, it is indicative of the difficulty of being in the Top companies. It can also be seen that the companies that are in the top positions are mainly Spanish belonging to the financial and insurance sector.

Table 7. Classification of "Top" companies according to their average position in the ranking 2013-2016

Nº	Company	Country	Sector	Total Average Value
1	BBVA	Spain	Financial and insurance activities	880.00
2	PWC	UE	Professional, scientific and technical activities	863.50
3	Credit and Caution	Spain	Financial and insurance activities	859.00
4	Mapfre	Spain	Financial and insurance activities	857.25
5	Mutua Madrileña	Spain	Financial and insurance activities	854.25
6	Deloitte	UE	Professional, scientific and technical activities	852.50
7	BAT	UK	Manufacturing industry	849.50
8	Gas natural Fenosa	Spain	Electric energy, gas, steam and air conditioner supply	848.25
9	Kimberly-Clarck	UE	Healthcare activities and social services	844.25
10	Glaxosmithkline	UK	Wholesale and retail commerce; repair of motor vehicles and motorcycles	843.75
11	KPMG	Netherlands	Professional, scientific and technical activities	843.50
12	Santander	Spain	Financial and insurance activities	841.50
13	J&A Garrigues	Spain	Professional, scientific and technical activities	841.25
14	CaixaBank	Spain	Financial and insurance activities	840.50
15	Orange	France	Information and communications	839.25
16	L´Oreal	France	Manufacturing industry	832.75
17	LG	South Korea	Wholesale and retail commerce; repair of motor vehicles and motorcycles	828.75
18	Ernst&Young	UK	Professional, scientific and technical activities	816.00
19	Marsh Spain	UE	Financial and insurance activities	815.75
20	Iberdrola	Spain	Electric energy, gas, steam and air conditioner supply	805.25
21	Zurich	Switzerland	Financial and insurance activities	796.25
22	Sanitas	Spain	Financial and insurance activities	794.75
23	Enagás	Spain	Electric energy, gas, steam and air conditioner supply	792.50
24	Gómez Acebo y Pombo	Spain	Professional, scientific and technical activities	790.75
25	Accenture	Ireland	Information and communications	789.00
26	Sap Spain	Germany	Information and communications	787.75
27	Altadis	Spain	Manufacturing industry	787.25

continued on following page

Table 7. Continued

Nº	Company	Country	Sector	Total Average Value
28	Mercer HR	UE	Financial and insurance activities	782.50
29	Group M	UE	Professional, scientific and technical activities	780.00
30	Sanofi-Aventis	France	Professional, scientific and technical activities	776.75
31	Mcdonald´s	UE	Catering	775.00
32	Thales Spain	France	Construction	773.00
33	Reale Seguros	Italy	Professional, scientific and technical activities	764.50
34	Endesa	Spain	Electric energy, gas, steam and air conditioner supply	764.25
35	Allianz Seguros	Germany	Financial and insurance activities	763.25
36	Volkswagen-Audi	Germany	Wholesale and retail commerce; repair of motor vehicles and motorcycles	755.75
37	Mondelez	UE	Manufacturing industry	753.00
38	Diageo	UK	Wholesale and retail commerce; repair of motor vehicles and motorcycles	752.25
39	Banco Popular	Spain	Financial and insurance activities	722.25
40	Astrazeneca	UK	Manufacturing industry	722.00
	Average			806.98

Source: Compiled by author based on data published in the journal Actualidad Económica 2013, 2014, 2015, 2016.

Chapter 4
Sustainable European Companies Market Value:
Effects of Emissions Efficiency

María Pache-Durán
University of Extremadura, Spain

Esteban Pérez-Calderón
https://orcid.org/0000-0002-4193-3769
University of Extremadura, Spain

Patricia Milanés-Montero
University of Extremadura, Spain

ABSTRACT

This chapter reveals the extent to which the companies with the best eco-efficiency indicators have found their market value positively or adversely affected. The authors will analyze whether one of the main stakeholders in business attitude and activity towards the environment (i.e., capital markets) are rewarding companies for their excellent eco-efficiency performance. The chapter will be explicitly examining the hypothesis that a higher degree of eco-efficiency is associated with a greater recognition by the stock market. The study sample will comprise a data panel from European companies indexed in the DJSWI for the years ranging from 2011-2015. The findings obtained indicate that the capital markets are giving recognition to the European companies that achieve greater eco-efficiency levels where emissions are concerned. The previous behavior will be rewarded by the capital market, which can contribute to improving its reputation, reducing its financing costs and generating wealth for its shareholders.

INTRODUCTION

In spite of the wealth and prosperity generated in previous centuries thanks to industrial development, the planet has been subjected to uncontrolled environmental deterioration (Shrivastava, 1995). The damage that human activities has caused to environment, giving rise to what has come to be known as climate change, poses one of the main threats to biological diversity (Karsh & MacIver, 2010; Beever

DOI: 10.4018/978-1-5225-7937-3.ch004

& Belant, 2012), making this one of the primary issues on an international scale. This factor conditions decision-making processes, on both a political and economic level, and has major implications for the future of the planet (McCright, Marquart-Pyatt, Shwom, Brechin, & Allen 2016). One of the main causes of this deterioration is corporate activity, because of the emission of greenhouse gases (GHG) (Moors, Mulder & Vergragt, 2005), so companies are subject to a series of pressures in order to minimise their environmental impact.

Therefore, if there is one particular question that reveals the need to make an improvement in competitiveness compatible with respect for the environment, it is climate change. Its management involves minimising the environmental impact caused by the emissions. Organisations are paying increasing attention to the fight against climate change, because its consequences not only threaten competitiveness and survival, but also serve as an opportunity to embark on new projects and strategic positioning, all of which are supervised by the genuine generators of value for a company, i.e., their stakeholders (Hoffman, 2005; Busch, 2011).

One recurring question that earlier literature has endeavoured to answer has revolved around whether the cost involved in environmental protection measures end up by damaging companies' value, that is to say, by being detrimental to the relationship between the environmental performance (EP) and the financial performance (FP). The studies undertaken so far have yielded different findings. Such diversity is because, on many occasions, the data or measurements used have not taken into account variables associated with the eco-efficient actions of the organisations (Ekins, 2005; Henri & Journeault, 2010; Derwall, Günster, Bauer & Koedijk, 2004; Sinkin, Wright & Burnett, 2008). This work focuses on the EP measured with variables that reflect the eco-efficient actions of the organisation, i.e., utilising variables concerning emissions, with which the authors obtain a more direct relationship for the effects on FP. Although studies have already been done that examine this relationship, they have only been conducted partially, either by concentrating on only one specific type of emission (Al-Tuwaijri, Christensen & Hughes, 2004; Pogutz & Russo, 2009; Iwata & Okada, 2011; Delmas & Nairn-Birch, 2010; Busch & Hoffmann, 2011; Rahman, Rasid & Basiruddin, 2014), or, without taking into consideration the capital market perspective (Nakao, Amano, Matsumura, Genba & Nakano, 2007; Gallego-Álvarez, Segura & Martínez-Ferrero, 2015; Wagner, Van Phu, Azomahou & Wehrmeyer, 2002).

In earlier literature, the data used has generally been cross-sectional, whereas in this study a data panel has been used. A fixed-effects analysis has been conducted on a sample of 81 European companies belonging to the Dow Jones Sustainability World Index (DJSWI) for the period 2011-2015. The findings have yielded the absence of a positive and statistically significant relationship between financial profitability and eco-efficiency regarding emissions. A relationship can also be demonstrated between higher company value levels and higher inefficiency levels in terms of emissions. These findings cause even greater uncertainty about the effect on recognition that the stock market can have on the proactive environmental activities with a view to reducing emissions.

This work is structured in the following way. After this introduction, a review of the literature on the Theory of Eco-efficiency is carried out, based on which the hypotheses are postulated and the study models devised. The methodology used is then explained, then the findings are analysed and, finally, in the last section, the main conclusions are given.

Background

One of the main factors leading to global warming is CO_2 emissions caused by energy consumption, especially where the use of fossil fuels is concerned (Greenpeace & EREC, 2008; Beccali, Cellura, Ludiello, & Mistretta, 2009). That is why it is both interesting and necessary to be able to consider what the situation is on the business world and how organisations have acted in recent years to the decisions imposed with a view to implementing sustainable policies in the development of their activities in a way that also complies with the economic principle of maximising profit and satisfying their stakeholders, which has led them to reorganise their management systems, showing a greater concern for putting into operation responsible environmental practices (Patten, 2002). Climate change and its consequences have given rise to an increasing public awareness of companies' environmental responsibilities, making this subject one of great importance not only for the business world but also for academic literature (Boiral, Henri & Talbot, 2012). In this sense, such authors as Porter and Kramer (2006) argue that the environmental responsibility of organisations has become an unavoidable priority for company leaders in every country.

Eco-Efficiency Theory

The authors could define eco-efficiency as being the relationship that exists between the value of the product or service provided by the company in question and the sum total of its environmental impacts throughout its life cycle. The formulation of eco-efficiency is thus expressed by the fraction between the economic value and its environmental impact (WBCSD, 2000; Verfaillie & Bidwell, 2000; Erkko, Melanen & Mickwitz, 2005).

According to Huppes and Ishikawa (2005), meeting the world population's consumption requirements and obtaining reasonable environmental quality explains why eco-efficiency is necessary. Its practical and theoretical importance thus lies in its ability to combine performance in two out of every three sustainable development[1] areas, the environment and economy (Ehrenfeld, 2005). In this sense, it is essential for companies to accept a challenge that involves environmental matters. Eco-efficiency can be the response to this challenge, because it involves the process whose aim is to minimise the environmental impact of companies' activities on the surrounding conditions while, at the same time, keeping up company efficiency levels by maximising their effectiveness where respecting the environment and creating value for the company.

Relationship Between Environmental Performance and Financial Performance

In earlier literature, a distinction can be made between two tendencies regarding the relationship between environmental performance and the associated company profit. On the one hand, there is the positive tendency put forward by certain authors who support the idea that the EP, through the implementation of eco-efficient strategies, models and mechanisms, improves companies' economic performance (Porter, 1991; King & Lenox, 2002; Al-Tuwaijri et al., 2004; Nakao et al., 2007), bringing about a positive effect on company profitability enabling companies to cut down on costs and increase their differentiation.

In this sense, some authors, supporting themselves on the Stakeholders Theory and the Resources and Capacities Theory argue that suitable environmental activity makes it possible to develop capacities and attract valuable resources that give them competitive edges (Hart, 1995; Porter & Van der Linde, 1995; Russo & Fouts, 1997) which improve workers' productivity and resource consumption, as well as cutting down on costs or increasing sales and share values in the medium-to-long term (Hart & Ahuja, 1996; Hart, 1997; Melnyk, Sroufe & Calantone, 2003).

However, certain academics have adopted a different stance by supporting the idea that researchers can have either negative or neutral effects on profitability (Hamilton, 1995; Konar & Cohen, 2001; Wagner et al., 2002), arguing that protecting the environment mainly brings about a greater cost to companies, expenses that eat away at their profit, thereby making them less competitive than their rivals. Some of them even claim that environmental regulations generate excessive expenses that firms never recover from, amounting to financial deviations from vital production investments (which reduce the annual economic performance) (Walley & Whitehead, 1994; Jaffe, Peterson, Portney & Stavins, 1995; Lothe, Myrtveit & Trapani, 1999; Rassier & Earnhart, 2010).

To be more specific, King and Lenox (2001) analyse whether firms pay for being green. Tobin's Q variable is among those used to reflect financial performance, as a proxy to the rating that the market gives to the company and, thus, the profitability that the shareholder obtains for the positive reappraisal achieved. It uses the total direct and relative emissions as an independent variable. It reaches the conclusion that firms that reduce their pollution rates have a greater value in accounting terms. In his work, Al-Tuwaijri et al. (2004), obtain statistical significant findings from the positive relationship between toxic waste recycling indicators and the profitability obtained by the company on the capital markets. Furthermore, there are the competitive advantages regarding the innovations achieved in the companies, more consistent performances being obtained in the companies where eco-efficient activities have been voluntary rather than mandatory. Burnett and Hansen (2008) research into the relationship between SO2 emissions and the production efficiency of companies in the electricity sector in the USA. The study findings confirm the thesis postulated by Porter (1991) that firms improving their emissions into the atmosphere are also the ones with the most efficient production.

Gallego-Álvarez et al. (2015) analyse eco-efficiency with respect to the variations in carbon dioxide emissions, using as economic-financial performance variables, and profitability from assets and profitability from equity. They utilise as their sample, data from 89 companies over a 4-year period, 2006-2009. The findings yield empirical evidence for the financial performance variable but not for the economic performance variable.

The fact that there is inconclusive proof in the study into the relationship between EP and FP, the limited number of studies focusing on the direct impact on the emissions of GHG and, of these, the limited number of works that have applied the data panel methodology, led the researchers to consider this study. Consequently, this work examines the link between EP and market value, thereby providing a greater amount of empirical evidence for the eco-efficiency paradigm. To do this, the authors are putting forward the following hypothesis:

H: Low (high) efficiency levels measured by the emissions are associated with high (low) levels of Market Value in European companies.

METHODOLOGY

Sample

The present work takes a sample of 112 European companies from different sectors that are included on the DJSWI that are participating in the Carbon Disclosure Project (CDP), from 2011 to 2015 (Table 1). These companies are the benchmarks in the world due to their corporate social responsibility activities, particularly such responsibilities where the environment is concerned. As some DJWSI companies have not published reports on the CDP, some of them are omitted. Furthermore, in view of the peculiarities of the Finances Sector, the researchers decided to remove the companies classified in this sector. Therefore, the panel consists of 405 observations, 81 European companies for a period of 5 years (2011-2015) (see Appendix 1). The financial data were compiled from the ORBIS database and the environmental indicators from the reports published by the CDP (see Appendix 2).

Dependent, Independent and Control Variables

Earlier literature uses very different configurations to make the empirical comparison between EP and market value. A large number of works take Return on Asset (ROA) as the dependent variable to represent economic profitability (Russo & Fouts; 1997; King & Lenox, 2002; Aragón-Correa, Hurtado-Torres, Sharma & García-Morales, 2008; Rokhmawati, Sathye & Sathye 2015). The Return on Equity (ROE) variable is also used as a reference for financial profitability (Fombrun & Shanley, 1990; Wagner et al., 2002), or Tobin's Q (King & Lenox, 2001; Horváthová, 2010). In this study, the market value of the company with respect to EBITDA (VEE) is used as dependent variable.

The data concerning emissions into the atmosphere (net emissions in metric tonnes of CO_2) relativized with respect to the sales figures for that year are utilised as variables associated with eco-efficiency, referred to as ES. These variables had already been used in works such as those by Hatakeda, Kokubu, Kajiwara and Nishitani, (2012) and Wagner (2005), as well in other more recent works by Delmas and Nairn-Birch (2010), Busch and Hoffmann (2011), Rahman et al. (2014) and Gallardo-Álvarez et al. (2015).

The control variables were selected from the review of the literature as the ones generally used in eco-efficiency studies. The control variables include the total revenue (TR), financial performance (ROE), economic performance (ROA), CDP score for the information disclosed in the questionnaire (DisCDP) and the maximum solvency liquidity ratio (RS), which is indicative of the extent to which the company

Table 1. Sample: technical information

Dimension	Description
Population	Companies from different sectors belonging to the DJSWI
Geographical area	Europe
Data source	CDP questionnaires on change climate and financial data from ORBIS
Sample size	81 companies. 2011-2015 years.
Data Collect	from August 22, 2013 to July 15, 2016
Number of questionnaires	405 validated CDP questionnaires

is opting for the development of new products, work routines or any innovation as an approach to its commitment to ongoing adaptation to new challenges that could include more eco-efficient actions.

Regression Model

The corpus of literature involving the relationship between EP and FP has yielded not only favourable and unfavourable findings, but also non-conclusive findings. With a view to providing greater empirical evidence where this relationship is concerned, the model focus on variables that show more directly the effects on the atmosphere, and doing so from the investors' perspective, given that they are the financial reference par excellence, the researchers are going to compare this work hypothesis with the following models:

$VEEit = \beta 0 + \beta 1ES1it + \beta 2ES2it + \text{ø}Xit + \varepsilon ij$ where, $Xit = TRit, ROAit, ROEit, RSit, DisCDPit$.

The description of the variables would be as follows:

i refers to each company and t to the year.

VEE_{it} market value of the company regarding the volume of EBITDA (Gross Operating Profit).

$ES1_{it}$ direct emissions of GHG measured in equivalent metric tonnes of CO_2. This variable is relativized with the sales for the period (Tn CO_2e per Euro of Billing).

$ES2_{it}$ indirect emissions of GHG measured in equivalent metric tonnes of CO_2. This variable is relativized with the sales for the period (Tn CO_2e per Euro of Billing).

ROAit Economic Performance; ratio of EBIT (earnings before interest and income tax) to the total capital invested in operating assets.

TR_{it} Total Revenues (Napierian logarithm for the billing volume).

RS_{it} financial solvency ratio, ratio between equity and non-current liabilities.

$DisCDP_{it}$ CDP score for the information disclosed in the questionnaire. Score between 0 and 100 basic points.

FINDINGS

The findings from this study confirm those that appeared in an article recently published by Gallego-Álvarez et al (2015). The latter case also used shareholder profitability as the financial performance reference, although in this case, the sample is larger and a variable has been used that those authors did not bring into play, namely market value.

It thus turns out that the ratio for the efficiency of the European companies analysed for the years 2011-2015, in terms of direct emissions, is statistically significant when compared to the financial profitability measured by the VEE, as Table 2 shows. In view of this, the researchers can accept the hypothesis that the most proactive companies regarding environmental activities that involve better eco-efficiency indexes are those that obtain the greatest financial profit.

I.e., the European companies with the greatest market rating values are negatively associated with a confidence level of 99%, with ratios of a higher level with respect to direct emissions per Euro of gross operating profit, that is to say, higher level of eco-efficiency.

Table 2. Results obtained from the models

Random Effects	Dependent Variables	
Independent Variables	**Model 2. VEE**	
	Coef	P Value
ES1	**-2.3149**	0.000
ES2	-0.6197	0.732
TR	**-0.9995**	0.000
ROA	-0.3221	0.013
ROE	0.0619	0.129
DisCDP	**0.0257**	0.000
RS	**0.0884**	0.003
_Cons	21.8731	0.000
R^2	0.6965	
VEE Wald Chi-squ = 143.95***; VEE Hausman test = 23.15***; VEE Wooldridge test = 18.842***		

The control variables indicate that there is a negative relationship between the value of the companies and turnover, that is to say, the lower the levels of total revenues, the greater the value recognised by the market. In view of the above, the authors believe it to be of great importance that spreading information (DisCDP) is becoming positive and significant, with a confidence level of 99%. This model also indicates that the debt ratio show a positive and significant relationship.

CONCLUSION

In this case, and with respect to the DJWSI European companies that have voluntarily published information in the CDP for the years 2011-2015, the authors have found empirical evidence of a positive relationship between direct emissions (Scope 1) and the market value, measured in terms of market value of the company regarding the volume of EBITDA. However, the authors have not found any empirical evidence of a positive relationship between indirect emissions (Scope 2). In addition, the results show how the market is rewarding those companies with the best information disclosure rates on environmentally responsible behaviour.

The findings answer the following question: Why do companies continue to be part of indexes such as the DJWSI, providing information on their environmental behaviour, among other aspects, despite the documents that are required and the use of the resources involved? The results show that these companies are rewarded for the satisfaction they get from their stakeholders, especially their investors. The effects of these actions, if they are carried out as part of a strategic plan and form part of the organisation's culture, end up by affecting the operations, innovation, quality and costs of the company in the medium- and long-term. That is to say, the investors do clearly reward the environmental performance with regard to emissions that this might conceal forming part of a host of value generating factors.

Following on from the above, possible future research following on from this work could be to compare companies belonging to the DJWSI-CDP and those that do not, with regard to their eco-efficiency

levels and financial profitability achieved. The audits and certification of the emissions declared by the companies would also have to make considerable progress to enable the information published to be compared between companies and to allow the investors to reward the most eco-efficient ones. In this sense, the demands of indexes such as DJWSI or the CDP ought to require a greater degree of standardisation and verification of the information published. The stakeholders would thus see their confidence level rise and an improvement in the comparability of the performance attained because of the organisation's eco-efficiency actions.

REFERENCES

Al-Tuwaijri, S. A., Christensen, T. E., & Hughes, K. E. II. (2004). The relations among environmental disclosure, environmental performance, and economic performance: A simultaneous equations approach. *Accounting, Organizations and Society*, *29*(5), 447–471. doi:10.1016/S0361-3682(03)00032-1

Aragón-Correa, J. A., Hurtado-Torres, N., Sharma, S., & García-Morales, V. J. (2008). Environmental strategy and performance in small firms: A resource-based perspective. *Journal of Environmental Management*, *86*(1), 88–103. doi:10.1016/j.jenvman.2006.11.022 PMID:17239519

Beccali, M., Cellura, M., Ludiello, M., & Mistretta, M. (2009). Resource consumption and environmental impacts of the agrofood sector: Life cycle assessment of Italian citrus based products. *Environmental Management*, *43*(4), 707–724. doi:10.100700267-008-9251-y PMID:19184189

Beever, E. A., & Belant, J. L. (Eds.). (2012). *Ecological consequences of climate change: mechanisms, conservation and management*. New York: CRC Press.

Boiral, O., Henri, J. F., & Talbot, D. (2012). Modeling the impacts of corporate commitment on climate change. *Business Strategy and the Environment*, *21*(8), 495–516. doi:10.1002/bse.723

Burnett, R. D., & Hansen, D. R. (2008). Ecoefficiency: Defining a role for environmental cost management. *Accounting, Organizations and Society*, *33*(6), 551–581. doi:10.1016/j.aos.2007.06.002

Busch, T. (2011). Organizational adaptation to disruptions in the natural environment: The case of climate change. *Scandinavian Journal of Management*, *27*(4), 389–404. doi:10.1016/j.scaman.2010.12.010

Busch, T., & Hoffmann, V. H. (2011). How Hot Is Your Bottom Line? Linking Carbon and Financial Performance. *Business & Society*, *50*(2), 233–265. doi:10.1177/0007650311398780

Delmas, M. A., & Nairn-Birch, N. S. (2010). *Is The Tail Wagging The Dog? An Empirical Analysis of Corporate Carbon Footprints and Financial Performance*. UCLA.

Derwall, J., Günster, N., Bauer, R., & Koedijk, K. (2004). The eco-efficiency premium puzzle. *Financial Analysts Journal*, *61*(2), 51–63. doi:10.2469/faj.v61.n2.2716

Ehrenfeld, J. R. (2005). Eco-efficiency: Philosophy, theory, and tools. *Journal of Industrial Ecology*, *9*(4), 6–8. doi:10.1162/108819805775248070

Ekins, P. (2005). Eco-efficiency motives, drivers, and economics implications. *Journal of Industrial Ecology*, *9*(4), 12–14. doi:10.1162/108819805775247981

Erkko, S., Melanen, M., & Mickwitz, P. (2005). Eco-efficiency in the Finnish EMAS reports – a buzz word? *Journal of Cleaner Production*, *13*(8), 799–813. doi:10.1016/j.jclepro.2003.12.027

Gallego-Álvarez, I., Segura, L., & Martínez-Ferrero, J. (2015). Carbon emission reduction. The impact on the financial and operational performance of international companies. *Journal of Cleaner Production*, *103*, 149–159. doi:10.1016/j.jclepro.2014.08.047

Greenpeace y European Renewal Energy Council (EREC). (2008). *Energy Revolution. A sustainable global energy outlook*. Retrieved from http://www.greenpeace.es/

Hamilton, J. (1995). Pollution as news: Media and stock market reactions to the toxic release inventory data. *Journal of Environmental Economics and Management*, *28*(1), 98–113. doi:10.1006/jeem.1995.1007

Hart, S. L. (1995). A Natural-Resource-Based view of the firm. *Academy of Management Review*, *20*(4), 986–1014. doi:10.5465/amr.1995.9512280033

Hart, S. L., & Ahuja, G. (1996). Does it pay to be green? An empirical examination of the relationship between emission reduction and firm performance. *Business Strategy and the Environment*, *5*(1), 30–37. doi:10.1002/(SICI)1099-0836(199603)5:1<30::AID-BSE38>3.0.CO;2-Q

Hatakeda, T., Kokubu, K., Kajiwara, T., & Nishitani, K. (2012). Factors Influencing Corporate Environmental Protection Activities for Greenhouse Gas Emission Reductions: The Relationship Between Environmental and Financial Performance. *Environmental and Resource Economics*, *53*(4), 455–481. doi:10.100710640-012-9571-5

Henri, J., & Journeault, M. (2010). Eco-control: The influence of management control systems on environmental and economic performance. *Accounting, Organizations and Society*, *35*(1), 63–80. doi:10.1016/j.aos.2009.02.001

Hoffman, A. J. (2005). Climate change strategy: The business logic behind voluntary greenhouse gas reductions. *California Management Review*, *47*(3), 21–46. doi:10.2307/41166305

Horváthová, E. (2010). Does environmental performance affect financial performance? A meta-analysis. *Ecological Economics*, *70*(1), 52–59. doi:10.1016/j.ecolecon.2010.04.004

Huppes, G., & Ishikawa, M. (2005). Eco-efficiency and its terminology. *Journal of Industrial Ecology*, *9*(4), 43–46. doi:10.1162/108819805775247891

Iwata, H., & Okada, K. (2011). How Does Environmental Performance Affect Financial Performance? Evidence from Japanese Manufacturing Firms. *Ecological Economics*, *70*(9), 1691–1700. doi:10.1016/j.ecolecon.2011.05.010

Jaffe, A., Peterson, S., Portney, P., & Stavins, R. (1995). Environmental regulation and the competitiveness of U.S. manufacturing: What does the evidence tell us? *Journal of Economic Literature*, *33*(1), 132–163.

Karsh, M. B., & MacIver, D. (2010). Impacts of climate extremes on biodiversity in the Americas. In F. Dallmeier (Ed.), *Climate change, biodiversity and sustainability in the Americas: impacts and adaptations*. Washington, DC: Smithsonian Institution Scholarly Press.

King, A. A., & Lenox, M. J. (2001). Does it really pay to be green? An empirical study of firm environmental and financial performance: An empirical study of firm environmental and financial performance. *Journal of Industrial Ecology*, *5*(1), 105–116. doi:10.1162/108819801753358526

King, A. A., & Lenox, M. J. (2002). Exploring the locus of profitable pollution reduction. *Management Science*, *48*(2), 289–299. doi:10.1287/mnsc.48.2.289.258

Konar, S., & Cohen, M. A. (2001). Does the market value environmental performance? *The Review of Economics and Statistics*, *83*(2), 281–289. doi:10.1162/00346530151143815

Lothe, S., Myrtveit, I., & Trapani, T. (1999). Compensation systems for improving environmental performance. *Business Strategy and the Environment*, *8*(6), 313–321. doi:10.1002/(SICI)1099-0836(199911/12)8:6<313::AID-BSE219>3.0.CO;2-C

McCright, A. M., Marquart-Pyatt, S. T., Shwom, R. L., Brechin, S. R., & Allen, S. (2016). Ideology, capitalism, and climate: Explaining public views about climate change in the United States. *Energy Research & Social Science*, *21*, 180–189. doi:10.1016/j.erss.2016.08.003

Melnyk, S., Sroufe, R., & Calantone, R. (2003). Assessing the impact of environmental management systems on corporate and environmental performance. *Journal of Operations Management*, *21*(3), 329–351. doi:10.1016/S0272-6963(02)00109-2

Moors, E. H. M., Mulder, K. F., & Vergragt, P. J. (2005). Towards cleaner production: Barriers and strategies in the base metals producing industry. *Journal of Cleaner Production*, *13*(7), 657–668. doi:10.1016/j.jclepro.2003.12.010

Nakao, Y., Amano, A., Matsumura, K., Genba, K., & Nakano, M. (2007). Relationship between environmental performance and financial performance: An empirical analysis of Japanese corporations. *Business Strategy and the Environment*, *16*(2), 106–118. doi:10.1002/bse.476

Patten, D. M. (2002). The relation between environmental performance and environmental disclosure: A research note. *Accounting, Organizations and Society*, *27*(8), 763–773. doi:10.1016/S0361-3682(02)00028-4

Pogutz, S., & Russo, A. (2009). Eco-efficiency vs Eco-effectiveness. Exploring the link between GHG emissions and firm performance. *Academy of Management Proceedings*, *1*, 1–6.

Porter, M. E. (1991). America's green strategy. *Scientific American*, *264*(4), 168–179. doi:10.1038cientificamerican0491-168

Porter, M. E., & Kramer, M. R. (2006). The link between competitive advantage and corporate social responsibility. *Harvard Business Review*, *84*(12), 78–92. PMID:17183795

Porter, M. E., & Van der Linde, C. (1995). Green and competitive: Ending the stalemate. *Harvard Business Review*, *73*(5), 120–134.

Rahman, N. R. A., Rasid, S. Z. A., & Basiruddin, R. (2014). Exploring the Relationship between Carbon Performance, Carbon Reporting and Firm Performance: A Conceptual Paper. *Procedia: Social and Behavioral Sciences*, *164*(31), 118–125. doi:10.1016/j.sbspro.2014.11.059

Rassier, D. G., & Earnhart, D. (2010). Does the Porter hypothesis explain expected future financial performance? The effect of clean water regulation on chemical manufacturing firms. *Environmental and Resource Economics*, *45*(3), 353–377. doi:10.100710640-009-9318-0

Rokhmawati, A., Sathye, M., & Sathye, S. (2015). The Effect of GHG Emission, Environmental Performance, and Social Performance on Financial Performance of Listed Manufacturing Firms in Indonesia. *Procedia: Social and Behavioral Sciences*, *211*, 461–470. doi:10.1016/j.sbspro.2015.11.061

Russo, M. V., & Fouts, P. A. (1997). A Resource Based Perspective on Corporate Environmental Performance and Profitability. *Academy of Management Journal*, *40*(3), 534–559.

Shrivastava, P. (1995). The Role of Corporations in Achieving Ecological Sustainability. *Academy of Management Review*, *20*(4), 936–960. doi:10.5465/amr.1995.9512280026

Sinkin, C., Wright, C. J., & Burnett, R. D. (2008). Eco-efficiency and firm value. *Journal of Accounting and Public Policy*, *27*(2), 167–176. doi:10.1016/j.jaccpubpol.2008.01.003

United Nations (UN). (2016). *Framework Convention on Climate Change*. Retrieved from http://unfccc.int/ paris_agreement/items/9485.php

Verfaillie, H., & Bidwell, R. (2000). *Measuring eco-efficiency: A guide to reporting company performance*. London, UK: World Business Council of Sustainable Development.

Wagner, M. (2005). How to reconcile environmental and economic performance to improve corporate sustainability: Corporate environmental strategies in the European paper industry. *Journal of Environmental Management*, *76*(2), 105–118. doi:10.1016/j.jenvman.2004.11.021 PMID:15939122

Wagner, M., Van Phu, N., Azomahou, T., & Wehrmeyer, W. (2002). The relationship between the environmental and economic performance of firms: An empirical analysis of the European paper industry. *Corporate Social Responsibility and Environmental Management*, *9*(3), 133–146. doi:10.1002/csr.22

Walley, N., & Whitehead, B. (1994). It's Not Easy Being Green. *Harvard Business Review*, *72*(3), 46–52.

World Business Council for Sustainable Development (WBCSD). (2000). *Eco-Efficiency: Creating more value with less impact*. WBCSD.

ENDNOTE

[1] The concept of sustainability is very extensive. This study refers to the need to combine economic performance with respect for the environment. It would require a much more expansive conceptual framework for corporate social responsibility, but this is not the aim of this chapter.

APPENDIX 1

Table 3.

Company	Country	Global Industry Classification Standard
Abertis Infraestructuras SA	Spain	Industrials
Acciona SA	Spain	Utilities
Enagás SA	Spain	Utilities
Endesa SA	Spain	Utilities
Ferrovial SA	Spain	Industrials
Gamesa Corp. Tecnológica SA	Spain	Industrials
Gas Natural SDG SA	Spain	Utilities
Iberdrola SA	Spain	Utilities
Indra Sistemas SA	Spain	Information Technology
Industria de Diseño Textil SA	Spain	Consumer Discretionary
Red Eléctrica Corp. SA	Spain	Utilities
Repsol SA	Spain	Energy
Telefónica SA	Spain	Telecommunications Services
Adidas AG	Germany	Consumer Discretionary
BASF SE	Germany	Materials
Bayer AG	Germany	Health Care
Bayerische Motoren Werke AG	Germany	Consumer Discretionary
Deutsche Boerse AG	Germany	Financials
Deutsche Post AG	Germany	Industrials
Deutsche Telekom AG	Germany	Telecommunications Services
E.ON SE	Germany	Utilities
LANXESS AG	Germany	Materials
Linde AG	Germany	Materials
METRO AG	Germany	Consumer Staples
SAP SE	Germany	Information Technology
Siemens AG	Germany	Industrials
Air France-KLM	France	Industrials
Atos SE	France	Information Technology
Cie de Saint-Gobain	France	Industrials
Danone SA	France	Consumer Staples
Gecina SA	France	Real Estate
Kering	France	Consumer Discretionary
Klepierre	France	Real Estate
Legrand SA	France	Industrials
Sanofi	France	Health Care

continued on following page

Table 3. Continued

Company	Country	Global Industry Classification Standard
Schneider Electric SE	France	Industrials
Thales SA	France	Industrials
TOTAL SA	France	Energy
Vinci SA	France	Industrials
Enel SpA	Italy	Utilities
Snam SpA	Italy	Utilities
Terna Rete Elettrica Nazionale SpA	Italy	Utilities
Anglo American PLC	United Kingdom	Materials
AstraZeneca PLC	United Kingdom	Health Care
BAE Systems PLC	United Kingdom	Financials
Burberry Group PLC	United Kingdom	Consumer Discretionary
GlaxoSmithKline PLC	United Kingdom	Health Care
Hammerson PLC	United Kingdom	Real Estate
Intu Properties PLC	United Kingdom	Real Estate
Kingfisher PLC	United Kingdom	Consumer Discretionary
Land Securities Group PLC	United Kingdom	Real Estate
Pearson PLC	United Kingdom	Consumer Discretionary
Reckitt Benckiser Group PLC	United Kingdom	Consumer Discretionary
Rio Tinto PLC	United Kingdom	Materials
Rolls-Royce Holdings PLC	United Kingdom	Industrials
Sky PLC	United Kingdom	Consumer Discretionary
Smith & Nephew PLC	United Kingdom	Health Care
Unilever PLC	United Kingdom	Consumer Discretionary
United Utilities Group PLC	United Kingdom	Utilities
Whitbread PLC	United Kingdom	Consumer Discretionary
CNH Industrial NV	Netherlands	Industrials
Akzo Nobel NV	Netherlands	Materials
Koninklijke DSM NV	Netherlands	Materials
Koninklijke KPN NV	Netherlands	Telecommunications Services
Unilever NV	Netherlands	Consumer Discretionary
EDP - Energias de Portugal SA	Portugal	Utilities
Neste Oyj	Finland	Energy
Nokia OYJ	Finland	Information Technology
Castellum AB	Sweden	Real Estate
Electrolux AB	Sweden	Consumer Discretionary
Hennes & Mauritz AB	Sweden	Consumer Discretionary
Modern Times Group MTG AB	Sweden	Consumer Discretionary

continued on following page

Table 3. Continued

Company	Country	Global Industry Classification Standard
SGS SA	Switzerland	Industrials
Clariant AG	Switzerland	Materials
Nestlé SA	Switzerland	Consumer Staples
Novartis AG	Switzerland	Health Care
Roche Holding AG	Switzerland	Health Care
Coloplast A/S	Denmark	Health Care
Novo Nordisk A/S	Denmark	Health Care
Novozymes A/S	Denmark	Materials
Norsk Hydro ASA	Norway	Materials

APPENDIX 2: CDP'S 2016 CLIMATE CHANGE INFORMATION REQUEST. EMISSIONS

CC7. Emissions Methodology

Base year

CC7.1 Please provide your base year and base year emissions (Scopes 1 and 2) (CDP 2015 CC7.1, amended)

Use the table in the ORS to provide the following details for Scopes 1 and 2:

- Base year
- Scope 1 base year emissions (metric tonnes CO2e)
- Scope 2 location-based base year emissions (metric tonnes CO2e)
- Scope 2 market-based base year emissions (metric tonnes CO2e)

Methodology

CC7.2 Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

If you have selected "Other":

CC7.2a If you have selected "Other" in CC7.2 please provide details of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

CC7.3 Please give the source for the global warming potentials you have used (Table 4)

Table 4.

Gas	Reference

CC7.4 Please give the emissions factors you have applied and their origin; alternatively, please attach an Excel spreadsheet with this data at the bottom of this page (Table 5)

CC8. Emissions Data

Boundary

CC8.1 Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory

Select from

- Financial control
- Operational control
- Equity share
- Other

Scope 1 and 2 Emissions Data

CC8.2 Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e

CC8.3 Does your company have any operations in markets providing product or supplier specific data in the form of contractual instruments? (New for CDP 2016)

CC8.3a Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e (CDP 2015 CC8.3, amended) (Table 6)

CC8.4 Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

If yes: CC8.4a Please provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure (CDP 2015 CC8.4a, amended) (Table 7)

Table 5.

Fuel/Material/Energy	Emission Factor	Unit	Reference

Table 6.

Scope 2, Location-Based	Scope 2, Market-Based (If Applicable)	Comment

Table 7.

Source	Relevance of Scope 1 Emissions From This Source	Relevance of Location-Based Scope 2 Emissions From This Source	Relevance of Market-Based Scope 2 Emissions From This Source (If Applicable)	Explain Why the Source Is Excluded

Data Accuracy

CC8.5 Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations (CDP 2015 CC8.5, amended) (Table 8)

External Verification or Assurance

CC8.6 Please indicate the verification/assurance status that applies to your reported Scope 1 emissions

If Scope 1 emissions have been subject to third party verification or assurance (complete or underway):

CC8.6a Please provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements (CDP 2015 CC8.6a, amended) (Table 9)

If "No third party verification or assurance – regulatory CEMS required" is selected:

CC8.6b Please provide further details of the regulatory regime to which you are complying that specifies the use of Continuous Emissions Monitoring Systems (CEMS) (Table 10)

CC8.7 Please indicate the verification/assurance status that applies to at least one of your reported Scope 2 emissions figures

If Scope 2 emissions have been subject to third party verification or assurance (complete or underway):

CC8.7a Please provide further details of the verification/assurance undertaken for your location-based and/or market-based Scope 2 emissions, and attach the relevant statements (CDP 2015 CC8.7a, amended) (Table 11)

CC8.8 Please identify if any data points have been verified as part of the third party verification work undertaken, other than the verification of emissions figures reported in CC8.6, CC8.7 and CC14.2 (Table 12)

Carbon Dioxide Emissions from Biologically Sequestered Carbon

CC8.9 Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

Table 8.

Scope		Uncertainty Range	Main Sources of Uncertainty	Please Expand on the Uncertainty in Your Data
1				
2	(location-based)			
2	(market-based)			

Table 9.

Verification or Assurance Cycle in Place	Status in the Current Reporting Year	Type of Verification or Assurance	Attach the Statement	Page/Section Reference	Relevant Standard	Proportion of reported Scope 1 emissions verified (%)

Table 10.

Regulation	% of Emissions Covered by the System	Compliance Period	Evidence of Submission

Table 11.

Location-Based or Market-Based Figure?	Verification or Assurance Cycle in Place	Status in the Current Reporting Year	Type of Verification or Assurance	Attach the Statement	Page/Section Reference	Relevant Standard	Proportion of Reported Scope 2 Emissions Verified (%)

If yes: 8.9a Please provide the emissions from biologically sequestered carbon relevant to your organization in metric tonnes CO2

CC9. Scope 1 Emissions Breakdown

CC9.1 Do you have Scope 1 emissions sources in more than one country?

If yes: CC9.1a Please break down your total gross global Scope 1 emissions by country/ region (Table 13)

CC9.2 Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply) (Table 14)

Where a breakdown option has been ticked, a table appears to allow you to enter the relevant emissions data

CC10. Scope 2 Emissions Breakdown

CC10.1 Do you have Scope 2 emissions sources in more than one country?

If yes: CC10.1a Please break down your total gross global Scope 2 emissions and energy consumption by country/region (CDP 2015 CC10.1a, amended)

Table 12.

Additional Data Points Verified	Comment

Table 13.

Country/Region	Scope 1 Metric Tonnes CO2e

Table 14.

	By Business Division (CC9.2a)		By Facility (CC9.2b)
	By GHG type (CC9.2c)		By activity (CC9.2d)

CC10.2 Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply) (CDP 2015 CC10.2, amended) (Table 15)

Where a breakdown option has been ticked, a table appears to allow you to enter the relevant emissions data

CC11. Energy

CC11.1 What percentage of your total operational spend in the reporting year was on energy?

CC11.2 Please state how much heat, steam, and cooling in MWh your organization has purchased and consumed during the reporting year (CDP 2015 CC11.2, amended) (Table 16)

CC11.3 Please state how much fuel in MWh your organization has consumed (for energy purposes) during the reporting year (New for CDP 2016)

CC11.3a Please complete the table by breaking down the total "Fuel" figure entered above by fuel type (CDP 2015 CC11.3) (Table 17)

CC11.4 Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor in the market-based Scope 2 figure reported in CC8.3a (Table 18)

CC11.5 Please report how much electricity you produce in MWh, and how much electricity you consume in MWh (New for CDP 2016) (Table 19)

Table 15.

	By Business Division (CC10.2a)		By Facility (CC10.2b)
	By activity (CC10.2c)		

Table 16.

Energy Type	MWh
Heat	
Steam	
Cooling	

Table 17.

Fuels	MWh

Table 18.

Basis for Applying a Low Carbon Emission Factor	MWh Consumed Associated With Low Carbon Electricity, Heat, Steam or Cooling	Comment

Table 19.

Total Electricity Consumed (MWh)	Consumed Electricity That Is Purchased (MWh)	Total Electricity Produced (MWh)	Total Renewable Electricity Produced (MWh)	Consumed Renewable Electricity That Is Produced By Company (MWh)	Comment

CC12. Emissions Performance

Emissions History

CC12.1 How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to the previous year?

If emissions have increased, decreased or remained the same overall:

CC12.1a Please identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year (CDP 2015 CC12.1a, amended) (Table 20)

CC12.1b Is your emissions performance calculations in CC12.1 and CC12.1a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure? (New for CDP 2016)

Emissions Intensity

CC12.2 Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per unit currency total revenue (CDP 2015 CC12.2, amended) (Table 21)

CC12.3 Please provide any additional intensity (normalized) metrics that are appropriate to your business operations (CDP 2015 CC12.4, amended) (Table 22)

CC13. Emissions Trading

CC13.1 Do you participate in any emissions trading schemes?

Table 20.

Reason	Emissions Value (Percentage)	Direction of Change	Please Explain And Include Calculation
Emissions reduction activities			
Divestment			
Acquisitions			
Mergers			
Change in output			
Change in methodology			
Change in boundary			
Change in physical operating conditions			
Unidentified			
Other			

Table 21.

Intensity Figure =	Metric Numerator (Gross Global Combined Scope 1 and 2 Emissions) Metric Tonnes CO2e	Metric Denominator: Unit Total Revenue	Scope 2 Figure Used	% Change From Previous Year	Direction of Change From Previous Year	Reason for Change

Table 22.

Intensity Figure =	Metric Numerator (Gross Global Combined Scope 1 and 2 Emissions) Metric Tonnes CO2e	Metric Denominator	Metric Denominator: Unit Total	Scope 2 Figure Used	% Change From Previous Year	Direction of Change From Previous Year	Reason for Change

If yes: CC13.1a Please complete the following table for each of the emission trading schemes in which you participate (Table 23)

And if "Yes" or "No, but we anticipate doing so within the next 2 years":

CC13.1b What is your strategy for complying with the schemes in which you participate or anticipate participating?

CC13.2 Has your organization originated any project-based carbon credits or purchased any within the reporting period?

If yes: CC13.2a Please provide details on the project-based carbon credits originated or purchased by your organization in the reporting period (Table 24)

CC14. Scope 3 Emissions

CC14.1 Please account for your organization's Scope 3 emissions, disclosing and explaining any exclusions (Table 25)

Table 23.

Scheme Name	Period for Which Data Is Supplied	Allowances Allocated	Allowances Purchased	Verified Emissions in Metric Tonnes CO2e	Details of Ownership

Table 24.

Credit Origination or Credit Purchase	Project Type	Project Identification	Verified to Which Standard	Number of Credits (Metric Tonnes CO2e)	Number of Credits (Metric Tonnes CO2e): Risk Adjusted Volume	Credits Cancelled	Purpose, e.g. Compliance

CC14.2 Please indicate the verification/assurance status that applies to your reported Scope 3 emissions

If Scope 3 emissions have been subject to third party verification or assurance (complete or underway):

CC14.2a Please provide further details of the verification/assurance undertaken, and attach the relevant statements (Table 26)

CC14.3 Are you able to compare your Scope 3 emissions for the reporting year with those for the previous year for any sources?

If yes: CC14.3a Please identify the reasons for any change in your Scope 3 emissions and for each of them specify how your emissions compare to the previous year (Table 27)

Table 25.

Sources of Scope 3 emissions	Evaluation Status	Metric Tonnes CO2e	Emissions Calculation Methodology	Percentage of Emissions Calculated Using Data Obtained From Suppliers or Value Chain Partners	Explanation
Purchased goods and services					
Capital goods					
Fuel-and-energy-related activities (not included in Scope 1 or 2)					
Upstream transportation and distribution					
Waste generated in operations					
Business travel					
Employee commuting					
Upstream leased assets					
Investments					
Downstream transportation and distribution					
Processing of sold products					
Use of sold products					
End of life treatment of sold products					
Downstream leased assets					
Franchises					
Other (upstream)					
Other (downstream)					

Table 26.

Verification or Assurance Cycle in Place	Status in the Current Reporting Year	Type of Verification or Assurance	Attach the Statement	Page/ Section Reference	Relevant Standard	Proportion of Reported Scope 3 Emissions Verified (%)

Table 27.

Sources of Scope 3 Emissions	Reason for Change	Emissions Value (Percentage)	Direction of Change	Comment

CC14.4 Do you engage with any of the elements of your value chain on GHG emissions and climate change strategies? (Tick all that apply) (Table 28)

If "Yes, our suppliers", "Yes, our customers" or "Yes, other partners in the value chain" is ticked:

CC14.4a Please give details of methods of engagement, your strategy for prioritizing engagements and measures of success

And if "Yes, our suppliers" is ticked, complete questions CC14.4b and CC14.4c

CC14.4b To give a sense of scale of this engagement, please give the number of suppliers with whom you are engaging and the proportion of your total spend that they represent (CDP 2015 CC14.4b, amended) (Table 29)

CC14.4c If you have data on your suppliers' GHG emissions and climate change strategies, please explain how you make use of that data (Table 30)

If "No, we do not engage" is ticked:

CC14.4d Please explain why you do not engage with any elements of your value chain on GHG emissions and climate change strategies, and any plans you have to develop an engagement strategy in the future.

Table 28.

	Yes, Our Suppliers		Yes, Our Customers
	Yes, other partners in the value chain		No, we do not engage

Table 29.

Number of Suppliers	% of Total Spend (Direct and Indirect)	Comment

Table 30.

How You Make Use of the Data	Please Give Details

Chapter 5
The Policy of Technological the Policy of Technological Innovation and Economic Trajectory of Portugal:
Analyzing the Context of the Algarve Region

Vonia Engel
University of Santa Cruz do Sul, Portugal

Teresa Noronha
University of Algarve, Portugal

Cidonea Machado Deponti
University of Santa Cruz do Sul, Portugal

ABSTRACT

This chapter is the result of an interuniversity exchange doctoral research project carried out in the Algarve region, Portugal, in 2017. Its objective was to discuss the economic trajectory of Portugal and its implications for those political strategies encouraging technological innovation. The empirical research used interviews and the analytical results were based on the path dependence theory. The outcomes of this study point to the dependence of the Algarve region from external investments.

INTRODUCTION

The objective of this article is to identify the trajectory of Portugal's economic policy and its effects upon those policies for innovation in the Algarve region. The methodology used included interviews with representatives of five organizations, five enterprises and two incubators. In addition to the gathered important empirical data, the study has its base in the path dependence theory. For this, an analytical

DOI: 10.4018/978-1-5225-7937-3.ch005

framework was developed based on the model presented by Hoff (2011), with the following elementary points:

a) It is based on the historical trajectory of the policies of incentive to technological innovation, with the reflexes in the technology-based incubators, in the organizations and in the companies of the Algarve region. For this purpose, interviews were carried out with five organizations, five companies and two incubators that, following this article, will be presented. In addition, a documentary research was realized to understand the relevance of the information collected to the context of the region.
b) Antecedent conditions and general laws were identified to historically characterize the economic policy of Portugal, from 1990 to 2015. This period was marked by discussions of the concept of science and technology policies and the economic construction of the unified Western Europe. For this stage the bibliographic research was adopted, crossing every moment that presented itself as important for the understanding of the Portuguese economy and its implications in the policy of technological innovation.
c) Along the trajectory, those moments that led to the choices in which it is possible to perceive a dependent path have been identified. Followed by a bibliographical research to identify those actions carried out throughout the history of the Portuguese economy. Possible implications were detected and its impacts for the public policy choices within the regional strategies of the Algarve region.

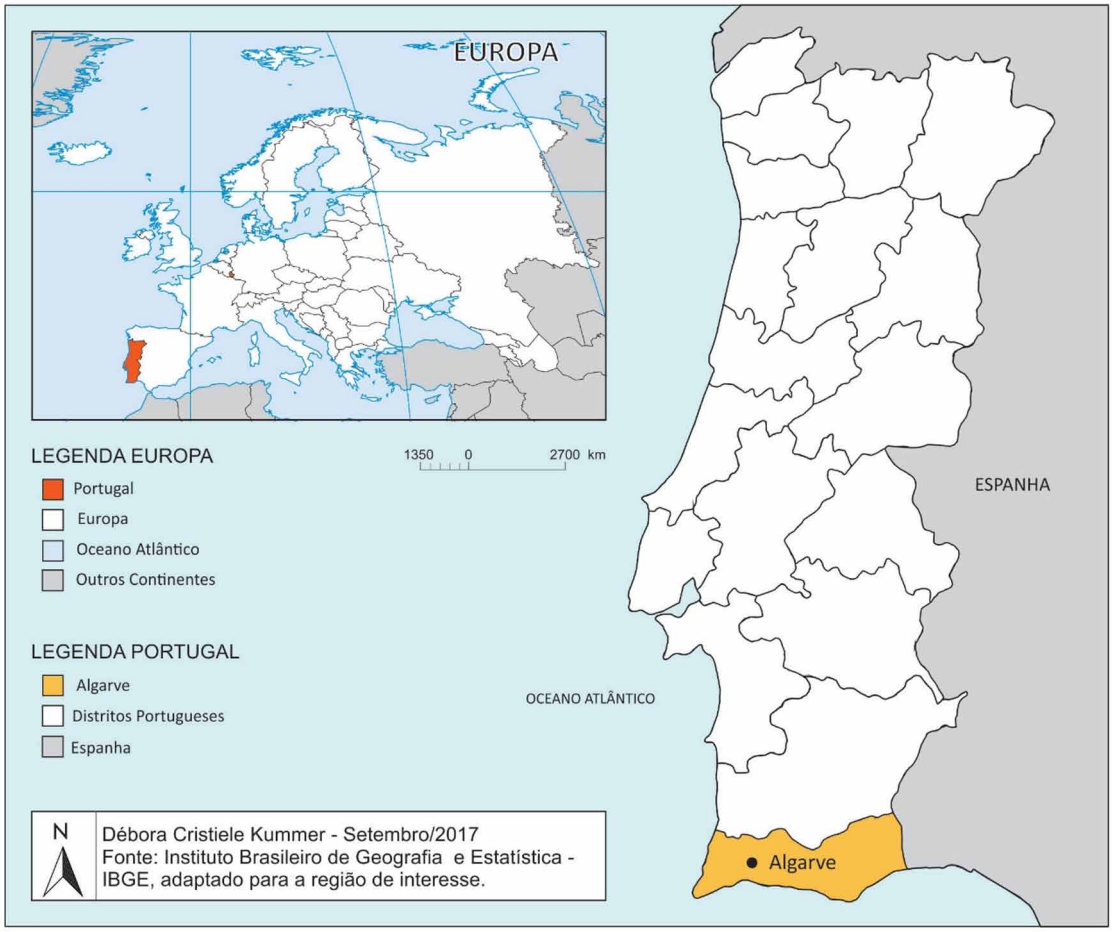
All primary data was collected through interviews and field notebook was used to facilitate the researcher's perceptions and the interviewee's environment to be better shaped. Secondary data were collected based on information presented in legislations, articles, theses, dissertations, books, websites and other disperse materials relevant to study. The information obtained in the interviews, along with the historical and economic trajectory of Portugal, with the strategies adopted to encourage technological innovation served as a basis for a more complete understanding the reality of the country and the particularity of the Algarve region to conduct specific policies in this area.

The technological development of Portugal took place through an integrated system of international scope. To better detect how the country is working on this issue and what strategies were adopted to implement policies of technological innovation, it was required to know the country's historical trajectory, acceptance the importance of all the accumulated trajectory for the current scenario.

THE CONTEXT OF INNOVATION IN THE ALGARVE REGION

A population of 451,005 thousand inhabitants (INE, 2011) forms the Algarve region, an important tourist region in Portugal. The characteristics in relation to its climate, favoring tourism are milder in short winter and hot, long summers. This scenario is favorable because the Algarve region is in the southern area of Portugal and the closed contact with the Atlantic Ocean allows, and allowed for more than a century, tourism activity to prevail as a source or regional revenue. Currently considered the third richest region in Portugal, its economic activity is mainly focused on services. Hereby, some data of the employed population: 80.6% of the people work on services, 6.3% in industry, 9.8% in construction and 3.3% in agriculture (PORDATA, 2017).

Figure 1. Map of the Algarve Region
Source: Brazilian Institute of Geography and Statistics (IBGE), adapted to the region of interest by Débora Cristiele Kumer (2017).



The Algarve is one of the seven NUTS II regions of Portugal. NUTS is the acronym for nomenclature of territorial units for statistical purposes, hierarchical system of division of territory into regions. Eurostat created this nomenclature in the early 1970s, aiming at harmonizing the statistics of the various countries in terms of collecting, compiling and disseminating regional statistics. The nomenclature is subdivided into three levels (NUTS I, NUTS II, NUTS III), defined according to population, administrative and geographical criteria (PORDATA, 2017).

The Algarve has small dimensions in relation to the other national regions. Tourism, as already reported, has been its main economic engine. During the period 2000-2006, the region was among the least developed in the country. The change in this framework occurred due to the attractiveness of the population and its economic growth. The change in these results is mainly due to tourism. This new framework, in turn, has resulted in a significant reduction in transfers from the Structural Funds.

It´s important to underline that the tourism-based economy has absorbed the political and resources decisions and the capacity for mobilization and entrepreneurship of actors relevant to the region, such as agriculture and fishing and maritime activities (RIS3, 2015). Research and Innovation Strategies for

Intelligent Specialization (RIS3) are integrated local-level, economic transformation agendas developed at national and regional levels that address five domains: Provide and focus support policies and investments on national priorities selected, taking into account the challenges and needs for the development of knowledge; Develop the strengths of each territory, competitive advantages and potential for excellence; Technological support, as well as innovation, by stimulating private sector investment based on applied research; Involvement of stakeholders, promotion of innovation and experimentation; They should be supported by evidence and include monitoring and evaluation mechanisms (RIS3, 2015).

In addition to this concentration - whose economic base is structured in tourism - the Algarve region, as well as the whole of the country, suffered from the economic crisis of 2008. This crisis, together with the lack of public instruments to stimulate the economy, the reduction of EU funds and austerity measures had a negative impact on the Algarve region (RIS3, 2015):

The Algarve, because of its specialization in the set of activities that revolve around tourism, presents typical constraints of cognitive and productive lock-in. This over-expertise has caused crowding-out on other economic activities and human resources, limiting regional innovation capacity, restricting the availability of investment and investors in other sectors and exposing the region to external shocks. It did not develop in the institutional density necessary to consolidate a regional innovation system. (RIS3, 2015, p.33 - translated by the authors).

Technological innovation and science in the Algarve is not a recent topic of discussion. This spatial delimitation has promoted innumerable actions in favor of these questions and encouraged the promotion of technological transfer. In the words of De Noronha Vaz (2005, p.13):

The Algarve was the first region in Europe in 1995 to have a cross-border Business Innovation Center, sponsored by the European Commission and focused on innovation in Small and Medium-Sized Enterprises (SMEs). In 2000, the Ettirse program was developed, a regional strategy for the transfer of technology that was translated into the Innovative Actions Program, INOVAlgarve, where one of the most positive actions was the creation of the Regional Center for Innovation in the Algarve, whose functionality is translated into the transfer of technology between the local scientific community (University of Algarve) and the business context. (translated by the authors).

Innovation, in its multiple aspects and in its various dimensions, is a phenomenon of great complexity and transferability, requiring the involvement of various socioeconomic actors (De Noronha Vaz, 2005). However, such does not occur systematically. Factors justifying its irregularity, or even eventual absence, have been pointed as mostly varied in nature. As a highlight, it´s possible to say that there is an understanding that this discussion is only necessary to large companies, not been need to small or medium-sized ones.

Within the regional context, the Algarve region has been adopting strategies in favor of its economic development focused on the regional strategy of intelligent research and innovation. One of such initiatives is RIS3-Algarve 2014-2020. This seeks to stimulate research and innovation for smart specialization. RIS3 are integrated, locally based agendas for economic transformation developed at the national and regional levels. The RIS3 strategy is anchored in five points, namely:

To provide and to focus support policies and investments on national and regional priorities, selected taking into account the challenges and needs for knowledge development; To develop the strengths of each territory, competitive advantages and potential for excellence; To provide technological support, as well as innovation, by stimulating private sector investment based on applied research; To promote theinvolvement of the interesting parts, by the promotion of innovation and experimentation; Those

should be supported by evidence and include monitoring and evaluation mechanisms. (RIS3, 2015, p.26 - translated by the authors).

Since the implementation of RIS3, the Algarve region is committed to invest 60% of the financial resources to reinforce research, technological development and innovation to improve the access to information technologies, as well as its use to strengthen the competitiveness of small and medium-sized enterprises. The implementation of regional RIS3, rather than a strategic document, seeks to become a reference for regional choices, serving as a support tool to achieve the desired results (RIS3, 2015).

A broad concept of innovation is crucial for the development of regions in positive convergence. Innovation is often related to skill building and learning rather than simply introducing new products on the market. Demand-based and anchored "to do", "to act" and "to integrate" mechanisms are learning modes as relevant to innovation dynamics as common supply-side factors with a focus on Science, Technology and Innovation (CTI) (RIS3, 2015, p.10 - translated by the authors).

Since the implementation of RIS3 for the Algarve region, all activities and projects related to technological innovation must follow the dynamic agreed on the document. In this perspective, innovation has been increasingly discussed and gaining strength. Proof of this are the discussions in the economic sphere, where it is understood that this is a factor that can influence its growth. In this sense, understanding innovation for the regional context is important for the economy. Next, the methodology used to collect the information and the results obtained that help in understanding the context of the Algarve region in relation to technological innovation are presented.

THE ECONOMIC TRAJECTORY AND THE INTERRELATIONSHIP WITH INNOVATION

Portugal underwent different economic moments in its historical context. The adhesion of Portugal to the Economic European Community (EEC) in 1986 represented, at the time, a search to economic growth of its economy. It is interesting to underline some of the historical facts motivated by this adhesion. In 1992, the country acceded to the European Exchange Rate Mechanism (EERM). This adhesion represented a transference of the autonomy of the monetary policy to the domains of the German mark. To be on the domain of this currency had granted, at the time, the credibility of the markets wen relates to the price stability (AMARAL FILHO, 2006).

According to Ruivo (1998) it was after the adhesion of Portugal to the Economic Community that was possible to see a real boost in public investments in scientific investigation. This boost was possible due to investments in several areas. The political reform and the cohesion, in 1988, was another important step. It exceeded the annual logic and reimbursement of separate projects presented by the Member States, and progress was made towards a multiannual and strategic programming on the complementarity of funds.

The structural funds are based on a cohesive political terrain on which all the Member States benefit. These strategies are anchored in the agreement of the Portuguese government with the European Commission (MARQUES; CARAÇA; DIZ, 2006). From this agreement, four documents were produced for structural intervention purposes in the country. Are they:

The I Community Support Framework (CSFI) for the 1989-1993 programming period; the II Community Support Framework (CSFII) for the 1994-1999 programming period; the III Community Support Framework (CSFIII) for the 2000-2006 programming period; the National Strategic Reference Framework (NSRF) for the 2007-2013 programming period. (FE, 2017, p. 21).

The Community Support Frameworks are instruments that reflect Portugal's partnership agreement with the European Commission for the country's development. They bring together the European Structural and Investment Funds (European Regional Development Fund - ERDF, Cohesion Fund, European Social Fund - ESF, European Agricultural Fund for Rural Development - EAFRD and European Maritime and Fisheries Fund - FEAMP). From these, the programming principles of the economic, social and territorial development policy of the country are defined (FE, 2017), becoming an important instrument to support the development of Portugal.

Another instrument adopted by Portugal was the adhesion to the Euro, in 1999, representing a certain change in the economic regime. It was a relevant event in the Portuguese economy of the last two decades, since it could mean a possibility of economic stability. For Silva (1997), the idea of a single currency (euro) could act in the elimination of the uncertainly in the exchange rate, in the integration of markets and the reinforcement of the credibility of monetary policy. This scenario would enable the European economy to improve its competitiveness face United States and Japan.

At the same time as the mentioned events, the Portuguese economy in the field of technological innovation policies in the early 1990s was marked by the predominance of an interactive model and an institutionalization of innovation policy in the European Union. These policies aimed to create collective learning mechanisms. The adjustment of the supply and demand dynamics of innovation factors, the strengthening of endogenization processes and the dissemination of industrial know-how and tertiary know-how, covering the high and low-tech sectors. Endogenization occurs when a local community is able to use its development potential and lead the structural change process of the productive system. It is still capable of generating increasing returns through the use of available resources and an introduction of innovations, guarantee of wealth creation and welfare improvements (Barquero, 2011).

To this end, the instruments used were the promotion of business and institutional cooperation networks, the regionalization of the investigative function and more attention was paid to the needs of small and medium-sized enterprises (SANTOS, 2003). To better understand the strategies adopted by Portugal in the 1990s, Table 01 presents a summary of the main events related to technology innovation and science, at the country level.

The launching of the Science and Technology Financing Program in 1994, highlighted in Table 01, was an instrument of action aiming to modernize the economic activity and increasing the overall national competence. This was possible due to investments made through the Structural Funds. The intervention of the Structural Funds, supported by multiannual Community budgets, has made possible the security and temporal predictability of European Community financial support. On the other hand, it also required the establishment of national development strategies. It was also possible to promote the scientific culture, through the support given to the actions of the Ciência Viva program and the techni-

Table 1. Science technology and innovation of Portugal - 1990´s period

1994	Program for the Financing of Science and Technology, Praxis XXI
1995	Creation of the Ministry of Science and Technology - MCT
1996	National Agency for Scientific Culture
1997	Foundation for Science and Technology - FCT
1999	Portugal adhesion to the ESA - European Soace Agency

Source: Prepared by the author based on data from the Science and Technology Archive (ACT), 2017.

cal assistance measures of PRAXIS XXI, which laid the foundations for the funding of the Science and Technology Observatory (CSF, 2002).

The Ciência Viva was program with the main purpose was to promote the scientific and technological culture of the Portuguese population. It promotes the twinning of scientific institutions and schools, the scientific occupation of young people on vacation in scientific research institutions, programs of scientific dissemination to the public, as well as the creation of Ciência Viva Centers, interactive spaces for scientific dissemination in various parts of the country. In its school-oriented aspect, the priority is to stimulate the experimental teaching of science (POCTI, 2000, p.11).

The creation of the MCT in 1995 meant an institutional remodeling of Portuguese scientific and technological policy, targeting a dynamic and stable agenda to support the future development of science and technology. The importance of the creation of the MCT was identified because they understood the need for an institutional responsible for the implementation of science and technology policy and for promoting the country's scientific and technological development (MCT, 2017). Its main attributions are:

(a) to lay down the basis for national science and technology policy; (b) To foster and coordinate scientific research; (c) To support the training and qualification of human resources in science and technology; d) To stimulate and coordinate activities aimed at the implementation of the information society; (f) To co-ordinate international scientific and technological cooperation under bilateral or multilateral cooperation agreements, in particular those arising from Portugal's participation in the European Union; g) To prepare and propose to the Government, in accordance with the law, the proposed budget for science and technology and multi-annual planning of scientific research and technological development activities; h) To contribute, by all means, to the strengthening and extension of the national scientific and technological community. (MCT, 1996, p.1, translated by the authors).

The strategies adopted by Portugal in favor of scientific and technological development have advanced in the context of the European Union, identifying the importance of scientific and technological culture for the social and economic life in the country. The initiative to create the MCT was one of the most strategic and important actions adopted by Portugal, as well as the creation of the National Agency for Scientific Culture and the Foundation for Science and Technology. All these actions have shown the country's focused efforts towards a policy for the development of science and technology speeding scientific and technological development.

Another action taken by Portugal for its scientific and technological development was the Lisbon Strategy (2000-2006), whose initiative was to emphasize a basis for the knowledge economy. This strategy also included the challenge of impacting employment growth and social cohesion. The country identified that in order to become competitive, it would be necessary, in addition to improving research conditions, to create a favorable atmosphere for entrepreneurship (ESTRATÉGIA DE LISBOA, 2008). Highlights of the Lisbon Strategy can be seen below:

Prepare the transition to a knowledge-based society and economy through the implementation of policies geared towards the knowledge society and R&D, as well as by fostering the process of structural reform to boost competitiveness and innovation as well as the building of the internal market. Modernizing the European Social Model, investing in individuals and combating social exclusion; to promote economic sustainability and favorable growth, through the application of a set of macroeconomic policies. (ESTRATÉGIA DE LISBOA, 2008, p.12, translated by the authors).

The objective of the Lisbon Strategy is to make the country stronger in terms of its economic performance, cohesion and sustainability. To achieve this goal, strengthening employment with economic growth in a clear context of a knowledge-based economy to become more competitive and dynamic,

and able to grow in a sustainable way and with social cohesion was the chosen approach. One contributing factor to the Lisbon Strategy is the National Economic and Social Development Plan (PNDES). According to Pinto (2012), this plan followed the implementation of the Community Support Framework (CSF III) (2000-2006) and, inspired by the Lisbon Strategy, sought to affirm the transformative potential of science and technology. It aimed at a more cohesive and competitive European Union based on knowledge and innovation. To this end, the renewal of the Lisbon Strategy (2007-2013) is based on creating the conditions for investing and working knowledge and innovation, improving and expanding the availability of jobs and working with funds for rural and fisheries development, in the acceptance and understanding that these sectors are important within the context of the country's economic development. The specific situation of the unsatisfactory performance of the European economy and the desire to promote sustained growth based on knowledge and innovation led to the definition of the Lisbon Agenda by the European Council with the aim of ensuring economic development in a committed way by the Member States (QREN, 2007).

The strategic conception then defined was based on the formulation of great objectives of intervention of public policies, along with the reaffirmation of inalienable assumptions underlying the governmental action: the consolidation of the Rule of Law, as a promoter of citizenship; ensuring the safety of citizens; the emphases on justice, in order to ensure the cohesion of society and all its economic, social and cultural systems; the deepening of the functions of market regulation, with a view to safeguarding collective assets and the principles of equity and equal opportunities. (QREN, 2007, p. 48, translated by the authors).

In this scenario, the National Strategy Reference Framework (2007-2013) constituted the alignment for the implementation of the Community policy of economic and social cohesion in Portugal in 2007-2013. Regional policy was renewed with significant consequences for the valorization of the territory and its diversified potential. The strategy of these interventions was consistent with the new development paradigm, respecting the implementation of public policy instruments aimed at stimulating the endogenization of technological skills and competences. Based on the strategies adopted in the context of the NSRF, efforts were made to guarantee rational, coherent and effective public policies at the central, regional and local levels. It is with the participation of the municipalities in the management of the economic and social development of the country that it seeks to achieve this goal (QREN, 2017).

As already mentioned and described above, there are numerous strategies used by Portugal for its economic and scientific development. It is relevant to mention that these strategies are intertwined with those imposed by the European Union, which, while making resources available, impose its framework on member countries as a way to guarantee their growth. In this sense, Portugal is already targeting the 2020 strategy, as will be reported below.

The European strategy for the next programming period 2014-2020 aims to identify the regional affirmative sectors in the cross-border between knowledge and the market. It seeks to strengthen the capture of value centered on the endogenous resources and the international dimension of regional productions. The European strategy 2020 replaces the Lisbon Strategy, based on four major pillars: (1) Seeking to raise the employment R&D; (2) Reducing greenhouse gas emissions; (3) improving levels of education; and (4) promote social inclusion. From the identification of these pillars, it is tried to face the existing obstacles in the economy and the society of Portugal with the aid of the community funds (PO_ALGARVE, 2014).

Public policies and specially measures co-financed by Community funds should seek to address a number of persisting obstacles in the Portuguese economy and society, namely: insufficient business investment in R & I[Research and Innovation]; the scarcity of R & I and internationalization skills in

companies; the scarcity of financial resources for the development of innovation activities, in particular in emerging and higher risk areas, and internationalization of SMEs; insufficient visibility and international recognition of the value of national products and territories; the low propensity and scarcity of resources and skills for launching new businesses based on knowledge and creativity; and the incipient valorization of scientific and technological knowledge by the entities of the national and regional R & I systems and also the insufficient articulation between the diverse actors of this system, more specifically between companies and the research entities. (PO_ALGARVE, 2014, p.88, translated by the authors).

The mobilization of community funds serves as an instrument that should facilitate the improvement of internal and, mostly, international connectivity. In this sense, Portugal is working and making great progress when related to technological innovation policies. According to Heitor (2015), the country overcame its structural scientific backwardness after forty years of democracy and thirty years of European integration. For the author it is important to be in an integrated system in a globalized international community par excellence. Evolution is not dissociated from the economy, so the actions and strategies adopted by Portugal seek economic growth and scientific and technological development for the country.

This evolution also goes through the evolution of institutions. This scientific and technological policy was also characterized by the importance given to institutional organization and to the development of the scientific and technological system. The efforts in the Portuguese economy, combined with the events in the field of science and technology were strategies adopted by the country for its economic growth. Next, the role of (formal) institutions in the context of technological innovation are pointed out.

FORMAL INSTITUTIONS AND THE INTER-RELATION OF ACTORS

In this section, the authors analyzed the actors, hereby considered as the institutions, the companies, the universities, the incubators, trying to understand how they interrelate. In Tracey's (2004) conceptualization, national and regional institutions and practices can be inherited and not only accumulated in the process of economic growth, recognizing that the past influences the future. Its approach is agent-centered, admitting the possibility of interaction between the agent's cognitive abilities and their inheritances and specific donations from the region or place. In the author's concept, the agent influences the decisions of the institutions from their interactions with the region, can thus influence the adoption of innovation.

De Noronha Vaz et al (2005) sees innovation as a central role in political discourse. It is up to the actors who construct the public policy to confront this reality, supporting the means necessary for an innovative process to occur.

In this context, the European Union has devoted much of its attention and financial support to the innovative effort. Within multiple international initiatives, 2009 is designated as the European Year of Creativity and Innovation. Highlighting these initiatives, the Center for Space Research and Organizations (CIEO) is associated with this celebration by launching the issue No. 0 of the Conference Papers entitled Spatial and Organizational Dynamics, entitled The Challenge of Innovation: Paths in a Tourist Region. (De Noronha Vaz, 2005, p.10, translated by the authors).

De Noronha Vaz (2005) realizes that, when empirical reality is observed throughout history, technological change has always been the great engine of economic growth and wealth of countries and companies. Maskell et al. (1998, 1999) recognize that no firm can build competitiveness alone. Most companies learn from close interaction with suppliers, customers, and knowledge processes that are

deeply influenced by local resources, institutions, and their structures (as localized capabilities). This process of competitiveness is amplified with globalization.

However, globalization and market opening tend to reinforce agglomeration and regional economic specialization (De Noronha Vaz, 2005). To the author, this occurs for three reasons: 1) By the geographical proximity that facilitates the dynamics of interconnection companies; (2) The formation of dense local labor markets around various places of work; and 3) The ease of the emergence of localized relational assets, promoting innovation effects. The reasons for location proximity go beyond transaction efficiencies and include various types of externalities, such as knowledge and reliance on relationships, rules, and customs that allow companies to coordinate under conditions of uncertainty.

For De Noronha Vaz et al. (2009) the territories in which they settle, especially when dealing with small and medium enterprises, influence regional or local characteristics related to innovation. Regional economic development is affected by its innovative behavior. This behavior could be discussed in an interface context between institutional interaction and historical local development. The main reason is the strong role that small and medium-sized companies play in their economic structures, employment and skills development in each region.

Thus, the dynamics of development are closely related to the choices that small and medium enterprises make from their roots, conditioning them to their environments. Based on the vision of De Noronha Vaz et al (2009), the regional development achieved through innovation will be made possible through the choices made by companies, since they have a strong influence on the regional or local economy and, at the same time, in the actions of the local actors.

Globalization has led companies to face a growing openness of rival producers. Not only small and medium-sized enterprises, but also industries are much more vulnerable to price competition and quality (De Noronha Vaz, 2005). For Bramanti (1999) there should be interaction of four building blocks in the innovation process, assuming the great relevance of the geographic space as a determinant variable for its development.

In this context, with the accession of Portugal to the European Community, the need for discussions on social cohesion has increased, requiring reflection on regional policies and on which instruments would be most suitable for their implementation. For De Noronha Vaz et al (2013) it is not an easy task to have an instrument capable of simultaneously meeting the needs of the regions and being able to face the competition that globalization imposes on each one of them. An alternative to address this reality would be the creation of continuous innovative processes, capable of producing the context of the institutions. This process would act as a strategic instrument for the economic development of the regions.

Strategies should work with the interface of institutions and actors in each region based on cooperation. For Szeto (2000) the cooperation between actors with different visions and distinct activities is an important articulation factor to stimulate innovation in its various forms: product, process and organizational innovation. From the cooperation, conditions are created to bring together companies and institutions, to designate and share knowledge and, consequently, to develop the learning processes inherent to the consolidation of the innovation capacity of companies.

This articulation between the institutions and the other actors at regional level launch a dynamic that could also influence the definition of policies (of innovation, for example). From the perspective of each actor it would be possible to formulate strategies for the use of existing resources. For Sotarauta (2004) the definition of any development policy for innovation must value dynamic capacities that allow the conscious use of resources that exists or are created in the regions.

For Ratti (1991) an efficient way for the discussions between the actors to occur (the organizations in general) is the union of two important characteristics: 1) The internal coherence in the institutions, that is, the existence of a multiplicity of activities and a strong interrelationship between them; and (2) The combination of competition and trust-based cooperation and the widespread recognition that cooperation is positive. Thus, it is important to have an institutional base that supports companies in their R & D processes, providing relevant and relevant information and skills. The second feature relates to the ability to establish external networks. The existence of links between institutions and companies between regional, national and international markets. Thus, for Ratti (1991) the articulation of the actors would function from these two characteristics pointed out.

The articulation among actors for innovation, for example, could be an instrument for building competitive advantages of a region. It is emphasized that innovation focuses on the internal components and is related to competence and learning. These components are the actors and can be the institutions, the organizations and the companies. However, it is necessary that the actors are willing to interact, so, from this interaction, it is possible to find strategies for their development.

However, the interface between institutional interaction and regional development is sometimes overlooked within the global scenario. Finding solutions capable of creating instruments of economic development that at the same time consider the needs of the region is a challenge, necessary to be faced it in order to boost regional development. This reality is no different in the Algarve region. The region, through its government, seeks instruments capable of finding solutions to generate technological innovation in a reality that demands from each region the appropriation and discussion of technological innovation policies. This is mainly visible when the ability to produce at a global market comes into question. To broaden this discussion, the reality of the Algarve region in the context of technological innovation will be discussed below.

FINAL CONSIDERATIONS

The challenge of the Algarve region for the near future is to promote smart specialization within the regional context, bringing to the political arena the need to form partnerships thereby facilitating the diffusion of knowledge, also that one generated in the region. We should emphasize that the diffusion of scientific and technological knowledge is pointed out in this study as being deficient and not incorporated in the economic context of the Algarve region.

Based on data collection and interviews, there is a trend towards a path dependence of the Algarve region on the country and on technological innovation policies. The dependence on the construction of the trajectory is reinforced by the entry of Portugal into the European Union, imposing the region to follow those strategies adopted by the European Union. In addition, the relationship between dependence and financial resources is identified. Without the provision of resources to the Algarve region, this should not be able to make investments in scientific research. However, being linked to the European Union requires Algarve to follow the Lisbon strategies. These strategies need to be in line with the region so that the investments are well defined and clear to ensure they are done correctly. In this context the interviewees' speech reinforces the vision of the importance of the participation of the actors in the construction process of regional and local development strategies for region.

The participation of the actors does not eliminate the dependence on the Algarve region to make 60% of its financial resources available to reinforce research, technological development and innovation; improving access to information technologies and enhancing the competitiveness of small and medium-sized enterprises (RIS3, 2015). The participation of the actors, however, can bring certainty that the financial resources made available will be adequately used.

It should be emphasized that this research was limited to the study of the Algarve region, and a generalized conclusion for the other Portuguese regions should not take place.

REFERENCES

ACT – Arquivo de Ciência e Tecnologia. Traz informações sobre a história e memória da Ciência, Tecnologia e Inovação em Portugal. (2017). *Desenvolvido pela Fundação para a Ciência e Tecnologia.* Disponível em: http://act.fct.pt/historia-da-ciencia/historia-e-memoria-da-ciencia-tecnologia-e-inovacao-em-portugal/

Amaral Filho, J. (2006). O impacto económico da integração de Portugal na Europa. *Nação e Defesa*, *115*, 113–128.

Barquero, A. V. (2011). *Desenvolvimento endógeno em tempos de globalização*. Porto Alegre: Editora da Universidade/FEE.

De Noronha Vaz, T. (2005). Desenvolvimento regional e inovação empresarial: o impacto do desenvolvimento local nas determinantes da inovação das pequenas empresas. *Revista Paranaense de Desenvolvimento, 108*, 7-24.

De Noronha Vaz, T., Cesário, M., & Fernandes, S. (2009). Cesário, Marisa; Fernandes, Sílvia. Interaction between innovation in small firms and their environments: An exploratory study. *European Planning Studies*, *14*(01), 95–117. doi:10.1080/09654310500339893

De Noronha Vaz, T., Leeuwen, E. S., & Nijkamp, P. (2013). *Towns in the Rural World*. London: Routledge. Retrieved from https://www.routledge.com/Towns-in-a-Rural-World/VazLeeuwen/p/book/9781409406921

Estratégia de Lisboa. Plano Nacional De Reformas Portugal. Lisboa: Gabinete do Coordenador Nacional da Estratégia de Lisboa e do Plano Tecnológico. (2008). Disponível em: ec.europa.eu/social/BlobServlet?docId=6179&langId=pt

FE – Fundo Estruturais. (n.d.). *25 anos de Fundos Estruturais: Olhares sobre a evolução da sociedade, da economia e das instituições em Portugal*. Disponível em: http://www.tvi.iol.pt/pdf/25_anos_de_fundos_estruturais/25_anos_de_fundos_estruturais-fundos.pdf

Heitor, M. (2015). Ciência e conhecimento na modernização de Portugal: a formulação de políticas públicas na superação do atraso cientifico e na democratização do acesso ao conhecimento. In *40 Anos de Políticas de Ciência e Ensino Superior em Portugal*. Lisboa: Almedina. Disponível em: http://www.manifesto2015.com/docs/capitulo-politicas-C-T-MHeitor-11mai2015.pdf

Hoff, D. N. (2011). A história importa: proposta de estrutura analítica para o estudo de path-dependence. *Ensaios FEE, 32*(1), 7-30.

Marques, J. P., Caraça, J. M. G., & Diz, H. (2006). How Can University-Industry-Government Interactions Change the Innovation Scenario in Portugal? – the case of the University of Coimbra. *Technovation*, *26*(04), 534–542. doi:10.1016/j.technovation.2005.04.005

Maskell, P. (1998). *Competitiveness, Localized Learning and Regional Development: Specialization and Prosperity in Small Open Economies London*. Routledge. doi:10.4324/9780203276921

MCT – Ministério da Ciência e da Tecnologia. (2017). *Plano Inova Empresa*. Inovação e desenvolvimento econômico. Disponível em: http://www.mct.gov.br/upd_blob/0225/225828.pdf

MCT – Ministério da Ciência e da Tecnologia. Sistema Brasileiro de Tecnologia SIBRATEC. (1996). Disponível em: ftp://ftp.mct.gov.br/Unidades/SETEC/CGST/COTB/Apresentacoes/Apresentacao_SecretarioSETEC_ReuniaoSIBRATEC.pdf

Pinto. (2012). *Transferência de Conhecimento em Portugal*. Mudança e Institucionalização das Relações Universidade-empresa, 2012. Tese (Doutorado em governação, conhecimento e inovação da Universidade de Coimbra) Coimbra, 2012, 460 p. Disponível em: https://estudogeral.sib.uc.pt/jspui/bitstream/10316/21366/3/Tese%20Doutoramento%20Hugo%20Pinto.pdf

POCTI – Programa Operacional Ciência. (2000). Tecnologia, Inovação 2000-2006. *Quadro comunitário de apoio III.* União Europeia. Disponível em: http://www.qca.pt/pos/download/2000/pocti.pdf

PORDATA – Base de dados Portugal Contemporâneo. (2017). *Retrato de Portugal – Edição 2017*. Fundação Francisco Manuel dos Santos. Disponível em: https://www.pordata.pt/Municipios/Retratos/2017/2017-54

QCA – Quadro Comunitário de Apoio II. (2002). *Relatório Final Vertente Feder.* Portugal, Ministério da Ciência e Ensino Superior. Disponível em: http://www.qca.pt/n_qca/pdf/praxis.pdf

QREN. (2007). *Quadro de Referência Estratégico Nacional 2007-2013*. Disponível em: http://www.qren.pt/np4/file/663/1_QREN_Quadro_de_Refer_ncia_Estrat_gico_.pdf

Ratti, R. (1991). Small and medium-size enterprises, local synergies and spatial cycles of innovation. In Innovation Networks: Spatial Perspectives. Belhaven Press.

RIS3 – Algarve 2014-2020.Estratégia Regional de Investigação e Inovação para a Especialização Inteligente. (2015). Disponível em: https://www.portugal2020.pt/Portal2020/Media/Default/Docs/EstrategiasEInteligente/EREI%20Algarve.pdf

Ruivo, M. (1998). Ciência – Introdução. In Portugal 45-95, nas artes, nas letras e nas ideias. Lisboa: Centro Nacional de Cultura.

Santos, D. (2003). Política de inovação: Filiação histórica e relação com as políticas de desenvolvimento territorial. *Revista Portuguesa de Estudos Regionais*, *3*, 25–40.

Silva, A. C. (1997). *Portugal e a moeda única*. Lisboa: Verbo.

Sotarauta, M. (2004). Strategy development in Learning Cities. From Classical Rhetoric towards Dynamic Capabilities. *Sente Working papers, 8*.

Szeto, E. (2000). Innovation capacity: Working towards a mechanism for improving innovation within an interorganizational network. *The TQM Magazine*, *12*(02), 149–158. doi:10.1108/09544780010318415

Tracey, M. (2004). A holistic approach to new product development: New insights. *Journal of Supply Chain Management, Tempe, Arizona*, *40*(04), 37–55. doi:10.1111/j.1745-493X.2004.tb00177.x

Chapter 6
New Approach to Detect and Select Technology-Based Firms:
Value Creation Factors in a Follower Technology Country

Pablo Garrido-Prada
Universidad Autónoma de Madrid, Spain

María Jesús Delgado-Rodríguez
Universidad Rey Juan Carlos, Spain

Desiderio Romero-Jordán
Universidad Rey Juan Carlos, Spain

ABSTRACT

Technology-based firms are a key driver for the growth potential of a country due to their capacity to introduce radical innovations and value into the economy. In this chapter, the authors propose a definition for technology-based firms based on strategies that makes possible to identify the companies with advanced use of technology (including knowledge) in all the sectors of the economy. This refined definition helps to identify this kind of companies and to orientate special public policies to foster their development. For follower countries in terms of technology and innovation, as it is the case of Spain, technology-based firms may be a significantly different collective compare with advanced technological countries. Thus, the authors propose a method to detect technology-based firms in not only high technology sector using a Technological Innovation Panel (PITEC) in Spain. This chapter confirms that there are technology-based firms in many activities outside the high technology sectors that can be of interest for public institution and investors.

DOI: 10.4018/978-1-5225-7937-3.ch006

INTRODUCTION

Over the last twenty-five years, Technology-based firms (TBFs) have attracted economists' attention because they seem to combine two key requirements for company survival and growth: innovation through the transfer of scientific knowledge from the academic world to the market environment, and strategic positioning in new market niches (Autio & Yli-Renko, 1998; Coad & Reid, 2012; Coeurderoy & Murray, 2008; Colombo & Grilli, 2010; Granstrand, 1998; J. J. Wu & Atkinson, 2017; L.-Y. Wu & Wang, 2007).

The concept of competitiveness is increasingly related to knowledge (technology) transfer. At both macroeconomic and microeconomic levels, the transformation of knowledge into innovation seems to be the links that ensure economic and corporate growth. At a microeconomic level, competitiveness involves remaining in the market through processes, products, organisations or market practices that ensure a sustainable competitive edge over competitors. At a macroeconomic level, innovation can overcome the stationary periods and enhances international competitiveness.

It is widely accepted that a company cannot remain in a competitive market without being innovative. Thus, the capacity to transform knowledge into innovation is another resource for business to increase productivity and growth (Hall, Lotti, & Mairesse, 2009). Indeed, TBFs try to combine *cutting-edge* scientific knowledge and transform it into innovation. Similarly, TBFs are able to create and develop new market opportunities, based on new knowledge or technological platform. This kind of companies demand qualified jobs, connect high education centre with the market, and provide additional societal value (Autio, 2017). Hence, TBFs consolidation and study are essential from both, macro and micro-economic perspective (Groen, Cook, & Van der Sijde, 2015; L.-Y. Wu & Wang, 2007)

Nevertheless, it is not easy to define, and scope, TBFs since the term comprises companies of different nature, from a diversity of sectors, difficult to identify and quantify (Autio, 1997; Storey & Tether, 1998). The lack of a clear definition of TBFs is symptomatic that they are a heterogeneous group. This is partly solved by categorizing economic sectors (instead of companies), in relation to technology. The U.S. Bureau of Labor Statistics (BLS) classifies an industry as technology-based if its share of science, technology, engineering, and mathematics (STEM) workers is twice the national average. The Organization for Economic Co-operation and Development (OECD) categorizes the economic sectors in high, medium and low technology-based using the technological intensity concept (R&D expenditure over the sales volume of the enterprise). Then, researchers select TBFs in high technology sectors assuming high technological intensity of those companies (Groen et al., 2015; Li, Qian, & Qian, 2012; Onetti, Zucchella, Jones, & McDougall-Covin, 2012; Tsvetkova, Thill, & Strumsky, 2014).

Thus, even though technological intensity is defined at the enterprise level (the technological effort of the company), it is applied to the sector. In the case of follower countries in the fields of technology and innovation (such as developing countries, service-oriented countries or countries that develop other types of industries), this selection method implies accepting that TBFs are exceptions within the business structure of such countries. For example, a company that is dedicated to adapt new knowledge of artificial intelligence in new or innovative products for autonomous driving, would be classified outside high technology sector (according to NACE classification), and hence not detected as TBF.

However, for follower countries, to find a business collective that can recreate the same economic benefits as TBFs in advanced countries outside high tech sectors, can be a key factor for the country's economy and development. Many moderate innovators countries allocate huge amounts of resources each year to reduce the technological *lag*, aimed at encouraging the creation and development of companies in the high-tech industries. Yet, is it possible to find companies that use technology or advanced tech-

nological knowledge in medium and low technology industries? And if so, do such enterprises share the same characteristics as TBFs in the high-tech industry? Thus, limiting the selection of BTFs to only high tech sectors compromises the analysis, and may reduce the efficiency of public policy and investment.

Therefore, this work aims to define TBFs based on business strategies by applying the concept of technological intensity to the company and not the sector (Autio, 1997; Baldwin & Gellatly, 1998; Colombo & Grilli, 2005; Granstrand, 1998; L.-Y. Wu & Wang, 2007). The authors provide a broad and accurate definition of TBFs, propose a method for the detection of TBFs, and analyse of the selected sample with respect to the main characteristics of the TBFs in other countries.

The first part of this chapter proposes a definition of TBFs that unifies the selection criteria, followed by an analysis of the key features of this group. The second part proposes a method for the detection of TBFs using the Technological Innovation Panel (PITEC) and based on the proposals of the first part. Finally, the chapter analyses this business collective in terms of innovation.

TBF TAXONOMY: THE RBV APPROACH

What Do We Mean by Technology-Based Firms?

From a semantic perspective, the word technology has Greek roots and results from the word *téchnē* (*τέχνη*, art, technique or craft), which can be translated as skill or know-how with regards to a craft; and the word *logía* (*λογία*, study or research), meaning the ability to handle something, in this case *téchnē*. Thus, technology can be defined as "the science of the art of doing" (Bienaymé, 1986), or as "the stock of knowledge used by human beings to transform matter and organise it for processing or conversion" (Perrin, 1988). A clearer definition of technology is proposed by the RAE (*Real Academia Española* or in English: The Royal Spanish Academy of Language): "Set of theories and techniques that enable the practical use of scientific knowledge".

Technology-based firms, therefore, would be those that apply this stock of information to transform matter and coordinate their activities. This definition of TBFs is clearly weak since this is what all companies do and, therefore, a more accurate definition is needed.

At this stage, the RAE definition may be used to lead the way, since the core methodology of technology-based firms is built precisely on using and applying scientific knowledge for practical purposes. In fact, what distinguishes a technology-based company is the application of new and sophisticated technical procedures which are in turn based on the application of basic science, understanding the latter as science that is closer to thought than to implementation and which occurs within organized and specialised groups (laboratories) with a high involvement of knowledge.

This definition is more solid, although it is still too vague in defining what is meant by basic science. However, there are many clearer and direct definitions for this term. One of the most accepted is provided by the US Office of Technology Assessment (1992) and defines TBFs as: goods and services producers, committed to the design, development and production of innovative products and/or manufacturing processes through the systematic application of technical and scientific knowledge. Along these lines, a TBF is defined as a company with an activity that requires the generation or intense use of technology to create new products, processes or services through research, development and innovation, to channel initiatives and transfer research results.

The US Office definition introduces the term *innovation* to define TBFs. A basic feature of TBFs is that they stem from a business opportunity derived from an innovative activity and are therefore essentially driven by innovation. On our part, it is not necessary to introduce this term as it may interfere with the identification and selection process. SMEs with innovative approaches serve as an example of this. Innovation is an intrinsic factor that does not need to be introduced into the definition of TBFs, although it will be considered one of their main characteristics.

Technology-based firms (TBFs) are here defined as all independent organisations within the market that use continuous research and the implementation of advanced scientific and technical knowledge as main tools to obtain sustainable competitive advantage on the goods and services they provide.

In other words, the priority way to achieve sustainable competitive advantage is the application of scientific knowledge. In essence, TBFs are business projects where the key feature is that "R&D is business" (Merino Moreno, Verde Cordero, & Villar Mártil, 2008). Only when it is risk are potential profits. New technology development and commercialization is a challenge that TBFs deal with it daily (Lockett & Wright, 2005; Wang, Lo, & Yang, 2004). For this reason, many authors use the term NTBFs (new technology-based firms) rather than TBFs. restricting the definition of TBFs to newly created companies, up to 25 years old (Storey & Tether, 1998). In this chapter, however, companies will be considered TBFs whenever the use and development of scientific knowledge is considered core to the business in order to gain sustained competitive advantage.

As the reader can observe, the term *independent* has become part of the definition. In this manner, a distinction is drawn with other companies which are part of a group, subsidiaries or associates, albeit being legal entities, and where decision making is not completely independent (Autio, 1997; Storey & Tether, 1998).

Considering the above, this chapter offers a definition that differs from those currently accepted in English-speaking and other European countries. The definition of TBFs needs to be contextualized to the economy of the countries. The definition proposed by Storey and Tether (1998) or by the US Office of Technology Assessment (1992) does not enable the detection of TBFs in technological follower countries like Spain. This does not mean that there are no TBFs in Spain, rather that they are significantly different to those in other countries, due to the different industrial structure of our nation.

Why Has the Term Innovation Been Excluded From the Definition?

As mentioned in the previous section, some definitions put forth by researchers refer to TBFs as innovative companies. However, in this chapter, the term *innovation* has been omitted and TBFs are defined as all independent organisations within the market that use continuous research and the implementation of advanced scientific and technical knowledge as main tools to provide a sustainable competitive advantage on the goods and services they provide. As indicated, the strength of this definition lies in the terms *knowledge transfer* and *sustainable competitive advantage*. TBFs maintain a sustainable competitive advantage by means of the intellectual capital invested in their products and services. This is a sophisticated kind of investment that is difficult to copy or reproduce by competitors. Of course, intellectual capital (which also turns into physical capital) originates chiefly from the innovation activities (technological or otherwise) that take place in the company or in research centres. That is, innovation is an ongoing process and not only incidental, and is an essential tool to achieve sustainable competitive advantage.

Innovation is inherent to the "sustained implementation of scientific and technical knowledge" and therefore is a consequence of the enterprise's activities. Since all R&D can be considered innovation, it is not necessary to include the term in the definition of TBF.

In other words, any R&D process undertaken by a TBF is really an innovation process. Therefore TBFs will undergo innovation processes within themselves. And in any case, scientific knowledge obtained through activities that are not ascribable to R&D can still be considered innovation (OECD/ Eurostat, 2005, p. 318).

TBF KNOWLEDGE TRANSFER AND SUSTAINABLE COMPETITIVE ADVANTAGE

The TBF definition proposed in this chapter introduces two key concepts: knowledge transfer and sustainable competitive advantage. Both concepts are essential for the development of society.

Knowledge Transfer

Any process oriented towards the socioeconomic use of humanistic, scientific or technical knowledge can be considered knowledge transfer (Aceituno, Hernández, & García, 2010). Knowledge transfer (including technology transfer[1]) usually refers to the (vertical) transmission of scientific and technical knowledge generated in universities and research centres into the social and productive tissue of society. Knowledge transfer is essential for the expansion of the knowledge-based economy, which maximises the social benefits derived from scientific or technical discoveries. From a competitiveness perspective, knowledge transfer is one of the most important mechanisms available to regions in order to gain competitive advantage over others in an increasingly globalised world. This is the reason why it is so important to promote communication channels between the academic and institutional worlds and the business and social environments.

At an enterprise level, the transfer of knowledge and technology is considered a tool to improve competitiveness. On the other hand, it allows knowledge centres to increase the value generated from their research by providing practical application, therefore justifying the search for further knowledge and, in many cases, facilitating financial investment in research projects. However, the largest recipient of knowledge transfer is society, as it usually renders increased social welfare.

TBFs play a crucial role in knowledge transfer, being as they are one of the best knowledge drivers between the scientific world and the business environment. The reason to encourage this type of enterprise is that it enables the transition from an information economy towards a knowledge economy. In this sense, the intellectual capital associated to a TBF is often very important for its development. Therefore, all companies built around the transfer of knowledge from research centres will be considered TBFs AUTIO 1997. Thus, knowledge can be used to develop core technology, or applications for existing technologies, or be tailored to cover the company's needs (Carlsson & Stankiewicz, 1991). In this sense, core technology can be subsequently transformed into specific applications. It is also possible to transform scientific knowledge directly into technologies with a specific use/application (Chamanski & Waagø, 2001).

Sustainable Competitive Advantage

The concept of sustainable (or continuous) competitive advantage is related to the value a company can generate and sustain. The concept of value has been extensively studied in economy from the times of mercantilism up to the present day. From a company perspective, value creation starts by providing value to the consumer (Sirmon, Hitt, & Ireland, 2007). However, from the perspective of company competitiveness, it only begins once it generates positive marginal benefits in the long term (Hoopes & Madsen, 2008; Hoopes, Madsen, & Walker, 2003; Powell, 2002). Therefore, value creation is perceived as a survival mechanism for the company in the long term. Indeed, it is agreed that TBFs produce high added value goods and services, not just because of the time invested, but because of the knowledge used to transform raw material into the final product.

In particular, from a supply perspective, the resource-based view (RBV) is the prevailing approach in organisational strategy, inasmuch as it links the value creation of a business to the resources and capabilities available to it. In point of fact, Barney (1991) defined sustainable competitive advantage as occurring when "the implementation of a strategy that aims to create value cannot be performed simultaneously by any potential competitors and when other companies are incapable of replicating the benefits derived from that strategy". Along these lines, TBFs create value through the systematic application of scientific (human or intellectual capital) and technical knowledge (physical capital) that has the qualities described by Barney (1991) to achieve sustainable competitive advantage. Such companies are competitive, since they are able to procure or generate resources that are rare (usually in small market niches), inimitable (the basic resource is human capital which is very hard to imitate), valuable (the companies are created precisely because they have an application) and have no substitutes (usually perform complex and innovative processes for which no other development methods are known). Accordingly, TBFs use scientific knowledge as their main resource to gain comparative advantage, that is, to be competitive.

CHARACTERISTICS OF TBFs

Accepting that BTFs is a heterogeneous collective, researchers have tried to identify the factors that characterize and underpin the development of BTF. Some of these factors are the attributes of their founders (Almus & Nerlinger, 1999; Colombo & Grilli, 2005; Ganotakis, 2012; Ganotakis & Love, 2011), to growth speed, their location (Fukugawa, 2006; Löfsten & Lindelöf, 2002; Phan, S. Siegel, & Wright, 2016; Siegel, Westhead, & Wright, 2003), their sources of financing (Revest & Sapio, 2012), or the technological intensity used on their products (Vivarelli, 2013).

A summary of the main characteristics of TBFs covered by empirical studies would be that TBFs:

- Prioritise maximum knowledge investment with the objective of making a project profitable. Use the application of scientific and technological knowledge as a resource and strategy to generate sustainable competitive advantage through innovating ideas (Clarysse, Bruneel, & Wright, 2011; Montiel Campos, del Palacio Aguirre, Solé Parellada, & Nuño de la Parra, 2009; Motohashi, 2005).

- Are usually coupled with advance technology (physical capital) and require intellectual and industrial protection (high intellectual capital). This calls for a high initial investment and continuous investment to maintain the business, which implies difficulties in financing projects (Colombo, D'Adda, & Pirelli, 2016; Grilli & Murtinu, 2015).
- Are usually related to research centres in university environments (spin-offs) or to other companies that use their products (spin-outs) (Colombo, Delmastro, & Grilli, 2004; Ganotakis, 2012).
- Prefer to locate together, or near reference centres in order to increase cooperation (so as not to lose their creative essence) and maintain relationships with originating institutions (academic or otherwise), although there is no clear evidence that this produces better economic results (Audretsch, Lehmann, & Warning, 2005; Fukugawa, 2006; Löfsten & Lindelöf, 2002; Phan et al., 2016; Siegel et al., 2003).
- Operate in small markets close to technological frontiers or in new markets sometimes created by the companies themselves (in the pursuit of maximum specialisation), at least during the first stages of the product lifecycle (J. J. Wu & Atkinson, 2017; L.-Y. Wu & Wang, 2007).
- Prefer to remain small, since they do not pursue growth in the short and mid-term scenarios (Autio, 1997; Piva & Vivarelli, 2017). Those that do decide to increase personnel do it at a greater pace than other enterprises, although this difference remains smaller in the EU (Storey (Jones-Evans & Westhead, 1996; Storey & Tether, 1998).
- Create high added value products because of the intellectual and sometimes physical capital invested. In line, they offer highly qualified employment (human capital) in the mid and long terms, due to the high intellectual demand of the projects they undertake (L.-Y. Wu & Wang, 2007).

In sum, TBFs generate knowledge and technical transfer from R&D centres or a company's innovation department and pursue sustainable competitive advantage through intensive use of scientific knowledge. What makes TBFs different is that their main activity is built on the systematic implementation of scientific knowledge. The driving force of TBFs is therefore intellectual capital, which is in turn transferred to the physical technology developed by the company. Thus, TBFs are involved in the improvement of the economic competitiveness of the society they belong to.

TBF SAMPLE SELECTION

According to the resource-based business approach, internal factors are those over which the company has a choice. Internal factors, which relate to resources, capabilities and skills, enable companies to differentiate themselves from the rest through sustainable competitive advantage. Innovation is a key element in achieving competitive advantage (Johannessen, Olsen, & Lumpkin, 2001; Nonaka, Takeuchi, & Umemoto, 1996) and explains why internal factors are closely related to growth capacity. In consequence, it is necessary to select decision variables at an enterprise level that allow us to distinguish TBFs from other companies in the PITEC[2] sampling. Within the decision variables available in the PITEC there are: variables related to human capital, physical capital, intellectual capital, relationships with other economic entities and usage of innovation resources. Table 1 displays the input and output decision variables that can be analysed using the PITEC.

Table 1. Input and output decision variables that can be analysed using the PITEC

I*nput Variables*	**Impact Variables** (*Output Variables*)
Decision variables:	
Legal personality	
Physical / technological capital	
Human capital	Total factor productivity (*limited*)
Investment in innovation	Stable employment
Types of innovation	Qualified employment
Industrial / intellectual property use	Export capacity
Relations with research centres	Profitability
Corporate relations/client relations/supplier relations	Added value
Environment variables:	Sales
Tax burden/ tax incentives / subsidies	Effects on other industries
Sources / access to financing	(multipliers, *spillovers*)
Regulatory framework	
National and international situation	

Source: Prepared by the authors based on data from the PITEC 2013.

Looking back at the proposed definition for TBFs as being: all independent organisations in the market (created by knowledge transfer) that use the pursuit and continued application of scientific and technical knowledge as main tools to achieve sustainable competitive advantage. It is proposed the following decision variables:

- Are independent, so that decisions within the company are taken autonomously and do not depend on any group (although it is possible to include parent companies if they comply with all other requirements).
- Make an intensive use of scientific knowledge. To this effect, expenditure intensity in R&D (technological effort) is defined as the expenditure ratio in R&D per employee and must be above the average within the main sector and also above the global average for the entire sample. The OECD defines technological intensity as the expenditure ratio in R&D over the sales volume. This ratio is analysed for each economic sector and is used to define high or medium-high technology sectors. It is considered that an enterprise makes intensive use of scientific knowledge if the value of both variables is above the sample and the sector averages.
- Companies that conduct R&D activities occasionally will not be considered, since they would not be using R&D as the main resource to achieve sustainable competitive advantage (TIPOID=1=Continuous).

Table 2 summarises the algorithm used.

It is also ruled out, for our subsequent study, companies with incidents, such as an increase or decrease of business turnover through acquisition or takeover by another company, temporary closure, marketing companies with high employee turnover, or companies that refuse to answer the survey for any given year[3].

The panel is available from 2005 to 2013 (2005 being the last year a company was included in the sample). Once it is selected the companies for the period 2005-2013, the overall averages by sector and by company for the expenditure ratio in R&D per employee displayed correspond to that period. Since innovation expenditure is not linear, it depends on the innovation stage (or stages) ongoing in the

Table 2. Selection of BTFs criteria and PITEC variables

Decision	Variables used in PITEC	Definition
Independent decision-making process	RELA =[2,4]	The company does not belong to a group or a joint venture, is not a subsidiary or an associate; therefore, decision-making is autonomous.
Continuous implementation of scientific knowledge	TIPOID=1	Sustained effort in R&D. Excluding enterprises that occasionally perform R&D activity or buy it.
Intensive use of scientific knowledge (in search of competitive advantage)	Ln((GTINN*GINTID)/Size)> Me_{sector}[Ln((GTINN*GINTID)/Size)]	R&D expenditure per employee (or sales) in algorithm above sector average.
	Ln((GTINN*GINTID)/Size)> Me[Ln((GTINN*GINTID)/Size)]	R&D expenditure per employee in algorithm above sample average.

company. Technological intensity (R&D expenditure/employees) in not linear either and may induce researchers to include companies that are not TBFs for certain years (or to exclude genuine TBFs). For this reason, technological intensity is measured using employees rather than sales in the denominator. The economic crisis period that started in 2008 and ended in 2013 produced greater sales volatility (with a decreasing trend). Under these circumstances, using sales to measure technological intensity can result in an increased effort caused merely by the drop in sales, not by a company objective. Work is a less volatile variable (there are redundancy costs involved), so it produces more robust measurements in times of macroeconomic upheaval. Another possibility is to create the mean (or medium) of technological intensity (R&D/Sales) by firm for the overall period of analysis.

As to how decisions have been selected and regarding the intensive use of scientific knowledge, special care needs to be taken in defining the sectors. An excessive fragmentation of sectors (too many production sectors) can mean that companies that make intensive use of scientific knowledge as an advantage generator are not considered TBFs since they are not above the sector average. For example, a group of companies that works in the development of aerospace industry for tourist trips. If we apply the average described above, almost half of the enterprises in this subsector would be left out of the TBF group where in fact they presumably all belong. To avoid this problem, two-digit sectors of the CNAE 2009 Classification of Economic Activities codes have been considered. This corresponds to the sectioning proposed by the PITEC, thus avoiding the problem of excessive fragmentation.

Although some authors, limit TBFs to small and recently created enterprises (less than 25 years old), usually called New Technology-Based Firms (NTBFs), this prerequisite is not enforced in this case, since size is one of the control variables used to determine whether the sample is correct. Some authors point out that the productivity of the EBT does not depend on its size, since much of the added value they generate is included in the knowledge (Autio & Yli-Renko, 1998; Ortín-Ángel & Vendrell-Herrero, 2014; L.-Y. Wu & Wang, 2007).

In the same manner, there are no restrictions regarding the business sector. As Baldwin and Gellatly (1998) pointed out, the diversity of the TBF collective implies that these companies can be found in any sector and under any type of legal and commercial entity. Finally, the PITEC holds no information regarding the establishment of the companies, their founders or owners, so it has not been possible to select variables on knowledge transfer (which is another relevant feature of this business collective).

After applying all the criteria described above, 572 companies have been selected for 2013 (5148 observations), corresponding to 8.59% of the companies in the sample.

BRIEF ANALISIS OF THE TBFs SELECTED

In order to confirm that the sample selection is correct, control variables that represent the main features analysed in other studies are compared with the selected sample of TBFs. More specifically, TBFs:

- Prefer, in many cases, to remain small → They do not seek growth in the short and mid-terms (Autio, 1997; Jones-Evans & Westhead, 1996; Piva & Vivarelli, 2017; J. J. Wu & Atkinson, 2017). Demand originates mostly from new markets. They also prefer to remain small to optimise and focus their resources on R&D, and all structures of the business are involved in this process.

The TBF sample selected comprises 206 companies of less than 10 employees and 39 companies with over 250 employees. In other words, 81.47% of TBFs are SMEs. The results are compatible with those obtained by Autio in 1997.

- Are usually related to research centres in university environments (spin-offs) or to the consumers of their products, which are normally other enterprises (spin-outs) (Ortín-Ángel & Vendrell-Herrero, 2014). Thus, business cooperation is one of the tools used to fund projects and reduce project risks (Kollmer & Dowling, 2004; Lockett & Wright, 2005; March-Chorda & Yagüe-Perales, 1999; Onetti et al., 2012).

In the TBF sample, 56.12% of TBFs undertook some kind of business cooperation in the period 2011-2013. This percentage is well over the percentage of enterprises showing any kind of cooperation in the PITEC sample for the same period (35.9%), even if considering innovative companies (42.74% of which cooperate). For a more detailed analysis of business partners, see Table 4.

As can be observed, most companies cooperate with universities (37.59% of TBFs) during the period 2011-2013, followed by public or private research centres (36.89%). This is consistent with the cooperation feature already described for TBFs, which indicated that they are related to universities and research centres, and usually develop business relationships with other enterprises in their same sector, apparently refuting the chosen sample.

- Prefer to locate together or near reference centres to promote knowledge economies and spill-overs (Audretsch et al., 2005; Yang, Motohashi, & Chen, 2009). The PITEC provides the variable

Table 3. Selected TBFs size

	SIZE			
	Micro enterprise (< 10 employees)	Small enterprise [11;50]	Medium enterprise [51;250]	Large enterprise (>250 employees)
TBFs in 2013 and % of sample	206 (36.01)	177 (30.94)	150 (26.22)	39 (6.82)
% of companies in the PITEC by size	28.75	23.68	29.05	18.53

Source: Based on data from the PITEC 2013.

Table 4. Type of TBFs cooperation in 2013

	TBF	
Type of Cooperation	**Number of Companies**	**Percentage of TBF Sample**
Other enterprises in their same group	40	7.34
Equipment suppliers	139	24.30
Clients from the private sector	165	28.85
Clients from the public sector	79	13.81
Competitors	128	22.38
Commercial laboratories and consultants	124	21.68
Universities	213	37.59
Research centres	211	36.89

Source: Prepared by the authors based on data from the PITEC 2013.

PARQUE=1, which indicates whether the company is located in technological parks in Spain. Although this indicator is not conclusive, it does provide information on the percentage of enterprises located in this type of park.

Within the TBF sample, 65 enterprises are located in technological parks, which accounts for 16.74% of all TBFs in 2013. In turn, TBFs represent 30.17% of all companies located in technological parks in Spain. Thus, it seems that a high number of TBFs are located near centres with knowledge transfer capabilities and represent an important collective within technological parks.

Three control variables have therefore been established: size, cooperation and location. These variables are in line with the TBF features studied by other authors, so it seems the sample selected is representative of Spanish TBFs.

Finally, an analysis of the main economic activity or industry indicates that 16.08% of TBFs belong to the R&D services sector, followed by the programming and consulting industries. The two first activities belong to what is known as *high-tech knowledge intensive services* (high-technology services industry). The third main activity corresponds to computer electronics and optic products. In total, about 23% of the companies belong to what is considered by the OECD as high technology services, and another 12.06% to high technology manufacturing. Thus, 64.94% of the TBFs selected belong to medium-high, medium-low and low technology industries.

In this regard, Spanish TBFs belong to industries with medium technological needs, such as professional activities, machinery, chemistry, food and beverages or vehicles.

- Are high-capital employment generators (J. J. Wu & Atkinson, 2017). On the whole, these enterprises demand highly educated workers throughout the entire manufacturing process and not only for R&D.

For the year 2013, 51.30% of the total number of TBF employees have university studies. This value is much higher than in the overall sample (29.36%), and also greater than in high-tech companies (40.13%).

Table 5. Distribution of the TBF sample in the PITEC by activity sector

Line of business activity	CNAE-2009	Number of Companies	Percentage Within TBF Sample	Percentage Within Line of Business	
R&D services	72	92	**16.08**	**57.14**	HT
Programming, consulting and other IT activities	62	74	**12.94**	18.45	HT
Computer, electronics, and optic products	26	53	**9.27**	29.12	HT
Other technical professional activities	69,70,71,73,74,75	40	**6.99**	7.94	KIS
Other machinery and equipment	28	39	**6.82**	8.52	
Metal manufacturing	25	32	**5.59**	8.82	
Chemicals	20	32	**5.59**	8.16	
Food, beverages and tobacco	10,11,12	30	**5.24**	6.12	
Remaining industries		180	**31.46**		

Source: Prepared by the authors based on data from the PITEC 2008; HT: high and medium-high technology sectors (high-technology industry); KIS: knowledge intensive services industry.

- BTFs are highly innovative, looking for cutting edge new knowledge and innovation. Use the application of scientific and technological knowledge as a resource and strategy to generate sustainable competitive advantage through innovating ideas (Clarysse et al., 2011; Montiel Campos et al., 2009; Motohashi, 2005).

Starting with the objectives that bring about innovation, Table 6 displays the percentages for companies that consider each of the listed objectives either important or very important. According to this information, 86.01% of TBFs consider the product to be very important, followed by the process (52.27%) and organisational methods (47.90%). In any case, the percentage of TBFs with a clear set of objectives (rated as very important) is greater than in other business collectives such as high-tech companies or innovative SMEs.

Table 6. Important and very important innovation objectives reported in 2013

Innovation Objectives (Important or Very Important)	Percentage of TBFs	Percentage of Innovative SMEs	Percentage of HT Companies
Products	**86.01**	69.12	75.76
Processes	**52.27**	42.84	44.11
Standards	**45.28**	31.20	38.05
Employment	**38.05**	27.98	38.05
Organisation	**47.90**	40.00	41.41
Marketing	**34.44**	25.20	29.97
Exploratory Inno.	**78.15**	58.54	68.69
Cumulative Inno.	**79.20**	64.71	69.02

Source: Prepared by the authors based on data from the PITEC 2013. TBFs: Technology-Based Firms. SMEs: Small and Medium Enterprises. HT: high and medium-high technology sectors (high-technology industry).

Product objective: greater range of products and services; replacement of outdated products or services; new market penetration; greater market share; or higher quality of products or services. Process objective: higher flexibility in production or service delivery; production capacity or service delivery capacity; lower production costs per production unit; lower materials per production unit; less energy per production unit. Standards objective: lower environmental impact; improvement in quality and safety; or compliance with environmental, quality, health and safety standards. Employment objective: increase in overall employment; increase in qualified employment; or maintenance of employment. Exploratory innovation: whenever the very important objectives are: greater range of products or services; new market penetration; greater market share. Cumulative innovation: whenever the very important objectives are: replacement of outdated products or services; higher quality of products or services; and process objectives.

Exploratory innovations, such as new market penetration, wider range of products and services or greater market share, are considered very important by 78.15% of TBFs, compared with 68.69% of high-tech companies or 58.54% of innovative SMEs. TBFs pursue competitive advantage through innovation and radical innovation, so these results are in line with the TBF definition. Likewise, cumulative innovations that aim to exploit existing technology also represent a high percentage of the objectives pursued by this collective.

Related with Innovation outputs, this can be analysed through the sales percentage derived from products or services that are new or significantly improved. This is a common variable in the innovation analysis field (Hall et al, 2014).

Table 7 presents the average sales ratio in 2013 for new products (for the company and for the market) launched in the period 2011-2013. Standard deviation values are indicated in parenthesis. For the TBF sample, an average of 16.73% of sales in 2013 derive from new products for the market, a percentage similar to that derived from new products for the company. Both percentages are lower for innovative SMEs and high-tech companies.

The differences increase for new products, both for the market and for the company. Specifically, 80% of companies performing product innovation are capable of launching a new or significantly improved product in the market at a significantly higher rate than innovative product SMEs, with a 60% rate of companies that are capable of innovating for the market. Therefore, TBFs are capable of introducing greater radical changes to the market, although this result must be interpreted with caution, since TBFs usually operate in small markets where the impact of innovation can be higher.

CONCLUSION

Technology-based firms (TBFs) have traditionally been identified through the concept of technological intensity (or technological effort), defined as R&D expenditure over the sales volume of a company.

Table 7. Average sales ratio percentages for new products for the company and for the market

	TBF	Innovative SMEs	HT
New for the market	16.73 (26.04)	9.11 (21.86)	11.11 (21.84)
New for the company	15.84 (26.40)	12.50 (26.46)	15.05 (26.67)

Source: Prepared by the authors based on data from the PITEC 2013. TBFs: Technology-Based Firms. SMEs: Small and Medium Enterprises. HT: high and medium-high technology sectors (high-technology industry).

However, although technological effort is defined at the enterprise level, in practice, an industry or sector is selected, from which a representative sample is extracted (Alarcón Osuna & Díaz Pérez, 2016). This selection process is justified because technological intensity is really applied to industries (OECD definition), in the assumption that TBFs are usually found in sectors with higher technological intensity levels.

In the case of follower countries in the fields of technology and innovation (such as developing countries, service-oriented countries or countries that develop other types of industries), this definition implies accepting that TBFs are exceptions within the business structure of such countries. Spain allocates resources each year to reduce the technological *lag*, aimed at encouraging the creation and development of companies in the high-tech industries. However, only a few regions (and countries) had reduced the gap with leadership regions by proliferating TBFs. Yet, is it possible to find companies that use technology or advanced technological knowledge in medium and low technology industries? And if so, do such enterprises share the same characteristics as TBFs in the high-tech industry?

One of the main reason for restricting the selection of TBFs to high-tech sectors is the lack of a clear definition for this type of company. Due to the heterogeneous nature of the collective, it is difficult to define criteria that can be used in a scientific approach. The ambiguity of the term has meant that current definitions for TBFs are not specific enough to devise an appropriate selection method. Based on the resource-based view (RBV) perspective, a formal definition for TBF has been proposed that enables the establishment of delimitation criteria. In particular, the definition highlights the continuous pursuit of scientific knowledge, implying that knowledge transfer is the driving force behind the competitive advantage displayed by this type of company in comparison with the rest. This enables a broader view than previous definitions that restricted TBFs to the high-tech industries (Baldwin & Gellatly, 1998). A definition based on strategy rather than sector allows TBFs identification in industries that have been traditionally dismissed from the search. Thus, the increase of scientific knowledge (which triggers an innovative environment in companies) is the *business* of TBFs, used as a priority resource to obtain sustained competitive advantage.

Bearing this in mind, this work proposes to restrict TBF selection in the Technological Innovation Panel (PITEC) accordingly, establishing the following criteria: company autonomy, intensive use of scientific knowledge and continuous pursuit of advanced technology and knowledge.

There is a clear difference between Spanish TBFs and those from other developed nations. In particular, Spanish TBFs are predominantly found in the services sector, such as programming, consulting, other IT activities, or in information and telecommunication services (as well as R&D and technical services). This characteristic has considerable implications for public policy recommendations aimed at promoting this collective. In this context, over half of the enterprises considered belong to industries outside the high-tech sectors (manufacturing and services), displaying a range of different types of activities.

Furthermore, the TBFs selected based on the proposed definition retain unique features, such as greater market penetration for innovative products (innovation outputs), higher proportion of qualified personnel, or greater degree of collaboration. This is relevant for countries with low mass of companies in high technology sectors, because it is possible to find a group of companies that generate significant innovation through the transfer of scientific knowledge from the academic world to the market environment, and strategic positioning in new market niches. . Identifying a group of companies with the same beneficial qualities as TBFs would offer follower countries in technology, a way to strengthen their economy, generate externalities and enhance the efficiency of science, technology and innovation policy.

The selection model, however, is not without problems. On one hand, establishing a cut-off point for technological intensity (which in our work is the industry and the sample average) may prove to be too arbitrary. On the other hand, the potential endogeneity of the technological effort: do companies make a greater technological effort just because they have sufficient investment capacity? is it a strategic decision? or is it because of poor previous results? Finally, results may be somewhat limited by the fact that the PITEC database does support the study of other relevant variables studied for TBFs, such as the founders' entrepreneurial profile, the capital structure, the source of the initial knowledge transfer or the final productivity of this collective. The unavoidable methodological limitations of this paper point to avenues in the future. First, detect TBFs companies in other countries applying this new definition based on *their strategies (*the pursuit and continued application of scientific and technical knowledge as main tools to achieve sustainable competitive advantage) and analyse their characteristics and performance. Second, refine the sample selection method using more sophisticated statistical methods that avoids the arbitrary selection of a cut-off threshold for technological intensity. And finally, propose policy recommendations that may enhance the performance of TBF in any kind of sector.

REFERENCES

Aceituno, P. A., Hernández, M. L. C., & García, C. B. (2010). *Quinto informe INNOVACEF: evolución y futuro de las oficinas universitarias de transferencia de los resultados de la investigación* (1138-9532).

Alarcón Osuna, M. A., & Díaz Pérez, C. C. (2016). La empresa de base tecnológica y su contribución a la economía mexicana en el periodo 2004-2009. *Contaduría y Administración*, *61*(1), 106–126. doi:10.1016/j.cya.2015.09.004

Almus, M., & Nerlinger, E. A. (1999). Growth of New Technology-Based Firms: Which Factors Matter? *Small Business Economics*, *13*(2), 141–154. doi:10.1023/A:1008138709724

Audretsch, D. B., Lehmann, E. E., & Warning, S. (2005). University spillovers and new firm location. *Research Policy*, *34*(7), 1113–1122. doi:10.1016/j.respol.2005.05.009

Autio, E. (1997). New, technology-based firms in innovation networks symplectic and generative impacts. *Research Policy*, *26*(3), 263–281. doi:10.1016/S0048-7333(96)00906-7

Autio, E. (2017). Growth of Technology-based New Firms. In D. L. S. H. Landström (Ed.), The Blackwell Handbook Of Entrepreneurship. Blackwell.

Autio, E., & Yli-Renko, H. (1998). New, technology-based firms in small open economies—An analysis based on the Finnish experience. *Research Policy*, *26*(9), 973–987. doi:10.1016/S0048-7333(97)00054-1

Baldwin, J. R., & Gellatly, G. (1998). *Are There High-Tech Industries or Only High-Tech Firms? Evidence from New Technology-Based Firms*. Statistics Canada Working Paper (120). Available at SSRN: https://ssrn.com/abstract=143867

Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, *17*(1), 99–120. doi:10.1177/014920639101700108

Bienaymé, A. (1986). The dynamics of innovation. *International Journal of Technology Management*, *1*(1-2), 133–159. doi:10.1504/ijtm.1986.026103

Carlsson, B., & Stankiewicz, R. (1991). On the nature, function and composition of technological systems. *Journal of Evolutionary Economics*, *1*(2), 93–118. doi:10.1007/BF01224915

Chamanski, A., & Waagø, S. J. (2001). Organizational Performance of Technology-Based Firms – the Role of Technology and Business Strategies. *Enterprise and Innovation Management Studies*, *2*(3), 205–223. doi:10.1080/14632440110105062

Clarysse, B., Bruneel, J., & Wright, M. (2011). Explaining growth paths of young technology-based firms: Structuring resource portfolios in different competitive environments. *Strategic Entrepreneurship Journal*, *5*(2), 137–157. doi:10.1002ej.111

Coeurderoy, R., & Murray, G. (2008). Regulatory environments and the location decisions of start-ups: evidence from the first international market entries of new technology-based firms. *Journal of International Business Studies*.

Colombo, M. G., D'Adda, D., & Pirelli, L. H. (2016). The participation of new technology-based firms in EU-funded R&D partnerships: The role of venture capital. *Research Policy*, *45*(2), 361–375. doi:10.1016/j.respol.2015.10.011

Colombo, M. G., Delmastro, M., & Grilli, L. (2004). Entrepreneurs' human capital and the start-up size of new technology-based firms. *International Journal of Industrial Organization*, *22*(8), 1183–1211. doi:10.1016/j.ijindorg.2004.06.006

Colombo, M. G., & Grilli, L. (2005). Founders' human capital and the growth of new technology-based firms: A competence-based view. *Research Policy*, *34*(6), 795–816. doi:10.1016/j.respol.2005.03.010

Colombo, M. G., & Grilli, L. (2010). On growth drivers of high-tech start-ups: Exploring the role of founders' human capital and venture capital. *Journal of Business Venturing*, *25*(6), 610–626. doi:10.1016/j.jbusvent.2009.01.005

Fukugawa, N. (2006). Science parks in Japan and their value-added contributions to new technology-based firms. *International Journal of Industrial Organization*, *24*(2), 381–400. doi:10.1016/j.ijindorg.2005.07.005

Ganotakis, P. (2012). Founders' human capital and the performance of UK new technology based firms. *Small Business Economics*, *39*(2), 495–515. doi:10.100711187-010-9309-0

Ganotakis, P., & Love, J. H. (2011). R&D, product innovation, and exporting: Evidence from UK new technology based firms. *Oxford Economic Papers*, *63*(2), 279–306. doi:10.1093/oep/gpq027

Granstrand, O. (1998). Towards a theory of the technology-based firm. *Research Policy*, *27*(5), 465–489. doi:10.1016/S0048-7333(98)00067-5

Grilli, L., & Murtinu, S. (2015). New technology-based firms in Europe: Market penetration, public venture capital, and timing of investment. *Industrial and Corporate Change*, *24*(5), 1109–1148. doi:10.1093/icc/dtu025

Groen, A., Cook, G., & Van der Sijde, P. (2015). *New technology-based firms in the new millennium*. Emerald Group Publishing. doi:10.1108/S1876-0228201511

Hall, B. H., Lotti, F., & Mairesse, J. (2009). Innovation and productivity in SMEs: Empirical evidence for Italy. *Small Business Economics*, *33*(1), 13–33. doi:10.100711187-009-9184-8

Hoopes, D. G., & Madsen, T. L. (2008). A capability-based view of competitive heterogeneity. *Industrial and Corporate Change*, *17*(3), 393–426. doi:10.1093/icc/dtn008

Hoopes, D. G., Madsen, T. L., & Walker, G. (2003). Guest editors' introduction to the special issue: Why is there a resource-based view? Toward a theory of competitive heterogeneity. *Strategic Management Journal*, *24*(10), 889–902. doi:10.1002mj.356

Johannessen, J. A., Olsen, B., & Lumpkin, G. T. (2001). Innovation as newness: What is new, how new, and new to whom? *European Journal of Innovation Management*, *4*(1), 20–31. doi:10.1108/14601060110365547

Jones-Evans, D., & Westhead, P. (1996). The high technology small firm sector in the UK. *International Journal of Entrepreneurial Behaviour & Research*, *2*(1), 15–35. doi:10.1108/13552559610110691

Kollmer, H., & Dowling, M. (2004). Licensing as a commercialisation strategy for new technology-based firms. *Research Policy*, *33*(8), 1141–1151. doi:10.1016/j.respol.2004.04.005

Li, L., Qian, G., & Qian, Z. (2012). The performance of small and medium-sized technology-based enterprises: Do product diversity and international diversity matter? *International Business Review*, *21*(5), 941–956. doi:10.1016/j.ibusrev.2011.11.003

Lockett, A., & Wright, M. (2005). Resources, capabilities, risk capital and the creation of university spin-out companies. *Research Policy*, *34*(7), 1043–1057. doi:10.1016/j.respol.2005.05.006

Löfsten, H., & Lindelöf, P. (2002). Science Parks and the growth of new technology-based firms—Academic-industry links, innovation and markets. *Research Policy*, *31*(6), 859–876. doi:10.1016/S0048-7333(01)00153-6

March-Chorda, I., & Yagüe-Perales, R. M. A. (1999). A new tool to classifying new technology-based firm prospects and expectations. *The Journal of High Technology Management Research*, *10*(2), 347–376. doi:10.1016/S1047-8310(99)00011-5

Merino Moreno, C., Verde Cordero, A., & Villar Mártil, L. (2008). La función de transferencia tecnológica en las OTRIs. *Revista Madrid, 47*.

Montiel Campos, H., del Palacio Aguirre, I., Solé Parellada, F., & Nuño de la Parra, J. P. (2009). Technology Strategy and New Technology Based Firms. *Journal of Technology Management & Innovation*, *4*(4), 42–52. doi:10.4067/S0718-27242009000400004

Motohashi, K. (2005). University–industry collaborations in Japan: The role of new technology-based firms in transforming the National Innovation System. *Research Policy*, *34*(5), 583–594. doi:10.1016/j.respol.2005.03.001

Nonaka, L., Takeuchi, H., & Umemoto, K. (1996). A theory of organizational knowledge creation. *International Journal of Technology Management, 11*(7-8), 833-845. doi:10.1504/ijtm.1996.025472

OECD/Eurostat. (2005). Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data, 3rd Edition. Paris: The Measurement of Scientific and Technological Activities, OECD Publishing.

Onetti, A., Zucchella, A., Jones, M. V., & McDougall-Covin, P. P. (2012). Internationalization, innovation and entrepreneurship: Business models for new technology-based firms. *The Journal of Management and Governance*, *16*(3), 337–368. doi:10.100710997-010-9154-1

Ortín-Ángel, P., & Vendrell-Herrero, F. (2014). University spin-offs vs. other NTBFs: Total factor productivity differences at outset and evolution. *Technovation*, *34*(2), 101–112. doi:10.1016/j.technovation.2013.09.006

Perrin, J.-C. (1988). New technologies, local synergies and regional policies in Europe. In High-Technology Industry and Innovative Environments: The European Experience. Academic Press.

Phan, P. S., Siegel, D., & Wright, M. (2016). Science Parks and Incubators: Observations, Synthesis and Future Research. In W. Scientific (Ed.), Technology Entrepreneurship and Business Incubation (p. 312). Academic Press. doi:10.1142/9781783269778_0009

Piva, M., & Vivarelli, M. (2017). *Technological Change and Employment: Were Ricardo and Marx Right?* IZA Discussion Paper No. 10471. Available at SSRN: https://ssrn.com/abstract=2903093

Powell, T. C. (2002). The philosophy of strategy. *Strategic Management Journal*, *23*(9), 873–880. doi:10.1002mj.254

Revest, V., & Sapio, A. (2012). Financing technology-based small firms in Europe: What do we know? *Small Business Economics*, *39*(1), 179–205. doi:10.100711187-010-9291-6

Siegel, D. S., Westhead, P., & Wright, M. (2003). Assessing the impact of university science parks on research productivity: Exploratory firm-level evidence from the United Kingdom. *International Journal of Industrial Organization*, *21*(9), 1357–1369. doi:10.1016/S0167-7187(03)00086-9

Sirmon, D. G., Hitt, M. A., & Ireland, R. D. (2007). Managing Firm Resources in Dynamic Environments to Create Value: Looking Inside the Black Box. *Academy of Management Review*, *32*(1), 273–292. doi:10.5465/amr.2007.23466005

Storey, D. J., & Tether, B. S. (1998). New technology-based firms in the European union: An introduction. *Research Policy*, *26*(9), 933–946. doi:10.1016/S0048-7333(97)00052-8

Tsvetkova, A., Thill, J.-C., & Strumsky, D. (2014). Metropolitan innovation, firm size, and business survival in a high-tech industry. *Small Business Economics*, *43*(3), 661–676. doi:10.100711187-014-9550-z

Vivarelli, M. (2013). Is entrepreneurship necessarily good? Microeconomic evidence from developed and developing countries. *Industrial and Corporate Change*, *22*(6), 1453–1495. doi:10.1093/icc/dtt005

Wang, Y., Lo, H.-P., & Yang, Y. (2004). The constituents of core competencies and firm performance: Evidence from high-technology firms in china. *Journal of Engineering and Technology Management*, *21*(4), 249–280. doi:10.1016/j.jengtecman.2004.09.001

Wu, J. J., & Atkinson, R. D. (2017). *How Technology-Based Start-Ups Support US Economic Growth*. Retrieved from http://www2.itif.org/2017-technology-based-start-ups.pdf

Wu, L.-Y., & Wang, C.-J. (2007). Transforming resources to improve performance of technology-based firms: A Taiwanese Empirical Study. *Journal of Engineering and Technology Management*, *24*(3), 251–261. doi:10.1016/j.jengtecman.2007.05.002

Yang, C.-H., Motohashi, K., & Chen, J.-R. (2009). Are new technology-based firms located on science parks really more innovative? Evidence from Taiwan. *Research Policy*, *38*(1), 77–85. doi:10.1016/j.respol.2008.09.001

KEY TERMS AND DEFINITIONS

Experimental or Technological Development: Systematic studies, based on existing knowledge, derived from research and/or practical experience, directed towards the production of new materials, products or devices; towards the establishment of new processes, systems or services, or towards the improvement of existing ones. This may also include the conceptual formulation and design of other products, processes or services and initial demonstration projects or pilot projects, provided that such projects cannot be converted or used for industrial applications or commercial exploitation. Routine or periodic changes made to products, production lines, manufacturing processes, existing services and other operations are not included, although they may result in improvements.

Experimental or Technological Research and Development: Research and experimental development comprise creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications. The term R&D is applied to three activities: basic research, applied research, and experimental development.

Intangible Disembodied Technology: Technology in relation to industrial property rights, including rights of use of patents, licenses, designs, or know-how.

Knowledge Transfer: Process that enables the socioeconomic use of humanistic, scientific and technical knowledge by means of interaction with third parties in contracted research activities or collaborations, consulting and technical services, in the protection of the research results, licenses, rights of use, and in the creation of spin-offs, including technology transfer.

Scientific or Technology Park: Areas where companies, universities, research institutions, and associated services are located to promote and develop the knowledge-based economy. They have a management unit appointed to promote innovation generation activities, which may belong to the park developer.

Spin-Off/Out: In the context of research centers, a spin-off/out is a new company that bases its business on the knowledge that is generated at the university or public research organisation. In many cases, although not necessarily, personnel from the university are involved in the new company. They can also be referred to as TBF modes.

Start-Up: A start-up is a new company created by entrepreneurs that may come from a university background but is not based on the knowledge generated at the university or public research organisation (thus excluding spin-offs). They can also be referred to as TBF modes.

Technological Innovation Support Centers: Non-profit making entities, legally established and resident in Spain, that have their own legal personality and are created with the main objective, explicitly

mentioned in their statutes, of facilitating the application of knowledge generated in research agencies, technology centers included, by acting as an interface between the research agencies and enterprises, offering innovation support services.

Technology Centers: Non-profit making entities, legally established and resident in Spain, that have their own legal personality and are created with the main objective, explicitly mentioned in their statutes, of contributing to the overall benefit of society and to the improvement of enterprise competitiveness through the acquisition of technological knowledge, the development of innovation activities and their application.

Technology-Based Firm: Any independent organisation, established through knowledge transfer that operates within the market and uses continuous research and the implementation of advanced scientific and technical knowledge as the main tools to obtain sustainable competitive advantage on the goods and services they provide.

ENDNOTES

[1] Research centers produce knowledge that is converted into technology by business enterprises.

[2] For more information on the Technological Innovation Panel (PITEC) please refer to the Appendix.

[3] Please refer to the PITEC file record design for more information on each variable.

APPENDIX: THE PITEC QUESTIONNAIRE

The Technological Information Panel (PITEC) was launched in 2004 in collaboration with the National Statistics Institute (INE), the Spanish Science and Technology Foundation (FECYT) and the Cotec Foundation, supported by members of the Spanish University community, with the objective of broadening and studying the field of innovation activities (mainly technological) in Spanish enterprises.

Information is based on a questionnaire that has been slightly updated over the years. It contains relevant data at an enterprise level (the company's economic context) as well as on the innovation activities of the companies, with similar questions as Community Innovation Survey (CIS)

The PITEC is formed by a sample group of representative enterprises selected from the National Statistics Institute (INE) database and has collected data since 2003. The statistics panel consists of observations repeated regularly over time by the same economic entities. For 2013, the live sample is of 7146 active companies. The panel began with two samples: one for enterprises over 200 employees (Sample of Large Enterprises or MEG), with a representativeness of 73% according to the DIRCE (Central Company Directory) over the total number of companies belonging to this category, and another sample of enterprises with R&D expenditure (MID sample). In 2004, enterprises under 200 employees with external R&D expenditure and no internal R&D were included (MIDE sample), as well as companies with no innovation expenditure (MEP sample). All in all, the sample contains four subsamples: MEG: large enterprises sample; MID: enterprises with internal R&D (extended in 2004 and 2005); MIDE: enterprises under 200 employees with external R&D expenditure but no internal R&D, and MEP: enterprises with no innovation expenditure.

With regards to the distribution of economic activities, most of the enterprises belong to manufacturing (43.41%), services (33.64%), commerce (8.74%), food, beverages and tobacco (6.44%) and construction (3.55%). Within manufacturing, the main industries are materials and equipment (8.90%) and the chemical industry (5.46%), whereas other services activities (7.44%), health activities (2.44%) and the financial sector (1.98%) are the principal sectors within the services sector. Please for further information see: https://icono.fecyt.es/pitec.

Chapter 7
The w-HEALTHQUAL: A Measurement Scale for Analyzing Patients' Satisfaction With Primary Healthcare

Ana Luisa Godoy Caballero
University of Extremadura, Spain

Luis Regino Murillo Zamorano
University of Extremadura, Spain

ABSTRACT

The aim of this chapter is to develop a new scale that adequately measures patients' satisfaction with the healthcare from the user's perspective. Using information reported by patients about their experience and about the importance of certain aspects of primary care, a new measurement instrument is built: the w-HEALTHQUAL. It allows to adequately measuring patients' satisfaction with primary healthcare and is used to identify different areas of satisfaction in the health map of the Spanish region of Extremadura by means of a two-stage cluster analysis. Three groups of patients that differ between them in patients' level of satisfaction are identified, allowing for the categorization of each the centers in the region based on the satisfaction level of the patients they treat. The analysis suggests that a different distribution of healthcare may be needed so that a more effective healthcare can be delivered.

INTRODUCTION

Primary health care is the first contact point with the health care system for patients. Therefore, it is essential to offer a high quality service, a quality that needs to be recognised as high quality by both, clinicians and patients. Service quality has been recognised as one of the values of central importance in organisations, in both manufacturing and service sectors (Berry et al., 1985; Bitner et al., 1990; LeBlanc and Nguyen, 1988).

Particularly for the health care field, quality can be understood as an objective measure related to how the health system provides its services. Indicators for this dimension of quality include referrals from primary to secondary care, number of consultations per doctor and per day, number of complementary

DOI: 10.4018/978-1-5225-7937-3.ch007

tests, mortality rates, etc. Despite this, it is impossible to fully describe quality if the user's point of view is not taken into account (Donabedian, 1984). Considering patients' perceptions is important as patients provide reliable data and valid diagnosis about their health and about how they feel after seeing their doctor (Dawson et al., 1998). Furthermore, as indicated by Cronin and Taylor (1992), "service quality is an antecedent of consumer satisfaction". Considering this, efforts need to be focused on offering a high quality service as perceived by the patient, which will ultimately be translated into a greater patient's satisfaction. Martilla and James (1977) establish that the importance that users of a particular service give to the elements of that service will influence how satisfied they are with it. However, when measuring importance together with perception there are discrepancies in the literature, with authors rejecting the idea of including this indicator (Adil et al., 2013) and others supporting it as importance may increase the diagnosis power of the scale being used (Jain and Gupta, 2004)

With these ideas in mind, the aim of the present study is to develop a scale that allows for adequately measuring patients' satisfaction with primary care as perceived by the user, i.e. to obtain a measurement instrument that considers all the relevant aspects of primary health care and that precisely reflects patients' priorities.

In doing so, the authors, firstly, present a weighted scale specially designed to measure patients' satisfaction with primary health care that comprises not only patients' preferences, but also a weighting factor to incorporate the importance of the elements being assessed. Secondly, it is analysed how patients' satisfaction varies within settings.

To the best of the researchers' knowledge there is not a scale in the literature specifically created for the study of satisfaction in primary health care that includes patient' preferences with the health care together with the importance patients attribute to those preferences. Furthermore, there is not any piece of research aiming to identify differences in satisfaction within settings, in spite of the fact that users' preferences with certain services have previously been measured across countries and systems (Schäfer et al., 2015).

In order to achieve the previously mentioned objective, the rest of the research is structured as follows. First, it is analysed the different measures of service quality proposed in the literature and that have been the basis for the construction of the measurement instrument, the weighted HEALTHQUAL scale (w-HEALTHQUAL). Next, it is described the methods applied to build the scale, using information provided by primary health care users in the Spanish region of Extremadura. This new scale allows for adequately measuring patients' satisfaction with primary health care. Following the methods section, it is presented the results of the analysis, firstly, looking at the characteristics of the w-HEALTQUAL; secondly, performing a cluster analysis that allows for the identification of groups of patients that differ among them based on their levels of satisfaction with the health care, and thirdly, representing the levels of satisfaction across the health map of the region of Extremadura. Finally, it is presented a discussion of the main findings and conclusions of the research.

BACKGROUND

The w-HEALTHQUAL is developed to measure patients' satisfaction with primary health care and it is originated on the basis of a previous scale, the HEALTHQUAL (Murillo-Zamorano et al., 2012; Miranda et al., 2010), an adaptation of other measurement scales: the SERVQUAL (Parasuraman et al., 1985, 1988) and SERVPERF (Cronin and Taylor, 1992).

The SERVQUAL has traditionally been the most accepted instrument when measuring the perceived quality of a service. It is based on the idea that the perception of a service's quality should be assessed by analysing the gap between consumers' expectations of that service and their experience of the performance of that particular service. The SERVQUAL consists of a tool originally created to evaluate consumers' perceptions of quality in retail organisations. It has been used in a wide variety of sectors and countries (Badri et al., 2005; Kilbourne et al., 2004). However, despite the popularity of the scale, many authors have criticised the instrument designed by Parasuraman and colleagues, defending the idea that just performance-based measures, rather than a combination of the experience of service users and their expectations of the service being evaluated, can capture consumers' perception of the quality of a service (Mazis et al., 1975; Churchill and Surprenant, 1982; Woodruff et al., 1983; Brown et al., 1993; Peter et al., 1993, among others).

Following this approach, Cronin and Taylor (1992) modified the initial instrument and tested a performance-based measure in order to find an alternative approach to the original scale. In their analysis, they conclude that the "performance items adequately define the domain of service quality", producing the SERVPERF. This new scale (which only considers users' experiences with the service being evaluated) "explains more of the variation in service quality than does the SERVQUAL scale", i.e. it is an enhanced instrument for measuring service quality (Adil et al., 2013).

One of the recommendations when using the SERVQUAL and SERVPERF has been to adapt the measurement instruments to the research field where they are going to be used (Ladhari, 2009), so that, any biases that this aspect could introduce can be eliminated. Following this recommendation, Murillo-Zamorano et al., (2012) and Miranda et al. (2010) designed the HEALTHQUAL scale, an adaptation of the SERVPERF specifically created for the analysis of patients' perception of the quality of primary health care. In that adaptation some questions were eliminated given that they were closely related to the profit orientated nature of the service where they were first used. Furthermore, the decision of what variables should be included in the scale was based on a detailed review of the literature about the dimensions of the quality of health services.

However, and despite the strengths of the HEALTHQUAL, it does not take into account any information about the importance that the different attributes being considered have for patients and that allows us to obtain a measure of satisfaction. The w-HEALTHQUAL scale, developed in this research, does incorporate this aspect, filling with that, the gap of the literature.

METHODS

Sample

A survey designed to explore patients' views with primary health care in the region of Extremadura[1] is used in the analysis. This region is characterised for being very large in extension and sparsely populated: specifically, the extension of the region is 41,634.43 km^2, and in 2008 it had a population of 1,097,744 inhabitants, having a population density of 26.36 pop. per km^2. Because of these particular characteristics, the primary health care system in the region is organised in two levels of aggregation: Health Areas and Health Zones. There are a total of eight Health Areas in the region: Badajoz (I), Mérida (II), Don Benito-Villanueva de la Serena (III), Llerena-Zafra (IV), Cáceres (V), Coria (VI), Navalmoral de la Mata (VII) and Plasencia (VIII). Each of them consists of different Health Zones (organised around a primary care centre as the main provider) in order to offer a more effective and operating primary health care[2].

The survey was delivered (between September and October 2008) to patients that had attended primary health care centres in Extremadura in May 2008. It was created in order to fulfil a series of requirements and organised in a series of set of questions.

Among the requirements, the survey was specifically designed to cover all the relevant dimensions of primary health care; to be reliable; to be a useful tool for management activities that allows for the identification of those aspects of the service with which patients are more satisfied and, to be short, easily understood and easy to use by patients.

The organisation of the survey includes five blocks of questions: (1) background information about the patients, such as the health centre they go to, gender or age; (2) questions evaluating patients perceptions of the performance of the service in relation to health care facilities, health staff, non-health staff and efficiency elements; (3) questions asking patients about their level of overall satisfaction with the health service; (4) objectives measures such as time waited to be seen or number of years registered in the practice, and (5) questions asking patients to give an importance score to the same aspects of the service for which they have been asked to rate their experience, i.e. importance scores for the health care facilities, health staff, non-health staff and efficiency of the centre.

In order to validate the scale, surveys were piloted with a smaller sample consisting of thirty health care services users and a panel of ten experts in quality management and health economics. Experts were asked to examine the structure and the vocabulary employed in the development of the survey, resulting in the omission of three questions and rewording of some others.

Once the questionnaires were edited, the surveys were sent to a total of 20,271 primary health care users in the region, obtaining 2,402 completed questionnaires from 97 primary health care centres. The technical data of the study is presented in Table 1.

The demographic profile of respondents is presented in Table 2. The largest group of patients (37.81%) are aged 65 and over and the next largest group (28.05%) are aged 30-45. The majority of respondents refer to female patients (60.75% vs. 39.25% for males).

Measurements

All variables are measured on seven-point Likert scales with 1 corresponding to *completely disagree* and 7 to *completely agree*. From all the aspects contained in the survey, the questions used are those asking patients to report their perception of the performance of the system based on their experiences about the facilities, health staff, non-health staff and efficiency of the centre (second block of questions) and the questions asking patients to rate how important these aspects of the services are for them (fifth block of questions) to build the w-HEALTHQUAL scale. All the questions contained in the scale refer to a total of twenty-five items, grouped in four categories of attributes (Table 3).

Table 1. Technical data of the study

Population	People that have gone to a primary health care centre in the region of Extremadura during May 2008		
Geographical area	Extremadura (Spain)		
Sample size	2,402 validated surveys from 97 Health Centres		
Sample error	1.24%		
Confidence level	95%	z= 1.96	p=q=0.5
Field work	September-October 2008		

Source: Prepared by authors

Table 2. Profile of surveyed users

Gender	Male	39.25%
	Female	60.75%
Age	< 30 years	9.67%
	30-45 years	28.05%
	45-64 years	24.46%
	≥ 65 years	37.81%

Source: Prepared by authors

Table 3. Attributes measured by the W-HEALTHQUAL scale

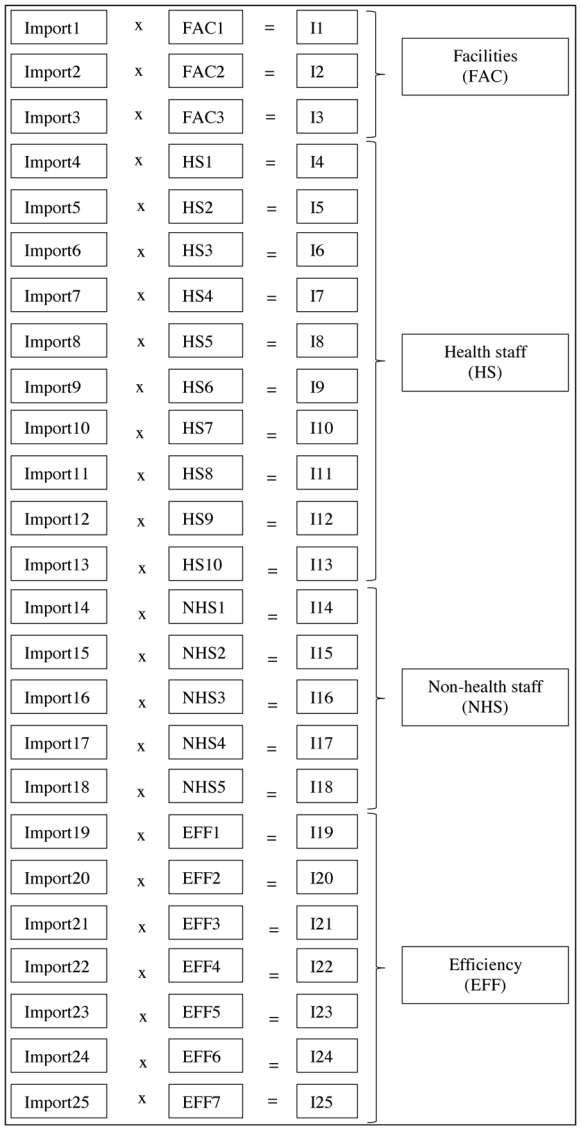
Category	Definition
Facilities	1. - Cleanliness of facilities
	2.- Equipment of the health centre
	3.- Location of the health centre
Health Staff	4.- Health staff cleanliness
	5.- Health staff professionalism
	6.- Health staff kindness and politeness
	7.- Trust in health staff
	8.- Personalised service
	9.- Communication with health staff
	10.- Health staff attention to patients' problems
	11.- Health staff interest in solving patients' problems
	12.- Health staff understanding of patients' problems
	13.- Health staff prestige
Non-health staff	14.- Non-health staff cleanliness
	15.- Non-health staff professionalism
	16.- Non-health staff kindness and politeness
	17.- Non-health staff attention to patients' problems
	18.- Non-health staff interest in solving patients' problems
Efficiency	19.- Ease of making an appointment
	20.- Bureaucracy intensity
	21.- Waiting time in the health centre before entering the consulting room
	22.- Speed of complementary tests
	23.- Resolution of complaints
	24.- Time devoted to each patient
	25.- Health centre opening hours

Source: Prepared by authors

The w-HEALTHQUAL

The satisfaction attributes that form the w-HEALTHQUAL, are built by multiplying the importance (Import1-Import25) and the performance (FAC1-FAC3, HS1-HS10, NHS1-NHS5, EFF1-EFF7) scores of each of the items (Fishbein and Ajzen, 1975; Paul, 2003; Jain and Gupta, 2004). In order to simplify the analysis by reducing the number of variables considered in it, the whole set of variables is reorganised in the following four main categories: facilities (FAC), health staff (HS), non-health staff (NHS) and efficiency (EFF). Each of these four variables are built by calculating the average score of the items within every category of attributes, i.e. an average value of the three facility variables, a score for the ten variables describing characteristics of the health staff, the average value of the five items characterising aspects related to the non-health staff, and a mean score for the attributes showing patients' satisfaction with the efficiency of the system (Figure 1).

Figure 1. Procedure followed to obtain the four main variables
Source: Prepared by authors



The w-HEALTHQUAL adequately measures patients' satisfaction with the health care as it combines users' experiences with a series of elements of the system and the importance they give to those elements. It also improves previous measurement scales in different ways. First of all, it has been adapted to the research field for which is going to be used, eliminating with that any biases that the utilisation of other instruments (for example the SERVQUAL or the SERVPERF) developed for the study of satisfaction in other settings could introduce (Ladhari, 2009). Secondly, the w-HEALTHQUAL includes information about the importance that patients assign to the elements of the service being evaluated, building upon previous scales employed in health care (the HEALTHQUAL scale).

Furthermore, in relation to the Cronbach´s alpha of the scale, the literature indicates that this value has to be greater than 0.8 (Luque, 2000; Hair et al., 1999). The Cronbach´s alpha of the w-HEALTHQUAL is 0.97, supporting the reliability and internal consistency of the scale, and additionally, it is greater than the 0.96 coefficient obtained by Murillo-Zamorano et al. (2012) and Miranda et al., (2010) before the inclusion of the importance weights, improving with this the HEALTHQUAL scale.

RESULTS

The results of the study are shown in three stages. First, the main characteristics of the satisfaction indicators are presented; it is, of the w-HEALTHQUAL scale. Second, a cluster analysis is performed to identify different groups that differ among them in their levels of satisfaction with the facilities, health staff, non-health staff and efficiency of primary health care. And third, the different levels of satisfaction with the health care across the health map in the region is represented to identify which actions are needed and where and to assess whether a different distribution of primary health care is necessary so that a better service can be delivered.

Characteristics of the W-HEALTHQUAL

As mentioned in the previous section, the w-HEALTHQUAL is built using patients performance and importance scores about a series of elements of the health care they receive. Table 4 shows the value of each of these indicators as well as the final satisfaction score for each of the twenty-five attributes initially considered and for the four final indicators of facilities (FAC), health staff (HS), non-health staff (NHS) and efficiency (EFF).

In general, aspects of the health care for which patients report their experience is worse are related to efficiency items (I19-I25), as indicated by their performance score. On the other side, elements of the health care for which patients have better experiences are related to facilities and health staff items. The non-health staff elements of the service being evaluated also receive high performance rating scores, but not as high as the other elements of the service.

All the aspects of primary health care studied in the research are seen as very important by patients with scores above 5 points (out of 7) in all the cases.

Among the satisfaction variables (which take values in a range from 1 to 49), the w-HEALTHQUAL, the aspect of the health service for which patients report the highest satisfaction is an item related to health staff – I4 (health staff cleanliness). In contrast, the items with the lowest satisfaction refer to efficiency items, being I19 (ease of making an appointment) the one for which patients assign the lowest scores, and therefore, being patients least satisfied with this aspect of health care.

Table 4. The w-HEALTHQUAL. Performance, importance and satisfaction scores by item

Group of Category	Item	Performance, Mean (SD)	Importance Score, Mean (SD)	Satisfaction Score, Mean (SD)	Satisfaction Score by Category, Mean (SD)
Facilities (FAC)	I1	5.74 (1.45)	6.17 (1.24)	36.11 (12.46)	33.43 (10.99)
	I2	5.01 (1.70)	5.94 (1.48)	30.59 (13.54)	
	I3	5.54 (1.80)	5.90 (1.36)	33.62 (14.12)	
Health staff (HS)	I4	6.02 (1.29)	6.27 (1.13)	38.41 (11.46)	32.79 (12.07)
	I5	5.43 (1.60)	6.20 (1.38)	34.63 (13.14)	
	I6	5.35 (1.71)	6.01 (1.44)	33.27 (13.77)	
	I7	5.16 (1.76)	5.73 (1.53)	30.69 (14.03)	
	I8	5.23 (1.78)	5.85 (1.54)	31.76 (14.22)	
	I9	5.39 (1.73)	5.89 (1.50)	32.75 (13.95)	
	I10	5.21 (1.81)	5.94 (1.53)	32.12 (14.35)	
	I11	5.16 (1.83)	5.95 (1.55)	31.99 (14.46)	
	I12	5.02 (1.83)	5.88 (1.54)	30.78 (14.36)	
	I13	5.16 (1.68)	5.88 (1.47)	31.48 (13.69)	
Non-health staff (NHS)	I14	5.73 (1.45)	5.97 (1.27)	35.03 (12.47)	29.47 (12.52)
	I15	5.02 (1.74)	5.76 (1.49)	29.99 (13.72)	
	I16	4.88 (1.84)	5.72 (1.57)	29.05 (14.19)	
	I17	4.70 (1.87)	5.46 (1.64)	26.90 (14.21)	
	I18	4.63 (1.91)	5.43 (1.68)	26.36 (14.37)	
Efficiency (EFF)	I19	3.51 (2.23)	5.25 (2.15)	20.03 (15.80)	24.02 (11.83)
	I20	4.31 (1.89)	5.42 (1.85)	24.45 (14.25)	
	I21	3.71 (1.98)	5.14 (2.09)	20.12 (14.01)	
	I22	4.00 (2.01)	5.46 (1.94)	23.03 (14.71)	
	I23	4.17 (1.90)	5.33 (1.91)	23.38 (14.15)	
	I24	4.74 (1.93)	5.65 (1.80)	27.99 (14.99)	
	I25	4.79 (1.95)	5.80 (1.52)	29.12 (14.61)	

Source: Prepared by authors

By group of items (i.e. satisfaction by category), the indicators assessing the facilities of the centre are the ones for which patients have the highest satisfaction level, followed by the items related to staff, first health staff and then non-health staff, and finishing with the aspects of the health care related to efficiency, for which patients show the lowest satisfaction score.

Cluster Analysis

As mentioned in the introduction, to the best of the authors' knowledge, there is not a study that analyses whether differences in the level of satisfaction with the health care within settings exits. In this research that gap of the literature is filled by means of a cluster analysis, looking at whether there are differences in patients' levels of satisfaction with primary health care in the Spanish region of Extremadura.

There are several techniques within the cluster methodology. In this piece of research a hybrid approach is taken (also known as two-stage approach) (Wong, 1982; Yang et al., 2009; López-Sánchez and Santos-Vijande, 2015), first employing the hierarchical method of Ward (Ward, 1963) and then proceeding with non-hierarchical k-means clustering method (Lloyd, 1982; MacQueen, 1967), which builds on the solution obtained from the application of previous clustering methods, in this case, the method of Ward.

When applying the hierarchical method of Ward, it was chosen to analyse a wide range of solutions, between two and seven clusters, so that there could be different ideas of how all the observations can be distributed into the different groups. Nevertheless, after looking at the composition of each of these clusters, it was decided to perform the non-hierarchical k-means method with a range of solutions between two and five clusters. Using six or seven clusters does not seem to be a very sensible option as some of the clusters formed when applying the method of Ward show levels of satisfaction similar to the ones presented by other clusters, suggesting that the observations classified within these clusters should belong to the same group. By analysing the solutions resulting from the application of the k-means method, it was considered that a three-cluster solution was the most appropriate one, pointing to the existence of three groups of patients that differ according to their levels of satisfaction with the facilities, health staff, non-health staff and efficiency of the primary health care centre they normally attend.

The stability of these results was determined by means of a discriminant analysis (Greenly et al., 2005). The discriminant functions generate a significant value of the Wilks' lambda in all the cases (Wilks' lambda = 0.148; p = 0.000). The discriminatory model correctly classifies 98.3% of the cases.

Patients' levels of satisfaction with the four main variables in each of the clusters are presented in Table 5. Cluster 1 is formed by patients whose levels of satisfaction with the health system are very high. For the four indicators used, the satisfaction scores are over 40 points, except for the efficiency ones, although they also present a high score. Therefore, these users are able to be categorised as "highly satisfied". Cluster 3 refers to patients whose levels of satisfaction are poor, as indicated by the mean values that the satisfaction variables in this group show. This group of patients can be referred as "not satisfied". There is also a group of patients, cluster 2, comprising those individuals who are neither satisfied nor dissatisfied with the service they receive when attending a primary health care centre in the region. Patients in this cluster have satisfaction scores between 21 and 33 in all four indicators used in the analysis being, therefore, "not satisfied or dissatisfied".

In the next section, the information provided by the cluster analysis is employed to identify whether there are differences between the way primary health care is administratively organised and how it should be distributed so that every patient reports high levels of satisfaction, i.e. to identify whether a different distribution of primary health care can be draw in the region of Extremadura in order to improve the health service finally delivered.

*Table 5. Patients' levels of satisfaction in each of the clusters**

Variables	Cluster 1 (N = 848)	Cluster 2 (N = 1042)	Cluster 3 (N = 512)
FAC [mean (SD)]	42.19 (6.31)	32.61 (7.73)	20.64 (9.34)
HS [mean (SD)]	43.85 (4.84)	32.07 (6.96)	15.92 (7.60)
NHS [mean (SD)]	41.76 (6.09)	27.33 (7.30)	13.46 (7.01)
EFF [mean (SD)]	35.74 (7.59)	21.02 (6.88)	10.70 (6.42)

Source: Prepared by authors

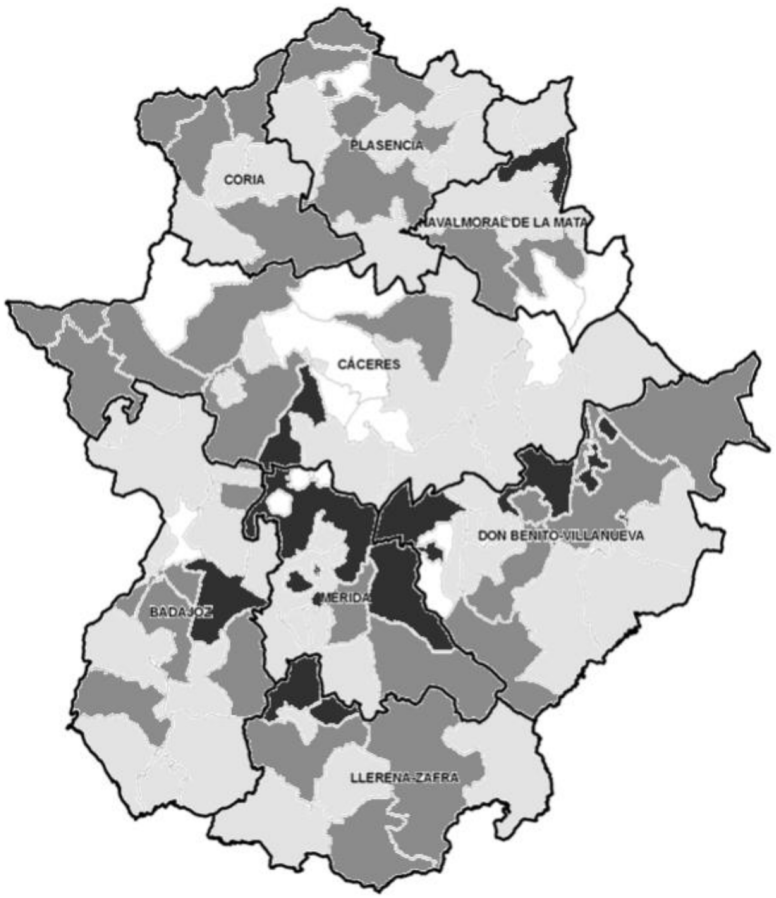
*Cluster 1: "satisfied patients"; cluster 2: "patients not satisfied or dissatisfied"; cluster 3: "not satisfied patients"

Geographical Representation of Satisfaction Levels

Once patients are classified in one of the three clusters, the next step is to categorise each of the Health Zones as belonging to one of the three groups, so the distribution of patients' levels of satisfaction can be drawn in the health map of the region of Extremadura. By doing this, it can be identified whether there are differences between the administrative classification of Health Zones and the classification according to patients' needs.

The procedure followed consists of analysing, for every Health Zone, the distribution of their patients in each of the clusters, so that, the Health Zones can be characterised according to the cluster that the majority of their patients belong to. For example if a Health Zone receives a total of seventy completed questionnaires and, according to their responses, fifty patients are classified in cluster 1, fifteen patients in cluster 2 and the remaining five patients in cluster 3, the Health Zone is characterised as belonging to cluster 1. After following this procedure it is obtained that out of the 97 primary health care centres participating in the study, 35 can be classified in cluster 1, 52 are included in cluster 2, and the remaining 10 in cluster 3.

*Figure 2. Classification of Health Zones according to patients' levels of satisfaction**
*Source: Prepared by authors * Health Zones that appear in white refer to those ones for which there was not any surveys available and that, therefore, are not included in the analysis*



The characterisation of each of the Health Zones across the map of primary health centres in the region is represented in Figure 2. In this map, it can be observed the delimitation of the eight Health Areas as well as the disaggregation of them in each of the Health Zones. A colour to each of the Health Zones in the map is assigned to indicate the cluster where they belong following the procedure previously described.

All the three different clusters are present in six of the eight Health Areas. In Health Areas VI and VIII none of the Health Zones are catalogued in cluster 3, meaning that these two Health Areas do not assist very unsatisfied patients (the number of Health Zones in each of the cluster by Health Areas is presented in Table 6). These two Health Areas, VI and VIII, are also the ones with a higher proportion of Health Zones in cluster 1, i.e. Health Zones where patients are, in general, satisfied with the health care they receive. However, in the case of Health Area VIII, the majority of Health Zones are categorised as belonging to cluster 2, which means that some kind of improvement is needed in order to increase patients' satisfaction with the health care.

On the other hand, Health Area II is the area with the lowest proportion of Health Zones where patients are satisfied with the attention received; only two out of the twelve Health Zones present in the study are assisting satisfied patients.

Most of the Health Areas have a higher proportion of Health Zones where patients are not satisfied of dissatisfied – cluster 2. Moreover, further actions are needed to improve patients' satisfaction in some of the Health Areas that present Health Zones where patients are unsatisfied with the health care received. This is especially important in Health Areas II and IV, with around a quarter of the Health Zones being in cluster 3.

Previous results highlight the idea that, not only within the region, but even within every Health Area, health care is unevenly distributed resulting in differences in the levels of satisfaction with the system reported by patients. Given that the health system is treated different patients, different policies are required so that different needs can be fulfilled adequately.

As previously mentioned, currently, in the context of the distribution of the health care in Extremadura, when a decision is made it affects the whole region or a particular Health Area, but it does not consider

*Table 6. Number of Health Zones in each of the clusters by Health Area**

Health Area	Cluster 1		Cluster 2		Cluster 3		Total	
	n	%	n	%	n	%	n	%
I	7	35.00	12	60.00	1	5.00	20	100
II	2	16.67	7	58.33	3	25.00	12	100
III	5	38.46	6	46.15	2	15.39	13	100
IV	3	33.33	4	44.45	2	22.22	9	100
V	6	35.29	10	58.82	1	5.89	17	100
VI	4	57.14	3	42.86	-	-	7	100
VII	6	46.15	7	53.85	-	-	13	100
VIII	2	33.33	3	50.00	1	16.67	6	100
Total	35	36.08	52	53.61	10	10.31	97	100

Source: Prepared by authors

*Cluster 1: "satisfied patients"; cluster 2: "patients not satisfied or dissatisfied"; cluster 3: "not satisfied patients"

whether different requirements may be needed within every of these administrative units. Therefore, the key message for policy makers is that it may be necessary to analyse whether a new organisation of the health care based on patients' needs rather than on an administrative distribution could improve patients' satisfaction. In such case, health care could be delivered according to what patients really need in health terms.

DISCUSSION AND CONCLUSION

The research has developed a new measure of patient satisfaction with primary health care, the w-HEALTHQUAL, so that it can be studied with an accurate and non-biased indicator. The analysis has been performed with data provided by patients attending primary health care in the Spanish Autonomous Community of Extremadura. This approach has allowed us to identify whether a different distribution of primary health care across the region can be drawn so that health care can be delivered according to patients' needs rather than based on where they live and the centre they go to, and consequently, being able to improve the quality with which service is delivered.

The authors have used a survey asking patients to report their experiences with a series of health attributes and the importance they assign to each of them to build the w-HEALTHQUAL scale, which allows us to construct a measure of satisfaction with primary health care. The fact that the research considers patients' views is very important given that as mentioned by Crow et al., (2002), patients provide truthful data and are an essential aspect to take into consideration so that an improved health care can be delivered. The survey was originated on the basis of the HEALTHQUAL scale (Murillo-Zamorano et al., 2012; Miranda et al., 2010), and it consists of a measure specifically designed for the study of patients preferences with primary health care, and including the importance that users of the service attribute to the each of the elements being analysed. Previous literature has used existing scales in other fields without performing any adaptation of the instruments, and has concluded that, they were able to identify deficiencies and offer a starting point for the identification of underlying problems that may be interfering on the quality of the service being delivered (Babakus and Mangold, 1992; Yang et al., 2004). Therefore, the w-HEALTHQUAL, that improves existing measurement scales in terms of adaptation and reliability, will be a better reflection of patients' views and their needs.

The survey has been validated, reducing with that any source of misunderstanding it could generate and, therefore, producing accurate information from patients responding to it. The w-HEALTHQUAL, therefore and considering all the aforementioned, adequately measures patients' satisfaction with the health service and helps the system to identify shortcomings in the provision of health care. This, in the last instance, will allow for the delivery of a better health and the implementation of health policies adapted to patients' needs, which could be translated in a continuous improvement of service users' satisfaction.

Using the w-HEALTHQUAL, four indicators related to four main aspects of the service have been obtained: facilities, health staff, non-health staff and efficiency. These variables have been used to perform a hybrid cluster analysis, first employing the hierarchical method of Ward (Ward, 1963) and then applying the k-means clustering method (Lloyd, 1982; MacQueen, 1967). The cluster analysis has allowed us to identify different satisfaction areas in the map of the distribution of Health Zones, so that, it can be reorganised based on patients' levels of satisfaction with primary care rather than considering an administrative classification of the health care.

Results have indicated the existence of three main clusters. Patients with high levels of satisfaction with the four indicators have been classified in cluster 1 – "highly satisfied" patients. Those service users whose satisfaction with the health care received was poor have been categorised as "not satisfied" and have been grouped in the third cluster. Finally, there has been an intermediate group – cluster 2 – including patients that were neither satisfied nor disappointed with the system, so that they could be described as "not satisfied or dissatisfied".

Using this classification of patients in one of the three clusters, the researchers have been able to categorise each of the 97 Health Zones participating in the study in one of the levels of satisfaction reported by patients attending their primary health care centres. According to this, 35 Health Zones could be classified in cluster 1; 52 in cluster 2 and the remaining 10, in cluster 3. Therefore, a majority of patients were not satisfied or dissatisfied with the health care received, and around 10% were dissatisfied with it. It is of concern that only 36% of the centres (35 centres out of the 97) were treating highly satisfied patients. Furthermore, within each of the clusters, the levels of satisfaction with the efficiency aspects of the system have been normally lower than the ones shown by the other variables being studied. These results have highlighted the need of an improvement in the provision of health care so that, a high quality health care service can be delivered to patients, a better quality service that, can increase patients' satisfaction with the system.

The results have also emphasised the idea that a different distribution of the health care across the region may be needed so that a more effective health care can be delivered. With that, policies could be implemented based on patient satisfaction with the service received rather than on an administrative distribution of health units, which might not benefit every user of the system.

These implications would be especially relevant in a large and sparsely populated region like the one analysed here, as in such context, an optimum organisation of health care is essential so that needs are correctly identified and resources are allocated where they are really required. Considering this, the development and implementation of policies should take into consideration what patients have stated to need an improvement so that deficiencies are corrected. Additionally, managers should continue to offer a service with the same standards in relation to the aspects with which patients are satisfied. All of this should be elaborated bearing in mind where these strategies are more needed and in which direction.

REFERENCES

Adil, D., Al Ghaswyneh, O. F. M., & Albkour, A. M. (2013). SERVQUAL and SERVPERF: A review of measures in services marketing research. *Global Journal of Management and Business Research*, *13*(6).

Babakus, E., & Mangold, W. G. (1991). Adapting the SERVQUAL scale to Hospital services: An Empirical Investigation. *Health Services Research*, *26*(6), 767–786. PMID:1737708

Badri, M. A., Abdulla, M., & Al-Madani, A. (2005). Information technology center service quality: Assessment and application of SERVQUAL. *International Journal of Quality & Reliability Management*, *22*(8/9), 819–848. doi:10.1108/02656710510617247

Berry, L. L., Zeithaml, V. A., & Parasuraman, A. (1985). Quality Counts in Services too. *Business Horizons*, *28*(3), 44–52. doi:10.1016/0007-6813(85)90008-4

Bitner, M. J., Booms, B. H., & Tetreault, M. S. (1990). The service encounter: Diagnosis favourable and unfavourable incidents. *Journal of Marketing*, *54*(1), 71–84. doi:10.1177/002224299005400105

Brown, T. J., Churchil, G. A., & Peter, J. P. (1993). Improving the measurement of service quality. *Journal of Retailing*, *69*(81), 127–139. doi:10.1016/S0022-4359(05)80006-5

Churchill, G. A., & Suprenant, C. (1982). An investigation into the determinants of customer satisfaction. *JMR, Journal of Marketing Research*, *19*(4), 491–504. doi:10.1177/002224378201900410

Cronin, J. Jr, & Taylor, S. (1992). Measuring service quality: A reexamination and extension. *Journal of Marketing*, *56*(3), 55–68. doi:10.1177/002224299205600304

Crow, R., Gage, H., Hampson, S., Hart, J., Kimber, A., Storey, L., & Thomas, H. (2002). The measurement of satisfaction with healthcare: Implications for practice from a systematic review of the literature. *Health Technology Assessment*, *6*(32), 1–244. doi:10.3310/hta6320 PMID:12925269

Dawson, J., Fitzpatrick, R., Murray, D., & Carr, A. (1998). Questionnaire on the perceptions of patients about total knee replacement. *The Journal of Bone and Joint Surgery. British Volume*, *80*(1), 63–69. doi:10.1302/0301-620X.80B1.7859 PMID:9460955

Donabedian, A. (1984). *La Calidad de la Atención Médica*. La Prensa Mexicana.

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior. An introduction to theory and research*. Reading, MA: Addison-Wesley.

Greenly, G. E., Hooley, G. J., & Rudd, J. M. (2005). Market orientation in a multiple stakeholder orientation context: Implications for marketing capabilities and assets. *Journal of Business Research*, *58*(11), 1483–1494. doi:10.1016/j.jbusres.2004.07.004

Hair, J., Yerson, R., Tatham, R., & Black, W. (1999). *Análisis Multivariante*. Madrid: Pearson Educacion.

Jain, S. K., & Gupta, G. (2004). Measuring Service Quality: SERVQUAL vs. SERVPERF scales. *Vikalpa*, *29*(2), 25–37. doi:10.1177/0256090920040203

Kilbourne, W. E., Duffy, J. A., Duffy, M., & Giarchi, G. (2004). The applicability of SERVQUAL in cross-national measurements of health-care quality. *Journal of Services Marketing*, *18*(6/7), 524–533. doi:10.1108/08876040410561857

Ladhari, R. (2009). A review of twenty years of SERVQUAL research. *International Journal of Quality and Service Sciences*, *1*(2), 172–198. doi:10.1108/17566690910971445

LeBlanc, G., & Nguyen, N. (1988). Customers satisfaction with service quality in financial institutions. *International Journal of Bank Marketing*, *6*(4), 7–18. doi:10.1108/eb010834

Lloyd, S. (1982). Least squares quantization in PCM. *IEEE Transactions on Information Theory*, *28*(2), 129–137. doi:10.1109/TIT.1982.1056489

López-Sánchez, J. A., & Santos-Vijande, M. L. (2015). How value creation and relationship quality coalignment affects a firms's performance: An empirical analysis. *Journal of Marketing Channels*, *22*(3), 214–230. doi:10.1080/1046669X.2015.1071592

Luque, T. (2000). *Técnicas de Análisis de Datos en Investigación de Mercados*. Madrid: Ed. Pirámide.

MacQueen, J. (1967). Some methods for classification and analysis of multivariate observations. In *Fifth Berkeley Symposium on Mathematics. Statistics and Probability*. University of California Press.

Martilla, J. A., & James, J. C. (1977). Importance-Performance analysis. *Journal of Marketing*, *41*(1), 77–79. doi:10.1177/002224297704100112

Mazis, M. B., Antola, O. T., & Klippel, T. E. (1975). A comparison of four multi-attribute models in the prediction of consumer attitudes. *The Journal of Consumer Research*, *2*(1), 35–52. doi:10.1086/208614

Miranda, F. J., Chamorro, A., Murillo, L. R., & Vega, J. (2010). Assessing primary health care services quality in Spain: Managers vs. Patients perceptions. *Service Industries Journal*, *30*(13), 2137–2149. doi:10.1080/02642060903215055

Murillo-Zamorano, L. R., Vega-Cervera, J. A., Chamorro, A., Cordero, J. M., Crespo, E., de Miguel, F. J., . . . Sánchez, M. (2012). Eficiencia y Calidad de la atención primaria en Extremadura. Academic Press.

Parasuraman, A., Zeithaml, V., & Berry, L. (1985). A Conceptual Model of Service Quality and its Implications for Future Research. *Journal of Marketing*, *49*(4), 35–48. doi:10.1177/002224298504900403

Parasuraman, A., Zeithaml, V., & Berry, L. (1988). SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality. *Journal of Retailing*, *64*(1), 12–40.

Paul, D. P. III. (2003). An exploratory examination of SERVQUAL versus SERVPERF for Prosthectic Dental Specialists. *Clinical Research and Regulatory Affairs*, *20*(1), 89–100. doi:10.1081/CRP-120018745

Peter, J. P., Churchil, G. A., & Brown, T. L. (1993). Caution in the use of difference scores in Consumer Research. *The Journal of Consumer Research*, *19*(4), 655–662. doi:10.1086/209329

Schäfer, W. L., Boerma, W. G. W., Murante, A. M., Sixma, J. J. M., Schellevis, F. G., & Groenewegen, P. P. (2015). Assessing the potential for improvement in primary care in 34 countries: A cross-sectional survey. *Bulletin of the World Health Organization*, *93*(3), 161–168. doi:10.2471/BLT.14.140368 PMID:25883409

Ward, J. H. Jr. (1963). Hierarchical grouping to optimize an objective function. *Journal of the American Statistical Association*, *58*(301), 236–244. doi:10.1080/01621459.1963.10500845

Wong, M. A. (1982). A hybrid clustering method for identifying high-density clusters. *Journal of the American Statistical Association*, *77*(380), 841–847. doi:10.1080/01621459.1982.10477896

Woodruff, R. B., Cadotte, E. R., & Jenkins, R. L. (1983). Modelling consumer satisfaction processes using experience-based norms. *JMR, Journal of Marketing Research*, *20*(3), 296–304. doi:10.1177/002224378302000308

Yang, F., Sun, T., & Zhang, C. (2009). An efficient hybrid data clustering method based on K-harmonic means and particle swarm optimization. *Expert Systems with Applications*, *36*(6), 9847–9852. doi:10.1016/j.eswa.2009.02.003

Yang, Z., Jun, M., & Peterson, R. T. (2004). Measuring customer perceived online service quality: Scale development and managerial implications. *International Journal of Operations & Production Management*, *24*(11), 1149–1174. doi:10.1108/01443570410563278

KEY TERMS AND DEFINITIONS

Cluster Analysis: Type of analysis that allows for the construction of groups of elements which present similar characteristics.

Extremadura: Region located in the south-west of Spain and for which the analysis has been performed.

Health Area: One of the delimitations of the health system in the region analyzed, and that at the same time is divided into Health Zones.

Health Zones: A delimitation of the system smaller than a Health Area and that has a health center as the main provider.

Primary Healthcare: First contact with the health care and that patients attend before being referred to a specialized care.

SERVPERF: Adaptation of the SERVQUAL to analyze the performance of a service based just on users' experiences.

SERVQUAL: Preferred scale to analyze the performance of a service based on users' experiences and preferences.

w-HEALTHQUAL: The scale used in the analysis and that allows for the analysis of patients' satisfaction and built under the base of the SERVQUAL and SERVPERF, as it has been recommended to adapt such scales to the field where they are going to be applied.

ENDNOTES

1 The full survey is presented in Appendix 1.

2 A map of the distribution of Health Zones across the region is shown in Appendix 2.

APPENDIX 1: SATISFACTION SURVEY DELIVERED TO PRIMARY HEALTH CARE USERS IN EXTREMADURA

Quality Analysis of Primary Health Care in Extremadura

Dear user of primary health care service in Extremadura,

Thanks for devoting the time to answer this questionnaire. The results obtained from it will allow us to have a better understanding of the way primary health care in the region is being delivered, so that, a better quality service can be provided.

All the information provided here is strictly confidential and it will be analysed together with the rest of questionnaires received from other primary health care users.

Instructions: Circle the option which best describes your experience when attending your primary health care centre. Hand this survey in to the reception of your corresponding centre. If you wish, you can fill the survey online following this link: http://mercado.unex.es/salud.

Thanks in advance for taking part in the survey [given in Tables 7-13].

Table 7.

1.- Primary Health Centre:				
2.- Gender: [] Male [] Female				
3.- Age: [] < 30 years old [] 30-45 years old [] 45-64 years old [] ≥ 65 years old				
5.- Family income:	[] < 900€/m	[] 900-1800 €/m	[] 1800-2700 €/m	[] ≥ 2700 €/m
6.- Education: [] no studies [] primary school [] secondary school [] university				
7.- Do you live in the same town where the primary health care is located? Yes No				
8.- How long does it take you to travel to the centre?:				

Table 8.

HEALTH CENTRE FACILITIES							
Please, indicate your level of agreement with the following statements regarding your primary health care centre (where 1 means completely disagree and 7 means completely agree)							
In your opinion:	Completely disagree to Completely agree						
1.- Health centre facilities are clean	1	2	3	4	5	6	7
2.- Health centre equipment is modern	1	2	3	4	5	6	7
3.- According to your place of residence, health centre location is adequate and easy to access	1	2	3	4	5	6	7

Table 9.

HEALTH STAFF (GENERAL PRACTITIONERS AND NURSES)							
In your opinion:	Completely disagree to Completely agree						
1.- Health staff are well dressed and clean	1	2	3	4	5	6	7
2.- Health staff know well what they do (they are professionals)	1	2	3	4	5	6	7
3.- Health staff are kind and polite	1	2	3	4	5	6	7
4.- Health staff inspire trust	1	2	3	4	5	6	7
5.- I have received personalised care	1	2	3	4	5	6	7
6.- I have been well informed about the nature and objectives of the recommended treatment	1	2	3	4	5	6	7
7.- Health staff listen carefully to my problems	1	2	3	4	5	6	7
8.- Health staff have shown an interest in solving my problem	1	2	3	4	5	6	7
9.- Health staff have dealt with my problems/needs very quickly	1	2	3	4	5	6	7
10. Health staff prestige is high	1	2	3	4	5	6	7

Table 10.

NON-HEALTH STAFF (ADMIN STAFF, CENTRE ATTENDANTS, ETC.)							
In your opinion:	Completely disagree to Completely agree						
1.- Non-health staff are well dressed and clean	1	2	3	4	5	6	7
2.- Non-health staff know well what they do (they are professionals)	1	2	3	4	5	6	7
3.- Non-health staff are kind and polite	1	2	3	4	5	6	7
4.- Non-health staff listen carefully to my problems	1	2	3	4	5	6	7
5.- Non-health staff have shown an interest in solving my problems	1	2	3	4	5	6	7

Table 11.

EFFICIENCY MEASURES							
In your opinion:	Completely disagree to Completely agree						
1.- It is easy to contact the centre to make an appointment	1	2	3	4	5	6	7
2.- The level of bureaucracy is reasonable	1	2	3	4	5	6	7
3.- Once I arrived at the centre, waiting time to be seen was reasonable	1	2	3	4	5	6	7
4.- Complementary tests (x-ray, tests, etc.) are performed promptly	1	2	3	4	5	6	7
5.- When there has been a complaint, health centre response has been adequate	1	2	3	4	5	6	7
6.- Time I have been given has been adequate	1	2	3	4	5	6	7
7.- Opening times have been appropriate	1	2	3	4	5	6	7

Table 12.

OVERALL SATISFACTION							
1.- In general, I am very satisfied with health centre services	1	2	3	4	5	6	7
2.- Service received fulfils what I expected from it	1	2	3	4	5	6	7
3.- Health centre reputation is really good	1	2	3	4	5	6	7
OBJECTIVE MEASURES							
1.- Time waited to be seen: [] < 10 min [] 10-19 min [] 20-29 min [] ≥ 30 min							
2.- Years attending this particular health centre: [] 0-1 yr [] 2-5 yrs [] 6-10 years [] ≥ 10 yrs							
3.- Times I have visited the centre in the last 12 months: 1-2 3-4 5-6 > 6 times							

Table 13.

IMPORTANCE LEVEL FOR EACH OF THE ATTRIBUTES							
Please, state how important the following aspects of service quality are for you							
In your opinion:	Not very important to Very important						
1.- Cleanliness of facilities	1	2	3	4	5	6	7
2.- Equipment of the health centre	1	2	3	4	5	6	7
3.- Location of the health centre	1	2	3	4	5	6	7
4.- Health staff cleanliness	1	2	3	4	5	6	7
5.- Health staff professionalism	1	2	3	4	5	6	7
6.- Health staff kindness and politeness	1	2	3	4	5	6	7
7.- Trust in health staff	1	2	3	4	5	6	7
8.- Personalised services	1	2	3	4	5	6	7
9.- Communication with health staff	1	2	3	4	5	6	7
10.- Health staff attention to patients' problems	1	2	3	4	5	6	7
11.- Health staff interest in solving patients' problems	1	2	3	4	5	6	7
12.- Health staff understanding of patients' problems	1	2	3	4	5	6	7
13.- Health staff prestige	1	2	3	4	5	6	7
14.- Non-health staff cleanliness	1	2	3	4	5	6	7
15.- Non-health staff professionalism	1	2	3	4	5	6	7
16.- Non-health staff kindness and politeness	1	2	3	4	5	6	7
17.- Non-health staff attention to patients' problems	1	2	3	4	5	6	7
18.- Non-health staff interest in solving patients' problems	1	2	3	4	5	6	7
19.- Ease of making an appointment	1	2	3	4	5	6	7
20.- Bureaucracy intensity	1	2	3	4	5	6	7
21.- Waiting time in the centre before entering the consultation room	1	2	3	4	5	6	7
22.- Speed of complementary tests	1	2	3	4	5	6	7
23.- Resolution of complaints	1	2	3	4	5	6	7
24.- Time spent with each patient	1	2	3	4	5	6	7
25.- Health centre opening hours	1	2	3	4	5	6	7

APPENDIX 2

Figure 3. Map of the distribution of health areas across the region of Extremadura and distribution of patients in each of them
Source: Prepared by the authors

Health Area	Number of Health Zones	Population, N (%)
I	21	270,317 (24.62)
II	13	165,750 (15.10)
III	14	142,448 (12.98)
IV	9	106,731 (9.72)
V	23	196,411 (17.89)
VI	7	49,530 (4.51)
VII	14	111,927 (10.20)
VIII	8	54,630 (4.98)
Total	109	1,097,744 (100)

Chapter 8
Educational Choices, Family Background, and Social Mobility:
Education and Social Mobility

Maria Conceição Rego
https://orcid.org/0000-0002-1257-412X
Universidade de Évora, Portugal

Carlos Vieira
Universidade de Évora, Portugal

Isabel Vieira
Universidade de Évora, Portugal

ABSTRACT

Education is generally considered a valuable tool to improve individual socio-economic status. In European peripheral countries, up to the late 1970s, only a small elite had access to higher education and such privilege guaranteed a comfortable socio-economic position, not only via the job market, but also by allowing the sustainability of pre-existing social links. From then on, democratization of access to higher education should have prompted a decrease in social and economic inequalities within and across countries. However, current data still reflects that, despite gained access to social uplifting tools, individuals from less favored backgrounds appear to not have been able to close the various gaps separating them from the more privileged ones. In this chapter, the authors analyze recent data to characterize higher education attendance in Portugal, highlighting some factors that may still block the socio-economic improvement of the less favored students and suggesting policy measures to overcome them.

DOI: 10.4018/978-1-5225-7937-3.ch008

INTRODUCTION

This chapter describes recent trends in social mobility, reviews its main determinants and explores reasons that may justify persistence in income and social status observable in many developed countries. The relevance of education as a mobility promoter combined with the increasing democratization in access to higher education makes it difficult to understand the apparent failure of personal educational investments to promote intergenerational social mobility (ISM). However, some regularities, such as the impact of family social status on individuals' choice of higher education programs, plus the fact that the programs more often chosen by students from families with lower socio-economic status tend to be less rewarding in terms of social prestige and income generated in the labor market lead to the conclusion that simply promoting access to further education will not produce more equalitarian societies. The educational system, which theoretically is a tool to promote social mobility, may in fact, do the opposite: often, "school" does not contribute to correct inequalities but reinforces their maintenance.

Students do not arrive in equal conditions at the doors of higher education institutions. Besides the well-established impact of family socio-economic circumstances on student performance, there is also the stratification of pre-tertiary education pathways which, at times with the objective of preventing early school drop-out, allows some very young students, labelled as less academically minded, to make decisions in terms of curriculum, or to enter professionally oriented pathways, that often end up driving them directly to the labor market after secondary education, or to higher education programs that will not promote their socio-economic mobility.

The choice regularities that in this context are observable in various countries are also present in Portugal, and the analysis of data obtained from one university (Universidade de Évora) indicates that there is indeed a socially determined pattern of university program choices. Since such choices may be the result of a cumulative process evolving from the early stages of education, further research and countries' policy efforts should be directed towards, at each country level, understanding the processes developing before tertiary education and promoting the measures more adequate to stop the precocious limitation of youngsters' ambition and of the future possibilities in their reach.

Scandinavian countries, with less stratified pre-university systems of education, and the research on social mobility that focus on what occurs at the early stages of individual' schooling paths, suggest that policy orientations should be directed to promoting campaigns of information and guidance for the less favored students and their families, and also to the increasing standardization of academic curriculums in basic and secondary education.

BACKGROUND: TRENDS IN SOCIAL MOBILITY

ISM is, from a sociological point of view, the movement of individuals across different social classes or across the social hierarchy. If such movement is ascending, it reflects an improvement of individual's (or family's) quality of life in relation to that of previous generations. ISM can be achieved through financial factors (increased personal wealth), social factors (e.g., integration into a higher social group, through marriage), public exposure factors (e.g., attainment of 'celebrity' status in the media), or through training / education (for instance, getting a higher education degree) (Baltazar et. al., 2013).

The existence of ISM is, according to the literature, related to high levels of economic development and quality of life. In recent years, several researchers have identified reinforcing relationships between

variables representing these two concepts. Wilkinson and Pickett (2009), for example, studied social mobility in developed countries (Canada, Denmark, Finland, Sweden, Norway, Germany, United Kingdom and USA) and concluded that high levels of social inequality are related to low social mobility. Similar deductions may be drawn from the work of Causa and Johansson (2009) who, analyzing intergenerational social persistence, measured by the close link between parental educational achievement and children's wages, conclude that the "association between parental socio-economic status and teenager cognitive achievement is stronger in countries with a greater share of children living under the poverty line or lacking basic material resources" (Causa and Johansson, 2009:5). Recently, The Economist (August 11, 2018) concluded, based on a set of studies carried out in the United States and other experiences in OECD countries, that long summer holidays are bad for children, especially for the poorest, and for social mobility. Among the adverse effects associated with the size of summer holidays, the difference in the quality of experiences amongst children and young people from families with distinct levels of income and quality of life is highlighted, as well as the fact that students forget large parts of what they had previously learnt at school (Economist, 2018).

Piketty (2014), on its turn, considers that current economic and social conditions do not promote ISM. He concludes that the growth rate of wealth (as assets accumulated in the past) tends to be higher and more durable compared with the growth rate of income and production, which, for example, will lead to lower increases in wages than growth in remuneration of the remaining inputs. Thus, the possibility of IMS is always very limited, despite the improvement of the qualifications and knowledge of the employed population.

Although the title is pessimistic, the recent OECD report (OECD, 2018) "A Broken Social Elevator? How to Promote Social Mobility?", recognizes that, in the analyzed member countries, present generations live better than their parents and the previous generations did (absolute mobility). The report also reveals the difficulties regarding the achievement of ISM, as well as the fact that the implementation of an ISM process is more difficult at the present than it was in the past (relative mobility): "[…] children born into the bottom of the income distribution have less chances to move up and improve their occupational status and earnings than their parents and previous generations. At the other end of the scale, there is a "sticky ceiling" because inequality also means that those at the top of the income distribution may remain there for a long time. In an "average OECD country", it could take five generations for children of poor families to reach the average income in their country." (OECD, 2018: 3-4). In fact, the higher and/or the more increasing the levels of inequality, the harder it is to improve income and social mobility (OECD, 2018).

This OECD report (OECD, 2018) draws attention, also, to the consequences of a lack of ISM, highlighting the fact that i) it can hurt the foundations of economic growth, ii) it influences, negatively, life satisfaction and well-being, iii) it increases the probability of social conflicts due the perception or unequal opportunities, iv) it can reduce individuals' feelings that their voice counts, particularly amongst middle- and lower-income persons, and v) it may reduce democratic participation.

Five generations is, precisely, the time needed in Portugal for the descendants of a law-income family to reach the average income of the country (OECD, 2018a). Portugal is one of the member countries where ISM is more difficult, and where the OECD considers that there is a "broken social elevator". In Portugal, as in other countries in the same conditions, the consequences can be reflected through serious economic and social effects such as brain drain, which undermines potential economic growth, reducing well-being, life satisfaction and social cohesion. In addition, this organization also draws at-

tention to the risk of middle-income households to slide into low income and poverty over their life course (OECD, 2018a).

In Portugal, recently, this subject has also been studied exhaustively in a report edited by Fundação Francisco Manuel dos Santos entitled "Mobilidade Social em Portugal" (Bago d'Uva and Fernandes, 2017). This report examines ISM (considering the ratio between the socio-economic status of the father as measured by schooling and occupational status and that of children - both genders - as measured by their family income in adulthood), as well as intragenerational mobility (through mobility in the economic condition of the same individual over time, measured by family income and wages, respectively). This ISM analysis was performed for the generations of those born between 1940 and 1985; intragenerational mobility analysis was performed based on data between 2000 and 2005 and 2003 and 2013.The report confirms the previously identified fact that Portugal is a country with low levels of economic and social mobility, both at the intergenerational and intragenerational levels. However, over time there has been an approximation to the EU average, through education and the labor market. The report also points out that mobility was higher amongst the Portuguese born in the 1970s than to those born in earlier decades, a fact that is linked to the 1974 revolution that restored democracy in Portugal. The most significant effects on ISM are due to the improvements in school attendance and are more visible for women (Bago d'Uva and Fernandes, 2017). The results verified in the education are mainly due to the improvement of the children's schooling of families with lower levels of education. In families with higher levels of education the new generations tend to maintain the same educational pattern. The analysis of intragenerational mobility, through the evolution of incomes and wages, reflects the recessive effects of the economic crisis of the beginning of this decade (2008-2011). The authors concluded that for almost half of the Portuguese population (between 40% and 50%), in the majority of the periods, there were no changes in the level of family income (Bago d'Uva and Fernandes, 2017). Regarding the trend in wages, on average, there have been increases, but with a decreasing rate, over time. In the analysis of wages, the trend was also for decreased mobility. It should be noted that, over time, there was an improvement in the salaries of the young workers, which should be associated with the increase in schooling. Thus, higher levels of education tend to reduce the disadvantage of the youngest in the labor market, even at the beginning of their careers. However, considering the growth of the salary of the same individual for one year to the next (or after three years), there is no clear evidence of the impact of the educational level (Bago d'Uva and Fernandes, 2017).

DETERMINANTS OF SOCIAL MOBILITY

Review of the Literature

ISM is defined as the relationship between the socio economic status of parents and that of their adult children (Causa and Johansson, 2009) and reflects the "extend to which individuals move up or down the social ladder compared with their parents" (OECD, 2010, p. 184). In this context, status may be measured by the level of income, wage, social class or occupation. Sociologists tend to focus on social class and occupation, recurring to mobility tables to quantity variation in attainment from one generation to the next (Breen, 2010). Economists often use data on income and wages to calculate intergenerational elasticities (varying from zero – complete immobility – to one – complete mobility), intergenerational

correlations, and rank-rank slopes with the objective of ascertaining the strength of the link between the socio-economic position of individuals and that of their parents (Chetty et al., 2014).

The interest of sociologists on ISM predates that of economists who, with some remarkable exceptions (Becker and Tomes, 1986, refer that in the early 1950s Joseph Schumpeter considered theoretical and empirical aspects of intergenerational mobility), were at first more interested in studying inequality of income across families in the same generation than in understanding such inequality between generations of the same family. Yet, research has shown that the two phenomena are related and combating the former may help in reducing the latter (see, for instance, the Russell Sage Foundation, 2016).

The Becker-Tomes model (Becker and Tomes, 1979, 1986), in which persistence in income over generations is a result of parental investment in the human capital of their children and of the transmission within the family of genetic and other endowments, is the backbone of most economic analyses of ISM. This model highlights the central role played by human capital and predicts a 'convergence of dynasties' in the presence of perfect credit markets. Researchers have subsequently studied credit market imperfections that lead to under-education traps and, more recently, to the structure of education systems. In the majority of such studies the predominant focus of analysis is on education (see Bourguignon et al., 2003, Blanden et al., 2007). In fact, if income persistence has been pointed out as a major factor of socio economic immobility and individuals' incomes are largely determined by their human capital, than education is a key aspect to take into account.

However, even if persistence in educational attainment is a very relevant element of income persistence, and thus of socio-economic mobility, it is not its sole determinant (Causa and Johansson, 2009). As Causa et al. (2009) refer, studies evaluating income persistence in distinct geographical contexts suggest that it may be divided into three parts: one related to persistence in education, i.e. to differences in educational attainment by individuals from distinct income groups; another related to the returns from education in the labor market; and a residual, 'non-explained', part that is not transmitted through education.

ISM is indeed a multidimensional phenomenon for which many factors contribute. Some are family related, such as the transmission of genetic characteristics (nature), of money and material goods, and of other endowments and traits that arise from sharing the specific environment of a household (nurture), while others are the outcome of institutions and policies. Family factors may be of a cognitive nature (for instance the inheritance of ability) or be related to the family background and the circumstances in which individuals grow up, such as wealth and the propensity of parents to invest in their children's education and human capital, parental education and its impact on the offspring's propensity to further their education, work experience, work ethics, and other social norms, social networks, risk-related behavior, local living conditions, i.e. the (dis)advantages of the neighborhood in which individuals grow up.

Institutional and policy factors are related to educational structures, labor market structures, policies affecting enrolment rates at different education levels, redistributive policies or public expenditure in education. Institutions and policies may either reinforce or attenuate family related factors.

It is important to examine the many channels connecting family income to the children's academic performance and educational attainment, but it is also difficult to disentangle nature from nurture in this context. The offspring of advantaged families are more likely to perform better in school and to attend formal education for longer. Is this a result of genetic inheritance, or a consequence of family income and of its specific environment? If individuals with higher capacity are more and better educated and, as a consequence, are more successful in the labor market and end up earning more, than it would not be the inheritance of income but that of personal aptitude that causes socio-economic immobility. Distinguish-

ing nature from nurture helps in designing adequate policy measures aimed at helping the children from less socio-economically favored families to perform better in school and to have better life perspectives.

Empirical analyses attempting to ascertain whether parental ability is genetically transmitted have used samples of adopted and biological children and assessed IQ and other achievement and personality scores. For the US, Plug and Vijverberg (2003) concluded that 55 to 60% of parental ability, measured as IQ, is genetically transmitted and thus that the role of nature in children's school success is very substantial. However, as pointed out by Sacerdote (2002), such analyses usually assumed that a child's academic performance is the result of the linear addition of genes, shared environment and non-explained factors, and did not allow for the possibility of non-linearities or of interactions between genetics and environment. When such possibilities are taken into account, the relevance of nature is reduced. For instance, also using US data, Sacerdote (2002) and Plug and Vijverberg (2005) showed that being adopted by high socio-economic status families greatly increases the probability of getting higher grades, continuing education after secondary school and being admitted to more selective higher education institutions.

In addition to genes and, according to the most recent assessments, more importantly, families pass to their children three types of capital: human, material and financial, and social (see inter alia d'Addio, 2007). Human capital, which as previously referred, was viewed by Becker and Tomes (1979, 1986) as a result from parental decisions to abdicate from own consumption in favor of investing in the children's future, comprehends a set of personal characteristics (education, knowledge, physical health) that improve individual productivity. Material and financial capital, i.e. the inheritance of monetary wealth and of other material goods increase the set of individual resources allowing access not only to education and health but to better housing and neighborhood conditions that also intervene to enhance the many channels through which individual human capital and productivity are heightened and family advantages are transmitted from one generation to the next. The impact of the neighborhood on children's academic attainment and performance and on their future earnings varies across countries but tends to be smaller than that of other traits running from the family environment (see for instance Page and Solon, 2003, or Raaum et al. 2006). In countries where access to good schools is determined by the area in which individuals live in, such impact is, as expected, stronger (Vartanian and Gleason, 1999). Social capital steams from the family and from the religious, ethnic, cultural and/or other communities to which the family belongs and materializes in networks which are established on the basis of behavioral norms and shared values that have an impact on education and labor market contexts (d'Addio, 2007).

The now relatively vast literature comparing ISM in distinct geographical contexts suggests that mobility is higher in the Scandinavian countries and lower in the United States (US), in the United Kingdom (UK) and in the countries of the Southern European periphery (Blanden, 2009). In spite of the usual high correlation between income and educational persistence, the same country, for instance the UK, may exhibit relatively low income mobility and high education mobility. Income mobility tends to be lower at the high and at the low ends of the income spectrum (Jäntti et al., 2006) and countries where income and education persistence is lower tend to display a weaker influence of family factors on socio-economic mobility, thus suggesting that institutions and policies have an important role to play (Chusseau et al., 2013).

In fact, the wage structure of labor markets, i.e. how different skills are priced, and other specificities of labor market institutions, for instance their level of wage compression, usually associated to the level of unionization and the coverage of collective agreements, have been pointed out as determinants of ISM and as one of the reasons for the lower wage persistence characterizing Scandinavian countries (see

Causa et al., 2009). As Levine (1999) argued, lower returns to human capital in labor markets decrease the impact of the investment of richer families in their children.

Policies impacting ISM are varied. They may be redistributive in nature or consist of direct public spending on education. A variety of policies may also affect access and enrolment rates at the various levels of education. Research has produced mixed results on the impact of redistributive policies on ISM. Hendricks (1999) concluded that the redistributive tax and subsidy policies analyzed in his study – intended to lower the private costs of education or the labor income taxes paid by the poor – did not promote equality of opportunities or reduce income inequality. Nevertheless, countries which have long been adopting more redistributive policies display higher levels of intergenerational income mobility and more income equality across families in the same generation (see Causa et al., 2009).

A large body of research, reviewed for instance by Brezis and Hellier (2018), has focused on the effects of institutions and policies directly related to the educational system. Various studies have shown that attempts to promote early education for children from less favored backgrounds enhance their development and reduce the impact of the family background on school performance (Bakken et al., 2017). A number of authors have also established that the stratification of secondary education contributes to education and income persistence (Kerckhoff, 1995). Later studies focusing on this subject have increasingly turned to tertiary education, with results showing that two-tier systems, with a clear distinction between elite and standard universities, as is the case, for instance, in the US and the UK, also promote social stratification and reduce ISM. Nevertheless, as suggested by Iannelli et al. (2016), there are still under researched topics, mainly related to the choices students make in pre-tertiary education. Such choices have an impact on individuals' future, contributing to reduce or reinforce ISM, and raise relevant questions from a policy perspective.

Empirical Evidence on Higher Education Choices and Social Mobility

The impact of higher education on individuals' earnings is a well-researched and documented topic (see, for example, the much cited Becker, 1962, or, more recently, Blundell et al., 2005). Access to higher education is therefore crucial for intergenerational mobility. The premium of a higher education degree is, however, not constant across subjects. Medicine warrants a very high premium, while Creative Arts, for example, is much less rewarding in expected average income terms (see, for example, Arcidiacono, 2004, Chevalier, 2011, Walker and Zhu, 2011 or Britton et al, 2016). Several determinants may help explain the differences in terms of income premiums, for instance difficulty level, scarcity of supply or of demand for those graduates, differences in productivity, corporative power, employers and unions' strength, among many other possible explanations.

A very interesting hypothesis is whether the household's socio economic status also helps determine the choice of higher education subject, and consequently the student's future income and social status. When controlling for other student characteristics, such as individual ability, does family influence choice of subject? This is a relevant question when addressing the constraints to social mobility. Do students tend to choose subjects similar to their parents'? Does family shape ambition on future professional careers?

There is already some empirical evidence on the influence of family background on the choices students make concerning their academic career. Most of these studies focus on pre-university choices and Anglo-Saxon countries, and show typically a strong correlation between parents and children's educational attainment. Studies differentiating between degree fields of study in higher education are much more scarce.

Van De Werfhorst et al. (2003), for Britain, showed that children take their parents' social position as a reference for their own choices. They suggest that, after controlling for ability, students from higher social class backgrounds are more likely to choose socially more prestigious subjects like medicine or law.

To the best of our knowledge, this question has not yet been empirically assessed in Portugal. A recent study by Rego et al. (2018) has exposed some evidence that a similar phenomenon may be occurring in Portugal, demanding further analysis. Using data from four public universities on a cohort of almost nine thousand students first enrolled in higher education in 2009, the report includes a comparison between parents' educational level and the study areas chosen by the students. The classification of study areas employs the Portuguese national classification of education and training areas (Classificação Nacional de Áreas de Educação e Formação – CNAEF).

Since only the major areas have been considered, it is difficult to rank them in terms of socio economic status. However, it is noteworthy that for example in the areas of 'Education' and of 'Arts & Humanities', traditionally associated with lower average incomes and social status (see, for example, Britton et al, 2016), the relative percentage of students decreases the higher the parents' educational level (vide the two top rows of Table 1). Only 0.4% of the students with both parents holding a higher education degree, for example, have chosen a degree in the area of 'Education'. The opposite occurs in the areas containing for example law and engineering, customarily associated with higher incomes and social status. Medicine, always ranked first on social status or average income ranks, is in here classified together with nursing and social care, usually much lower in those ranks, and therefore it is not of much help for this analysis.

Although this evidence is somewhat crude, given the limitations mentioned above, it is nonetheless a hint that the relationship of interest, between family background and degree choice, may effectively occur, with significant implications in terms of social mobility. Therefore, this relationship will be investigated in more detail, using data on the individual students' records.

In this empirical analysis, data from a cohort of students enrolled for the first time in the academic year 2009/10 at the Universidade de Évora, in Portugal, is used. Each degree program's socio economic status is classified according to the International Socio-Economic Index of occupational status (ISEI), presented by Ganzeboom et al. (1992). This index was computed using data on education, occupation

Table 1. Parents' educational level and national classification of education and training areas (% first degree students)

	Both parents below 9th grade	At least 1 parent with secondary education	Only 1 parent with higher education	Both parents with higher education
Education	5.8	2.7	1.8	0.4
Arts & Humanities	22.2	19.4	17.7	17.3
Social sciences, trade & law	27.7	32.5	32.9	35.6
Sciences, math & computing	23.9	21.5	19.4	20.6
Engineering, manuf. & construction	8.8	12.7	14.2	16.2
Agriculture	0.9	1.3	2.7	2.0
Health & social care	6.5	6.0	6.5	4.3
Service sector	4.0	3.9	4.9	3.6
Total	100	100	100	100

Source: adapted from data in table 27 of Rego et al. (2018: 66)

and income of almost 74 thousand men from 16 different countries. Other well-known indices of occupational status include for example Treiman's Standard International Occupational Prestige Scale (SIOPS) and Goldthorpe's class categories (EGP: Erikson-Goldthorpe-Portocarero). For a recent review, see Connely et al. (2016).

Since social status and social mobility are often associated with wealth, an alternative would be to use data on average income associated with each degree. The Institute for Fiscal Studies (IFS) regularly publishes data on average graduate earnings for different degrees (see for example Belfield et al., 2018). Medicine graduates are expected to earn 30% above the average graduate, while creative arts graduates will earn 25% below average. Also, Britton et al. (2016) show that British students from higher income families have median earnings, around 10 years into the labor market, around 25% above those from lower income families.

This option was discarded for two main reasons. First, it is very difficult to match all degrees in the sample with similar subjects in the IFS reports. Second, data was collected only for English graduates, and there are several seemingly differences with the Portuguese reality. Economics is ranked second, right after Medicine, and Nursing is ranked fifth, above Architecture, Engineering and Law, for example. As noted by Britton et al. (2016: 6), "estimates of the variation in graduates' earnings are likely to be somewhat country specific".

The ISEI index score ranges from 88 (medical doctor) to 10 (cook's helper; agricultural and animal husbandry worker). From the 271 distinct occupation categories included in this index it was possible to identify the professions associated with each of the thirty three program degrees in the database. Since these occupations require a higher education degree, they are situated in the top half of the index. The sample hence varies between 84 (Veterinarians) and 42 (Professional Nurses).

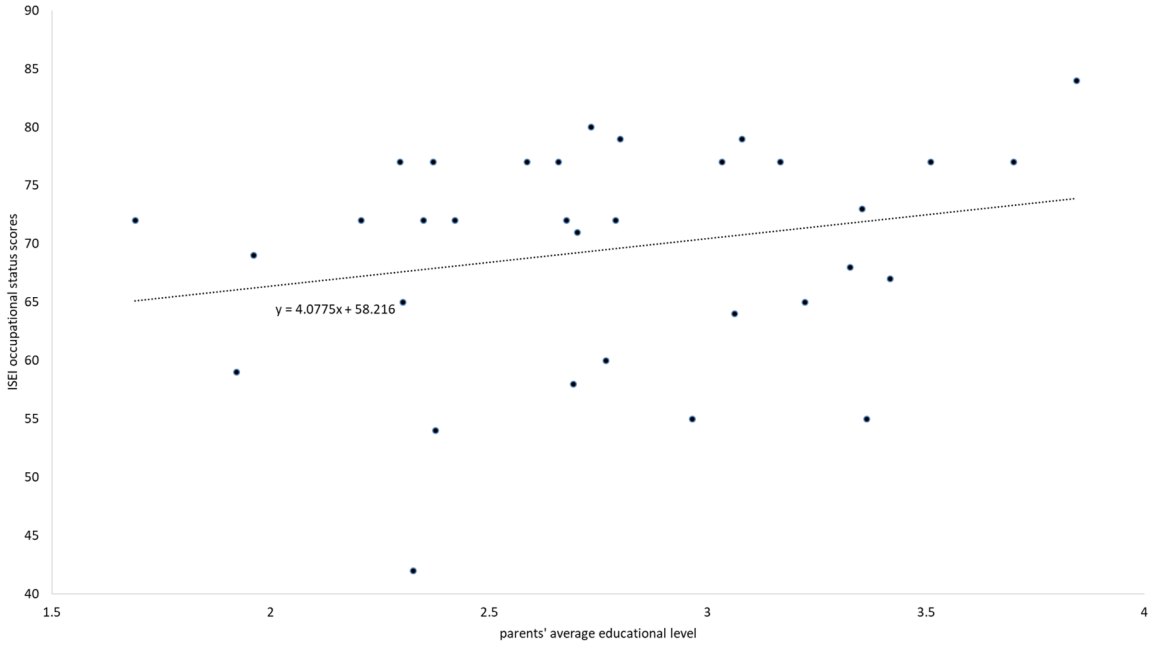
In order to measure the family's socio economic background, two main variables are usually favored, the parents' academic background and the family's income. To measure the parents' educational level a quantitative classification system has been employed, from zero for parents with no schooling to eight for parents holding a PhD.

When assessed separately, the degree's score is more strongly influenced by the mother's educational level than by the father's. However, correlation is higher when measured against an average of both parents' educational level. Figure 1 shows the relationship between these two variables, seemingly corroborating the hypothesis that, on average, students from higher educated families are more prone to choose university degrees traditionally better regarded by society. According to the results from the sample, on average, for each additional value in the average parents' educational level, students tend to choose program degrees 4.1 points above in the social score classification.

The second most used variable to characterize a family's socio-economic background is income. This information is however not available in the students' records, and therefore an indirect measure must be found. A possible alternative is to infer income from parents' occupations. However, the major groups of the Portuguese Classification of Professions, used to classify the parents' professions when the students arrive at university, are not very helpful to deduct income from professional status. For example, the same large group of 'farmers' may include the owner of large farms and also their laborers.

In fact, the Portuguese Classification of Professions is integrated in the latest International Standard Classification of Occupations (ISCO) from which Ganzeboom et al. (1992) ISEI was computed. Unfortunately, the students' records only register the major and sub-major ISEI groups, while Ganzeboom et al. (1992) go all the way to the minor and unit groups.

Figure 1. Degree ISEI status score and parents' educational level (with linear fit line and equation)
Source: Serviços Académicos da Universidade de Évora and Ganzeboom et al. (1992)



A helpful indirect alternative is to use the information on scholarships awarded to students on the basis of their family's income. Almost a third of the students in the sample has benefited from an income linked public scholarship somewhere while studying at university. Figure 2 displays the relationship between the average percentage of students in each program degree benefiting from a scholarship and that degree's social status score. To help identify the global trend, a linear regression fit line and equation have been added to the figure.

Although the relationship is less clearly evident, since an indirect approach to measure families' income is used, a negative relationship between a degree's social status score and the percentage of its students benefiting from scholarships is nonetheless easily observable, suggesting families with lower incomes.

A complementary approach to identify the students' family income is to consider the percentage of part-time students. Although some students may study while working for other motives, most do it for economic reasons. Figure 3 shows the relationship between the percentage of part-time students in each program degree and that degree's social status score. Geological Engineering was removed from this analysis because its third curricular year consisted of a professional internship in a firm, and while there almost all students register as part-time students. Again, to help detect the global trend, a linear regression fit line and equation have been inserted in the figure. Figure 3 depicts a negative relationship between degrees' status scores and the percentage of working students.

This evidence and the conclusions drawn from it must obviously be considered with the utmost care, since they rely on very simple statistics and visual observations of the available data. They are sufficiently important however to inspire a further more detailed analysis, with a larger set of data and using econometric methodologies able to eliminate confounding factors that may be influencing the conclusions. It is a well-documented fact that a student's household context is relevant for the grades

Figure 2. Degree ISEI status score and percentage of students receiving scholarships (with linear fit line and equation)
Source: Serviços Académicos da Universidade de Évora and Ganzeboom et al. (1992)

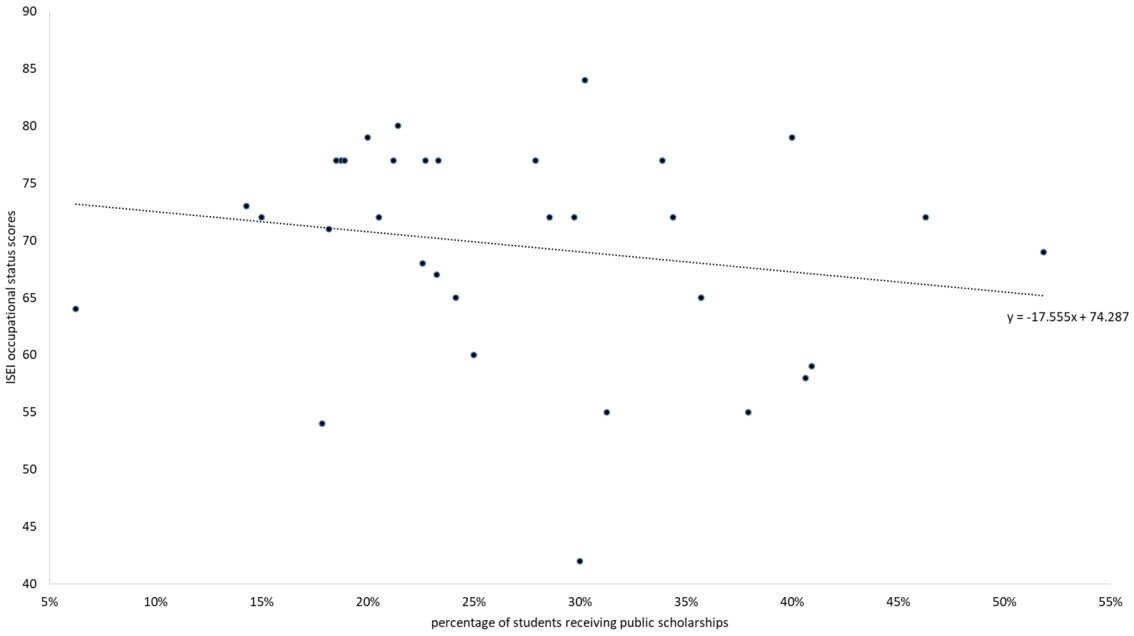
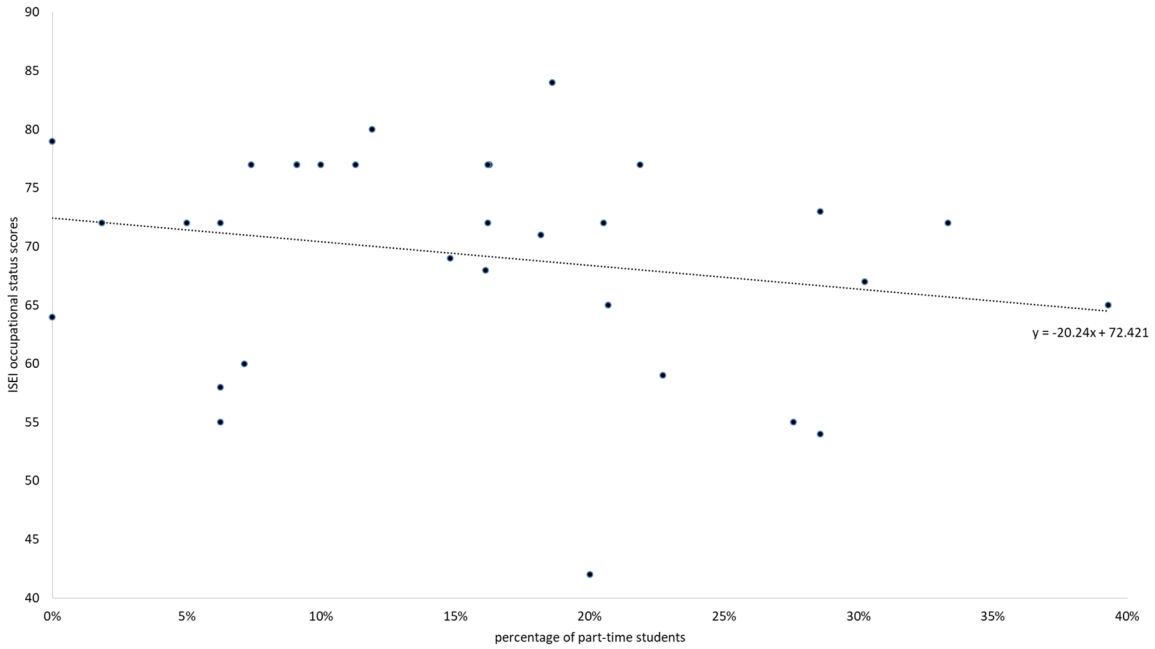


Figure 3. Degree ISEI status score and percentage of working students (with linear fit line and equation)
Source: Serviços Académicos da Universidade de Évora and Ganzeboom et al. (1992)



obtained in pre-university studies and henceforth may eventually prevent some students from choosing more socially considered degrees that may eventually require higher grades.

In the study by Rego et al. (2018) for Portuguese students from four public universities, cited above, there is however no evidence that the parents' educational level, for example, significantly influences dropout rates, time to completion or graduation final grades. The value of fees might also prevent students from poor backgrounds to access degree programs associated with higher earnings, but this is not a relevant question in Portugal, where fees are low and financial support to poorer students is largely available. Also, students often select their degrees early, before the end of secondary education, and may adapt their grades to less demanding entry requirements, and, most importantly, the empirical evidence for other countries has already shown that, even after considering those factors, the relationship between a student's family background and his/her choice of academic area still stands, and has non negligible effects on social mobility. For instance, Henderson et al. (2018) referred that educational decisions made between the ages of 14 and 16 in terms of subjects to study and type of secondary courses to attend are mainly socio-economically determined and, by putting students in certain educational pathways, reinforce ISM.

SOLUTIONS AND RECOMMENDATIONS

In Portugal, and in many other countries, the democratization of higher education attendance was not accompanied by increased social mobility. The OECD used the expression 'broken social elevators' when referring to the growing inequality of income and opportunities observable around the world since the 1990s (see OECD, 2018). One of the reasons for the failure of education to bridge existing socio-economic gaps may be the type of program attended by higher education students with lower socio-economic status. As shown in this empirical analysis and as noted inter alia by Bratti (2006), such students tend to prefer 'softer' educational fields (such as arts, humanities and social studies). The same author states that these are the areas for which returns tend to be lower and family networks are more important in determining future success in the labor market.

There is evidence suggesting that the choice of university programs is influenced by previous school performance and personal preferences, but especially by the opinions of family members and friends, and thus by social class (see, for instance Rodeiro, 2007). It has also been shown that the pathways of students after the age of 18 may have been determined, and in some cases limited, some years before. Henderson et al. (2018) show that curriculum options at 14-16 matter for individuals' educational trajectories and that the children of better-off families are more informed and better guided to make the decisions which will produce the highest future gains.

In Portugal, for example, children as young as 13 may be offered vocational courses in basic education if they are perceived as not academically inclined. Such students, who are often from low socio-economic status families and do not have at home the informed advice and the conditions that promote their school performance, tend to choose what they anticipate as less demanding, probably without fully reflecting on all the consequences of such facility. Not many of such students continue their education past the age of 18 and, when they do, they are not able, for lack of grades or for not having attended the necessary courses, to enter the most profitable higher education programs. There is thus a cumulative process gradually but consistently reducing the number and the quality of educational options available

for these youngsters. Many give up on education on reaching 18 or by the end of secondary school. Those who continue, more often than not tend to attend less prestigious and rewarding tertiary education programs (Ianelli et al., 2016).

From a policy point of view, and given that segmented academic pathways in pre-higher education have been linked to intergenerational social immobility (Iannelli et al., 2016, or Hao and Pong, 2008), efforts should be made to reinforce current strategies to prevent early school dropout with attempts to increase standardization of curricula. The work currently developed by psychologists in basic and secondary schools, with the objective of identifying students' preferences in terms of future areas of study and work should be complemented with intervention programs targeting low socio-economic status students and families. This could not only promote youngsters' academic performance but also guide and inform them on the consequences of curriculum choices that diminish the range of future opportunities and jeopardize the monetary and social return of professional lives.

FUTURE RESEARCH DIRECTIONS

Research has shown that higher education attendance promotes ISM. Nevertheless, a number of factors may prevent graduates from less advantaged social backgrounds from climbing up the social and economic ladders. In some countries, for instance the UK, progress in educational mobility has not promoted social and economic mobility. There are thus obstacles preventing education from performing its theoretical role as a driver of ISM. Various research avenues have already been explored to disentangle the interlinked causes of such failure. Some authors have assessed the implications of differences in the perceived quality and prestige of individual institutions in national higher education systems (Brezis and Hellier, 2018), others have focused on the type of program attended at university and on their varied labor market returns. Fewer research efforts have been directed to investigate the implications in terms of ISM of what happens before higher education. The studies already developed suggest that segmentation of educational paths in pre-tertiary education may have a non-negligible impact on the lives of the socioeconomically less favored students. Future research should thus focus on assessing the impact of early stratification in school pathways. Comparisons of the strategies adopted in different countries and assessments of primary (related to academic performance) and secondary (over and above academic performance) effects of early curriculum stratification could not only lead to a more clear identification of causal links between early educational choices and socio-economic mobility, but would also help devising more effective policy measures to prevent the impact of family status on basic and secondary school performance and, subsequently, on ISM.

CONCLUSION

This chapter reflected on possible reasons justifying the apparent failure of 'social elevators' observable since the end of the past century in many OECD countries. Research results obtained so far indicate that although assess to higher education has been democratized and the children of parents with relatively low levels of educational attainment may often outperform their elder in this respect, persistence in income and social status tend nevertheless to subsist.

Since it is not solely attendance of higher education, but also the type of program attended, that is relevant when considering potential for social mobility, it was examined whether there is evidence in Portugal of socially determined choices in this context. Rego et al. (2018) confirmed that social class appears to play a role in students' academic pathways. Further analysis focused on a single Portuguese university - Universidade de Évora - was developed using instruments that provide a more specific, although far from definitive, idea of what occurs in the country.

The developed assessment indicates that program choice is related to the parents academic attainment. The higher the percentage of both parents with higher education, the lower the percentage of students in education or arts and humanities' programs.

Professional occupations are also vital to understanding social stratification. Therefore, occupation-based socio-economic measures, as the International Socio-Economic Index (ISEI) utilized in this study, are useful to provide quantitative indicators of social status for degree programs attended by the students. The analysis suggests that there is a positive relationship between degrees' ISEI status score and socio-economic status.

Students from lower social status families tend to attend university programs that divert them from the more profitable and prestigious professional occupations. Some authors have suggested that the choices students make at university are the result of educational decisions taken before, at basic and secondary education. Sometimes, academic difficulties experienced at early stages of education lead students to choose, or being advised at school to choose, professional pathways or disciplines that are expected to present a lower degree of difficulty. Such choices later translate in fewer opportunities in higher education and may end up channeling youngster to 'softer' programs which are also less profitable in social and economic terms.

The results of this chapter are relevant at various levels. For students and their families, to allow better informed choices of subjects when considering higher education. For secondary schools, to help student advice and guidance offices. For institutions of higher education, to better understand the determinants of demand and plan the array of degrees to offer. For policy makers, concerned with the efficiency of the higher education system and the important issues of social mobility. Education is an investment and is costly, both for the students and their families, and for taxpayers. It is thus important to have more accurate information on the returns to such investment.

ACKNOWLEDGMENT

This research was supported by the Fundação para a Ciência e a Tecnologia [grant number UID/ECO/04007/2013] and FEDER/COMPETE [POCI-01-0145-FEDER-007659].

REFERENCES

Arcidiacono, P. (2004). Ability sorting and the returns to college major. *Journal of Econometrics*, *121*(1), 343–375. doi:10.1016/j.jeconom.2003.10.010

Bago d'Uva, T., & Fernandes, M. (2017). Mobilidade social em Portugal. Fundação Francisco Manuel dos Santos.

Bakken, L., Brown, N., & Downing, B. (2017). Early childhood education: The long-term Benefits. *Journal of Research in Childhood Education*, *31*(2), 255–269. doi:10.1080/02568543.2016.1273285

Baltazar, M. S., Vieira, C., Vieira, I., & Rego, C. (2013). *Acesso ao ensino superior e mobilidade social dos portugueses*. 3ª Conferência FORGES, Universidade Federal de Pernambuco, Recife, Brasil.

Becker, G. (1962). Investment in human capital: A theoretical analysis. *Journal of Political Economy*, *70*(5, Part 2), 9–49. doi:10.1086/258724

Becker, G., & Tomes, L. (1979). An equilibrium theory of the distribution of income and intergenerational mobility. *Journal of Political Economy*, *87*(6), 1153–1189. doi:10.1086/260831

Becker, G., & Tomes, L. (1986). Human capital and the rise and fall of families. *Journal of Labor Economics*, *4*(3), S1–S39. doi:10.1086/298118 PMID:12146356

Belfield, C., Britton, J., Buscha, F., Dearden, L., Dickson, M., van der Erve, L., . . . Zhu, Y. (2018). *The relative labour market returns to different degrees.* Retrieved from https://www.ifs.org.uk/publications/13036

Blanden, J. (2009). *How much can we learn from international comparisons of intergenerational mobility?* Retrieved from http://eprints.lse.ac.uk/28283/

Blanden, J., Gregg, P., & Macmillan, L. (2007). Accounting for intergenerational income persistence: Noncognitive skills, ability and education. *Economic Journal (London)*, *117*(519), C43–C60. doi:10.1111/j.1468-0297.2007.02034.x

Blundell, R., Dearden, L., & Sianesi, B. (2005). Evaluating the effect of education on earnings: Models, methods and results from the national child development survey. *Journal of the Royal Statistical Society. Series A (General)*, *168*(3), 473–513. doi:10.1111/j.1467-985X.2004.00360.x

Bourguignon, F., Ferreira, F., & Menéndez, M. (2003). *Inequality of outcomes and inequality of opportunities in Brazil.* Retrieved from http://documents.worldbank.org/curated/pt/934871468770353839/Inequality-of-outcomes-and-inequality-of-opportunities-in-Brazil

Breen, R. (2010). Educational expansion and social mobility in the 20th century. *Social Forces*, *89*(2), 365–388. doi:10.1353of.2010.0076

Brezis, E., & Hellier, J. (2018). Social mobility at the top and the higher education system. *European Journal of Political Economy*, *52*, 36–54. doi:10.1016/j.ejpoleco.2017.04.005

Britton, J., Dearden, L., Shephard, N., & Vignoles, A. (2016). *How English domiciled graduate earnings vary with gender, institution attended, subject and socio-economic background*. Retrieved from https://www.ifs.org.uk/uploads/publications/wps/wp201606.pdf

Causa, O., Dantan, S., & Johansson, A. (2009). *Intergenerational social mobility in European OECD countries*. Retrieved from https://www.oecd-ilibrary.org/economics/intergenerational-social-mobility-in-european-oecd-countries_223043801483

Causa, O., & Johansson, A. (2009). *Intergenerational social mobility*. Retrieved from https://www.oecd-ilibrary.org/economics/intergenerational-social-mobility_223106258208

Chetty, R., Hendren, N., Kline, P., & Saez, E. (2014). *Where is the land of opportunity? The geography of intergenerational mobility in the United States*. Retrieved from http://www.equality-of-opportunity.org/assets/documents/mobility_geo.pdf

Chevalier, A. (2011). Subject choice and earnings of UK graduates. *Economics of Education Review*, *30*(6), 1187–1201. doi:10.1016/j.econedurev.2011.04.007

Chusseau, N., Hellier, J., & Ben-Halima, B. (2013). Education, Intergenerational Mobility and Inequality. In J. Hellier & N. Chusseau (Eds.), *Growing Income Inequalities* (pp. 227–273). London: Palgrave Macmillan. doi:10.1057/9781137283306_9

Connelly, R., Gayle, V., & Lambert, P. (2016). A review of occupation-based classifications for social survey research. *Methodological Innovations*, *9*, 1–14. doi:10.1177/2059799116638003

D'Addio, A. (2007). *Intergenerational transmission of disadvantage: mobility or immobility across generations? A review of the evidence for OECD countries*. Retrieved from https://www.oecd.org/els/38335410.pdf

Eriksson, T. (2006). *American Exceptionalism in a New Light: A Comparison of Intergenerational Earnings Mobility in the Nordic Countries, the United Kingdom and the United States*. Retrieved from ftp.iza.org/dp1938.pdf

Ganzeboom, H., De Graaf, P., & Treiman, D. (1992). A standard international socio-economic index of occupational status. *Social Science Research*, *21*(1), 1–56. doi:10.1016/0049-089X(92)90017-B

Hao, L., & Pong, S.-L. (2008). The role of school in the upward mobility of disadvantaged immigrants' children. *The Annals of the American Academy of Political and Social Science*, *620*(1), 62–89. doi:10.1177/0002716208322582 PMID:25418989

Henderson, M., Sullivan, A., Andres, J., & Moulton, V. (2008). Social class, gender and ethnic differences in subjects taken at age 14. *Curriculum Journal*, *29*(3), 298–318. doi:10.1080/09585176.2017.1406810

Hendricks, L. (1999). *Do redistributive policies promote intergenerational mobility?* Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=201028

Iannelli, C., Smyth, E., & Kleine, M. (2016). Curriculum differentiation and social inequality in higher education entry in Scotland and Ireland. *British Educational Research Journal*, *42*(4), 561–581. doi:10.1002/berj.3217

Jäntti, M., Bratsberg, B., Røed, K., Raaum, O., Naylor, R., Österbacka, E., ... Kerckhoff, A. (1995). Institutional arrangements and stratification processes in industrial societies. *Annual Review of Sociology*, *21*(1), 323–347. doi:10.1146/annurev.so.21.080195.001543

Levine, D. (1999). *Choosing the right parents: Changes in the intergenerational transmission of inequality between the 1970s and early 1990s*. Institute of Industrial Relations, University of Berkley, Working Paper 072-99. Retrieved from https://pdfs.semanticscholar.org/cc50/1eee3506a9742dc98aa6b32c99b429c9d118.pdf

OECD. (2010) *Economic Policy Reforms: Going for Growth 2010*. Retrieved from https://read.oecd-ilibrary.org/economics/economic-policy-reforms-2010_growth-2010-en

OECD. (2018). *A Broken Social Elevator? How to Promote Social Mobility*. Retrieved from http://www.oecd.org/social/broken-elevator-how-to-promote-social-mobility-9789264301085-en.htm

OECD. (2018a). *A Broken Social Elevator? How to Promote Social Mobility. How does Portugal compare?* Retrieved from https://www.oecd.org/portugal/social-mobility-2018-PRT-EN.pdf

Page, M., & Solon, G. (2003). Correlations between brothers and neighboring boys in their adult earnings: The importance of being urban. *Journal of Labor Economics*, *21*(4), 831–855. doi:10.1086/377021

Piketty, T. (2014). *O Capital no século XXI*. Lisboa: Temas e Debates, Círculo de Leitores.

Plug, E., & Vijverberg, W. (2003). Schooling, family background, and adoption: Is it nature or is it nurture? *Journal of Political Economy*, *111*(3), 611–641. doi:10.1086/374185

Plug, E., & Vijverberg, W. (2005). Does family income matter for schooling outcomes? Using adoptees as a natural experiment. *Economic Journal (London)*, *115*(506), 879–906. doi:10.1111/j.1468-0297.2005.01023.x

Raaum, O., Salvanes, K., & Sørensen, E. (2006). The neighbourhood is not what it used to be. *Economic Journal (London)*, *116*(508), 200–222. doi:10.1111/j.1468-0297.2006.01053.x

Rego, C., Sá, C., Leite, C., Vieira, C., Rocha, C., Dias, D., … Oliveira, S. (2018). *ACESSO, SUCESSO E INSUCESSO, PERcursos estudantis no ensino superior público, Relatório (Versão provisória)*. Agência de Avaliação e Acreditação do Ensino Superior.

Rodeiro, C. (2007). *Uptake of GCSE subjects 2000–2006*. Statistics report series no. 4. Cambridge Assessment. Cambridge, UK: Assessment Research and Development Cambridge Assessment. Retrieved from http://www.cambridgeassessment.org.uk/images/111061-uptake-of-gcse-subjects-2000-2006.pdf

Russell Sage Foundation. (2016). *What we know about economic inequality and social mobility in the United States*. Retrieved from https://www.russellsage.org/sites/default/files/RSFissuebriefs_0.pdf

Sacerdote, B. (2002). The nature and nurture of economic outcomes. *The American Economic Review*, *92*(2), 344–348. doi:10.1257/000282802320191589

The Economist. (2018). *Summer holidays, School's out*. Retrieved from https://www.economist.com/international/2018/08/09/long-summer-holidays-are-bad-for-children-especially-the-poor

Van De Werfhorst, H., Sullivan, A., & Cheung, S. (2003). Social class, ability and choice of subject in secondary and tertiary education in Britain. *British Educational Research Journal*, *29*(1), 41–62. doi:10.1080/0141192032000057366

Vartanian, T., & Gleason, P. (1999). Do neighborhood conditions affect high school dropout and college graduation rates? *Journal of Socio-Economics*, *28*(1), 21–41. doi:10.1016/S1053-5357(99)00011-6

Walker, I., & Zhu, Y. (2011). Differences by degree: Evidence of the net financial rates of return to undergraduate study for England and Wales. *Economics of Education Review*, *30*(6), 1177–1186. doi:10.1016/j.econedurev.2011.01.002

Wilkinson, R., & Pickett, K. (2009). *The Spirit Level: Why Greater Equality Makes Societies Stronger*. New York: Bloomsbury Press.

ADDITIONAL READING

Birdsall, N., & Graham, C. (Eds.). (2000). *New markets, new opportunities? Economic and social mobility in a changing world*. Washington, DC: Brookings Institution Press - Carnegie Endowment For International Peace.

Boudon, R. (1974). *Education, opportunity, and social inequality: Changing prospects in Western society*. New York: Wiley.

Browman, A., Destin, M., Carswell, K., & Svoboda, R. (2017). Perceptions of socioeconomic mobility influence academic persistence among low socioeconomic status students. *Journal of Experimental Social Psychology*, *72*, 45–52. doi:10.1016/j.jesp.2017.03.006

Curtis, J. (2015). Social mobility and class identity: The role of economic conditions in 33 societies, 1999–2009. *European Sociological Review*, *32*(1), 108–121. doi:10.1093/esr/jcv077

Davies, J., Weko, T., Kim, L., & Thulstrup, E. (2017). *OECD Reviews of Tertiary Education – Finland*. Paris: OECD. Retrieved from https://www.oecd.org/education/skills-beyond.../37474463.pdf

Dufur, M., Parcel, T., & Troutman, K. (2013). Does capital at home matter more than capital at school? Social capital effects on academic achievement. *Research in Social Stratification and Mobility*, *31*(1), 1–21. doi:10.1016/j.rssm.2012.08.002

Rolfe, H. (2017). Inequality, social mobility and the new economy: Introduction. *National Institute Economic Review*, *240*(1), R1–R4. doi:10.1177/002795011724000109

Triventi, M. (2013). The role of higher education stratification in the reproduction of social inequality in the labor market. *Research in Social Stratification and Mobility*, *32*(1), 45–63. doi:10.1016/j.rssm.2013.01.003

KEY TERMS AND DEFINITIONS

Educational Persistence: Strong association between educational attainment and performance across generations of the same family.

Income Inequality: Uneven distribution of revenue flows (salaries, interest on savings, dividends, rents, and profits) across families of the same generation.

Income Persistence: Strong association between incomes across generations of the same family.

Intergenerational Social Mobility: The relationship between the socio-economic status of parents and that of their adult children.

Social Status: Social status may be measured by the level of income, wage, social class or occupation. Sociological analyses are usually focused on social class and occupation, and economic ones on income and wages.

Social Stratification: The ranking of people in a society's categories according to status (i.e., levels of income, social class, or education).

Chapter 9
Recommendations to Enhance Communication With Users Through Prototypes and to Assist Open Innovation:
A Case Study in a Developing Country

Thiago Bertolini dos Santos
University of São Paulo – São Carlos, Brazil

Luiza de Castro Olivan
Medical School of Ribeirão Preto, University of São Paulo, Brazil

Luísa Cagica Carvalho
https://orcid.org/0000-0002-9804-7813
Instituto Politécnico de Setúbal, Portugal & Universidade de Évora, Portugal

Lílian Neto Aguiar Ricz
Medical School of Ribeirão Preto, University of São Paulo, Brazil

Janaina Mascarenhas Hornos da Costa
University of São Paulo – São Carlos, Brazil

ABSTRACT

Innovation has been increasingly becoming a major competitive differential for companies. However, innovation alone is not enough. Innovations encompass new products to new business models, but they need well-defined strategies to deliver value according to the market needs and to be well accepted. Innovations looking at differentials for the users should consider their problems, including products and services, so that they can promote solutions to meet the users' expectations. Therefore, the involvement of stakeholders in the innovation process who are beyond the organisation's frontiers, such as users, is important as it allows the inclusion of new abilities, resources, and knowledge in the process of development.

DOI: 10.4018/978-1-5225-7937-3.ch009

INTRODUCTION

Developing countries frequently seek ways to grow economically, and innovation can be considered a means of providing this growth (Vrgovic et al., 2012). According to Johnson (2001), innovation is any type of change in current patterns made which is available to the market to deliver value, thus innovation can arise from an idea for a new product, new service or new business model.

This chapter will address open innovation in the product development process (PDP). The PDP is defined by Rozenfeld et al. (2006) as a set of activities capable of creating specifications for product and its production considering the market needs and technological restrictions. Throughout the PDP, companies can analyse the context of product use, identify the needs of both market and users, and propose solutions that aggregate value and meet the users' expectations by making their product more competitive (Pietzsch et al., 2009, Rozenfeld et al., 2006, Vincent, 2004).

Open innovation is a collaborative one which occurs when companies open their innovation frontiers and collaborate among themselves and with others interested in the project by exchanging knowledge, resources and abilities. This often enables the resolution of the need for internal resources and fosters, mainly with work specialisation, the exchange of improved mechanisms among the different parties involved to increase innovation returns (Katzy, Turgut, Holzmann, 2013).

In this case, an important practice of open innovation is the user's active involvement. The participation of the user allows the development team to acquire new knowledge, resources and abilities, which can increase the likelihood of successful innovation.

In large companies, managing open innovation is challenging. Open innovation usually begins in a more decentralised way where some divisions are somehow being practised. For the organisation of open innovation it is necessary to look at the degree of centralisation and the level of autonomy of different organisational units within the large enterprise (Chesbrough, 2003).

Thereby, a PDP with a well-structured communication system allows for efficient development of the product. This enables re-feeding of the PDP with relevant information as well as solution for challenges and obstacles for the final product production. Therefore, it is essential to implement communication strategies during this process (Kunsch, 2003).

These communication strategies are crucial for structuring the communication between development team and users during the product development process. Therefore, message receivers, message objectives and reception analysis will be considered. This helps the parties to be in constant communication with each other and contributes to the participation of the user in the project (Bueno, 2003).

Prototype is a tool for improving both communication strategy and active participation of the user by assisting the parties involved in the project to interact with each other, to express their ideas, to reach common understanding, to assess and validate the project for an innovative product meeting the users' expectations accordingly (Brennan, Downs, Casper, 2010, Neubeck et al., 2016, Rudd, Stern, Isensee, 1996).

That said, prototype becomes an important communication tool for aggregating more value to open innovation. Communication and understanding of the project by the involved parties are key factors for a successful open innovation, since they facilitate the direction of the project, product, decision-making process and identification of the users' needs (Rudd, Stern, Isensee, 1996).

Therefore, this chapter presents a case study in Brazil in order to understand the communication between development team and users of innovative products by means of prototypes. By analysing the

case study as well as communication theories and techniques, it was possible to make recommendations to assist the development team in communicating efficiently with users during prototype tests of healthcare products.

These recommendations will be of great value to the development team seeking to cope with communication with users regarding prototype tests. This is likely to enhance open innovation with users and consequently will support the companies' growth in developing countries, thus helping them economically.

LITERATURE REVIEW

Innovation Setting in Brazil

Innovation in developing countries often faces great difficulties. According to Vrgovic (2012), companies situated in developing countries – mainly small and medium-sized ones – have to cope with resource limitations, low-creative employees and lack of comprehension about the idea generation process, including mediation of research and interactions with customers, which are interesting sources of new ideas and directions for the project.

Brazil is highlighted as one of the most important emerging economies in the world. Due to the difficulties of innovation, however, the country's industrial exports consist largely of natural resource-based commodities requiring little technological innovation (Lemos et al., 2005).

One of the main factors for such a difficulty is challenged by the creation of favourable conditions for innovation, with lack of synergy among innovation agents being one of the main obstacles – the formation of collaborative arrangements to boost innovation (Cassiolato, Britto& Vargas, 2005).

This collaborative scenario is very incipient in Brazil, with organisational internal information being more important than to external one for innovation. Nevertheless, it is interesting to mention that 32% of the companies with innovation activities in Brazil consider information from suppliers and customers as being highly important for innovation (Cassiolato, Britto& Vargas, 2005).

This factor is one of the clues showing that the Brazilian scenario is constantly changing its innovation perspective for improvement of the national industries' competitiveness (De negri et al., 2005). In addition, R&D (Research & Development) investment proportional to the national companies' revenues is already higher than that of the branches of international companies operating in Brazil (Lemos et al., 2005).

It is worth emphasising that Brazil is a large country with great cultural, financial and structural differences. This characterises huge inequalities in productivity across the regions, in addition to the innovation difficulties faced by small companies situated out of the major technological centres (Lemos et al., 2005).

Despite the difficulties, the south-eastern region of Brazil (particularly the State of São Paulo) stands out for having supremacy in innovation. This characterises the region as being the country's largest industrial centre, accounting for 53% of the industry employees and 62% of the production value. Moreover, this region also accounts for 68% of the country's total exports and 69% of the total imports. This highlights the industrial activity and innovation in the south-eastern region of Brazil (Lemos et al., 2005).

Despite the political and institutional factors and the high concentration of industries in terms of localisation and innovation, investments have been made in transports, telecommunications, energy

and infra-structure across other regions in order to provide structures of urban networks and to attract industrial activities, thus helping disperse industrialisation in Brazil (Lemos et al., 2005). Figures 1 and 2 show the concentrations of industries and innovations, respectively.

This demonstrates the Brazil's race for development by means of innovation. The companies began to understand the factors in optimising innovation as well as the resulting benefits, and they have initiated the development of pro-active attitudes in order to create a high degree of competitiveness for the Brazilian companies (De Negri et. al., 2005). Therefore, Brazil becomes a promising source of innovation.

As an example of innovation, the interpersonal communication is inserted into the corporate context. Considered a competency for facilitating the product development process in the companies, interpersonal communication is a differential in the corporate world. Therefore, communication is an important instrument to guide the development team during the product development process (Pedrotti et al., 2017).

For the development of communication, it is necessary to establish communicative strategies in order to structure the user's response, making communication more efficient and thus boosting the company's competitiveness in the labour market. However, companies do not use communicative strategies to increase the effectiveness of the product development process (Pedrotti et al., 2017).

Figure 1. Presence of industrial local units - 2000
Source: From Lemos, M.B. et al. Territorial dispersion of the industry units in Brazil. Innovations, technological patterns and performance of the Brazilian industrial companies. Brasilia: IPEA.], v. 1, pp.325-364, 2005.

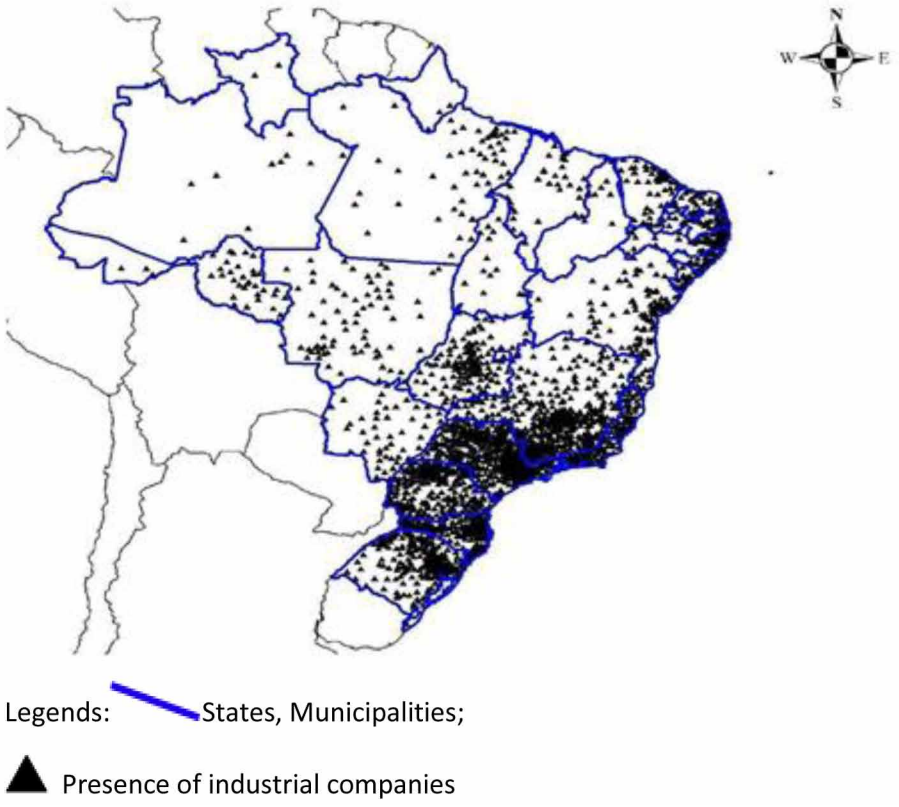
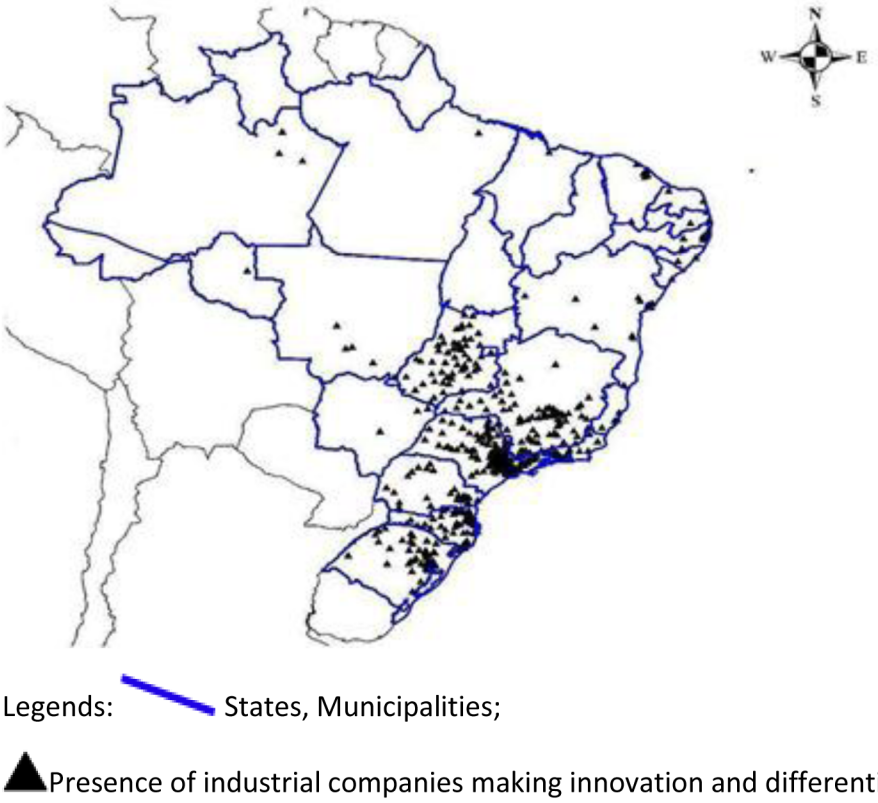


Figure 2. Presence of industrial companies making innovation and differentiation of products - 2000
Source: From Lemos, M. B. et al. Territorial dispersion of the industry units in Brazil. Innovations, technological patterns and performance of the Brazilian industrial companies. Brasilia: IPEA.], v. 1, pp.325-364, 2005.



Open Innovation and Communication

Innovation consists basically in creating something which is innovative and promising (Porter, 1989). Creating new ideas has become the main differential between companies, as better results can be obtained (Reed et al., 2012).

For many years it was believed that companies should produce their products in-house. However, with the nowadays' technology and Internet, the companies have realised that open innovation brings great benefits and as a result they are now open to partners (e.g. customers, researchers, among others) during the innovation process, which allows information to be openly shared (Johnson, 2001).

Open innovation is characterised by inflows and outflows of knowledge, which aims to accelerate internal innovation and allow market expansion for use of the innovation (Chesbrough, 2003, 2006).

The number of companies adopting the strategy of open innovation and the investment of these companies in it have been growing every year. However, the investment is still small compared to other innovation strategies. Open innovation accounts for only 10% of all investment companies making in innovation strategies (Brunswicker 2018).

Open innovation has become a model of innovation management in the 21st century as companies can opt for either acquisition or licensing of innovation projects or processes from other companies, universities or research studies (Criswell &Martim, 2007).

However, Brunswicker (2018) mentions that open innovation does not work for all companies. This is due to lack of organisational structure, perceived benefits, high risk, difficulties, lack of management capacity and high cost. Therefore, the reports are not used and the companies end up abandoning the open innovation strategy.

In this way, companies adopting open innovation need to be pro-active and seek strategic partners who can bring ideas and concepts which result in better outcomes in terms of market and implementation (Terra, 2007). Brunswicker (2018) and Gershman (2018) report that customers are the main partners for open innovation in large enterprises. According to their studies, 76% of the projects consider their clients as the main sources of open innovation.

This evidences the importance of communication, which is also corroborated by Kujala (2008) and Peleg et al. (2009), who emphasise that communication between the parties involved in the project is essential for a successful open innovation with involvement of the user.

It is important to consider receivers, message objectives and reception analysis in the communication process in order to develop products efficiently and generate innovation (Bueno, 2003).

The development of a product occurs due to an inherent communication system, which ensures feedback and survival before the challenges and obstacles in the production of the final product. Therefore, it is vital to implement communication strategies during the product development process (Kunsch, 2003).

Communication by Means of Prototypes

The concept of open Innovation requires extensive empirical research, testing and development. Communication allows the exchange of information sources distributed in the process of open innovation. Prototyping and visual representation, which is called "innovation technology", help companies support open innovation (Dodgson et. al., 2006).

Communication between the parties involved in the innovation during the development of products is difficult because of the language difference among the project participants. For example, engineer's language is more technical than that of users and this gap makes mutual understanding among the parties difficult, often having repercussions on the communication and resulting in loss of information, which could be used to improve the product (Katzy, Turgut, Holzmann, 2013, Peleg et al., 2009).

As both development team and users participate in the project and they need efficient communication for the success of the product, this obstacle should be reduced and prototype can play an important role in this sense by improving communication among the parties (Kujala, 2008, Neubeck et al., 2016, Peleg et al., 2009).

The prototype helps the development team in the communication and understanding of the product's usage and user's profile, making assessment, validation, requisite management and new ideas more efficient and favouring improvement of the product's specification (Brennan, Downs, Casper, 2010, Rinkus et al., 2005).

Prototype is the materialisation of an idea, that is, the representation of a final product. Its function is to create interaction between the parties involved in the project in order to provide a common understanding of the final product by visualising it (Neubeck et al., 2016, Rudd, Stern, Isensee, 1996). The final product's functionality and characteristics are reproduced in the prototype, thus allowing a better

understanding of the user's context and product's usage among the project participants and, consequently, stimulating the generation of new ideas and improvements (Borgers, Horst, 2014).

The prototype is used as a learning tool in the characterisation of the product, such as: product's usage, user's expectations and technology. It can also be used as a means of persuasion and as a vehicle to stimulate discussion (Borgers, Horst, 2014).

Interaction with prototype enables communication through a concrete model, which causes decision-making to be quick and assertive, and allows focusing on the project's most relevant aspects for the user and generating learning and new ideas (Chiou et al., 2014, Rudd, Stern, Isensee, 1996).

When prototypes are used in the product development, one can better define the idea for the interested parties on how the product will perform. This enables the involved parties to have a clear understanding as the development team characterises the project by providing information while the users give feedback (Rudd, Stern, Isensee, 1996).

An example comes from Peleg et al. (2009), who observed that the creation of a prototype of foot support system for diabetic individuals assisted in unifying the language and interaction analysis between users and development team, thus directing the project. Another example is reported by Schleyer et al. (2007), who materialised the idea (i.e. prototype) of a 3D system for dentists to generate information for conceptualising the product.

Overall, prototype is a common reference for the parties interested in the project as it enables information sharing, communication between the parties and both generation and integration of knowledge for innovation. Prototype is developed from a collaborative process involving company's staff and also the parties interested, but who are out of the organisation (i.e. users) (Peleg et al., 2009).

METHODOLOGY

A company with a considerable market share in Brazil presented a challenge to five groups (teams) of material engineering students of the School of Engineering of São Carlos, University of São Paulo. Therefore, a competition among the teams was conducted with the aim to develop innovations in inhalers and to select the best proposal.

Each team followed the same development methodology by using the design thinking approach with emphasis on user-centred design (UCD). The teams were randomly formed and closely monitored and assisted by UCD specialists and by the company's product development co-ordinator, including a regulatory and quality professional. The company's chairman sponsored the project.

The teams were composed by students of the Materials Engineering course at the School of Engineering of São Carlos at the University of São Paulo and were randomly distributed. The task of each team was to produce an inhaler prototype, according to the innovation proposal, for assessing the product's usability.

The inhaler/nebuliser is an electrical device to be plugged into the outlet. The liquid medicine is placed into it to be transformed into vapour before being inhaled through a mask. It is used in cases of flu, colds and inflammation in the lungs and bronchi. In addition, the mist the nebulizer produces is very good for relieving cough and stuffy nose.

After being built, the prototypes were submitted to tests together with the users so that they could give suggestions, evaluate, modify and improve the product's innovation, thus meeting the user's expectations. The teams were instructed to engage actual users of the product and develop its conceptual prototype, which had to be functional and provide interaction with the user.

The users were those using inhalers and/or caregivers of people using inhalers. The users were recruited from public places and social networks provided that they the needed to use the inhaler or were a caregiver of someone who uses the inhaler.

The tests were carried out at the School of Engineering of São Carlos, University of São Paulo, and constituted a case study to evaluate the students' communication (development team) with the users through prototypes. It is worth mentioning that it was a laboratory test aimed to generate tips to structure the communication between development team and users on the prototypes. However, it is necessary to test the prototypes in real companies to capture their value.

Case study is a research methodology described as an intensive, systematic investigation of a single individual, group, community or some other unit in which the researcher examines in-depth data on several variables. According to Sandelowski (1996), this method of research allows the researcher to take a topic and narrow it down into manageable research question(s). Moreover, data on case studies are often qualitative.

Specialists in innovation and product development were selected to assess the prototype tests by observing the teams and making annotations about their considerations as well as about those from users. A previous meeting was held to determine the procedures to be taken during observations and how to perform annotations and audio recordings of the tests' contents. A script was used to guide the specialists in these procedures.

The teams performed the prototype tests without being exposed to the theoretical grounding of communication so that such knowledge could not help them in the communication process between team and users during the tests and suggest recommendations with communication strategies. Therefore, the objective of this experiment was to assess how the communication process occurs during prototype tests and to indicate communication strategy recommendations.

Descriptive data and audio recordings of the observers were collected and the teams were asked to prepare a conclusive report on the perception of each member regarding the prototype test process.

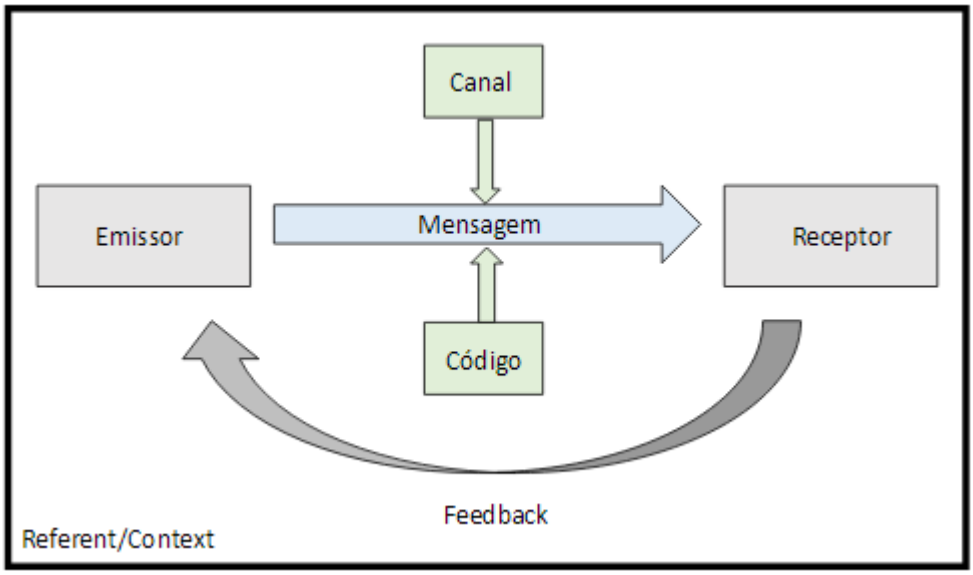
The whole content was analysed and any difficulty reported in the teams was highlighted, mainly regarding communication management and assertiveness during the prototype test with the users. Based on these analyses and the literature, recommendations for communication between users during the prototype tests were proposed, which can assist development teams in improving the open innovation for the product.

RESULTS

This work unites two areas in order to achieve our objective: speech therapy, as a science concerned with communication and related disorders, and innovation management, which is concerned with developing innovative products capable of meeting the user's needs efficiently. The theory of communication serves as a tool for innovation management in order to assist the members of the product development team in obtaining more effective results when they communicate with users during a prototype evaluation.

The communication between the teams and users regarding the prototypes was analysed in view of the communication elements (Figure 3), with primary focus on *message*. All the teams used the prototype as a *code*, whereas users and development teams were considered *receivers* and *senders*, respectively. The other elements could not be analysed in view of the data collected. It is worth emphasising that a group of common users were selected by the company before being randomly assigned to each team.

Figure 3. Shannon and Weaver's communication model
Source: Adapted from Shannon, Claude E. & Warren Weaver. The Mathemathical Theory of Communication. Urbana, IL; University of Illinois Press, 1949.



In this way, the communication process of each team was analysed. From this analysis it was possible to describe how each team structured themselves for the communication process (Table 1), thus facilitating its understanding and demonstrating the different forms of structuring the communication between the teams.

After analysis and characterisation of the different forms of communication process structure among the teams, their communication strategies were identified according to Gumpers (1998), Boch (2002), Barbeiro (2003), Kyrillos& Jung (2015).

Table 1. Structure of the communication process

Team	Structure created by the teams for the communication process in the prototype interaction
1	• Lack of defined communication strategy • No communication to generate better feedback
2	• Simulation of the real environment for prototype application • No communication to encourage users to speak more • Team neither related the verbal language to non-verbal language nor consolidated the knowledge after interaction with the user
3	• Team had poorly organised and planned the communication structure for interaction with the user • Team was not prepared to handle different profiles of users present in the interaction
4	Whether the team elaborated guidelines with open or closed-ended questions called "Prototype Assessment"
5	Team had poor communication structure, but they managed to obtain information during interaction with the users and guided them verbally

Source: Elaborated by the authors.

According to Kyrillos& Jung (2015), it is crucial to formalise the objective of the communication and to plan the communication process so that communication can be organised and directed. This makes understanding between sender and receiver easier as well as enhances generation of knowledge. In addition to formalisation of objective and planning of the communication process, it is necessary that senders become aware that receivers often have a different view, meaning that senders should adapt their language to understand receivers and learn about them more efficiently. Therefore, it is extremely important that communication flexibility occurs during the interaction between sender and receiver so that the former can understand the latter's point of view.

Boch (2002) and Barbeiro (2003) support that in addition to the speech, it is essential to have a suitable environment for providing effective communication, which favours the interaction between sensor and receiver. The authors also reported that during interaction it is necessary to adapt the language to the receiver, but care should be taken so that persuasion favours an efficient response rather than inducing him or her to give an expected one, but not true. Moreover, when finalising the communication process, it is important to consolidate the knowledge to allow the messages being exchanged during interaction to generate positive results according to the objective of the communication.

Gumperz (1998) points out that it is important that the sender gives attention to the sociolinguistic clues, since they signalise that the interlocutor has the intention to hold a conversation. These clues often may be non-verbal, with implicit meanings such as vocal resources (i.e. intonation, modulation, pause) and gestures. Therefore, one has to be attentive to the connection between verbal and non-verbal languages.

Verbal language covers only 7% of the human communication, whereas non-verbal language – which involves body postures and facial expressions, covers 93%. Recognition of facial expressions during the sender-receiver interaction produces a more accurate perception of the communication process, thus increasing empathy and allowing the conversion to be conducted depending on the receiver's response (Ekman, 2003, Elisha, 2005).

From these communication strategies addressed in the literature, their evidence was identified in the communication between development team and users during prototype tests. Therefore, according to their application, the efficacy of these strategies was assessed based on the theory of communication and the results were used in the innovation process. Lastly, it was possible to generate specific recommendations for the development team and obtain better results with adequate use of the theory of communication for optimising the open innovation along with the users during the prototype tests.

The following evidence were identified for the 7 strategies found in the literature:

FORMALISING THE OBJECTIVE OF THE COMMUNICATION

It was observed that Team 1 has clearly determined a proposition to communicate with users. The team asked the users to evaluate two prototypes and then to report which had been less noisy, stronger and more comfortable.

In terms of communication, the use of this strategy was found to be completely achieved as the teams managed to obtain responses from the users. However, communication might have been more efficient because the questions consisted of binary answers only, which allowed no communication fluidity. In terms of innovation, one can consider that the teams achieved their objectives partially as they managed to obtain the expected results. However, they might have used the communication to explore new ideas

as the users, despite not being oriented, made comments spontaneously and this led the teams to discuss new ideas. It is worth emphasising that, because of the lack of guidelines on communication, the teams depended on the users' pro-activity.

Recommendations: For involvement of the users with the prototype, it is important to have a clear aim for communication and to select the number of opened and closed-ended questions for achieving the proposed objective. Closed-ended questions with binary answers should be specific and generate direction questions, that is, open-ended questions for obtaining more effective results, if needed. This will serve as guidelines for the development team and will support the whole process of communication.

PLANNING THE COMMUNICATION PROCESS

It was observed that Team 1 has informally determined a communication structure. The members of the team had previous knowledge of the communication objective, but no formal script to follow, which resulted in lack of standardised communication with several users. In this way, the development team had difficult to direct the communication.

An evidence of the importance of the communication planning was reported by Team 3: "It's necessary to have guidelines for the development team to orientate the users, but it's also important to listen to what they say spontaneously that could aggregate knowledge". This shows that Team 3 managed to realise that communication is important in the process, but they did not manage to structure the communication for achieving the proposed objectives.

Other important evidence was the use by Team 4 of simple guidelines lacking any theoretical support, but which was useful to previously structure the communication between its members as they could organise themselves and achieve a clear common objective.

In terms of communication, this strategy was considered to be partially performed by Team 1 as they found it difficult to communicate with the users, meaning that the communication process was poorly structured. It was observed that there was no coherence regarding the users' information, since their comments had been spontaneously made in most of the time. Moreover, the development team perceived the importance of identifying the user's profile to develop an adequate communication. This was observed in comments such as "there was much diversity in feedback because of each type of user" and "it's hard to conduct prototype tests because each user has divergent opinions". This team also pointed to the need to consider the spontaneous comments by users: "their evaluation has made us consider new ideas".

On the other hand, Team 1 had a negative performance in terms of communication as they had no previous preparation for communication strategies and organisation, which produced diverse reports, and for this reason the team had difficulty in obtain information and guide the project. Team 4, in fact, had a positive performance as they managed to obtain more assertive answers from the users while not allowing them to generate new ideas.

In terms of innovation, Team 1 found it difficult to cover all the aspects which should be evaluated and develop an effective communication for doing so. After interaction with the prototype, Team 1 perceived that communication should "cover everything that must be evaluated", but they should instead emphasise "what must be evaluated before interaction". In this way, the team was not prepared to obtain useful information from the user in order to generate innovation.

Team 3 had a negative performance in terms of innovation as they did not manage to use the users' comments, despite the great amount of information collected, and transport them into knowledge for innovation. This happened because they had neither a planning nor a structure for that. On the other hand, Team 4 had a positive performance as they used guidelines on communication, which helped them in planning, structuring and organising the information gathered in order to convey a clear understanding to the receiver. Moreover, they managed to collect a higher number of assertive answers, allowing data to be tabulated and graphs constructed for better knowledge and consequently better direction of the project. It is worth emphasising that the team asked closed-ended questions for this goal, but they also asked opened-ended questions to explore possible new ideas from the users.

Recommendations: The communication process should be structured to allow exploring more efficiently the users' answers. It is important to identify the receiver to ensure that the communication is organised accordingly in order to achieve the proposed objective. It is also important to develop communication by using specific questions (i.e. closed-ended) to identify and assess the problem and then apply exploratory questions (i.e. opened-ended) to better understand the user's needs and find a possible solution. It is recommended that questions (e.g. "Which is better or worse?") be matched and scores ("Did you like it or not?") as they aggregate less knowledge to the team. Binary answers should be specific and generate direction questions to obtain more effective answers, if needed. Questions such as "Which is the most silent?", "Why didn't you like it?" and "If it were different, would you be interested in the product?" aggregate more knowledge and should be used to generate specific knowledge.

When the user makes comments spontaneously, one should proceed with investigating under which circumstances he or she reported them, such as "I had difficulty in using the product with my son", but Team 1 did not ask about possible solutions.

As for the users' comments, one can observe that a comment such as "I don't like the intake pipe because it has no firmness" should have been addressed by asking the question "How do you think it could be more firmness?" This communication strategy takes advantages of the user's spontaneous comment to generate knowledge. Therefore, one should emphasise the importance of using communication to make the prototype evaluation effective.

In addition, it was observed that the intake pipe was being used differently from that planned. Therefore, the development team should ask the user the following question: "Do you think the intake pipe should be positioned in this way? And if I put it in this way (move to the team's initial proposition), does it get better or worse?" Next, the way how the intake pipe was used and which is the user's preference should be annotated. If relevant, the next users should be asked about the two ways of using the intake pipe, thus allowing better direction of the user's answers.

In this way, one can conclude that it is important to plan the communication process with previous selection of the user's profile and to structure the questions (i.e. opened and closed-ended) for possible answers so that the development team can achieve more efficient results and generate innovation by means of communication with users during the prototype tests. Communication should be developed from knowing the characteristics of the user/future customer, such as age, gender, socio-economical status and education level. Communication with men should be clear, objective and concise. For women, it is essential to detail the product. As for age, it is necessary to convey credibility to older individuals through clear communication and to younger individuals through concise and dynamic language. Lastly, in terms of socio-economical and educational levels, it is important to characterise the product by revealing its origin, that is, the socio-educational values aggregated to the product.

ESTABLISHING A SUITABLE COMMUNICATION ENVIRONMENT

Team 2 planned the development of an environment mimicking a child's bedroom to test the prototype in a real-use simulation test. Nevertheless, the users refused to participate in the tests in the way planned by the team because they did not feel comfortable with the environment prepared during the interaction, that is, the users did not want to lie down on the mattress placed directly on the floor.

In terms of communication, this strategy was not considered to be satisfactory as the physical space for prototype tests failed in welcoming the users.

In terms of innovation, therefore, the development team had difficulty in performing the tests as the product was to be used with the patient lying down and some assessments had to be made differently from the reality.

Recommendations: It is important to provide an interactional environment where the product will be used. If it is not possible, it is essential to simulate the interactional environment as close to the reality as possible and provide maximum comfort to the user. When the simulation environment is not accepted by the user, it is also important to consider that this can impair the assessment. The user's emotional state may let him or her feeling indisposed to participate and/or anxious to finish the interaction with the prototype, which may influence negatively the results. Usability laboratory is an excellent option as it represents a reliable environment.

RELATING VERBAL LANGUAGE TO NON-VERBAL LANGUAGE

Because Team 2 intended to communicate with the user by means of the prototype, non-verbal communication was a clear proposition. However, they did not manage to develop a non-verbal communication and thus they could not relate it to the verbal communication during the interaction with the user. The observer found that users used the product differently from that planned, but the team did not demonstrate to be aware of the inadequate use of the prototype despite the verbal response of the users, which indicated a contradiction between their verbal and non-verbal languages.

In terms of communication, this strategy was considered to be poorly performed as the relationship between verbal and non-verbal communications was neither observed nor analysed by the development team.

In terms of innovation, the lack of assessment of the user's non-verbal language compromised the results of the development team, since they did not explore the possibilities of using the initial prototype differently, nor assessed whether the initial proposition was effective or not.

Recommendations: In order to ensure that the development team can relate verbal language to the non-verbal language, one should consider that both forms of communication must be connected so that the user's needs, suggestions and comments can be captured, thus allowing the development team to guide the project more efficiently.

For instance, when the user is asked to approve or not a prototype item, he or she uses verbal language (i.e. speech) by saying "yes". However, non-verbal language in which the head moves horizontally from one side to another, indicating rejection, or the face expresses contempt, makes us perceive that verbal and non-verbal languages are not connected, meaning that the user actually does not approve the prototype. In this case, it is necessary a careful evaluation of the language as we know that non-verbal language is more revealing than verbal language.

CONSOLIDATING KNOWLEDGE AFTER COMMUNICATION

After the prototype test, Team 2 performed consolidation of the knowledge acquired during it. However, they did not manage to organise the communication so that its members could be aligned with the new knowledge acquired. In this case, the team communicated with the users on a disorganised basis, that is, they used no annotations and directions. This only generated comments with no discussion and often without any purpose, which made it difficult to select and transform the information into useful knowledge for the project.

In addition, the contribution of the team members was found to be impaired because some participants added no knowledge, since they remained silent or made useless comments, that is, with no positive factors for development of the final product. In this way, it is necessary to consolidate the knowledge after communicating with users on a structured and organised basis.

In terms of communication, therefore, this strategy was considered to be poorly performed because it is probable that the development team had no common understanding of the comments made by the users during the prototype tests.

In terms of innovation, the lack of discussion and analysis of information between the team members results in poor utilisation of information gathered and measured during the interaction with users.

Recommendations: After involving the users and communicating with them by means of the prototype, it is important to consolidate the new knowledge in order to ensure that all members of the development team be aligned with the knowledge acquired, thus enabling them to select information needed to improve the final product.

For example, the development team obtained the following comments during the interaction with users: “nobody is using the intake pipe at all”, “I don’t like using the intake pipe because it has no firmness”, among others. One can note that these comments aggregated less knowledge as they were not explored regarding the verbal language. However, it is possible that the team members have observed actions and attitudes (non-verbal language) of the users towards these comments, which might have generated knowledge.

Therefore, after involving the users and communicating with them by means of the prototype, it is important to consolidate the knowledge among the members of the development team. This enables observations to be made and discussed. For example, the intake pipe size should be modified to X because of Y. Therefore, the development team will use this communication for development of the project.

AVOIDING INDUCING THE USER TO GIVE AN EXPECTED ANSWER

It is fundamental that the development team is aware of the importance of having an objective for communication itself rather than for results of the communication. The objective of the communication is to guide the team in identifying, understanding and/or validating the problem, idea or solution by message exchange. On the other hand, the objective of the results of communication causes the team to handle the communication to achieve the desired result. This communication handling was evidenced in Team 5, who formulated questions indicating preference for a given answer because the user was reactive (i.e. who reacts only if stimulated), but which induced the user to give an expected answer. Therefore, the development team did not manage to conduct communication impartially.

In terms of communication, despite the messages being exchanged between development team and user, the strategy was considered negative because the team induced the users to give expected responses, making communication poorly explored, superficial and biased.

In terms of innovation, the communication was considered negative because response induction can block new ideas from the users and lead them to give succinct answers, which can compromise their contribution to the prototype test. In addition, this strategy may produce expected answers which, in turn, will lead to untrue results, consequently undermining the acceptance of the product.

Recommendations: It is important to have a well-defined communication objective as guidelines and to structure the communication by means of strategies enabling meaningful information to be captured while encouraging the user to contribute with new ideas. In addition, it is recommended not to focus on the objective of the result only, that is, having an expected answer from the user. In fact, the result should come from a natural understanding of the user's expectation rather than from a pre-established goal, which prevents answers from being induced. One should focus on the structuring of communication process in order to generate significant results. In this way, the questions to be asked by the user during the prototype test should be impartially formulated by the development team as well as the dynamics during interaction.

For example, it is not recommended to ask "Do you think it is better this way?" (and demonstrate what you like the user to respond positively). It is not recommended either to use emphasis, speech modulation and gestures to persuade the user to give an answer, such as "Do you prefer this one…" (with emphasis and strong voice) "….or that one?" (with face expressing contempt and weak voice). Another important point is that any spontaneous comment by the user should not be used for asking another question aimed to induce the user to give an answer suitable for the team's purposes.

Active Listening: Hearing for Communication (Flexibility in the Communication According to the Situation and Conducting It by Means of Structure Perception)

Communication during the prototype test can be conducted through several ways depending on the user's response and objective of the communication. However, this does not mean that communication can be structured and disorganised. Quite on the contrary, communication should be structured with guidelines and improved with the user's answers and auditory perception, that is, active listening. Flexibility is very important to not "plaster" the process and achieve better results.

Team 5 was shown to be more prepared as they managed to develop verbal language satisfactorily by means of active listening during the prototype test. This provided observations relative to the development team in order to conduct their communication to achieve the objectives. Nevertheless, this team did not plan and organise the communication previously, which made it difficult for the team members to obtain clear information, although they had carefully listened to the speech of the users.

In terms of communication, this strategy used by Team 5 was considered to be partially positive because, despite developing their communication during the prototype test, it is necessary to improve their communicative structure so that the team can be more organised.

In terms of innovation, the team's perception and flexibility allowed significant observations to be obtained, which in turn enabled the team to better use the user's reaction during the prototype test. Nevertheless, the lack of communicative structure made it difficult to obtain clear information and organise the communication, which might have compromised the use of the knowledge acquired.

Recommendations: Structuring the written language by means of guidelines and having a well-define communication objective can help the team organise information and set the limits of flexibility in order to avoid chaos. Moreover, well-defined guidelines can stimulate and assist in insights for adaptations and changes in the communication during the prototype test.

With the identification of evidence for communication strategies used by the teams, one can observe different results in view of how the communicative process was performed. Therefore, in order to facilitate the reader's understanding, Table 2 shows the results of the communication process obtained by the teams regarding their strategies.

CONCLUSION

In view of the analysis and assessment performed, it was possible to verify that it is necessary to adopt communication strategies to improve open innovation, which allows for efficient communication with users by means of interaction with the prototype.

Table 2. Results of the teams for the communication process

Team	Strategies	Teams' results of the communication process in the interaction with users
1	• Formalised the objective of the communication • Planned partially the communication process	**Positive points:** • Identified the user's profile and recognised its influence on the result of communication; • Used active listening to identify the user's spontaneous contributions and structured the communication. **Points of improvement:** • Structuring of the communication before interaction with the user.
2	• Established a poor communication environment • Did not related verbal language to non-verbal language • Consolidated knowledge after communication on a disorganised basis	**Positive points:** • Organised the information obtained from the users; **Points of improvement:** • Selection of an environment depicting the reality, thus favouring communication with the user; • In addition to organising the communication, it is needed to categorise the answers to favour a more effective result; • Use of the active listening during the interaction with users to recognise opportunities of communication to aggregate value to the product.
3	Did not plan and structure the communication process	**Positive points:** • Structured communication and cited the need of guidelines for the development team to guide the user; • Identified the user's importance in making considerations for the project; **Points of improvement:** • Organisation of the user's comments to obtain knowledge by using active listening; • Effective exploration of the communication with users for significant considerations to the project.
4	Planned the communication process without theoretical grounding	**Positive points:** • Development of guidelines to facilitate communication, thus generating more-structured answers and facilitating the process of interaction with the user.
5	• Induced the user to give an expected answer • Developed verbal language very well by using active listening • Did not plan communication previously	**Positive points:** • The team perceived that "inducing the user to give an answer may be bad", since this inhibits spontaneous comments which may be relevant; • Active listening during interaction with the user. **Points of improvement:** • Structuring of communication for not generating expected answers.

Source: Elaborated by the authors.

In addition, Brunswicker (2018) emphasises in her study that companies having a more formalised process of open innovation are more likely to achieve positive results with it.

Therefore, it is essential to have a communication system enabling the development team to plan and organise themselves so that the guidelines become clear during the interaction with users, which allows for optimisation of the knowledge acquired. Therefore, in order to assist the development team to apply communication strategies during prototype tests, we recommend the following:

1. To know the profile of the user/future client: age, gender, socio-economic status, educational level, personality traits and emotional state;
2. To use opened-ended questions to explore the user's understanding of the prototype and then to ask questions previously structured by the development team to guide the users regarding their possible doubts;
3. The development team should direct the communication clearly, concisely and objectively to better explore the user's information;
4. The development team should use the technique of active listening;
5. Biased questions should not be asked. Effective communication between team and user should be impartial in order to avoid expected and untrue answers;
6. Closed-ended questions should be logically formulated, being structured into steps and allowing the user's comments to be considered;
7. Opened-ended questions should be well structured, objective and clear by using a simple and effective language for the user;
8. To select questions on the current prototype. If the user makes no comment, do not focus on questions using hypothetical prototypes with other format. This may happen, but do not forget to explore the prototype with the user;
9. The questions should be easily read and answered by the user; if he or she enquires the team, that means that the questions should be re-formulated;
10. It is important to verify whether the questions are linked with the final objective of the communication, since disconnected questions can confound and distract the user and lead him or her to make non-pertinent comments;
11. Unnecessary questions should not be asked.

These recommendations are guidelines for the members of the development team to use in prototype tests of health care products so that they can make use of the innovation feedback for their products. Thus, these recommendations will possibly optimise the open innovation process.

It is worth emphasising that these communication recommendations are complementary to those of the prototyping area. However, these communication recommendations are not yet available for development teams to guide themselves in performing prototype tests. Therefore, this is a proposal of recommendations which needs to be tested and analysed in practice.

For further research studies, one suggests that these recommendations should be tested in practice before developing a communication protocol to guide the development team to direct and observe the testing characteristics according to the needs and intents sought in the interaction with users by means of prototypes. This approach can bring benefits to the project, and mainly enhance innovation according to the user's expectations.

Lastly, from the present evaluation and analysis of how communication occurs between development team and users and considering the recommendations suggested, this work can serve as a base to generate a structured protocol to guide the interaction with users by means of prototypes during the product development process. This protocol would involve communication strategies so that the results of the interaction with users could be more efficient and assist in the open innovation, thus resulting in products with aggregated market value as well as optimising the time to carry out the process.

REFERENCES

Barbeiro, H. (2003). *Talk to lead - a media training manual*. São Paulo: Futura.

Bloch, P. (2002). *Do you want to talk better?* Rio de Janeiro: Revinter.

Bogers, M., & Horst, W. (2014). Collaborative prototyping: Cross-fertilization of knowledge in prototype-driven problem solving. *Journal of Product Innovation Management*, *31*(4), 744–764. doi:10.1111/jpim.12121

Brennan, P. F., Downs, S., & Casper, G. (2010). Project HealthDesign: Rethinking the power and potential of personal health records. *Journal of Biomedical Informatics*, *43*(5), S3–S5. doi:10.1016/j.jbi.2010.09.001 PMID:20937482

Brunswicker, S., & Chesbrough, H. (2018). The Adoption of Open Innovation in Large Firms: Practices, Measures, and Risks A survey of large firms examines how firms approach open innovation strategically and manage knowledge flows at the project level. *Research Technology Management*, *61*(1), 35–45. doi:10.1080/08956308.2018.1399022

Bueno, W. C. (2003). *Business communication: theory and research*. Barueri: Manole.

Cassiolato, J. E., Britto, J. N. P., & Vargas, M. A. (2005). *Cooperative arrangements and innovation in Brazilian industry. In Innovations, technological standards and performance of Brazilian industrial firms* (pp. 511–577). Brasília: IPEA.

Chesbrough, H., & Brunswicker, S. (2013). *Managing open innovation in largefirms*. Stuttgart: FraunhoferInstitute for Industrial Engineering.

Chesbrough, H. W. (2003). *Open Innovation: the new imperative for creating and profiting from technology*. Boston: Harvard Business Scholl Press.

Chesbrough, H. W. (2006). Open Innovation: a new paradigm for understanding industrial innovation. In H. W. Chesbrough & W. J. Vanhaverbeke (Eds.), *Open Innovation: researching a new paradigm*. New York: Oxford University Press.

Chiavenato, I. (2005). *Managing with People: Turning the Executive into a Great People Manager*. Rio de Janeiro: Elselvier.

Chiou, E., Venkatraman, V., Larson, K., Li, Y., Gibson, M., & Lee, J. D. (2014). Contextual Design of a Motivated Medication Management Device. *Ergonomics in Design*, *22*(1), 8–15. doi:10.1177/1064804613508950

CIPE (2014). *Creating the Environment for Entrepreneurial Success*. Center for International Private Enterprises (CIPE), (202),70.

Corrêa, M. L. G. (2002). *Language and social communication - visions of modern linguistics*. São Paulo: Parábola Editorial.

Criswell, C., & Martim, A. (2007). *10 Trends: A Study in Senior Executives' Views on the Future*. Centro de LiderançaCriativa.

De Negri, J. A. (2005). *Innovations, technological standards and performance of Brazilian industrial firms*. Brasília: IPEA.

Dodgson, M., Gann, D., & Salter, A. (2006). The role oftechnology in the shift towards open innovation: the case of Procter & Gamble. Academic Press.

Elisha, B. (2005). Nonverbal behavior in education. In The new handbook of methods in nonverbal behavior research. Pondicherry, India: SPI Publisher Services.

Furnham, A. (2001). *Body language at work*. São Paulo: Nobel.

Gardan, J. (2015). Definition of users' requirements in the customized product design through a user-centered translation method. *International Journal on Interactive Design and Manufacturing*.

Gershman, M., Roud, V., & Thurner, T. W. (2018). Open innovation in Russian state-owned enterprises. *Industry and Innovation*, 1–19.

Guiraud, P. (2001). *The language of the body*. São Paulo: Ática.

Gumperz, J. J. (1982). *Discourse strategies*. Cambrige, UK: Cambrige University Press. doi:10.1017/CBO9780511611834

Hohlfeldt, A., Martino, L. C., & França, V. V. (2003). *Theories of Communication*. Petropolis: Vozes.

Jakobson, R. (1969). *Linguistics and communication*. São Paulo: Cultrix.

Johnson, D. (2001). What is innovation and entrepreneurship? Lessons for larger organisations. *Industrial and Commercial Training*, *33*(4), 135–140. doi:10.1108/00197850110395245

Katzy, B., Turgut, E., & Holzmann, T. (2013). Technology Analysis & Strategic Innovation intermediaries: a process view on open innovation coordination. In Innovation intermediaries : a process view on technology analysis & strategic management.(pp. 37–41).

Knapp, M. L., & Hall, A. J. (1999). *Nonverbal Communication in Human Interaction*. São Paulo: Ed. JSN.

Kujala, S. I. (2008). Effective user involvement in product development by improving the analysis of user needs. *Behaviour & Information Technology*, *27*(6), 457–473. doi:10.1080/01449290601111051

Kunsch, M. (2003). *Public relations planning in integrated communications* (4th ed.). São Paulo: Summus.

Kyrillos, L. C. R., & Jung, M. (2015). *Communicate to lead*. São Paulo: Contexto.

Kyrillos, L. C. R., Mercatelli, C. R., Coelho, R. R., Donegá, R. S., Pereira, M. J., Santos, T. M., & Viola, I. C. (2000). Comparative Analysis of the Communication of Television Reporters in Spontaneous and Professional Issuance. In L. P. Ferreira & H. O. Costa (Eds.), *VozAtiva*. São Paulo: Roca.

Lemos, M. B. (2005). *The territorial organization of industry in Brazil. Innovations, technological standards and performance of Brazilian industrial firms*. Brasília: IPEA.

Neubeck, L., Coorey, G., Peiris, D., Mulley, J., Heeley, E., Hersch, F., & Redfern, J. (2016). Development of an integrated e-health tool for people with, or at high risk of, cardiovascular disease: The Consumer Navigation of Electronic Cardiovascular Tools (CONNECT) web application. *International Journal of Medical Informatics*, *96*, 24–37. doi:10.1016/j.ijmedinf.2016.01.009 PMID:26847070

Pedrotti, C. A., & Behlau, M. (2017). Communication resources of managers and business professionals. *CoDAS*, *29*(3). PMID:28538820

Peleg, M., Shachak, A., Wang, D., & Karnieli, E. (2009). Using multi-perspective methodologies to study users' interactions with the prototype front end of a guideline-based decision support system for diabetic foot care. *International Journal of Medical Informatics*, *78*(7), 482–493. doi:10.1016/j.ijmedinf.2009.02.008 PMID:19328739

Pietzsch, J. B., Shluzas, L. A., Paté-Cornell, M. E., Yock, P. G., & Linehan, J. H. (2009). Stage-Gate Process for the Development of Medical Devices. *Journal of Medical Devices*, *3*(2), 21004. doi:10.1115/1.3148836

Pinho, J. B. (2006). Communication in Organizations. Viçosa, Brasil: Ed. UFV.

Polistchuk, I., & Trinta, A. R. (2003). *Theories of Communication - the thought and practice of social communication*. São Paulo: Campus.

Porter, M. E. (1989). *Competitive advantage: creating and sustaining superior performance* (E. M. P. Braga, Trans.). Rio de Janeiro: Campus.

Reed, R., Storrud-Barnes, S., & Jessup, L. (2012). How open innovation affects the drivers of competitive advantage: Trading the benefits of IP creation and ownership for free invention. *Management Decision*, *50*(1), 58–73. doi:10.1108/00251741211194877

Rinkus, S., Walji, M., Johnson-Throop, K. A., Malin, J. T., Turley, J. P., Smith, J. W., & Zhang, J. (2005). Human-centered design of a distributed knowledge management system. *Journal of Biomedical Informatics*, *38*(1), 4–17. doi:10.1016/j.jbi.2004.11.014 PMID:15694881

Rudd, J., Stern, K., & Isensee, S. (1996). Low vs. high-fidelity prototyping debate. *Interaction*, *3*(1), 76–85. doi:10.1145/223500.223514

Sandelowski, M. (1996). Oneistheliveliestnumber: The case orientationofqualitativeresearch. *Research in Nursing & Health*, *19*(6), 525–529. doi:10.1002/(SICI)1098-240X(199612)19:6<525::AID-NUR8>3.0.CO;2-Q PMID:8948406

Schleyer, T. K. L., Thyvalikakath, T. P., Malatack, P., Marotta, M., Shah, T. A., Phanichphant, P., ... Hong, J. (2007). The feasibility of a three-dimensional charting interface for general dentistry. *The Journal of the American Dental Association*, *138*(8), 1072–1080. doi:10.14219/jada.archive.2007.0318 PMID:17670873

Stefanelli, M. C. (1987). Teaching of nurse-patient therapeutic communication techniques: Theoretical framework - part II. Rev. Esc. Enf. *USP, São Paulo*, *21*(2), 107–115.

Terra, J. C. C. (2007). *Innovation: breaking paradigms to win*. São Paulo: Saraiva. [Org.]

Vincent, C. (2004). *Design for Patient Safety* (2nd ed.). Patient Safety.

Vrgovic, P., Vidicki, P., Glassman, B., & Walton, A. (2012). Open innovation for SMEs in developing countries–An intermediated communication network model for collaboration beyond obstacles. *Innovation*, *14*(3), 290–302. doi:10.5172/impp.2012.14.3.290

Watzlawick, P., Beavin, J. H., & Jackson, D. D. (2001). Pragmatics of Human Communication: a study of patterns, pathologies and paradoxes of interaction [Tradução de Álvaro Cabral] (12th ed.). São Paulo: Pensamento-Cultrix.

KEY TERMS AND DEFINITIONS

Communication: It is simply the act of transferring information from one person to another or from one place to another. Although this is a simple definition, when one thinks of how we can communicate, the subject becomes much more complex. There are several categories of communication and more than one can occur at any time. Communication can be verbal or non-verbal.

Open Innovation: The open innovation model offers a new approach to research, development and innovation to companies through the use of their own research, innovation, and innovative strategies not used in their business.

Product Development: Typically refers to all of the stages involved in bringing a product from concept or idea to its release into the market and beyond. In other words, product development incorporates a product's entire journey.

Prototype: A prototype is a draft version of a product enabling individuals to explore their own ideas and show the intention regarding the overall design concept for users before investing time and money into its development. The prototype can be anything from paper drawings (low-fidelity) to something allowing click-through for fully functioning site (high-fidelity).

User Engagement: It is an assessment of an individual's response to some type of offering, such as a product, a service or website. An individual's degree of engagement may be determined directly through his/her interaction or may be evaluated through the observation of his/her behaviours. A website user, for example, might click links, make comments, download documents and watch videos, among other possibilities. In a marketing context, the user's engagement is often referred to as customer engagement (CE).

Chapter 10
Digital Marketing and Grocery Retailing Evidence From a Large Retailer in Italy and Belarus

Maria Giovanna Tongiani
https://orcid.org/0000-0002-5988-3747
University of Pisa, Italy

Jacopo Carfora
University of Pisa, Italy

Anastasiya Reut
Department of Economy and Management, Italy

ABSTRACT

Today the competition in the distribution sector is becoming increasingly more cut-throat and consumers have multiple channels to choose from for making their purchases, each with different characteristics and use methods. The objective of this chapter is to obtain information and identify the elements that allow for highlighting the ability of the grocery retailers who use the web and the social media to expand their own reference markets and establish lasting relationships with the consumers, establishing high loyalty rates of the same. The basic idea is that of verifying the importance for the enterprises operating in the grocery sector both in Italy and Belarus of setting up an e-commerce website, and of making the means and instruments available to the clientele to allow them to shop in different ways to the traditional one. The information will be acquired by means of interviews with customers of a retailer in Italy and a retailer in Belarus. The analyses of the results will provide useful indications concerning the marketing activities of the retailers in both countries.

INTRODUCTION

The development of Information and Communication Technology (ICT) with its innovative applications and the growth of Web marks the emergence of a new form of communication that reflects the switch from interactivity to interaction. (Nadeem, Andreini, Salo & Laukkanen,2015).

DOI: 10.4018/978-1-5225-7937-3.ch010

The objective of this work is to obtain information and identify the elements that allow for highlighting the ability of the grocery retailers which use the web and the social media to expand their own reference markets and establish lasting relationships with consumers, while establishing high loyalty rates of the same. In addition, taking account of the social capital theory, (Oxoby,2009). by which social capital concerns the flows of commitments, effort and time that individuals make available to others with benefits for the economic system, it is highlighted how the digital marketing strategy of large grocery firms contributes to an increase in the social capital through enhancing of stock in trust, network and norms.

The information will be acquired by means of interviews with customers of a retailer in Italy and another in Belarus, both of which have implemented a marketing activity and activated sales through e-commerce thanks to setting up a website.

The cross-country comparison is used for the purpose of tracking the development trajectories of the marketing activities implemented by the retailers in the different country contexts.

This chapter first examines literature concerning three different areas of interest: a) the characteristics of large grocery retailers and their marketing activity; b) the internet development, new devices and the emergence of Digital Marketing; c) the digital challenge and opportunities for retailers. Secondly the aim of this work is to interpret the results of a questionnaire to be filled out by the customers of the two retailers in order to explore the possibility of the implementation of digital marketing policies by grocery retailers which simultaneously use both traditional and web sales channels.

BACKGROUND WITH LITERATURE REVIEW OF LARGE GROCERY RETAILER CHARACTERISTICS: THEIR MARKETING ACTIVITIES AND DIGITALISATION STRATEGIES

In this section we examine contributions made by literature to the three different areas of interest:

1. The first area examines contributions made by literature to the characteristics of large grocery retailers and their marketing activities;
2. The second area concerns the internet development, new devices and the emergence of Digital Marketing;
3. The third area addresses the role of the digital challenge and opportunities for retailers.

Grocery retailer firms play an important role in the economic system of countries in terms of turnover and workforce employed.

The characteristics of the large grocery retailers make it possible to adopt different market strategies which reveal the superiority of the service offered to the reference clientele. (Toma, 2014;Sbrana & Gandolfo, 2007; Elg,2007)

In retail sales, and especially in the grocery sector, the relationship that is formed between the two main actors - consumers and retailers is a key element (Yeh & Yeh,2016; Elg, 2007). Therefore, large retail firms are characterised by numerous factors including: a) a large and specialised workforce, the skills of which make it possible to implement advanced marketing and management techniques, and b) a high level of economic and financial resources that allow for substantial investment capabilities and elevated operational dimensions.

The large food retailers compete amongst themselves on the market by offering a diverse range of customer services through their own sales points. Stores are competitive instruments but it does not necessarily follow that if a store exists physically and is physically present on the market that the consumer will go there, unless it forms part of their "mind-set" of places they can purchase from. (Campbell & Fairhurst, 2016) For the stores that exist physically it is obvious that they must overcome this challenge if they want to survive. (Goodman & Remaud, 2015)

In an attempt to improve their sales and increase profits, stores in the food sector must analyse the behaviour regarding the purchasing of foodstuffs and try to adjust, for example, due to the increase in the interest in healthy local foods, stores have begun to use various methods of in-store setups for attracting the interest of consumers in these foods, including increased signage, labelling, freebees and the inclusion of new products in the sales point. (Campbell & Fairhurst, 2016)

Equally important is the atmosphere that the customer perceives in the store.

The store-customer relationship is created from the customers' expectations. The key factor underlying the success of this relationship is trust. The customers' trust also facilitates the price policy used by the sales point. Based on the preferences for the products and spending power, the elasticity of the consumer's intention to buy will changes with a variation in the price. (Campbell & Fairhurst, 2016; Bouzaabia,Van Riel & Semeijn, 2013; Sbrana & Gandolfo,2007)

This relationship is also the result of a stable link between the store and the customer, arising from the latter's satisfaction with the products or the service, and the familiarity or comfort of the sales point. Customer satisfaction depends on the store image, created by a combination of different attributes, and in order to evaluate the role of the sales point in the customer's purchase decisions, especially in the food sector, the price must be considered a key element due to the impact it has on the clientele's choice in relation to the extent of value for money. (Bouzaabia, Van Riel & Semeijn, 2013; Sbrana & Gandolfo,2007)

Grocery retailer firms have been orientated towards a new marketing approach based on the shoppers. This shopper-related marketing activity in effect affirms the importance of the sales point and the connected commercial activities, and the objective is to treat the customers in a systematic manner during the various steps of the sales process, as well as in a personalised manner, by taking into account all the factors that influence the evaluation of the sales service offered.

In the relationship with the customer, the sales personnel must always show courtesy and goodwill, while also trying to offer the utmost assistance. When faced with a compliant, they must attempt to solve it in the best possible manner, with exhaustive explanations and a positive attitude, without ever giving the impression of being annoyed. They must be well informed about every aspect of the store, from basic information to the tiniest details, and be capable of explaining to customers how to take advantage of any offers or promotions, always aware of the products available and their location in the store.

The sales personnel must also be responsible for the elements constituting the in-store logistics, such as the management of the shelves. After customers purchase products, they must take care of replenishing the stock on the shelves, without this operation ever becoming an obstacle in the sales environment.

In the event of customers requiring a more specific product towards which they have a greater emotional connection, they will be willing to spend more of their spare time to go to a store that deals exclusively in the type of merchandise they are interested in. They already know that they will most probably find what they are looking for in the store, and in case of need, they will seek sales personnel who know how to assist them thanks to their knowledge of the products. (Bogetic, Stojkovic & Milosevic,2016; Bouzaabia,Van Riel & Semeijn, 2013; Sbrana & Gandolfo,2007)

The layout is also important in the store. In fact, eventual layout mistakes could create dissatisfaction among the customers who, due to finding themselves in an uncomfortable and unwelcoming environment, will probably decide never to come back and may even immediately leave the store without buying anything. Even if they do not have exact knowledge of the prices of the products in the store, consumers are almost always aware of the average price level. By evaluating certain key products, they make their own assessment via which they identify the price bracket of the sales point, creating a sort of price image. (Bogetic, Stojkovic & Milosevic,2016; Bouzaabia,Van Riel & Semeijn, 2013; Sbrana & Gandolfo,2007)

Trying at all costs to lower prices is not always a profitable decision however. The search for a price range that is lower than that of the competitors could force the company to provide lower-level services with far more detrimental effects on the turnover than anticipated.

Therefore, retailers should never concentrate on the price levels alone; instead they should attempt to calibrate all the variables that can be modified in order to create a fair quality/price correlation which allows customers to perceive a high level of satisfaction deriving from the after-sales knowledge of having obtained a good bargain. (Yeh & Yeh,2016; Elg, 2007; Sbrana & Gandolfo,2007)

In particular, literature surveys have indicated from the surveys conducted that the following are relevant for grocery retailers: price, product assortment, location of the store and the presence of offers of products bearing the Private Label brand. A further study carried out in order to verify the preference factors used by consumers when choosing a specific sales point ranked the choice of location (distance) of the sales point in first place, the preference for prices (discounts, offers) in second place, the product assortment in third place, and then the private label last. (Bogetic, Stojkovic & Milosevic,2016; Maggioni, 2016; Sbrana & Gandolfo,2007)

INTERNET DEVELOPMENT, NEW DEVICES AND THE EMERGENCE OF DIGITAL MARKETING

The introduction and progress of computer and internet technologies, as well as the presence of digital devices such as tablets, personal computers, and smartphones characterised by high potential and increasingly greater user-friendliness, has induced market operators to find new ways of activating and implementing the communication and marketing mix policies.

Through to the use of digital media and tools, businesses have developed the capacity to activate Digital Marketing, which in literature leads to the implementation of communication policies, reconnaissance, and customer contact activities, as well as the maintenance and consolidation of marketing relationships through digital channels and digital tools. (Kannan, 2017; Beck, & Rygl, 2015; Narayana, 2018; Karatum, 2017; Souiden, Ladhari & Chiadmi, 2018)

Digital Marketing therefore consists of a mix of activities that includes email marketing, social media marketing, search engine optimisation, affiliate marketing, and pay-per-click. (Beck, & Rygl, 2015; Karatum, 2017; Souiden, Ladhari & Chiadmi, 2018)

Email marketing concerns the management of contacts on internet email accounts via the sending of messages to potential purchasers in the aim of informing them about and/or proposing the purchase of the company's products/services. (Hudák, Kianičková, & Madleňák,2017).

Social media marketing refers to the activation of the promotion and/or communication of the offer of products and services using web-based networks such as Facebook, Twitter, and LinkedIn, which also make direct contact possible between both current and potential businesses and customers. The

social networks also allow for a direct interchange between current and potential purchasers with word-of-mouth activation among consumers, and this results in a strengthening of the company's marketing communications (Kannan,2017; Beck, & Rygl, 2015; Narayana, 2018; Karatum, 2017).

Search engine optimisation offers the possibility, via the use of web search engines like google, of entering with keywords onto the greatest number of lists presented to the purchasers when they make a request for free information about products and services capable of meeting their needs at that specific time. This Digital Marketing business therefore makes it possible to increase the visibility of the offers and promotions the company launches on the market.

Affiliate marketing involves the presence on the web of sites and platforms that are configured as virtual sales places and spaces where sellers and purchasers can find and provide information, offering and selecting the products and services they are interested in. There are platforms like e-Bay where purchasers and sellers are individual entities, or others like Amazon and Lyoness, where vendors are numerous companies with very varied and diverse types of products and services linked through these sites to a myriad of customers.

Pay-Per-Click concerns the promotion of the company's website through the use of internet operators which use videos, ads, etc. targeting specific segments of consumers, to induce users to view the company website. This promotion against payment activity makes it possible to increase the number of people who come in contact with the offer of products and services, thereby helping to create and develop a broader potential demand for the company. (Beck, & Rygl, 2015; Narayana, 2018; Karatum, 2017)

Digital Marketing has differences and a few advantages over Traditional Marketing in the various components of the Marketing mix policies and in the ways via which purchaser relations are implemented.

Promotional advertising in traditional marketing takes place in printed form and on the radio and TV, and therefore the messages are unidirectional from the enterprise to the customer without any interaction between them. Instead, digital communication activities enable interactive contact where the purchaser can send immediate feedback regarding the offers proposed. Moreover, this interaction also involves other purchaser, thus increasing market transparency. This happens extensively in communications through the social networks and often also via affiliate sites such as Lyoness and cashback websites.

The costs of digital marketing activities are much lower than those of advertising or promotional campaigns on the TV or radio for example, which also allows for the implementation of marketing policies with small and medium-sized enterprises that have fewer resources available.

The implementation times of traditional marketing activities require long periods, also due to the number of operators involved, for example, sellers, distributors, promoters, etc. With Digital Marketing, the planning times are shorter and involve a limited number of subjects which speeds up the operations. (Kannan, 2017; Beck, & Rygl, 2015; Narayana, 2018)

Another important advantage of Digital Marketing is the possibility of activating a contact between the purchaser and the company at any time of day, 24 hours a day, and in particular, the choice of the time and place are entirely discretional and perfectly in line with the needs of the user/consumer. This possibility is further enhanced by the introduction on the market of mobile devices: laptops, tablets, and smartphones. The development and upgrading of the technologies of these devices, together with the expansion of the internet networks, in fact makes it possible for the purchasers to connect and exploit the virtual web spaces practically wherever they find themselves, and in line with their requirements. Likewise, the same interaction, that is, the ability of purchasers to respond and send feedback or a request to the company, also occurs with the same time and place methods, consequently, whenever and from wherever they want.

The traditional marketing policies are limited time-wise by the availability of staff hours, as well as the time limits available to purchasers that are often not the same as those of the sellers. Another limit is the restricted number of areas or places where the offer of the company's products and services can be displayed and made available to purchasers, thus preventing them from competing in different geographic locations, also at a global level, which is instead made possible by the online virtual space.

Thanks to the high interaction between business and consumers, Digital Marketing makes it possible not only to expand the business offer with the introduction of digital services, but also to more effectively meet the customers' needs through increased customisation of the offer, which is facilitated precisely in virtue of the direct and instant interaction that is created through Digital Marketing. . (Kannan,2017: Beck, & Rygl,2015; Narayana,2018)

DIGITAL CHALLENGES AND OPPORTUNITIES FOR RETAILERS

The technological innovation and evolution of the internet and digital tools have introduced important challenges in the retailing sector. In first place, traditional sales points have found themselves having to compete with other retailers on the web, known as e-tailers, which have created an alternative and competitive price offer. (Larke, Kilgour & O'Connor, 2018; Willems, Smolders, Brengman, Luyten, & Schöning, 2017). In second place, the purchasers can be grouped into different segments where the purchasing behaviour at times involves the alternative use of both the traditional physical points of sale and the online retailers. Sometimes there is also the combined use of the virtual online sales in order to gain information before purchasing at the traditional physical point of sale, while in other cases it is the reverse; after inspecting the products in the physical sales point the consumer then buys them on-line. Finally, increasingly more important is the segment of those who gain information and purchase . (Souiden, Ladhari & Chiadmi, 2018; Willems, Smolders, Brengman, Luyten, & Schöning,2017) via the use of mobile digital media. In view of this scenario, retailers are forced to decide which of the numerous alternatives to use that technology can make available in the tools and activities, and also the ways of integrating and incorporating them into the activation and implementation processes of the services and products. (Willems, Smolders, Brengman, Luyten, & Schöning, 2017; Milovanovic,2015; Narayana,2018)

The decisions concern not only which digital tools, e.g. websites, big data, digital platforms, mobile devices, or social networks to use, but also the methods of coordinating and integrating them. In fact, the different degree of presence of the digital instruments and their different combinations results in different contents and dimensions of the services offered to the customer, causing the retailer to be configured as multichannel, cross channel, or omni-channel.

Retailers with a physical point of sale assume the dimension of multichannel retailer in the event of also introducing another method of purchasing such as the website, or even the possibility of sourcing via mobile phone. In this operational dimension, as emphasised in literature, the shopping paths among the different channels remain completely independent one from the other.

The activation of a cross-channel retailer occurs when, in addition to activating different shopping paths such as websites, physical sales points, and mobile-type sites, it also creates the possibility for the consumer to integrate a purchase method with different channels. For example, purchasers can decide to buy on the website and then have the goods delivered to the traditional sales point, otherwise they can order the goods online from the sales point with the same credentials.

The omni-channel dimension is achieved by the retailer when all the possible shopping channels are made available to the customer, and as reported in literature, there is total integration allowing for full interaction between the web, the physical sales point, mobile instruments, and all the channels with the direct and interactive control of each shopping path by the retailer. (Willems, Smolders, Brengman, Luyten, & Schöning,2017; Larke, Kilgour & O'Connor,2018,)

The incentive for retailers to integrate new technologies and combine digital tools, and therefore to evolve from single-channel to omnichannel offers, springs from the need to bridge the gaps that every individual channel presents in relation to the way in which consumers make purchases. The different technologies and devices available to the retailer can be classified with regard not only to the value they produce for the purchaser, but also to the purchase path implemented by the consumer. The classification in terms of value sheds light on issues related to the lower costs or less effort that consumers enjoy, such as being able to shop without leaving home, or the use of cards or other in-store devices that give rise to the personalisation of offers and payment. Benefits and utilities are generated in relation to the ability to compare and acquire information both in the store and elsewhere. Hedonistic benefits derive from the in-store and virtual atmosphere that the technologies provide through colours and music, as well as the possibility of sharing opinions and appreciation, for example through the social networks. The classification linked to the purchase path concerns the ability to recognise and identify offers. These include flyers and promotions from mobile devices and the expansion of the possibilities of information regarding places and areas where to find products, such as the in-store RFID that indicates the shelf where the goods are found. In addition, it is easy to identify alternative offers and purchasing times, such as the possibility of using mobile or PayPal payment for example. Finally, sharing can be created with the other users after making the purchase. However, it should be noted that irrespective of the classification, the various technologies are not present or usable on all the channels. While this reveals how each channel offers advantages for some of the aspects of the purchasing process implemented by the customer, it also has gaps in other aspects. For example, the convenience of activating online shopping is very important for those who do not want to move away from home, but at the same time it does not allow immediate use of the goods, vice-versa, in the case of the physical point of sale there is the possibility of using the goods immediately but it is necessary for the consumer to move away from home. These differences, also reported in literature (Cao & Li,2015), show how individually, each channel presents some gaps for the customer's purchasing experience. Moreover, very often purchasers make a different request for a product or service depending on the circumstances in which they are forced to carry out the purchasing process, which therefore leads them to make their purchases through different channels. In this situation, due to seeking to fully satisfy their customers' needs and attempting to create a positive purchasing experience that makes the value of their offer perceptible to the consumer in every circumstance, retailers are driven increasingly more to evolve towards cross-channel and omni-channel services. Indeed, the propensity towards an omni-channel offer allows for creating a positive experience in every circumstance as a result of the features of the digital technologies and tools, represented by user-friendliness, greater functionality and the capacity to be present at the time and place deemed appropriate by the purchaser. This is also possible thanks to the degree of integration, control, coordination and combination that the different channels offer. (Balaji, & Roy,2017; Willems,Smolders, Brengman, Luyten, & Schöning,2017).

The commercial retail service is the result of a series of elementary services all integrated together and it has a complex nature. (Elg, 2007; Castaldo, 2007; Toma, 2014; Sbrana & Gandolfo, 2007)

These aspects of the commercial retail service mean that on one hand the retailer has to focus on functions of both a tangible and intangible nature, such as the transport of goods, warehouse coordination

and management, sourcing and selection of alternative products and supplier companies, the setting up and management of the display premises, and the sale of the goods. These are all activities that determine the elementary services with different contents and combinations aimed at the production together with the commercial service offered. On the other hand, the retailer firm must concentrate on the functions that regulate and support contact and interaction with the customer, such as the placement of the goods on the shelves, reception in the sales point, communication, management of the cash registers, coordination of the personnel, and the design and layout of the sales environment, all activities that concern the elementary services with different contents and combinations aimed at managing relations with the customers together with the supply of the commercial service, especially in large grocery retailers. (Sbrana & Gandolfo, 2007).

The different areas of the retailer firm involved in the development of Information and Communication Technology (ICT) have been defined by various scholars in relation to the digital devices and instruments used and their type of implementation. (Sbrana & Gandolfo, 2007) In this case we are speaking about areas influenced by the impact of mobile technologies, the integration of channels, and the role relating to the combining of an online store with the physical store, etc. (Piotrowicz & Cuthbertson, 2014)

According to another line of research, the reference areas of retail digitalisation can be attributed to the transformation of the pre-existing activities and the introduction of new types of services. (Piotrowicz & Cuthbertson, 2014; Hagberg, Sundstrom & Egels-Zandén, 2016) The reference areas therefore include that of trading (relating to the retailer-purchaser interface), the area of the actors, referring to the elements that intervene in the trading exchange including both subjects (retailers, customers) and instruments (personal computers, POS scanners, Smartphones..), the area of the environments, which takes into consideration the different situations in which the trading takes place, and the area of the offers that consists of products and services that take account of the possible transformations due to the use of digital technologies. (Piotrowicz & Cuthbertson, 2014; Hagberg, Sundstrom & Egels-Zandén, 2016)

Electronic commerce has been practiced mainly by non-retailer operators, essentially producers who, via use of the websites, have sold directly online to their customers, thus integrating the marketing activities and excluding retailers from their distribution chain. This situation is compounded by the fact that increasingly more customers are seeking to make their purchases through a combination of sales channels, in addition to which, omnichannel customers demonstrate a higher purchasing frequency and spend more than single-channel shoppers. It must also be stressed how retailers who allow customers to make purchases through several channels appear to be more capable of satisfying their demands. (Lewis, Whysall & Foster, 2014)

In the light of these elements, and in order not to slip backwards from the competitive position achieved by retailers on the distribution channel, it has become necessary to insert online retailers on the market via the implementation of websites. However, retailer firms must update their logistic infrastructures and information communication technology infrastructure in order to be able to apply the marketing mix including Digital Marketing on more channels and try to facilitate the purchasing process for customers. (Lewis, Whysall & Foster, 201L)

In the physical world, the creation of a strong brand personality is an essential prerequisite for being able to survive in a highly competitive environment, and with the increase in internet purchases and the development of strong competition in this sector, this has become even more important, also for the online world, where the customers' expectations have grown enormously and where it is much more difficult to satisfy their demands. In this context, as highlighted by literature, it is essential to create an adequate

website perceived by customers as having a personality in line with their expectations. There are five dimensions of the store personality that can be applied to an online environment, namely, enthusiasm, refinement, genuineness, solidity and unpleasantness. (Poddar, Donthu & Wei, 2009) The retailer who applies the right combination of these attributes is considered as having adequate marketing orientation. Marketing orientation is that special attention to customer satisfaction paid by the firm that wants to achieve a competitive advantage on the market. (Dong, X. D., Zhang, Z., Hinsch, C. A., & Zou, S,. 2016)

GROCERY RETAILING DIGITALIZATION: SOME FINDINGS FROM A CROSS -COUNTRY COMPARISON

Today, competition in the distribution sector is becoming increasingly more cut-throat and consumers have multiple channels to choose from when making their purchases, each with different characteristics and use methods. (Bouzaabia,Van Riel & Semeijn, 2013)

Nevertheless, online purchasing still represents a relatively new purchase method in the food sector, the frontiers of which need to be explored and in which we constantly see more innovations.

Unlike the normal store purchasing process, in e-tailing the customers do not have a direct relationship with either the personnel or the product they intend purchasing. All the elements of the sales point disappear or are subjected to the customer's appraisal in entirely different ways, and at the same time completely new problems emerge. (Xifei & Jin, 2015)

The adopting of this sales channel is possible and interesting because of the lower costs and ease of access. In addition, it allows for direct contact between the company and the customers, expanding the relational capabilities of the enterprise. Finally, it allows the participating users to interact directly among themselves as well as with the company, and in some cases also to co-create value. (Cambra-Fierro, Pérez & Grott, 2017; Balaji & Roy, 2017)

In fact, there are numerous similarities between the activities of the vendors in the physical world and the activities of an e-commerce website: for example, vendors and the website alike are able to offer the customers a wide range of alternatives and the latter have the means for determining which are the best; in addition, the vendors and also many websites establish a collaborative relationship with their own customers.

Very often the goods that consumers purchase online and in the physical sales points are identical; however, the behaviour of the purchasers may change due to several differences in the characteristics of the channels.

The multichannel shopping experience is now becoming standard practice; indeed, many purchasers are in the habit of buying the same categories of goods through both the online and physical channels. While consumers usually have their own repertoire of stores where they go shopping, they still tend to have one particular store/distributor to which they show greater loyalty.

At the same time, while numerous customers regularly carry out multichannel purchases, not all of them do. (Dawes, & Nenycz-Thiel, 2014)

The objective of this work is to obtain information and identify the elements that allow for highlighting the ability of the grocery retailers who use the web and the social media to expand their own reference markets and establish lasting relationships with the consumers, while achieving high loyalty rates of the same.

The basic idea is that of verifying the importance for the enterprises operating in the grocery sectors in both Italy and Belarus, of setting up an e-commerce website, and making the means and instruments available to the clientele to allow them to shop both in a traditional store and in ways differing from the traditional one.

Another aim of this work is to help understand whether the grocery retailers, subject of this study, set up the commercial service offered by focussing on the requirements and expectations of the customers. Another element is the presence of entrepreneurial orientation that interprets and makes a prediction of the changes within the context of the market and the competitors. (Yeh & Yeh,2016; Elg, 2007; Kajalo & Lindblom, 2015) The cross-country comparison is used for the purpose of tracking the development trajectories of the marketing activities implemented by the retailers in the different country contexts. This analysis allows for identifying the most significant market orientation tools and the marketing capabilities most suited to the new technological situations, plus it provides elements that are useful in the implementation of either an identical (global or standardised), or different (local or adapted) marketing policy on the developing and emerging markets. (Gruber-Muecke & Hofer, 2015: Elg, 2007; Yeng & Yazdanifard,(2015)

GROCERY RETAILING DIGITALIZATION: SOME FINDINGS FROM A RETAILER IN ITALY

Since the 1970s, the Italian commercial distribution has undergone a process of profound transformation and modernisation, based on the size of the larger-sized distribution structures and on business management; the type of sales points represented by supermarkets, hypermarkets and shopping malls is currently widespread throughout the territory. (Sbrana & Gandolfo,2007)

In Italy, the grocery sector consists of large distribution chains such as Esselunga, Carrefour and Auchan, as well as forms of organised distribution that include various purchase groups among the retailers, voluntary unions consisting of wholesalers and retailers, and cooperative forms like Conad, Sigma, and Coop.

At the end of 2016, the dissemination and use of internet on the Italian panorama had reached just on 31 million individuals and the users who during the last quarter had made three or more purchases were about 15 million with a 14% increase compared to the previous year.

Furthermore, numerous firms in Italy have started to operate through virtual sales channels, also by setting up websites in the retail trade sector. According to the data of Netcomm and the Politenico of Milan, in 2016, e-commerce in Italy averaged 20 billion euro, while the grocery expenditure, defined as supermarket sales by the Observatory, grew by just on 30% to reach 188 million, equal to approximately 0.9% of the e-commerce purchases (Netcomm and the Politecnico).

Digitalisation in the retail sector in Italy has mainly concerned the improvement and effectiveness of the production of the commercial service and management of customer relations. The introduction of digital technologies has contributed to the transformation of the retail consumer interface, with the launching of instruments like the self-scanner and the RFID, designed to facilitate the supply and use of the sales service (Sbrana & Gandolfo 2007). Only recently have they turned their attention to the e-tailing macro-area. Some experiments have been carried out in this direction (for example, Unicoop Firenze has developed its own e-commerce website, www.piùscelta.it, where only non-food items are sold however, and the sale is reserved for members of the cooperative).

Esselunga is the chain that has set up a complete e-commerce website, where consumers can go shopping just like in a physical supermarket. On the website www.esselungaacasa.it, it is possible to make online purchases with home deliveries. Precisely due to its uniqueness on the Italian panorama, and in order to investigate the consumers' use of e-tailing in the food sector and their degree of satisfaction with this instrument, a questionnaire was created and filled out by 150 Esselunga customers both on internet and face-to-face. The responders claimed they visit and know the website and 25% make online purchases.

The first issue addressed in the online context, namely, the reliability of the online sales service, represents the ability of the company to keep the promises made on the e-commerce website, by supplying the service in an accurate and timely manner.

In order to make an analysis of the construct, it can be broken down into five complementary factors: product conformance, reliability of the information, reliability of the distribution, reliability of the web technology, and reliability of the customer service. (Xifei & Jin, 2015)

The second issue addressed is the personality of the online sales platform. In fact, each website transmits emotions irrespective of who has created it, and it is possible, by paying attention to the multimedia elements and the interfaces, to encourage and attract the users, improving their search for products and convincing them to continue navigating. Indeed, according to certain studies in literature, customers ascribe human attributes and characteristics to the website, just as they do to the brand, thanks to its specific interaction and personification capacities. (Shobeiri, Mazaheri, Laroche, 2015). We will subsequently see what aspects of the website's personality deserve more attention due to being more functional in their efforts to attract and convince the consumer.

The other construct that we will evaluate is the risk perceived by customers and this has been examined both online and in the sales point. The risk perceived in online purchases depends on the impossibility of interacting directly with the product, the retailer, or the personnel, added to which there is the risk deriving from theft of bank and personal data by third parties. All these risks translate into uncertainties for the customers who become hesitant when faced with this new type of purchase, and as result, many of them prefer to continue to make in-store purchases. (Bezes, 2016)

The assessment of service reliability (Figure 1) for non-online and online purchases reveals the most important characteristics that an e-commerce website should have and to which the two types of consumers pay most attention. (Xifei & Jin, 2015)

What becomes evident is that the service results in being very reliable for both types of customers even though for the non-online purchasers the drivers appear to be the reliability of the information, the customer service, and the distribution, while the drivers for the online purchasers are the compliance of the product and the reliability of the web technologies and distribution.

As far as the risks are concerned (Figure 2), it can be observed how these are completely irrelevant in the sales point, while for online purchases, despite a low perception of risk, there is a certain apprehension surrounding problems relating to transport, delivery and returns with a higher evaluation of risk for the non-online purchasers. (Lewis, Whysall & Foster,2014)

The results of the evaluation of the personality (Figure 3) among the "non-online purchasers" and "online purchasers" demonstrate that when considering the positive characteristics, such as enthusiasm, genuineness and solidity, although always high for both types, these are greater for the online purchasers. As confirmation of customer satisfaction with the website, unpleasantness is perceived as practically inexistent by both types of consumers. (Shobeiri, Mazaheri, Laroche, 2015)

Finally (Figure 4), it can be observed how the customers of Esselunga (including those who have purchased online as well as those who have only visited the website) believe that the website www.

Figure 1. Service reliability (customers of Esselunga Italy)
Source: Author's own presentation.

Table 1: Service reliability	1+2	3	4+5	Averag	1+2	3.	4+5	Average
	NOT-ONLINE BUYERS				ONLINE BUYERS			
PRODUCT CONFORMITY								
It is important that the product is represented accurately		**14,16%**	**85,84%**	**4,31**		**2,70%**	**97,30%**	**4,54**
It is important that the product quality is in line with business commitment		12,39%	87,61%	4,37		2,70%	97,30%	4,65
It is important that the product quality is in line with my expectation	**0,88%**	**12,39%**	**86,72%**	**4,36**			**100,00%**	**4,65**
DISTRIBUTION RELIABILITY								
It is important that the product is delivered accurately and timely			100%	4,89			100,00%	4,95
It is important that I get what I ordered from the site			**100%**	**4,89**			**100,00%**	**5**
It is important that the product is delivered with right quantity			100%	4,91			100,00%	4,95
It is important that the product is delivered undamaged			**100%**	**4,9**			**100,00%**	**4,97**
INFORMATION RELIABILITY								
It is important that informations are updated timely		14,16%	85,84%	4,28		16,22%	83,79%	4,3
It is important that informations are detailed		**12,39**	**87,61%**	**4,32**		**16,22%**	**83,78%**	**4,38**
It is important tha billing informations are accurate	1,77%	13,27%	84,96%	4,26		21,62%	78,38%	4,24
It is important that the results are kept accurately	**1,77%**	**15,93%**	**82,30%**	**4,22**	**2,70%**	**24,32%**	**72,97%**	**4,11**
CUSTOMER SERVICE RELIABILITY								
It is important that the after sale service is excellent		4,42%	95,58%	4,54		4,42%	95,58%	4,46
It is important that there are prompt responses to customers' inquiry		**1,77%**	**98,23%**	**4,59**		**1,77%**	**98,23%**	**4,54**
It is important that there are prompt responses to customers' complaints		3,54%	96,46%	4,56		3,54%	96,46%	4,62
It is important that customer service shows a sincere interest in solving problems		**2,68%**	**97,32%**	**4,56**		**2,68%**	**97,32%**	**4,43**
WEB TECHNOLOGIES RELIABILITY								
It is important that the retrieval results meet my requirement		14,16%	85,84%	4,32		14,16%	85,84%	4,27
It is important that links are correct		**14,16%**	**85,84%**	**4,25**		**14,16%**	**85,84%**	**4,3**
It is important that online payments are safe and reliable		0,88%	99,12%	4,76		0,88%	99,12%	4,76
It is important that system runs smoothly		**11,61%**	**88,39%**	**4,32**		**11,61%**	**88,39%**	**4,38**

esselungaacasa.it shows good customer orientation. As also hypothesised in literature, this characteristic has a direct impact on the website personality while also indirectly influencing the intention to purchase through the quality perceived which acts as a mediator. (Poddar, Donthu & Wei, 2009). It is worth recalling here that the analysis has demonstrated how customer satisfaction is then translated into a co-creation of value through positive word-of-mouth carried out by approximately 90% of the online purchasers. (Shi, Tang, Zhang, Gao, Zhu, 2016; Shobeiri, Mazaheri, Laroche, 2015; Nadeem, Andreini, Salo & Laukkanen, 2015)

GROCERY RETAILING DIGITALIZATION: SOME FINDINGS FROM A RETAILER IN BELARUS.

"Euroopt" is a chain of grocery stores with headquarters in Minsk which, at 1 September 2016, had a total of 442 sales points. (http://evroopt.by/istoriya-komanii)

This retailing chain that covers all the regions of Belarus is the largest operator on the grocery market in this country with the best developed infrastructure and logistics centres and very qualified personnel.

Figure 2. In-store and online risks perceived (customers of Esselunga Italy)
Source: Author's own presentation.

Table 2: Perceived risk (in store)	1+2	3	4+5	Average rating	1+2	3	4+5	Average rating
	NOT-ONLINE BUYERS				ONLINE BUYERS			
Risk of losing money	**96,46%**	**2,65%**	**0,88%**	**1,24**	**94,60%**	**5,40%**		**1,3**
Risk of wasting time	7,07%	21,24%	71,40%	3,96	10,81%	10,81%	77,92%	4,19
Risk of choosing wrong products	**95,57%**	**4,43%**		**1,42**	**89,19%**	**10,81%**		**1,51**
Risk of feeling nervous	5,31%	12,39%	82,90%	4,17	10,81%	5,41%	83,79%	4,3
Risk of being stolen from personal or bank data	**97,35%**	**2,65%**		**1,32**	**94,59%**	**5,41%**		**1,32**
Risk of having problems with transport, delivery or return	99%	0,88%		1,33	94,84%	5,40%		1,49
Perceived risk (online)	**1+2**	**3**	**4+5**	**Average ratin**	**1+2**	**3.**	**4+5**	**Average rating**
	NOT-ONLINE BUYERS				ONLINE BUYERS			
Risk of losing money	**65,48%**	**21,24%**	**13,27%**	**2,32**	**78,38%**	**16,22%**	**5,41%**	**1,89**
Risk of wasting time	82,30%	16,81%	0,88%	1,79	91,89%	8,11%		1,38
Risk of choosing wrong products	**36,28%**	**38,05%**	**25,77%**	**2,89**	**45,95%**	**45,95%**	**7,70%**	**2,49**
Risk of feeling nervous	82,79%	17%	0,88%	1,71	97,30%	2,70%		1,3
Risk of being stolen from personal or bank data	**40%**	**44,25%**	**15,93%**	**2,63**	**61,73%**	**32,43%**	**5,41%**	**2,11**
Risk of having problems with transport, delivery or return	10,61%	46,02%	43,50%	3,42	21,62%	56,76%	21,70%	2,92
Perceived risk (not-online buyers)	**1+2**	**3**	**4+5**	**Average rating**	**1+2**	**3**	**4+5**	**Average rating**
	IN THE STORE				ONLINE			
Risk of losing money	**96,46%**	**2,65%**	**0,88%**	**1,24**	**65,48%**	**21,24%**	**13,27%**	**2,32**
Risk of wasting time	7,07%	21,24%	71,40%	3,96	82,30%	16,81%	0,88%	1,79
Risk of choosing wrong products	**95,57%**	**4,43%**		**1,42**	**36,28%**	**38,05%**	**25,77%**	**2,89**
Risk of feeling nervous	5,31%	12,39%	82,90%	4,17	82,79%	17%	0,88%	1,71
Risk of being stolen from personal or bank data	**97,35%**	**2,65%**		**1,32**	**40%**	**44,25%**	**15,93%**	**2,63**
Risk of having problems with transport, delivery or return	99%	0,88%		1,33	10,61%	46,02%	43,50%	3,42
Perceived risk (online buyers)	**1+2**	**3**	**4+5**	**Average rating**	**1+2**	**3**	**4+5**	**Average rating**
	IN THE STORE				ONLINE			
Risk of losing money	**94,60%**	**5,40%**		**1,3**	**78,38%**	**16,22%**	**5,41%**	**1,89**
Risk of wasting time	10,81%	10,81%	77,92%	4,19	91,89%	8,11%		1,38
Risk of choosing wrong products	**89,19%**	**10,81%**		**1,51**	**45,95%**	**45,95%**	**7,70%**	**2,49**
Risk of feeling nervous	10,81%	5,41%	83,79%	4,3	97,30%	2,70%		1,3
Risk of being stolen from personal or bank data	**94,59%**	**5,41%**		**1,32**	**61,73%**	**32,43%**	**5,41%**	**2,11**
Risk of having problems with transport, delivery or return	94,84%	5,40%		1,49	21,62%	56,76%	21,70%	2,92

It must be noted that Euroopt has also implemented an online project for ordering and delivering products. While this method of offering a commercial service has already been launched by various other sales chains, the greatest popularity has been achieved by Euroopt. The survey was conducted to gather information regarding the navigation experience on their website, the experience of online purchasing, the involvement and behaviour of the consumers, and the reasons that induce purchasers to make various choices. It was carried out by having 112 Euroopt customers fill out a questionnaire on internet. The results showed that 70% of the respondents know the website and approximately 27% make online purchases.

As regards the evaluation of the service reliability (Figure 5), the respondents who visit the website appreciate all the components in a significant manner, even though the values are slightly lower for

Figure 3. Website personality (customers of Esselunga Italy)
Source: Author's own presentation.

Table 3: Website personality	1+2	3	4+5	Average rating	1+2	3.	4+5	Average rating
	NOT-ONLINE BUYERS				ONLINE BUYERS			
Enthusiasm								
welcoming	0,88%	34,52%	64,60%	3,73		2,70%	97,30%	4,49
enthusiastic	**0,88%**	**39,82%**	**59,30%**	**3,65**			**100,00%**	**4,46**
lively	1,79%	40,18%	58,03%	3,63			100,00%	4,41
dynamic	**1,77%**	**33,63%**	**64,60%**	**3,73**			**100,00%**	**4,43**
congenial	1,77%	38,94%	59,29%	3,65			100,00%	4,43
Genuineness								
honest	1,77%	40,00%	58%	3,76		3,00%	97,00%	4,57
sincere	**1,77%**	**34,51%**	**63,72%**	**3,88**		**2,78%**	**97,22%**	**4,64**
reliable	0,88%	36,00%	63%	3,89		3,00%	97,00%	4,73
truthful	**1,77%**	**39,82%**	**58,41%**	**3,8**		**2,70%**	**97,30%**	**4,62**
trustful	2,65%	39,94%	58,41%	3,75		2,70%	97,30%	4,59
genuine	**2,70%**	**35,14%**	**54,96%**	**3,72**		**2,70%**	**97,30%**	**4,43**
Solidity								
hardy	**7,96%**	**37,17%**	**54,87%**	**3,58**		**10,81%**	**89,19%**	**4,3**
Solidity	6,19%	38,00%	56%	3,65		11,00%	89,00%	4,32
thriving	**7,14%**	**38,39%**	**54,46%**	**3,58**		**11,11%**	**88,89%**	**4,31**
Sophistication								
chic	**80,53%**	**12,39%**	**7,07%**	**1,58**	**78,38%**	**5,41%**	**16,22%**	**1,89**
high class	83,19%	9,73%	7,07%	1,56	78,38%	5,41%	16,22%	1,89
elegant	**77,87%**	**15,04%**	**7,07%**	**1,8**	**70,27%**	**13,51%**	**16,22%**	**2,16**
stylish	78,76%	11,50%	9,73%	1,81	72,98%	10,81%	16,22%	2,14
Unpleasantness								
annoying	97,72%	3%		1,39	100%			1,24
imitating	**97,35%**	**2,65%**		**1,39**	**100%**			**1,22**
loud	97,35%	1,77%	0,88%	1,49	97,30%	2,70%		1,24
superficial	**94,64%**	**5,36%**		**1,49**	**100,00%**			**1,24**

Figure 4. Customer orientation of website (customers of Esselunga Italy)
Source: Author's own presentation.

Table 4: Customer orientation	1+2	3	4+5	Average ratin	1+2	3.	4+5	Average ratin
	NOT-ONLINE BUYERS				ONLINE BUYERS			
the site shows concerns about the customers' best interest	**5,31%**	**36,28%**	**58,42%**	**3,71**		**8,11%**	**91,89%**	**4,59**
the site takes a problem solving approach in presenting products or services to customers	7,08	30,97%	61,95%	3,69		13,51%	86,48%	4,51
the site recommends products or services that are best suited to solve the customers' needs	**5,31**	**32,74%**	**61,94%**	**3,75**		**10,81%**	**89,19%**	**4,57**
the site has some features that can help customers to find out which kind of products ...	5,31	33,63%	61,06%	3,73		10,81%	89,18%	4,54

the non-online purchasers, consequently the online services are considered reliable by all the clientele. (Xifei & Jin, 2015)

The perception of the risks (Figure 6) is low for both the sales point and online purchasing even though there seems to be higher a level of attention by those who do not purchase online due to the perception of being able to choose wrong products. (Lewis, Whysall & Foster,2014)

The website is evaluated positively in terms of personality attributes and is welcoming, lively, reliable and trustworthy, with no unpleasantness observed (Figure 7). Finally, the customer orientation is satisfactory, especially in relation to the ability to assist the customers in their choices and use of the service. (Shobeiri, Mazaheri, Laroche, 2015)

Figure 5. Service reliability (customers of Europot Belarus)
Source: Author's own presentation.

Table 5: Service reliability	1+2	3	4+5	Average rating	1+2	3.	4+5	Average rating.
	NOT-ONLINE BUYERS				ONLINE BUYERS			
PRODUCT CONFORMITY								
It is important that the product is represented accurately	**0**	**26,32%**	**73,62%**	**4,21**	**6,90%**	**37,93%**	**55,17%**	**3,83**
It is important that the product quality is in line with business commitment	5,26%	10,53%	84,21%	4,45	7,14%	7,14%	85,72%	4,39
It is important that the product quality is in line with my expectation	**2,63%**	**15,16%**	**84,21%**	**4,5**	**0,00%**	**14,29%**	**85,71%**	**4,39**
DISTRIBUTION RELIABILITY								
It is important that the product is delivered accurately and timely	0	22,22%	78%	439,00%	7,14%	0,00%	92,86%	4,46
It is important that I get what I ordered from the site	**0**	**13,89%**	**86%**	**4,61%**	**7,14%**	**3,57%**	**89,29%**	**4,54**
It is important that the product is delivered with right quantity	0	13,89%	86%	4,53	7,14%	3,57%	89,29%	4,54
It is important that the product is delivered undamaged	**0**	**1143%**	**89%**	**4,63**	**0,00%**	**0,00%**	**100,00%**	**4,68**
INFORMATION RELIABILITY								
It is important that informations are updated timely	5,56%	25,00%	69,44%	4,14	7,14%	10,71%	82,15%	4,25
It is important that informations are detailed	**8,11%**	**27,03%**	**64,87%**	**3,97**	**3,57%**	**7,14%**	**89,29%**	**4,39**
It is important tha billing informations are accurate	5,40%	13,51%	81,09%	4,32	3,57%	14,29%	82,14%	4,29
It is important that the results are kept accurately	**0,00%**	**16,22%**	**83,78%**	**4,38**	**7,14%**	**14,29%**	**78,57%**	**4,18**
CUSTOMER SERVICE RELIABILITY								
It is important that the after sale service is excellent	2,78%	25,00%	72,22%	4,08	3,57%	10,71%	85,72%	4,43
It is important that there are prompt responses to customers' inquiry	**8,57%**	**14,29%**	**77,14%**	**4,14**	**0,00%**	**14,29%**	**85,71%**	**4,39**
It is important that there are prompt responses to customers' complaints					0,00%	28,57%	71,43%	4,21
It is important that customer service shows a sincere interest in solving problems	**5,26%**	**21,05%**	**73,69%**	**4,05**	**7,14%**	**14,29%**	**78,57%**	**4,25**
WEB TECHNOLOGIES RELIABILITY								
It is important that the retrieval results meet my requirement	8,82%	29,41%	61,77%	3,79	10,71%	10,71%	78,58%	4,04
It is important that links are correct	**0**	**13,89%**	**86,11%**	**4,33**	**7,14%**	**10,71%**	**82,15%**	**4,36**
It is important that online payments are safe and reliable	2,78%	11,11%	86,11%	4,5	3,57%	3,57%	92,86%	4,57
It is important that system runs smoothly	**5,56%**	**11,11%**	**83,33%**	**4,44**				

Figure 6. In-store and online risks perceived (customers of Europot Belarus)
Source: Author's own presentation.

Table 6: Perceived risk (in store)	1+2	3	4+5	Average r	1+2	3	4+5	Average rating
	NOT-ONLINE BUYERS				ONLINE BUYERS			
Risk of losing money	**59,09%**	**20,45%**	**20,46%**	**2,21**	**72,41%**	**20,69%**	**6,90%**	**2**
Risk of wasting time	36,59%	43,90%	19,51%	2,61	53,58%	14,29%	32,13%	2,82
Risk of choosing wrong products	**45,24%**	**40,48%**	**14,28%**	**2,41**	**53,33%**	**26,67%**	**20%**	**2,57**
Risk of feeling nervous	35,72%	50,00%	14,28%	2,5	50,00%	28,57%	21,43%	2,54
Risk of being stolen from personal or bank data	**63,42%**	**26,83%**	**9,75%**	**2,03**	**60,72%**	**25,00%**	**14,28%**	**2,18**
Risk of having problems with transport, delivery or return	35%	35,00%	30,00%	2,69	50,00%	21,43%	28,58%	2,64
Perceived risk (online)	1+2	3	4+5	Averag	1+2	3.	4+5	Average ratin
	NOT-ONLINE BUYERS				ONLINE BUYERS			
Risk of losing money	**44,74%**	**26,32%**	**28,94%**	**2,82**	**63,34%**	**20,00%**	**16,66%**	**2*23**
Risk of wasting time	48,71%	33,33%	17,96%	2,59	79,31%	10,34%	10,35%	1,97
Risk of choosing wrong products	**20,00%**	**47,50%**	**32,50%**	**3,17**	**62,07%**	**27,59%**	**10,34%**	**2,21**
Risk of feeling nervous	38,46%	46%	15,54%	2,62	51,72%	34,48%	13,80%	2,48
Risk of being stolen from personal or bank data	**26%**	**20,51%**	**46,15%**	**3,33**	**41,38%**	**34,48%**	**21,14%**	**2,82**
Risk of having problems with transport, delivery or return	36,59%	31,71%	31,70%	2,88	57,14%	21,43%	21,43%	2,36

Figure 7. Website personality (customers of Europot Belarus)
Source: Author's own presentation.

Table 7: Website personality	1+2	3	4+5	Averag	1+2	3.	4+5	Average rating
	NOT-ONLINE BUYERS				ONLINE BUYERS			
Enthusiasm								
welcoming	8,89%	44,44%	46,67%	3,53	3%	25,00%	71,87%	4
enthusiastic	**20,00%**	**51,11%**	**28,89%**	**3,18**	**10%**	**26,67%**	**63,33%**	**3,67**
lively	9,10%	47,73%	43,17%	3,45	3,33%	36,67%	60,00%	3,7
dynamic	**18,18%**	**50,00%**	**31,82%**	**3,16**	**10,00%**	**33,33%**	**56,67%**	**3,6**
congenial	25,00%	36,36%	38,64%	3,18				
Genuineness								
honest	11,37%	34,09%	55%	3,55	13,79%	44,83%	41,38%	3,45
sincere	**4,55%**	**36,36%**	**59,09%**	**3,66**	**13,33%**	**40,00%**	**46,67%**	**3,53**
reliable	6,82%	40,91%	52%	3,61	6,66%	33,33%	60,01%	3,7
truthful	**6,82%**	**40,91%**	**52,00%**	**3,52**	**13,34%**	**40,00%**	**46,66%**	**3,43**
trustful	43,18%	38,64%	18,18%	2,68	3,33%	40,00%	56,67%	3,7
genuine								
Solidity								
hardy								
Solidity								
thriving								
Sophistication								
chic	**38,63%**	**40,91%**	**20,46%**	**2,7**	**33,34%**	**26,67%**	**39,99%**	**3**
high class	25,00%	50,00%	25,00%	3	34,49%	31,03%	34,48%	3,03
elegant	**31,82%**	**36,36%**	**31,82%**	**3,02**	**17,24%**	**41,38%**	**41,38%**	**3,34**
stylish								
Unpleasantness								
annoying	65,11%	28%	6,89%	2,05	72%	17,24%	10,35%	2
imitating	**56,82%**	**22,73%**	**20,45%**	**2,45**	**72%**	**13,79%**	**13,80%**	**2,03**
loud								
superficial	**70,45%**	**15,91%**	**13,64%**	**2,14**				

The purchasers also demonstrate a propensity to take heed of the suggestions and advice for using the service (Figure 8), irrespective of whether or not they actually purchase online.

What the results show is that the service is very reliable for both types of customer, even if more positively evaluated by non-online purchasers. (Shi, Tang, Zhang, Gao, Zhu, 2016; Shobeiri, Mazaheri, Laroche, 2015; Nadeem, Andreini, Salo & Laukkanen, 2015)

OPPORTUNITIES AND ADVANTAGES OF A CROSS-CHANNEL AND OMNICHANNEL STRATEGY FOR LARGE GROCERY RETAILER FIRMS

The results of the surveys conducted show several interesting lines of interpretation and development trajectories in the cross-country comparison. In fact, with their positive evaluation, the customers of the firms examined express satisfaction with the commercial service offered in its various components, revealing a market orientation of both retailers capable of identifying the key elements for ensuring an offer in line with the expectations of the reference target.

Figure 8. Customer orientation of the website (customers of Europot Belarus)
Source: Author's own presentation.

Table 8: Website Customer orientation	1+2	3	4+5	Ave	1+2	3.	4+5	Ave
	NOT-ONLINE BUYERS				ONLINE BUYERS			
the site shows concerns about the customers' best interest	**22,70%**	**40,73%**	**36,57%**	**3,2**	**16,67%**	**33,33%**	**50,00%**	**3,47**
the site takes a problem solving approach in presenting products or services to customers	11,62%	46,51%	41,86%	3,44				
the site recommends products or services that are best suited to solve the customers' needs					**13,80%**	**37,93%**	**48,27%**	**3,41**
the site has some features that can help customers to find out which kind of products ...	11,91%	42,86%	45,23%	3,38	16,66%	26,67%	56,67%	3,67

By following our framework of conceptual reference which focuses on digitalisation that implements a website the two grocery retailers have developed marketing capabilities in the use of marketing tools and policies. The deployment of websites has introduced new elementary services while also transforming and enhancing the commercial service in its entirety. (Yeh & Yeh,2016; Elg, 2007; Gruber-Muecke & Hofer, 2015). Indeed, the majority of customers who do not purchase online still use the website to find out about the offers, characteristics, compliance and availability of the products in the sales point. Therefore, digitalisation of the retail service gives rise to an increase in the contents and components of the retail grocery service as a whole, resulting in improved customer satisfaction. Another implication of this work is that the cross-country comparison shows a similarity in the marketing capabilities and marketing tools used in both industrialised and emerging countries. This situation is accompanied by an explicit tendency to purchase online in the future, affirmed by the majority of customers who currently only purchase from the sales points of the two retailers; this represents a predictive signal conducive to increasing and further developing the e-tailing activities of both emerging and industrialised markets. (Gruber-Muecke & Hofer, 2015; Yeng & Yazdanifard, 2015)

It is worth noting that customers also visit the websites of the retailers on Facebook and other well-known social networks. Approximately 25% of the Esselunga purchasers and 30% of those of Euroopt express appreciation for this use, although the latter currently do so without any great interactivity and in a more passive manner. This element represents a useful guideline for highlighting the need for retailers to improve profitability by means of better performance on the social networks thanks to the virtual word-of-mouth activity they allow, and with the co-creation of positive value in relation to an adequate internet capability in line with the descriptions in literature. (Balaji & Roy, 2017; Yeng & Yazdanifard, 2015)

This result, coupled with the exploitation of the commercial retail service as a continuum between the sales point and the website, suggests, that when intending to expand their business, retailers should implement a progressive integration and coordination of the shopping paths among the different channels. This makes it possible to expand the business offer with the introduction Digital Marketing and to also more effectively meet the customers' needs through increased customisation of the offer. (L,Balaji & Roy, 2017; Milovanovic,2015; Yeng & Yazdanifard, 2015)

It must be highlighted literature stresses the importance of the quality of the logistic services in attaining customer satisfaction. Timeliness is a crucial aspect of the logistic services for obtaining customer satisfaction and loyalty. (Murfield, Murfield, Boone, Boone, Rutner, Rutner,... & Thomas, 2017). In

the light of these elements, in our opinion and as suggested in literature, retailers on the global market could be more effective if they were to adopt a collaborative strategy with the local network for ensuring timeliness capable of meeting the customers' expectations (Milovanovic,2015)

SOLUTIONS AND RECOMMENDATION

In agreement with the social capital theory, social capital concerns the flows of commitment, effort and time that individuals make available to others. (Oxoby,2009). As it accumulates, this behaviour translates into stock of investment in norms, network and trust that improves the level of the economic system. (Wu,Huang, Chen, Daviso, & Hua,2018). Large grocery retailers should therefore be advised to adopt marketing activities that implement more and more Digital Marketing solutions. In fact, the digital marketing strategy allows companies to increase their clientele's and the intercommunication of customers each other. This situation has a positive impact on the elements that make up the social capital, and namely, practices, network, trust.

FUTURE RESEARCH DIRECTIONS

This work explores several elements in order to identify the pathways for implementing and developing the e-tailing activities on the industrialised and developing markets, in particular with regard to the tools that can be used for ensuring adequate implementation of the digital marketing activities. However, it is necessary to bear in mind all the limitations linked to the size of the interviews and the reference geographical areas. As a result, future lines of in-depth analyses could be identified with the expansion of the geographical markets and the number of purchasers examined.

CONCLUSION

This work demonstrates how digitalisation could represent an opportunity for large grocery retailers when it is implemented with new methods and in collaboration with networks that already working with digital instruments. In addition, taking account of the social capital theory, by which social capital concerns the flows of commitments, effort and time that individuals make available to others with benefits for the economic system, it is highlighted how the digital marketing strategy of large grocery firms contributes to an increase in the social capital through enhancing of stock in trust, network and norms. (Wu, Huang, Chen, Daviso, & Hua, 2018). In this regard, this chapter illustrates with the cross-county comparison, the high degree of satisfaction achieved by purchasers thanks to the use of the different service paths with the digitalisation method, thus stimulating them to share information and recommend the retail sales points used to other friends and relations. Lastly, this strategy could become a tool for increasing the number of customers through the co-creation of value triggered by word-of-mouth marketing. This is evidence of the importance for large grocery retailers to shift towards the use of digital marketing in an environment of omni-channel shopping paths also in countries with different levels of economic development.

REFERENCES

Balaji, M. S., & Roy, S. K. (2017). Value co-creation with Internet of things technology in the retail industry. *Journal of Marketing Management*, *33*(1-2), 7–31. doi:10.1080/0267257X.2016.1217914

Beck, N., & Rygl, D. (2015). Categorization of multiple channel retailing in Multi-, Cross-, and Omni-Channel Retailing for retailers and retailing. *Journal of Retailing and Consumer Services*, *27*, 170–178. doi:10.1016/j.jretconser.2015.08.001

Bezes, C. (2016). Comparing online and in-store risks in multichannel shopping. *International Journal of Retail & Distribution Management*, *44*(3), 284–300. doi:10.1108/IJRDM-02-2015-0019

Bogetić, Z., Stojković, D., & Milošević, S. (2016). Shopper marketing strategy in food retailing. *Economics of Agriculture*, *63*(1), 189–204.

Bouzaabia, O., Van Riel, A. C., & Semeijn, J. (2013). Managing in-store logistics: A fresh perspective on retail service. *Journal of Service Management*, *24*(2), 112–129. doi:10.1108/09564231311323926

Campbell, J. M., & Fairhurst, A. E. (2016). Reducing the intention-to-behaviour gap for locally produced foods purchasing: The role of store, trust, and price. *International Journal of Retail & Distribution Management*, *44*(5), 508–523. doi:10.1108/IJRDM-08-2015-0121

Cao, L., & Li, L. (2015). The impact of cross-channel integration on retailers' sales growth. *Journal of Retailing*, *91*(2), 198–216. doi:10.1016/j.jretai.2014.12.005

Castaldo, S. (2007). Le potenzialità dell'innovazione tecnologica: L'e-tailing, cap. 16. In Distribuzione (vol. 11). Collana Management.

Dawes, J., & Nenycz-Thiel, M. (2014). Comparing retailer purchase patterns and brand metrics for in-store and online grocery purchasing. *Journal of Marketing Management*, *30*(3-4), 364–382. doi:10.1080/0267257X.2013.813576

Dong, X. D., Zhang, Z., Hinsch, C. A., & Zou, S. (2016). Reconceptualizing the elements of market orientation: A process-based view. *Industrial Marketing Management*, *56*, 130–142. doi:10.1016/j.indmarman.2015.12.005

Elg, U. (2007). Market orientation processes in retailing: a cross-national study. *European Journal of Marketing, 41*(5/6), 568-589.

Goodman, S., & Remaud, H. (2015). Store choice: How understanding consumer choice of 'where' to shop may assist the small retailer. *Journal of Retailing and Consumer Services*, *23*, 118–124. doi:10.1016/j.jretconser.2014.12.008

Gruber-Muecke, T., & Hofer, K. M. (2015). Market orientation, entrepreneurial orientation and performance in emerging markets. *International Journal of Emerging Markets*, *10*(3), 560–571. doi:10.1108/IJoEM-05-2013-0076

Hagberg, J., Sundstrom, M., & Egels-Zandén, N. (2016). The digitalization of retailing: An exploratory framework. *International Journal of Retail & Distribution Management*, *44*(7), 694–712. doi:10.1108/IJRDM-09-2015-0140

Hudák, M., Kianičková, E., & Madleňák, R. (2017). The importance of e-mail marketing in e-commerce. *Procedia Engineering*, *192*, 342–347. doi:10.1016/j.proeng.2017.06.059

Kajalo, S., & Lindblom, A. (2015). Market orientation, entrepreneurial orientation and business performance among small retailers. *International Journal of Retail & Distribution Management*, *43*(7), 580–596. doi:10.1108/IJRDM-04-2014-0044

Kannan, P. K., & Li, H. A. (2017). Digital marketing: A framework, review and research agenda. *International Journal of Research in Marketing*, *34*(1), 22–45. doi:10.1016/j.ijresmar.2016.11.006

Karatum, S. (2017). The Place of Digital Marketing on Turkish Small Businesses. Journal of International Trade. *Logistics and Law*, *3*(2), 36.

Larke, R., Kilgour, M., & O'Connor, H. (2018). Build touchpoints and they will come: Transitioning to omnichannel retailing. *International Journal of Physical Distribution & Logistics Management*, *48*(4), 465–483. doi:10.1108/IJPDLM-09-2016-0276

Lewis, J., Whysall, P., & Foster, C. (2014). Drivers and technology-related obstacles in moving to multichannel retailing. *International Journal of Electronic Commerce*, *18*(4), 43–68. doi:10.2753/JEC1086-4415180402

Maggioni, I. (2016). What drives customer loyalty in grocery retail? Exploring shoppers' perceptions through associative networks. *Journal of Retailing and Consumer Services*, *33*, 120–126. doi:10.1016/j.jretconser.2016.08.012

Milovanovic, S. (2015). Balancing Differences and Similarities within The Global Economy: Towards A Collaborative Business Strategy. *Procedia Economics and Finance*, *23*, 185–190. doi:10.1016/S2212-5671(15)00369-X

Murfield, M., Murfield, M., Boone, C. A., Boone, C. A., Rutner, P., Rutner, P., ... Thomas, R. (2017). Investigating logistics service quality in omni-channel retailing. *International Journal of Physical Distribution & Logistics Management*, *47*(4), 263–296. doi:10.1108/IJPDLM-06-2016-0161

Nadeem, W., Andreini, D., Salo, J., & Laukkanen, T. (2015). Engaging consumers online through websites and social media: A gender study of Italian Generation Y clothing consumers. *International Journal of Information Management*, *35*(4), 432–442. doi:10.1016/j.ijinfomgt.2015.04.008

Narayana, O. L. (2018). *An Empirical Study on Effectiveness of Digital Marketing in the New Era*. Academic Press.

Oxoby, R. (2009). Understanding social inclusion, social cohesion, and social capital. *International Journal of Social Economics*, *36*(12), 1133–1152. doi:10.1108/03068290910996963

Piotrowicz, W., & Cuthbertson, R. (2014). Introduction to the special issue information technology in retail: Toward omnichannel retailing. *International Journal of Electronic Commerce*, *18*(4), 5–16. doi:10.2753/JEC1086-4415180400

Poddar, A., Donthu, N., & Wei, Y. (2009). Web site customer orientations, Web site quality, and purchase intentions: The role of Web site personality. *Journal of Business Research*, *62*(4), 441–450. doi:10.1016/j.jbusres.2008.01.036

Sbrana, R., & Gandolfo, A. (2007). *Contemporary retailing*. Torino: Giappichelli.

Shi, W., Shi, W., Tang, L., Tang, L., Zhang, X., Zhang, X., ... Zhu, Y. (2016). How does word of mouth affect customer satisfaction? *Journal of Business and Industrial Marketing*, *31*(3), 393–403. doi:10.1108/JBIM-07-2014-0139

Shobeiri, S., Mazaheri, E., & Laroche, M. (2015). How Would the E-Retailer's Website Personality Impact Customers' Attitudes toward the Site? *Journal of Marketing Theory and Practice*, *23*(4), 388–401. doi:10.1080/10696679.2015.1049682

Souiden, N., Ladhari, R., & Chiadmi, N. E. (2018). *New trends in retailing and services*. Academic Press.

Toma, A. (2014). Marketing Strategies: Small Retailers against Big Retailers. *Valahian Journal of Economic Studies*, *5*(1), 89.

Willems, K., Smolders, A., Brengman, M., Luyten, K., & Schöning, J. (2017). The path-to-purchase is paved with digital opportunities: An inventory of shopper-oriented retail technologies. *Technological Forecasting and Social Change*, *124*, 228–242. doi:10.1016/j.techfore.2016.10.066

Wu, W., Huang, V., Chen, X., Davison, R. M., & Hua, Z. (2018). Social value and online social shopping intention: The moderating role of experience. *Information Technology & People*, *31*(3), 688–711. doi:10.1108/ITP-10-2016-0236

Xifei, F., & Jin, Q. (2015). The Five Dimensions of E-tailing Service Reliability. *Journal of Marketing Development and Competitiveness*, *9*(1), 83.

Yeh, Y. P., & Yeh, Y. P. (2016). Market orientation and service innovation on customer perceived value: The case of supermarket retailers. *Management Research Review*, *39*(4), 449–467. doi:10.1108/MRR-08-2014-0205

Yeng, W. F., & Yazdanifard, R. (2015). Opportunities and Challenges in the World of Retailing and the Importance of Adaption to the New Markets. International Journal of Management. *Accounting and Economics*, *2*(9), 1110–1121.

ADDITIONAL READING

Bordonaba-Juste, V., Lucia-Palacios, L., & Polo-Redondo, Y. (2012). Antecedents and consequences of e-business adoption for European retailers. *Internet Research*, *22*(5), 532–550. doi:10.1108/10662241211271536

Demangeot, C., Demangeot, C., Broderick, A. J., & Broderick, A. J. (2016). Engaging customers during a website visit: A model of website customer engagement. *International Journal of Retail & Distribution Management*, *44*(8), 814–839. doi:10.1108/IJRDM-08-2015-0124

Kitapci, O., Taylan Dortyol, I., Yaman, Z., & Gulmez, M. (2013). The paths from service quality dimensions to customer loyalty: An application on supermarket customers. *Management Research Review*, *36*(3), 239–255. doi:10.1108/01409171311306391

Song, L., Weisstein, F. L., Anderson, R. E., Swaminathan, S., Wu, G. J., Feng, S., & Tan, K. (2016). The Effects of Expectation Disconfirmations on Customer Outcomes in E-Markets: Impact of National Culture. *Journal of Marketing Channels*, *23*(4), 217–229. doi:10.1080/1046669X.2016.1224305

KEY TERMS AND DEFINITIONS

Customer Satisfaction: The degree of satisfaction provided by the goods or services of a company.

E-Tailing: The application of electronic commerce to the retailing sector.

Internet Capability: The capacity to apply leverage on the various internet tools.

Marketing Orientation: The capacity of firm to have a special attention to satisfy customer expectations.

Service Reliability: The ability to keep the promises of the website supplying the service.

Website Personality: The attributes of website in terms of personality perceived by customers.

Word of Mouth: The characteristic of customers to share knowledge and discoveries regarding market offers by means of specific conversations about their impressions of the products.

Chapter 11
Fashion Design Entrepreneurs: A Case Study

Clara Eloïse Fernandes
University of Beira Interior, Portugal

Maria José Madeira
University of Beira Interior, Portugal

Maria Madalena Pereira
University of Beira Interior, Portugal

ABSTRACT

The fashion industry is experiencing a new dynamic as many professionals have decided to take the risk to create fashion-related businesses. As universities and private schools provide fashion courses, many paths can be taken by graduates in this vast and challenging industry, including careers as fashion design entrepreneurs. However, the lack of information regarding networking and business-creation can be a hard wall to come across, as fashion designers are not prepared in that sense by higher-education courses. Fashion education is still very focused on hard skills, forgetting to teach students to be pro-active and forward-thinkers; yet a new generation of fashion designers has transformed past experiences and professional vision to become entrepreneurs. This chapter provides results obtained through interviews of these fashion entrepreneurs in Portugal, as well as other countries around the globe. This work observes this ever-changing industry and suggests the rise of a new entrepreneurial reality in fashion design, as well as the multi-disciplinary people who are changing it.

INTRODUCTION

The textile and clothing industry experienced many changes in the last few years. After the international crisis that stroke hard the economy of many countries, the catastrophe has been the catalyst for unemployment and austerity as its consequence. However, countries like Portugal are showing a real evolution since those dark times. The textile industry of Portugal has ended the year 2016 with 5063 million euros in exportations, a number that had not been reached since the beginning of the century

DOI: 10.4018/978-1-5225-7937-3.ch011

(Felismino, 2017). Thus, encouraging and pushing the Portuguese textile and clothing industry further into former previsions made by the director of ATP (Textile and clothing industry association), Paulo Vaz. Such encouraging numbers are also going towards ATP's recent investment and plan to gain even more visibility and promote a "Made in Portugal" strategy (Portugal Têxtil, 2016).

Portugal has also experienced a significant augmentation in terms of higher-education demand from students. Fields like fashion, apparel, and textile design have seen the number of entering students increase in their higher-education courses, considering years 2009/2010 in comparison to 2015/2016 (DGES, 2010; DGES, 2016).

Entrepreneurship has also been unquestionably one of the most used words in the past few years, in Portugal and internationally. In Portugal, such affirmation can be confirmed through the amount of entrepreneurial models and incentives proposed and created, most of the times linked to regulatory proposals made to emphasize such ventures (IAPMEI, ANJE etc.).

More generally, students coming from various fields related to creative arts may benefit significantly from an entrepreneurial mindset, as innovation and multidisciplinary contents are part as these fields as they are part of entrepreneurship itself and can very well lead to a variety of jobs (European Commission, 2008). On the other side, the fashion design field has come to adopt entrepreneurship in another way for the past few years, in the sense that it can be considered that some individuals have always created their businesses in the field, even if entrepreneurship cannot be reduced to such definition.

As governmental entities have understood the importance of entrepreneurship for the future, many studies are also being made to determine whether or not entrepreneurship education can be the engine for a new generation of entrepreneurs (Mwasalwiba, 2012; European Commission, 2008; European Commission 2013; GEM, 2016; GEM, 2017).

For Thomas Friedman, editorialist at The New York Times, paradigms have changed, and generation used to the reality of finding a position after graduation are now in need to create their way into the job market by becoming self-employed, in comparison to the previous generation that "had it easy" (Friedman, 2013). In Portugal, small and medium-sized enterprises (SMEs) lead the numbers, generating low rates of employment at the time (Schiemann, 2006). As the socio-economic frame in which we are inserted has come to create an impulse and evidence the necessity to create alternatives to traditional jobs or, when they do not exist, created through new businesses, entrepreneurship can become a solution (Carvalho & González, 2006).

According to the European Commission 2008 report on entrepreneurship education, up to 20% of students who participate in an entrepreneurship education program in secondary school will later start their own company. However, as the primary objective of this investigation aims to understand entrepreneurship as a potential solution for young fashion designers, entrepreneurship education will be approached in the higher education environment.

Furthermore, by exploring entrepreneurship in the fashion design field, this chapter has for goals, firstly, to understand what specific skills and attitudes young fashion designers lack when it comes to creating their venture in the industry and finally, secondly, to understand who these new fashion design entrepreneurs are as well as their main difficulties, and thirdly, an exploration of existing solutions aiming to help fashion design entrepreneurs will be made as well as a search for answers that could be game-changing.

FASHION DESIGN ENTREPRENEURSHIP: SOLUTIONS AND INCENTIVES CREATED

Many are the incentives created in the last few years in Portugal for the growth of self- employment, as well as the creation and development of innovative ideas and products, more recently with "Portugal 2020" and "Portugal 2030" programs. The national association for young entrepreneurs called ANJE, celebrating its 30 years of existence in 2016 was also specially created to promote such incentives.

As for existing models of entrepreneurship in the fashion field, the Portuguese government has made it a priority to face youth employment, following the directives of the European Commission. The European organization has approved in the last few years, a set of financial incentives aiming to correct this problem (Martins, 2015).

Education institutions are also seeking to stimulate creation and innovation, as well as raising entrepreneurial thinking among their students, as it has been considered a goal to reach in the next years, to create stronger relations between enterprises and higher education institutions (Cruchinho, 2009, p. 246). Entrepreneurship scholarships and other incentives have been designed around the country for students to concretize their projects in many fields (Souza, 2010, p. 82). The creation of such incentives by Universities is directly linked to the vocation of design by teaching students to use design thinking and methodologies to be able to practice what will be their profession, but also to create new forms of investigation and new resources that could become tools (Nielsen & Stovang, 2013; Evans, 2011).

These incentives are usually backed by a set of institutions such as ANJE (National Association for Young Entrepreneurs) or even by the Portuguese Institute of Employment and Professional Education (IEFP). Considering more precisely the fashion field, the institution previously stated ANJE has many partnerships with entities of the fashion sector, such as *Portugal Fashion*, a project co-created with ATP (Textile and Clothing Association of Portugal), that "conceives its strategy around the idea of empowering Portugal's image internationally, associating the country to concepts of fashion, innovation, irreverence, design and entrepreneurship", as it can be read on the website of ANJE.

The association has many other projects, one of them called "Global Market Strategy 2014" that centers its activities around fashion by reinforcing its presence in international markets. Other organizations such as IAPMEI (Portuguese Institute for Small and Medium Enterprises and Innovation), also promotes entrepreneurship and the creation of small businesses through the creation of incentives such as "Start-up Vouchers", an incentive to encourage young entrepreneurs from many fields, by helping them during 12 months with funding, mentorship, technical assistance and finally, a concretization reward if the project has reached their goals. "ModaLisboa" is also a good example of the Portuguese promotion of its fashion designers. Other online platforms like "Not just a label" also aim to disclose emerging designers globally, using an informative platform containing profiles of young fashion designers and a preview of their work.

As this study focuses on the creation of entrepreneurship projects in the fashion design field, it is important to focus on recently created brands, as well as projects involving the creation of innovative fashion ventures. Some of the incentives and projects created to help fashion design entrepreneurs were explored here, such as *MintySquare*, *AwayToMars*, and *Luevo*. Unfortunately, one of these explored projects, *Luevo*, has not been evolving since that time and has never responded to any request or interview

from this research. The website is still online but does not show any sign of evolution, even if various request were sent during this investigation process, for that matter, it was considered ineffective to focus further on this venture. *MintySquare*'s founders, Ana Cravo and João Figueiredo were also contacted in order to follow their evolution since 2015, but also never responded to the various requests sent, although the website has evolved, and it can be understood that the business has grown, as new brands are being promoted by the website since 2015.

MintySquare is an interesting case of Portuguese brand promotion. As explained in a previous interview made for a preliminary study in 2015, Cravo and Figueiredo aim to promote "Made in Portugal" brands and use this strategy to grow internationally. However, as their goal was to be very selective on the brands they promoted, it can be observed on the website that this continues to be the case, as Cravo & Figueiredo had previously stated their will to only promote "emerging talents and renowned fashion designers", they also announced their restrictive list of acceptances, as they admitted that they would only promote young fashion designers "if they had already shown their work at least on one of the main Portuguese catwalks".

As it has become very clear that *MintySquare* has evolved in the past two years, it can also be observed that their selection process does not fit into this particular study, as it only concerns already renowned fashion designers, whether it is on a national or international scale. It is also important to refer that many models like *MintySquare* exist in other countries, platforms who only promote emerging and renowned brands from the country they are settled.

As both *Luevo* and *MintySquare* have not been selected to be further investigated in this work as the following phase will contemplate the platforms and other existing solutions where fashion design and the need to generate entrepreneurial projects are the main goals.

AwayToMars

First introduced in March of 2015 during *Moda Lisboa*'s 44th edition, *AwayToMars* is a new concept of fashion, created by Alfredo Oróbio and Carlo Valentini, this platform allows anyone to pitch an idea or inspiration on the website, idea that can be picked up by the *AwayToMars* community in order to be produced and commercialized. *AwayToMars* was conceived to disrupt the current model of fashion, create balance and fairness among creation and production, as the creators believe that anyone can have a good idea but not everybody has the tools to turn them into reality (Cardoso, 2015). Oróbio was also contacted for an interview on fashion design entrepreneurship, the results obtained will be observed in the main part of this chapter.

FFDS

The "Future Fashion Designer Scholarship" was created in 2014 by Bruno Pieters, Belgium- based designer and founder of "Honest By", a fashion brand where transparency is key. "Future Fashion Designer Scholarship" follows the same example, as the website explains that FFDS main goal is "to offer financial support to exceptional students who want to develop their collection in a sustainable, vegan and transparent way" (FFDS, 2017). An application must be sent to the FFDS organization, as applications are accepted all year long, students from all over the world and all ages can participate with their ideas.

If the scholarship is granted to a project, the winner can receive between €1000 and €10.000 and must create their collection in a transparent manner, as projects involving ethical and social sustainability and vegan materials and proceedings are privileged. The FFDS is a good example of the changes in the fashion industry, promoting sustainable values for young designers, as such values can be a great way to make a difference in the industry as an emerging fashion designer. After several in attempts to reach to FFDS contributors, none of the contacted parties responded to the interview request.

Mastered

Mastered is an online accelerator program for creators of the fashion industry, as many different angles are contemplated, such as fashion stylist, accessories, womenswear designer, menswear designer, etc. Launched at the beginning of 2014 by Perri Lewis, Adil Abrar and Cheryl Adamson (Bobila, 2015), this paid online accelerator allows support and guidance for creative careers, with the help of coaches and industry experts who give feedback to the trainee's works. The 10-month program is made for the masses but customized for each trainee, as it promotes self-empowerment and learning. *Mastered*'s logic resides in the ever-changing industry of fashion, preparing these professionals for an improvement in themselves and their careers, stating that Only a particular type of creative thrives in this new world" and adding:

"They're relentless, resilient and massively collaborative. They work hard to develop their mindset and collaborative skills, not just their technical ones. They're polymaths, entrepreneurs and they won't let anything hold them back" (Mastered, 2017).

Mastered was created to fulfill the gap that can happen in creative professional careers, building a business on the paradigm of fashion, the ever-evolving industry, growing even faster as technology and innovation, as well as the need to be continually reinventing oneself in a professional environment, are crucial.

Before concluding this phase of the study, it is important to refer that literature review has eliminated a topic that was explored in the early stages of this research. Crowdfunding was then investigated as one possible way to begin a successful venture in the fashion industry. However, after much exploration of the topic and after observing platforms like Luevo and their evolution, it was concluded that crowdfunding was not a model to be explored for this study, as the percentage of success rate is very low among creative projects (Mollick, 2014). Although many crowdfunding platforms are present on the market and some are exclusively dedicated to fashion, a lot have since been abandoned or failed to prove effectiveness (Myriam, Cheikh & Abdellatif, 2014). *Mastered*'s expert producer, Samantha Southern also agreed to do an interview on fashion design entrepreneurship, the results obtained will be observed in the main part of this chapter.

Of course, many other solutions and platforms are being created as this study is being made, and many are repetitions of other platforms contemplated in other countries and many models like the British Fashion Council or the Fashion Beauty Monitor contribute in their way to the improvement of fashion design entrepreneurship. For this study, the need to observe what is being made to help fashion entrepreneurs was crucial, yet, as observation cannot be the only tool used in this research, the main part of this chapter will approach the interview results analyzed with QSR's Nvivo, a qualitative data analysis software.

FASHION DESIGN ENTREPRENEURS: INTERVIEWS

Methodological Design

After this first approach, where the problem of fashion design entrepreneurship was observed in the literature review, as well as the observation of specific solutions created for this particular group of professionals, an interventionist phase will now be contemplated with the use of interviews, in order to obtain qualitative data. As interviews can bring specific observations and information, they are a very dominant type of data collection as they allow the interviewer to go further if necessary, using closed questions, open questions, or a mix of those, in order to complement and cross information given from the interviewed people (Coutinho, 2015). To prepare the script, three phases were contemplated to complete the draft, starting with the rough draft and ending with the final draft that would be later used in the interview process (Rajasekar et al., 2006). The first phase of the draft was made to define the targeted group, as well as the questions. This rough draft identified the main category to interview: fashion design entrepreneurs who have created a business in the last ten years, allowing to explore more information and differences of views and experiences (Morgan, 2007; Coutinho, 2015). Table 1 shows the selection process implemented to reach the fashion design entrepreneurs, in which 23 professionals from Portugal and 58 among other countries were reached (see Table 1).

As showed in table 1, a total of 81 people were contacted, resulting in 9 interviews obtained. The profiles of the professionals interviewed are described in table 2 (see table 2).

As presented in Table 2, the "Fashion design entrepreneurs" interviewed in this study is composed of nine professionals. Brands are based in Portugal, the United Kingdom, India, Italy, Poland and France. Education levels are very different, and some have studied in higher education programs that were observed in this study, such as Polimoda, Bunka Fashion College, Central Saint Martins, London College of Fashion, as well as UE-IADE University/UBI or Modatex in Portugal. The diversity of the profiles reunited in this heterogeneous group can also bring more variety in the answers, as views and opinions are directly related to the profile and background of the participants.

Additionally, two experts of the field of Fashion Entrepreneurship were also interviewed in order to complement the results obtained in the previous group.

Interview Process

As explained by Groves et al., monitoring interviews was made simpler using computerized devices (2004, p. 297). The monitoring of the conversation was made by computer using the "Screen replay"

Table 1. Profiles of the fashion design entrepreneurs interviewed

Selection process	Total of People Approached for Interview	
	Portugal	International
-Recently talked about in a Fashion Magazine (ELLE, VOGUE, BoF etc.) -Recently rewarded internationally. -Fashion degree taken in one of BoF's top Fashion Schools/ Portuguese Fashion design Programs.	23	58
Final Interviews obtained	5	4

Table 2. Profiles of the fashion design entrepreneurs interviewed

Name	Age	Profession	Education Background
Alessandro Trincone	26	Fashion designer and founder of the brand Alessandro Trincone, created in 2016	Universita' La Sapienza di Roma" in Science of Fashion and costume; Polimoda International Institute of Fashion Design & Marketing; Bunka Fashion College, Osaka
Richa Aggarwal	ND	Fashion designer and founder of the brand Richa Aggarwal, created in 2010	Fashion Design at the National Institute of Technology, India. Fashion design degree University of Southampton.
Alexandra Sulzynska	28	Fashion designer and founder of the brand Jolie Su, created in 2012	Master's degree in Branding and Fashion Design from UE-IADE University, Lisbon/UBI, Covilhã.
Jonathan Kirschstetter	29	Co-founder of the brand Saudade de Paris, created in 2016. Former creative director at Le Coq Sportif.	Master's degree in Product Design, ENSAAMA, Paris
Susana Bettencourt	32	Fashion designer and founder of the brand Susana Bettencourt, created in 2011.	BA Fashion Knitwear (Central St Martins); MA Digital Fashion (London College of Fashion).
Daniela Barros	30	Fashion designer and founder of the brand Daniela Barros, created in 2014.	Level IV course at Porto Fashion School/ Escola superior de Belas Artes Porto.
Patrick Pádua	29	Fashion designer and founder of the brand Patrick de Pádua, created in 2014	Fashion design degree at Modatex (Portugal)
Cristiana Costa	22	Fashion designer and founder of the brand Näz, created in 2016	Bachelor's degree in Fashion Des' student in Fashion Design, UBI, Portugal
Joana Ferreira	30	Fashion designer and Founder of the brand JAHNA, created in 2017.	Master's Degree in fashion design, UBI, Portugal

app, conceived to record the computer's screen in video format, as well as the sound. To make sure to capture both video and audio correctly, a second device was set simultaneously to record the interview, guaranteeing that if one device failed, the other was still recording, and data would not get lost. These technical details are described in Table 3, where each fashion design Entrepreneur is represented, as well as the date of the interview, the tool used, as well as the recording device, the length of the interview, and finally the total of words recorded (see Table 3).

All interview recordings were transcribed to writing, a process that would occur right after the interview, to keep the memories of the conversation fresh. Transcripts were sent to the interviewed person as soon as possible, to confirm data accuracy and obtain approval (Coutinho, 2015). Interviews were held by e-mail only if needed and no other alternative was possible, as it was considered better to use interviews held this way than to lose potential data that could be used for this study. The use of e-mail was avoided, nevertheless, in some cases, its use was inevitable. It was the case for Indian-based fashion designer Richa Aggarwal, or Poland-based fashion designer Alexandra Sulzynska. Other Portuguese interviewees had no other options, as some were out on vacations and would not return in time, for others, questions related to convenience and lack of time to plan, sit and go through the interview process was considered impossible. The answers obtained through e- mail were also considered helpful and useful regarding methodological proceedings, as both tools (e-mail/ video-chatting) are considered valid if the same questions are asked, even if the possibility to ask further questions and improvise is not possible in both (Coutinho, 2015).

Table 3. Interview process: technical description

Name	Interview Date DD/MM/YY	Interview Tool	Recording Device	Time of Interview HH:MM:SS	Words Recorded
Alessandro Trincone	27/09/17	E-mail	-	-	380
Richa Aggarwal	24/09/17	E-mail	-	-	525
Alexandra Sulzynska	12/09/17	E-mail	-	-	424
Jonathan Kirschstetter	1/09/17	Skype	Screen Replay/ Dictaphone App	00:21:52	1113
Susana Bettencourt	4/10/17	Phone Call	Screen Replay/ Call recorder App	00:55:30	2174
Daniela Barros	23/09/17	E-mail	-	-	547
Patrick Pádua	1/09/17	Facebook Video Chat	Screen Replay/ Dictaphone App	01:12:31	1294
Cristiana Costa	1/09/17	E-mail	-	-	776
Joana Ferreira	15/08/17	E-mail	-	-	464

Discussion of the Results

Interestingly enough, all participants in this group agreed with the importance of entrepreneurship education in fashion design courses, even if for fashion designer Patrick de Pádua: "a designer can't do everything, I can't be busy working on my new collection and handling paperwork and legal matters at the same time", joining *Mastered*'s Samantha Southern' s opinion: "Employers are looking for polymaths. This means that designers are frequently being forced to focus less on design and more on marketing and business elements these days; perhaps the reason why the term Creative Director is now more prevalent than that of a Designer"; as experienced by designer Susana Bettencourt: "Right now I only can dedicate 10% of my time to my brand".

All fashion design entrepreneurs agreed on the lack of preparation to enter the market, as French brand Saudade de Paris' Jonathan Kirschstetter observed: "I have had many interns working for me and I always detected a lack of knowledge and entrepreneurial thinking" an issue identified by authors Kozar, Hiller & Connell (2015) as being the only effective preparation for students for their professional future. As for Jolie Su 's founder and designer Alexandra Sulzynska: it is "extremely important for fashion designers to know the business. It can help them to figure out what function do they want to have and in what kind of the company". For *AwayToMars*' Alfredo Oróbio, the main difficulty for designers to create a new venture is the business plan: "being able to show a viable business model, show that it's possible to create fashion goods with any technical knowledge, it is a real barrier in the industry".

All designers highlighted the importance and difficulty to finance a fashion design project in the early stages, as Indian based fashion designer Richa Aggarwal indicated: "you definitely need that initial seed money to run a business"; Italian designer Alessandro Trincone also referred "monetary funds" as one of the important functionalities a platform should provide. However, Portuguese fashion designer Daniela Barros also highlighted the necessity for such incentives, to "be studied better and improved, since some do not provide for the necessities of businesses" financial needs and supports referenced by author Eliza Kurz as vital (2010), also presented by the European Commission as one of their targeted improvement plans in the Entrepreneurship 2020 improvement plan (2013, p. 9). Näz's

founder, Cristiana Costa, agreed that "there should be a platform providing information". *Mastered*'s expert producer, Samantha Southern, also identified that higher education programs "(...) were falling short when it came to equipping design students with the relevant entrepreneurial skills to successfully set up their brand or business, particularly in such a fast- paced industry as the fashion industry", also highlighted by Tedeschi et al. (2015), in their study on the importance to implement teaching methods to encourage entrepreneurial thinking. Passing on to the final interview phase, two questions were asked about the utility of a new platform that could help fashion design entrepreneurs, as well as the functions such platform should have. On the total 11 interviewees, all declared an interest in the construction of the platform, and some sources declared that the benefit of the platform would depend on its functions. Many functions were pointed out by participants, and some solutions were referenced as most important to have on a platform. As some of the references were repeating by different sources, the following table indicates the number of references for each function (See Table 4).

The content presented in Table 4 shows the different functions referred by the participants. Repetitions of function name by sources of different groups make a total of 10 solutions. Functions like "Info guide", "Networking" and "Mentoring & consulting" come in the first place regarding references made in the interviews to fashion design entrepreneurs, combined with the interviews directed to Alfredo Oróbio and Samantha Southern. The analysis of these results reinforces the idea to create a multi-disciplinary platform, to inform fashion design entrepreneurs and redirect them for solutions adapted to their necessities. Following these answers, the main functionalities of the platform must be to inform visitors on upcoming events, guiding fashion design entrepreneurs with suggestions and frequently asked questions, as well as providing them with tools to create a network of professionals, able to help them with an issue, answer a question, or introduce them to another professional who can help them. Moreover, the platform will also have to contain a mentoring and consulting space, where everyone can contribute with their past experiences, as well as consult already solved problems experienced by other fashion designers. Considering the results obtained and explored in the previous part, the functionalities obtained with the qualitative data were reduced to three primary purposes. The first goal is to inform the visitors by providing updated information on upcoming events such as contests and forthcoming awards, conferences, scholarships, new incentives, as well as fashion events. The platform will also provide specific

Table 4. Profiles of the Fashion Design Entrepreneurs interviewed

Functions	References
Data base of partners (services, trade etc.)	2
Financial solutions	5
Info Guide (How to...)	8
Intellectual propriety (IP)	2
Mentoring & consulting	9
Networking	11
Marketing & Communication help	4
Paperwork & legal matters	3
Rate partners	1
Business model help	4

information that could be useful for fashion design entrepreneurs, such as entrepreneurship workshops and conferences, crash courses and online courses, as well as entrepreneurship gatherings and other events that were approached during the interviews process. This first functionality will also provide a "how-to guide", with tips and tricks that are frequently asked on several topics such as intellectual propriety, legal matters, incentives, contests, etc. The second purpose is to provide networking possibilities for fashion designers in need of new contacts, specific profiles, as well as present interesting professionals to each other, always respecting a collaborative logic, as well as using other professional networking platforms such as *Linkedin*. The third purpose will explore a consulting and virtual mentoring space, where professionals will share their issues and doubts to obtain the right tools and guidelines to overcome a specific phase or problem. These functionalities will be explored in the first phase of the platform, as their efficiency and adaptability to the real world will be tested in a pre-launching stage. It is crucial to observe if these functionalities are sufficient and fulfill the needs of fashion design entrepreneurs to give an appropriate response to professionals lacking support. For that matter, the pre-launching phase will be considered like a prototyping phase, where every detected problem with the platform, functionalities, and accessibility to users will be revised and corrected if necessary.

FUTURE RESEARCH DIRECTIONS

As this study is reaching its conclusion, the limitations associated with this study are related to the need to improve further this investigation. It is important to remind the fact that a real the present study came from a real lack of information on fashion design entrepreneurs, as the study of this topic is still very recent. The improvement of scientific investigation on fashion design entrepreneurship is therefore crucial.

It also seems very important to introduce the data obtained in this study and continue to add more data in the future, by keeping contact with the people interviewed to get an evolution of the results in the next few years. To increase the level of data to be obtained in the future, a document was created to keep track of the designers interviewed, in order to compare these results with future data, as well as exploring the evolution of the projects and brands created (Mwasalwiba, 2012, p. 42). Moreover, it is crucial for this field to develop into other studies and programs, linking education, industry professionals, and market experts and see how this network can evolve in the future, as well as creating new ventures, new projects and the opportunity for interesting studies to make.

Considering the growing amount of studies focusing on this multidisciplinary topic, as well as the new solutions appearing each day on the market to facilitate entrepreneurship in fashion design, reviewing this state of the art in a few years will be of particular interest. As fashion design will continue to grow, new technologies will appear, innovation-driven solutions will appear on the market to create new paradigms of fashion entrepreneurship.

CONCLUSION

The primary objective of this investigation was to comprehend entrepreneurship as a potential solution for young fashion designers.

Furthermore, by exploring entrepreneurship in the fashion design field, this study observed some of the solutions implemented by governmental institutions or third-parties, aiming to improve the creation of innovative projects in this industry.

It can be concluded that the fashion designer of tomorrow will have to reunite the skills that any fashion designer is supposed to have after graduation but also attending to the needs of the society and the ever- changing character of it, the fashion designer will have to possibility to be much more than a creator, as its pro-active character and entrepreneur mindset will be more than ever, tools to make the difference. Fashion designers should always think in terms of value, the importance to create higher value for people, to improve their lives and their everyday moves through garments, once again, a correlation between entrepreneurship and apparel design.

Through the results obtained in the interviews, it can be concluded that fashion design higher-education courses do not prepare their students for the new challenges of a society always more directed to entrepreneurship.

Such courses must have a base to create the foundations of the program, and also attend to all the characteristics involved, such as the level of education, the type of course in which entrepreneurship is taught, the teachers involved in the program as well as the activities proposed to students, moreover, the program itself should be defined in terms of objectives, adapted to each student, also considering that the definition of entrepreneurship is the base to all entrepreneurship courses, as its definition and views are the central issues in the making of such programs (Mwasalwiba, 2012).

As it was observed throughout the results, it is crucial that young designers develop contact and ability to find external resources as soon as possible. For that, it is imperative to educate these future professionals in the classroom, as institutions should be linked directly to the industry and show their students this connection, which would also turn it easier to connect with enterprises through partnerships, internships or other activities outside the classroom, involving the students as well as the educators (Kozar & Connell, 2013).

It is also highly relevant to keep in mind the critical differences between generations, as there is an existing gap between educators, students and the market, which can be translated to misconceptions of the fashion design course itself and the expectations that students have when entering a fashion design program compared to what is expected of them by their educators. Moreover, designers already working on the market and experts find a lack of knowledge, as well as general financial difficulties, issues concerning sourcing and production for small quantities in early stages, as well as challenges in production, marketing, and development of small businesses.

It is consensual that entrepreneurship should be a part of education programs as a way to think and act, however, it could be proposed as an actual discipline for students in an optional choice.

The evident issues of teaching parties in fashion design courses can be related to the actual lack of entrepreneurs inside these courses, who could become motors for these higher education programs, as opposed to other educational systems or private institutions that facilitate the access of teaching positions to people directly related to a specific market. For higher-education institutions, the lack of connection with the industry could also be one of the causes of this issue. The creation of partnerships with enterprises, retail brands, and fashion designers could beneficiate all parties and create new ventures, as well as motivate these young designers to develop their own business in the future.

As the industry must deal with daily challenges such as competition, globalization, marketing, innovation or sustainability (Segonds et al., 2014), young fashion designers are pushed into an ever-evolving machine, where being creative is only part of the solution, as globalization is crucial to understand this

ever-changing field (Aspers, 2010). Innovation is critical for the future of fashion as it is crucial for the future of entrepreneurship (Ünay & Zehir, 2012), as well as intrapreneurship. "Intrapreneurs" are no more than entrepreneurial mindsets who work for other parties (Hisrich, 1990), as their vision, skills, and qualities go towards entrepreneurial ones, they are important motors of industry and corporations thanks to their competitiveness and innovative qualities (Hisrich et al., 2007). Therefore, it is more than ever crucial to develop the minds of fashion design students for the use of these skills and make them understand that entrepreneurship is not only about creating their brand but also how to be successful, innovative and forward- thinking as a contributor of the fashion industry. As a result, it can also be concluded that young fashion designers lack entrepreneurial skills and attitudes, which could benefit them in the creation of their project, as well as working for other parties.

Portugal is experiencing a new record in reaching the highest number of students entering higher-education courses for the past seven years (Silva, 2017). It is imperative for fashion design courses to develop solutions to grow awareness among their students of the difficulties and solutions that come in the way of entrepreneurs (Kurz, 2010), as students continue to be lured into courses promising them a career as entrepreneurs, even if entrepreneurship is not part of the curricula nor is it taught as a way to think. It is therefore imperative for higher-education to clearly define the grounds on which fashion design courses must operate in the future, an opinion also shared by Colleen Mills in her scientific article "Navigating the interface between design education and fashion business start-up" (2012), where the author suggests the need to feel the gap between fashion design higher education programs and entrepreneurship education.

As it was evidenced by the study, the need to stimulate entrepreneurial thinking and future behaviors is crucial and can only work if educators create an entrepreneurial environment inside the classroom, proposing new models of evaluation, ways to work and react, for students to become pro-active. Interviews have shown the need for entrepreneurial content inside classrooms; even if not "forced" on students, entrepreneurship should not be considered as a discipline for fashion design courses. However, it should be viewed as a way of thinking, a behavior that students should adopt to become self-efficient professionals, working for an enterprise (intrapreneurship), or on their venture as entrepreneurs (Hisrich, 1990).

Fashion design entrepreneurship is still a very recent topic regarding investigation, meaning that the scientific community of the field must investigate further on this multidisciplinary subject. This study has evidenced the need for fashion design courses to re- adapt their curricula, considering this new paradigm in the industry, as suggested by authors to create a bridge between the industry and higher-education courses (Aspers, 2010; Kurz, 2010; Cruchinho, 2009; McRobbie, 2005).

This need for entrepreneurial contents in fashion design courses also translates itself years after, for fashion designers who strive in beginning their venture, as evidenced during the interview process, whether in Portugal or abroad, as many professionals stated that there is an apparent lack of entrepreneurial contents in fashion design courses, a lack of information that could have benefitted them when starting their brand or project. Moreover, this study has established the need for incentives and platforms specially directed to fashion design ventures, as general associations for entrepreneurs cannot always help the specificities experienced in the fashion industry (Wenting, 2008). On the other side, already-existing physical platforms like *Moda Lisboa* or *Portugal Fashion* can only help emerging designers to project their collections for a limited time and cannot help fashion design entrepreneurs on specific matters like IP, funding, administrative processes, commercialization, marketing, etc., a reality highly evidenced by the qualitative data collected during the interviews. Therefore, based on qualitative data

resulting from the interviews, a solution was proposed to fill the gap evidenced by this study. The study also explored existing solutions in Portugal and abroad, that offer to help fashion design entrepreneurs in different ways. Although, the lack of information available for fashion design entrepreneurs starting a new venture was blatant and therefore, the proposed model, is a first draft of what could become the missing link for these emerging fashion ventures. This study also gained precise information through the data collected interviews, that are the base for the platform, as its design and functionalities followed an accurate process, obtained through encoding. The creation of the platform is not only beneficial for fashion design entrepreneurs as an informative tool, it can also contribute to the discussion on fashion design entrepreneurship and create a safe setting for the future of this field, by building a participative and collaborative network of professionals, willing to change the fashion design industry into a more positive and sustainable environment (Beard, 2008; Clark, 2008; Sull & Turconi, 2008). The solution proposed will also have to be revised in the future, considering the changes and new technologies to come, as well as specific needs and issues for the fashion design entrepreneurs of tomorrow. As the platform is under construction and needs further testing, visitors are welcome to send their opinion on the initiative.

ACKNOWLEDGMENT

We would like to thank the FibEnTech Research Unit. This paper is financed by National Funds provided by FCT - Foundation for Science and NECE-UBI, this paper is financed by National Funds provided by FCT - Foundation for Science and Technology through project UID/GES/04630/2013

REFERENCES

Aspers, P. (2010). Using design for upgrading in the fashion industry. *Journal of Economic Geography*, *10*(2), 189–207. doi:10.1093/jeg/lbp030

Beard, N. D. (2008). The branding of ethical fashion and the consumer: A luxury niche or mass- market reality? *Fashion Theory*, *12*(4), 447–468. doi:10.2752/175174108X346931

Bobila, M. (2015). Mastered offers online courses taught by Tim Blanks, Nick Knight, Katie Hillier and more. *Fashionista*. Retrieved from https://fashionista.com/2015/10/mastered-courses-perri-lewis

Cardoso, J. A. (2015, March 15). Um Site Que Nos Ajuda a Ser Designers De Moda. *Público*. Retrieved from http://lifestyle.publico.pt/artigos/345922_um-site-que-nos-ajuda-a-ser-designers-de-moda

Carvalho, P. M. R., & González, L. (2006). Modelo explicativo sobre a intenção empreendedora. *Comportamento Organizacional e Gestão*, *12*(1), 43–65.

Clark, H. (2008). SLOW + FASHION an Oxymoron or a Promise for the future? *Fashion Theory*, *12*(4), 427–446. doi:10.2752/175174108X346922

Coutinho, C. P. (2015). *Metodologia de investigação em ciências sociais humanas: teoria e prática*. Coimbra: Ed. Almedina;

Cruchinho, A. (2009). *Design - A Construção Contínua de Competências*. Tese de Doutoramento em engenheira Têxtil, Escola de Engenheira da Universidade do Minho, Portugal. Retrieved from: https:// repositorium.sdum.uminho.pt/bitstream/1822/10162/4/T ese_Dout_Alex_Gomes.pdf

Estatísticas do Concurso Nacional de Acesso de 2010: comparação por curso. (2010). Retrieved from http://www.dges.mctes.pt/guias/pdfs/statcol/2010/StatsCurso10.pdf

Estatísticas do Concurso Nacional de Acesso de 2016: comparação por curso. (2016). Retrieved from http://www.dges.mctes.pt/guias/pdfs/statcol/2016/StatsCurso16.pdf

European Commission. (2008). *Entrepreneurship in higher education, especially within non- business studies.* Final Report of the Expert Group. Retrieved from: http://scholar.google.com/scholar? hl=en&btnG=Search&q=intitle:Entrepreneurship+in+hig her+education+,+especially+within+n on- business+studies#0%5Cnhttp://europa.eu.int/comm/enterprise/entrepreneurship/support_measures/ index.htm

European Commission. (2013). *Entrepreneurship 2020 Action Plan Reigniting the entrepreneurial spirit in Europe*. COM (2012) 795 final. Retrieved from http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/ ?uri=CELEX:52012DC0795&from=EN

Evans, M. (2011). Case Studies in the Evaluation and Evolution of Tools to Support Design Education. In *Researching Design Education 1st International Symposium for Design Education Researchers CUMULUS Association//DRS SIG on Design Pedagogy* (pp. 168–186). Paris, France: Academic Press. Retrieved from http://www. designresearchsociety. org/docs- procs/paris11/paris-procs11.pdf

Felismino, E. (2017). Têxtil: um setor que anda mais depressa do que o país. *Economia Online*. Retrieved from https://eco.pt/2017/05/02/textil-um-setor-que-anda-mais- depressa-do-que-o-pais/

Friedman, T. (2013). Need a Job? Invent It. *The New York Times*. Retrieved from http://www.nytimes. com/2013/03/31/opinion/sunday/friedman-need-a-job-invent- it.html?_r1⁄40

Global Entrepreneurship Monitor. (2017). *Global Report 2016/2017*. Author.

Groves, R. M., Fowler, J. F. J., Couper, M. P., Lepkowski, J. M., Singer, E., & Tourangeau, R. (2004). Survey Methodology. Hoboken, NJ: Wiley-Interscience.

Hisrich, R., Grant, S., Langan-fox, J., & Grant, S. (2007). Entrepreneurship Research and Practice: A Call to Action for Psychology. *The American Psychologist*, *62*(6), 575–589. doi:10.1037/0003-066X.62.6.575 PMID:17874898

Hisrich, R. D. (1990). Entrepreneurship / Intrapreneurship. *The American Psychologist*, *45*(2), 209–222. doi:10.1037/0003-066X.45.2.209

Kelley, D. J., Singer, S., & Herrington, M. (2016). *Global Entrepreneurship Monitor 2015/2016 Global Report*. Retrieved from: www.gemconsortium.org

Kozar, J. M., & Connell, K. H. (2013). The Millennial graduate student: Implications for educators in the fashion discipline. *International Journal of Fashion Design*. *Technology and Education*, *6*(3), 149–159. doi:10.1080/17543266.2013.795611

Kozar, J. M., & Connell, K. H. (2015). The fashion internship experience: Identifying learning outcomes in preparing students for the real world. *International Journal of Fashion Design. Technology and Education*, *8*(1), 3–11. doi:10.1080/17543266.2014.974690

Kurz, E. (2010). *Analysis on fashion design entrepreneurship: challenges and supporting models* (Master's dissertation of Science in Fashion Management). University of Borås, Sweden.

Martins, R. (2015, May 22). Portugal vai Receber 48 Milhões de Euros para Combater o Desemprego Jovem. *Público*. Retrieved from: http://www.publico.pt/economia/noticia/portugal-vai-receber-48-milhoes-de- euros-para-combater-desemprego-jovem-1696514

Mcrobbie, A. (2005). *British Fashion Design-Rag trade or image industry?* New York: Routledge.

Mills, C. E. (2012). Navigating the interface between design education and fashion business start-up. *Education + Training*, *54*(8/9), 761–777. doi:10.1108/00400911211274873

Mollick, E. (2014). The dynamics of crowdfunding: An exploratory study. *Journal of Business Venturing*, *29*(1), 1–16. doi:10.1016/j.jbusvent.2013.06.005

Morgan, D. L. (2007). Paradigms Lost and Pragmatism Regained: Methodological Implications of Combining Qualitative and Quantitative Methods. *Journal of Mixed Methods Research*, *1*(1), 48–76. doi:10.1177/2345678906292462

Mwasalwiba, E. (2012). Entrepreneurship education: a review of its objectives, teaching methods, and impact indicators. *Education + Training, 40*(2), 72–94. doi:10.1109/EMR.2012.6210519

Myriam, A., Ben Cheikh, A., & Abdellatif, T. (2014). *Crowdfunding: a model of collaboration and strategic alliance of the crowd for participatory funding*. Retrieved from http://ssrn.com/abstract=2553533

Nielsen, S. L., & Stovang, P. (2013). DesUni: University entrepreneurship education through design thinking. *Education + Training*, *57*(8), 977–991.

Rajasekar, S., Philominathan, P., Chinnathambi, V., & Botha, A. (2006). Research Methodology. *Methods (San Diego, Calif.)*, *68*(1), 23. doi:10.1097/AAP.0b013e3182208cea PMID:16793281

Schiemann, M. (2006). *SMEs and entrepreneurship in the EU*. EUROSTAT report. Retrieved from: http://ec.europa.eu/eurostat/en/web/products-statistics-in-focus/-/KS-NP-06-024

Segonds, F., Mantelet, F., Maranzana, N., & Gaillard, S. (2014, March). Early stages of apparel design: How to define collaborative needs for PLM and fashion? *International Journal of Fashion Design. Technology and Education*, *7*, 1–10. doi:10.1080/17543266.2014.893591

Silva, S. (2017, September 10). Há sete anos que não entravam tantos alunos no ensino superior. *Público*. Retrieved from https://www.publico.pt/2017/09/10/sociedade/noticia/ha-sete-anos-que-nao-entravam-tantos-alunos-no-ensino-superior-1784932

Souza, L. K. (2010). *As Vivências dos Designers de Moda em Relação ao seu Trabalho: Uma Abordagem Psicodinâmica*. Brasil: Tese de Doutoramento em Psicologia. Universidade Goiânia.

Sull, D., & Turconi, S. (2008). Fast Fashion lessons. *Business Strategy Review*, *19*(2), 4–11. doi:10.1111/j.1467-8616.2008.00527.x

Tedeschi, S. P., Sniker, T. G., Hoffman, W. A. M., & Ventura, A. (2015). Design, Empreendedorismo e Inovação: bases para um método de ensino orientado para uma formação empreendedora. In VI Simpósio Nacional de Ciência, tecnologia e Sociedade, Rio de Janeiro, Brasil.

Uma nova imagem para a ITV. (2016). Retrieved March 20, 2017, from https://www.portugaltextil.com/uma-nova-imagem-para-a-itv/

Ünay, F. G., & Zehir, C. (2012). Innovation intelligence and entrepreneurship in the fashion industry. *Procedia: Social and Behavioral Sciences*, *41*, 315–321. doi:10.1016/j.sbspro.2012.04.036

Wenting, R. (2008). Spinoff dynamics and the spatial formation of the fashion design industry. *Journal of Economic Geography*, *8*(5), 593–614. doi:10.1093/jeg/lbn030

Chapter 12
Social Entrepreneurship and Innovation:
Strategic Management for Tourism, Hospitality in Western Amazon

Sâmia Laise Manthey Benevides
UNIR, Brazil

Flávio de São Pedro Filho
UNIR, Brazil

Maria José Madeira
University of Beira Interior, Portugal

Irene Yoko Taguchi Sakuno
GEITEC, Brazil

Valeria Arenhardt
IFRO, Brazil

ABSTRACT

This chapter aims to identify and analyze the main strategies for the qualification of inbound tourism and hospitality. This study is supported by the theory of planned behavior and concepts of inbound tourism, hospitality, creativity, and innovation. The study uses method of case study, as methodological procedures workshops were held with stakeholders of Rondônia tourism trading; there were collection of data, participant observation, and an analysis of documents, allowing critique about the causal relationship. The SWOT matrix was applied in the production of the survey report. As a result, there has been a recognition of the tourism potential in the scenario and the necessity for strategic planning of the attributes; valid elements for social innovation by qualifying strategies for inbound tourism and hospitality are indicated. The originality is on proposing strategies that empower the marginalized and socially excluded population, promoted the touristic resources, indicate management alternatives to qualify the inbound and hospitality, and contribute to the regional development.

DOI: 10.4018/978-1-5225-7937-3.ch012

INTRODUCTION

The National Tourism Plan published by Brasil (2013) presents promotional strategies for the sector, leading to the prospect of economic and social development and the eradication of poverty. It contains management guidelines that encourage dialogue with organizations in civil society while promoting social innovation, entrepreneurship, job creation, and regionalization by a multidimensional aggregate. This study focuses on issues related to forms of social innovation by tourism, from a valid and oriented perspective. It considers the significance of tourism to the integrated development of the region, given the positive impact that this field of activity already presents at this early stage.

Data published by Brasil (2013) point out that the tourism sector, in terms of growth, outperformed the Brazilian economy; it represented 3,7% of the Brazilian Gross Domestic Product (GDP), and generated 8,3% of jobs in the country; as well as increasing the credit granted by financial institutions. The trend of Brazilian tourism is to increase. Investment in social innovation, when related to tourism, makes a significant contribution to socioeconomic development. Lima (2011) notes that investment of this nature in European countries indicates exponential growth for GDP, and this has roused the University to undertake research on the topic.

The above factors imply elements which are directly relevant to the State of Rondônia, in the northern region of Brazil This State has a tourist potential that the economy might exploit, considering its current living conditions and immediate economic, social and cultural situation. Nevertheless, obstacles to this development remain, because the actors involved are not sufficiently prepared to move forward. With this in mind, this study aims to answer the following research question: How could we describe the strategies to encourage social innovation by inbound tourism and hospitality in the State of Rondônia? To answer this question, we propose (a) as a general objective the study of the key strategies for qualifying as a tourist attraction for inbound tourism and hospitality; and (b), as specific objectives: (1) to point out the strategic elements in qualifying for inbound tourism and hospitality in the scenario under study; (2) to analyze the perspective from which the implementation of the strategic elements in practice will take place; and (3) to indicate the elements of social innovation in support of a qualification strategy for inbound tourism and hospitality. The task rests on Planned Behaviour Theory and invokes the concepts of inbound tourism, hospitality, tourism, creativity, innovation, SWOT analysis, with the support of theories that allow state of the art interpretation.

THEORETICAL AND CONCEPTUAL REVIEW

The definition of tourism presented by Esteves (2015) refers to phenomena and relations emerging from the interaction between tourists and service providers, government, communities, universities and organizations in the process of attracting, transporting, receiving and managing tourists. The term ‘inbound tourism’ presented in Freire (2015) is defined as a business process where practices connected with the permanent presence of people going to/at a destination are managed. It consists in providing services and products of interest, desire and necessity for visitors and a set of organizational and logistical elements arranged for receiving them, which involves the complexity of human reception activities supported by a tangible infrastructure where tourists meet residents. To Pezini et al (2014), in Brazil it is an alternative to other kinds of social, economic, cultural and political development once its effectiveness depends on

an urban infrastructure (transportation, security, law), community awareness, and the manually-skilled labor and hospitality of the place where tourists are received.

The term 'hospitality' is related to the act of receiving and giving shelter to a traveler. For Pimentel (2012), it includes all the receptive touristic-social machinery held by agencies, sectors, companies or individuals who have contact with visitors and offer structures and services. The effectiveness of the hospitality encourages social participation, involvement and the sharing of experiences between cultures, customs, values and people; it is a socio-cultural and professional phenomenon that needs investment and strategy to be effective.

The study by Wada (2012) brings a strategic approach to managing the experience of hospitality; it sees it as the convergence of private, commercial and social activities. The private activity is related to the host's knowledge and care of the physiological and psychological needs of the visitor. The commercial activity concerns the search for financial results, production and certain profit. The social activity involves the reception of a guest by strangers, with the fundamental features of reciprocity and the status and prestige of the tourist.

Wada (2012) posits that the creation of value for the marketing of products and services in tourism depends on the understanding by the stakeholders of the effect of their behaviour, values, history and context. The stakeholders are asked to provide the best possible service in inbound tourism and hospitality; so the training of the actors involved and meeting the needs of visitors contribute to the behavioral predictability which improves results in tourism.

Theory of Planned Behaviour applied to tourism

The Theory of Planned Behaviour (TPB) formulated by Fishbein and Ajzen and presented in Gomide (2014) is used to explain the relationship between attitude and behaviour and has been used in different studies; to apply it to tourism is innovative. The theory determines the following constructs: (1) attitude to behaviour; (2) subjective standards; and (3) perceived behavioral control. This knowledge is useful for implementation of projects and programs aimed at changing people´s behaviour in order to achieve a defined objective. Table 1 below highlights the strategic elements or operational indicatives for effective process management, which focuses on helping the tourism experience to improve.

The concepts of Planned Behaviour Theory applied to tourism are aimed at modifying the behaviour of the actors that relates to inbound tourism and hospitality, which, together with the concepts of creativity and innovation, will satisfy visitors and meet their needs and expectations.

Creativity and Innovation Applied in Tourism

Sanmartin (2012) presents creativity as an individual characteristic resulting from a combination of skills and attitudes that favor the deepening of experience. It is a perception that conditions can make changes in everyday life. The person who creates has mental processes, motivation and learning which, along with environmental and cultural influences, foster the development of new ideas. A predisposition to create is related to the risks that the individual is able to take and the barriers that s/he can surmount, coupled with the Ability to use innate skills, learned skills and motivation. Creative innovation occurs when professionals are encouraged to contribute their own ideas to a project in a continuous process that helps a culture of innovation to develop. With creativity, the individual can break up an existing pattern and introduce Something new.

Table 1. Application of the planned behaviour theory to inbound tourism and hospitality

Concept	Application to Tourism	Operationalization
Aims to predict the individual´s behaviour in a given situation.	Aims to predict the behavior of a tourist.	Know and analyze why the tourist has a determined attitude and subjective norm using internet tools and social networks.
Individuals are rational, use available information and assess the consequences of adopting a behavior.	Offers the tourist an experience that meets or exceeds his expectations. Provides information and assesses the satisfaction of the customer.	Know the goals, interests and needs of the tourist, seeks to serve her/him, assesses the customer perception and proposes improved alternatives.
The behavioral intention is defined by attitude, social pressure and individual beliefs.	Leads the individual to believe that the tourism experience will bring positive results and evaluations; recounts or recalls the positive experience of other people.	Invest in services, infrastructure, marketing, inbound tourism facilities and hospitality.
Individual perception of the effort required to adopt a behaviour given the resources available and their own ability.	Facilitates access and provides the required resources to the tourist for her/him to decide on a certain tour package, period of time or region.	Submit price proposals, facilitate the payment, invest in marketing, ease the access.

Source: Prepared by the author on the basis of Gomide (2014) and Silveira e Maia (2015).

For Sanmartin (2012) innovation occurs when the implementation of a creative idea generates the desired result. Innovation is the result of a systematic process, measured and managed strategically, defining design criteria, objectives, deadlines and responsibilities. Innovation, as diffused by the Oslo Manual and presented in Pedro Filho (2016), lies in the implementation of a new or improved product, good or service. A new process, marketing or organizational method in business practices can restructure the workplace or a firm's external relations. Innovation is characterized by the incorporation, combination or synthesis of knowledge in products, processes or significant and valued but unpublicized services.

The discussion of creativity and innovation in tourism is relevant in view of the intensified competitiveness in this industry, and the products and services offered by inbound tourism. To Esteves (2015), tourism becomes innovative by the incorporation of technologies for developing skills, raw materials, services, and a management model adopted by the suppliers. Innovation must be present throughout the tourism system, through its economic performance, demand, technology, organizational strategy, individual entrepreneurship and the role of the state.

Initiatives in each of these elements will strengthen tourism and the resulting local developments. These elements are forces that enhance innovation in tourism, demanding that the expected impacts should be generated by strategic management.

Social Innovation as a Strategy for Integrated Local Development

Studies in Emmendoerfer et al (2011) and Correia et al (2015) present social innovation as an economic restructuring strategy that appears to meet the demands and solve social problems at the institutional, organizational and individual levels by diminishing the power of the state. This innovation involves social intervention as a way of developing and adopting technologies or arrangements by which social relations can be transformed, promoting inclusion by creating jobs and improvements in the general standard of living. These two authors believe that individuals and organizations can bring about social innovation when excluded individuals become responsible for the decision-making in the design and creation of goods and services, and can develop the autonomy to form new relationships in the home and at work. The

organization becomes an agent for social innovation by forming new divisions and ways of coordinating work, presents structural configurations in networks or projects; expands the interaction of the public and private sectors; and allows stakeholders to meet the collective and social responsibilities of mediation.

To Emmendoerfer et al (2011), one sign of social innovation in tourism is the substitution of macro national policies for regional policies so as to minimize the socioeconomic impact of generating employment, promoting the local culture and income and preserving the natural resources. Correia et al (2015) point out that when it contributes to the generation of methodologies, productive initiatives, and democratic and participatory policies, social innovation leverages local resources for development; It presents proposals for emphasizing social and environmental solutions that involve the social actors in processes of awareness, mobilization and learning; promotes local development by creating ideas that meet the necessities and aspirations of the individuals, transforming policy and practice; moreover, the mobilization and coordination to find solutions and tackle regional demands strengthen local self-belief and enrich the collective consciousness.

To Lima (2011), the power of social innovation is the perception by society of a gap between what exists and what should exist; the search for solutions and training of agents mobilizes the exploitation of the regional potential present in the context of life. All this potential can be also applied to promote the development of tourism in Rondônia.

Concepts of SWOT Analysis

SWOT analysis is a system for evaluating the strategic position of a subject (often an organization) in relation to its Strengths, Weaknesses, Opportunities and Threats. The analysis assesses the current state by considering the external environment (where opportunities and threats come from) and the internal environment (where the Strengths and Weaknesses are apparent). The strengths and weaknesses are weighted according to internal factors, namely human resources and their capacity, knowledge and skills, and physical resources through the installation of equipment, technology and other things. The opportunities and threats are analyzed with regard to external factors that may block the achievement of the proposed objectives. These variables must be known and strategies adopted to minimize their impact when negative and enhance their influence when positive; the adoption of these strategies will characterize the competitive advantage (RIBEIRO, 2011).

METHODOLOGY

Works by Gil (2010) and Marconi and Lakatos (2011) suggest that this will apply social research of both qualitative and quantitative types, or mixed methods research, as Creswell calls it (2010). This research analyzed the data generated in a 30-hour training workshop aimed to raise awareness of inbound tourism and the hospitality required to attract local tourism in 28 strategic representatives of public and private initiatives and of the third sector. The participants were selected by the Business Council of Tourism and Hospitality of the State of Rondônia – CONETUR – by a non-random process which, according to Creswell (2010) constitutes a quasi-experiment. It is a descriptive statistical sample composed of 4 government representatives, 4 representatives of travel agencies, 4 hotel representatives, 4 representatives of bars, 4 restaurant representatives, 4 representatives of the third sector and 4 representatives of tourist

agencies. By its creative friction the workshop stimulated the construction of projects for the development of tourism in the state focused on innovation, which will also be used as a data source for this study.

The technique to be adopted will be field research according to the guidelines contained in Marconi and Lakatos (2012) which specify that information or knowledge about a problem is selected from the observation of facts and phenomena. The study may be classified as quantitative descriptive field research, since it consists of an empirical investigation whose purpose is to analyze the characteristics of the phenomenon under study, using formal methods and techniques for data collection. In compliance with the ethical recommendations, we distributed consent statements, guaranteeing the anonymity of the participants

Method

For the preparation of this research, based on Creswell (2014) the Case Study method was applied. For an author, a case study is a comprehensive qualitative methodology which allows a researcher to explore a limited system over a certain period, through the collection of in-depth detailed data, involving multiple sources of information. The research considered as it case study a strategy workshop focusing on innovation on inbound tourism and hospitality, for leaders in the tourist activities specified above. The concern was to characterize strategies for social innovation in tourist hospitality in the State of Rondônia. The problem was to be analysed through participant observation of the events and the critical use of data from the application form and by the analysis of projects prepared by the participants.

Adopted Procedures

The procedures used for data collection were participant observation, which according to Marconi and Lakatos (2011) involves interaction between the researcher and the participants with the aim of collecting data. The researchers become part, integrating, sharing and analyzing the social conditions, perceiving conflicts and tensions; and establishing communication links with the actors involved in the situation under study.

A structured questionnaire containing 36 statements compiled by the authors was also distributed to the participants. Of the statements, 7 referred to the identification of personal characteristics collected at a nominal range, as defined in Oliveira (2001). The other 29 related to the theme and were intended to identify by scale the perception by the group of its own ability to apply creativity and innovation to inbound tourism and local hospitality in view of the concepts learned. Its design was structured to allow responses on a Likert scale of 5 points. The reliability of the form is related to its validation through Cronbach's Alpha program 0.923.

The third procedure was the analysis of documents produced by the participants. The analysis of the data resulting from participant observation, the questionnaire responses and the elaborated projects were analyzed by means of the SWOT matrix.

The Likert scale was used because it allows researchers to measure the strength of belief among the participants about a particular object, the force with which these beliefs are held and the value attached to the object, as shown in Oliveira (2001). This scale features assertions related to the object under study that will be evaluated according to the degree of agreement Thus, TA refers to Totally Agree, PA - Partially Agree, I - Indifferent, PD - Partially Disagree and SD - Strongly Disagree.

Study of The Social Innovation Focused on Proposed Qualifying Strategies

The state of Rondônia, is located in northern Brazil. It has 52 municipalities and its capital city is Porto Velho. According to the Brazilian Institute of Geography and Statistics (IBGE), in 2015 the state had an estimated population of 502,748 people. According to Brasil (2014), the GDP in 2012 represented 12,7% (an amount of R$ 26,024 million) of the total for the Northern region, putting this state in 3rd place in the rankings. In economic terms, it spends 28,5% on public administration and defense and social security; Farming takes up 20,5%; Trade, 12%; and Construction, 11,1%. Aggregating economic activities by sector in 2012, the participation in services accounted for 61,2% of its income; Farming accounted for 20,5% and Industry for 18,3%.

Pedro Filho (2013) indicates that the State of Rondônia has the potential for ecotourism owing to its natural attractions. Aiming to learn about and exploit this potential, the workshop was arranged to train local leaders in tourism. As noted above, a questionnaire containing 36 statements was administered.

Table 2 below discriminates between the assertions applied to the respondents and seeks to assess their perception of inbound tourism, hospitality, behavioral intention, creativity, and innovation. The confrontation between these data and the theory will be examined in order to indicate the key strategies to qualify for inbound tourism and hospitality in Rondônia.

These data will be compared with the indicatives of the theoretical framework to meet the general and specific objectives. The constructs of attitude and subjective norm were measured by items 1 to 5 in Table 2 and the perceived behavioral control was measured by items 6 to 15. By analyzing the constructs of attitude and subjective norm, it was found that the respondents are likely to adopt innovative behaviors in inbound tourism and hospitality. The construct of perceived behavioral control was also confirmed by the respondents, and therefore a behavioral intention among the participants of the workshop can be claimed.

The only items that the individuals agreed on partially are related to the receiving influence of the environment. Influences can be internal or external to the organization, but items 6, 8 and 14 confirm, according to Figure 1, that these influences are external factors that may hinder the respondent's ability to innovate and be creative. External factors are environmental conditions that negatively affect the achievement of the objectives and are considered by the participants to be related to the government.

Items 16 to 19 of Table 2 evaluate inbound tourism; their intention was to measure the perception of the respondent of the possibility of investing in local inbound tourism. It is shown in Figure 2 that the respondents perceive tourism as a factor of local change, which Rondônia is capable of instituting. However, it was pointed out in item 19 that not everyone believes the State to have the necessary resources.

Figure 1. Behavioral intention of the participants

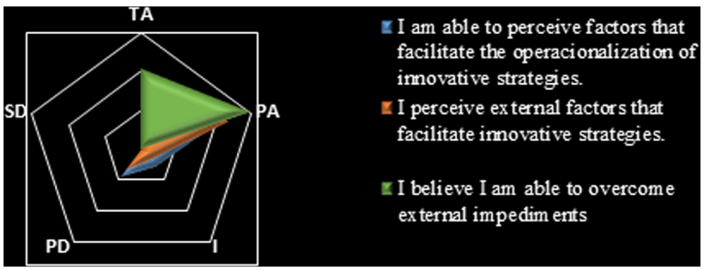


Table 2. Answers of the respondents to the assertions

Assertions	Answers in %				
	TA	PA	I	PD	SD
1. The development of innovative strategies is possible.	100	0	0	0	0
2. I believe I can contribute with innovative strategies.	76	24	0	0	0
3. Based on past experience I believe I am able to innovate on inbound tourism.	59	41	0	0	0
4. I am aware of people or organizations nearby with innovative strategies.	47	47	0	0	0
5. I am able to influence those close to me to adopt innovative strategies.	59	41	0	0	0
6. I understand the factors that encourage the implementation of innovative strategies	29	41	12	18	0
7. I perceive internal factors that encourage the implementation of innovative strategies.	44	44	6	6	0
8. I perceive the external factors that encourage innovative strategies.	33	47	7	13	0
9. I believe that these will be valued by the organization when it adopts innovative strategies.	76	18	6	0	0
10. I perceive impediments to operationalizing innovative strategies.	38	19	25	19	0
11. I perceive internal impediments to operationalizing innovative strategies.	47	18	18	12	6
12. I perceive external impediments to operationalizing innovative strategies.	35	24	24	12	6
13. I believe I am able to overcome the internal impediments	41	59	0	0	0
14. I believe I am able to overcome the external impediments.	29	53	0	12	6
15. I believe that I will be criticized for not adopting innovative strategies.	41	35	12	0	12
16. I believe that inbound tourism contributes to local development.	82	18	0	0	0
17. It is possible to overcome problems and find alternatives in local social segments.	71	18	0	12	0
18. I believe that Rondônia has potential for tourism development.	88	13	0	0	0
19. Rondônia has local resources to promote inbound tourism.	29	59	0	6	6
20. I am able to develop new and useful ideas for the promotion of tourism.	59	29	6	6	6
21. I can present adaptable and fulfilling ideas for tourism.	41	47	0	12	0
22. I realize that my cognitive models of local tourism have been expanded.	47	35	12	0	6
23. I can operate and produce knowledge for local tourism.	47	41	0	12	0
24. I am able to solve complex problems by developing creativity.	31	56	0	6	6
25. I believe that inbound tourism is an important segment for tourism.	88	13	0	0	0
26. I believe that hospitality is the act of welcoming.	93	7	0	0	0
27. I am able to offer services for inbound tourism and hospitality in Rondônia.	50	38	0	6	6
28. I am able to implement new products or improved services	56	31	6	6	0
29. I can incorporate, combine and / or synthesize knowledge in services.	63	25	6	6	0

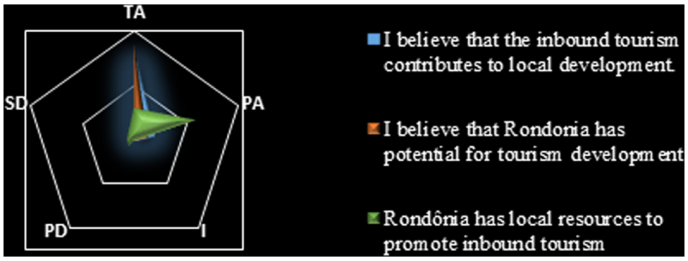
Source: Questionnaire prepared by the authors based on the theoretical framework.

Subtitle: Items 1 to 15 measure the behavioral intention. Items 16 to 19 assess local inbound tourism. Items 20 to 24 analyze creativity and items 25 to 29 measure innovation, inbound tourism and hospitality.

Such resources are those of urban infrastructure; the encouragement of cultural activities; making the physical environment more attractive; state investment in tourism. These statements are consistent with the discussions in the group during the workshop when the researchers applied participative observation.

Items 20 to 24 aim to measure the respondents' perceptions of creativity concepts. The data show that most of the respondents perceive themselves capable of adopting creative attitudes, though they find

Figure 2. Local inbound tourism



themselves only partially prepared to present adaptable and fulfilling ideas and solve complex problems, as pointed out in Figure 3.

It is possible to relate this difficulty to the organizational platform. Items 10 and 11 in Table 2 confirm this hypothesis; here, participants claim to realize the existence of internal impediments to operationalize innovation and in item 13 they indicate their difficulty in overcoming the internal impediments, as shown in Figure 4.

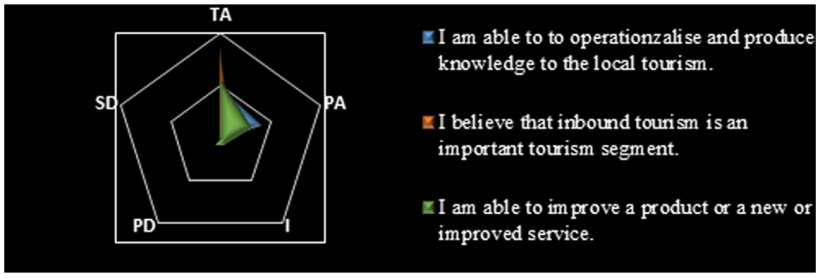
To change these contextual factors, the training of personnel, the opening of space for discussion, the stimulation of creativity to share organizational challenges and a search for creative strategies to solve problems seem to be necessary.

The perceptions of innovation, inbound tourism and hospitality were measured from responses to assertions 25 to 29, listed in Table 2. The predominance of a fitness behavioral favorable to a qualified service, simplified product or improvement in inbound tourism and hospitality is noted; this indicates a belief that inbound tourism is an important segment of tourism, which could turn logical argument into concrete action.

Figure 3. Perceptions of creativeness

Figure 4. Perception of the internal impediments to innovation

Figure 5. Perceptions of innovation, inbound tourism and hospitality



Strategic Elements for the Qualification of Inbound Tourism and Hospitality in Rondônia

The data generated by the answers to the questionnaire, combined with those from the documents prepared by the Participants and the theoretical reference indicate as strategies the following items:

- **Competitiveness:** Create holiday itineraries that include local tour packages; offer advantageous prices; create new services such as a Porto Velho City Tour;
- **Economic Performance:** Adopt planning strategies to achieve the desired financial results; understand the behaviours, values, history and context of the stakeholders; meet customers and assess their perceptions; propose improvement alternatives using the internet;
- **Technology:** Include regional hotels in search engines; create Websites with photos and accommodation options; add values for easy access, purchase and to stimulate interest; invest in the training of manpower;
- **Organizational Strategy**: Create organizational space for discussion, encourage creativity in employees; implement incremental innovations; implement radical innovations;
- **Individual Entrepreneurship**: Invest in new services and products; invest in new work processes; create networks of craftspersons and local businesses.
- **Role of the State**: Carry out policies to promote local tourism, upgrade the municipal tourism plan; invest in urban infrastructure; manage tourism marketing, qualify specific sectors; partnering.

The Elements of Social Innovation That Would Help Install the Qualification Strategies for Inbound Tourism and Hospitality

Social innovation is an economic restructuring strategy that appears to meet the demands and solve social problems. It involves social intervention as a manner of development and the adoption of technologies that transform social relations, promote inclusion, create jobs and improve people's standard of living. This section addresses the following question: What elements of social innovation will support the qualification strategy for inbound tourism and hospitality? Below summarizes the possibilities for meeting the demands identified in the survey:

1. Competitiveness:
    a. Create tourist centers in the state;
    b. Map the tourist attractions of the poles;
    c. Implement a state tourism plan.
2. Economic performance:
    a. Seek investment from regional financial institutions;
    b. Foster social interaction and an appreciation of the local culture;
    c. Strengthen ties with the region, recover and preserve local resources;
3. Technology:
    a. Innovate in products and services and present consistent prices in competition;
    b. Provide environmental solutions that involve social actors in the process mobilization;
    c. Empower marginalized groups, suppliers and local hand work;
4. Organizational strategy:
    a. Make labor relations flexible;
    b. Bring to the organizational platforms the ideas of social actors;
    c. 3 attend to social problems;
5. Individual entrepreneurship:
    a. Income generation to groups linked to art and culture;
    b. Income distribution and strengthening of local trade;
    c. Creation of craft networks and local businesses.
6. Role of the state
    a. Adoption of regional policies that minimize the socioeconomic impact of the changes;
    b. Develop a civic sense in the population, increasing the sense of belonging and security;
    c. Promote people's involvement in planning;

Innovation involves social intervention, adopting technologies and arrangements that can transform social relations. Individuals and organizations become agents who contribute to decisions, take initiatives and build new relationships. When applied to tourism innovation can be detected from the adoption of regional policies that minimize the socioeconomic impact of change to generate employment, promote the local culture, raise incomes and preserve the natural resources. It exploits the regional resources, contributes to the generation of methodologies, and produces initiatives and democratic policies; It presents environmental solutions which involve social actors in mobilizing and learning processes. Local beliefs and collective consciousness are strengthened. Unlike social challenges, it increases the perception of power which enables efforts to be mobilized to solve problems. All these initiatives are possible if tourism in Rondônia receives investment.

CONCLUSION

Rondônia is has a great potential for tourism. Natural, social, cultural and economic resources require planning and management. This research mentioned throughout the elements needed to improve inbound tourism in the region; the perspectives from which these elements were applied to its present situation were analysed and the strategies for social innovation by tourism were characterized.

The establishment of partnerships between the public and private sector, the third sector and society allows effective, democratic and participatory intervention. Investment in inbound tourism and local hospitality is able to restructure the economy of the state, generate employment, raise income and increase the people's standard of living. Investment in the requisite infrastructure for inbound tourism and hospitality will attract a demand for projects to be funded, which would be reflected in increased the state revenue and the consequent strengthening of the state's economic potential. The resources from these actions could be invested in urban infrastructure, public awareness of inbound tourism, and the rehabilitation of the State's culture to preserve and maintain the historical heritage. Investment in public policies for marketing tourism in the region, starting with urban planning to facilitate access, promote a civic sense in the population, and encourage social inclusion through art, will attract national and international tourists.

The study demonstrates that is possible to implement strategies for social innovation by investing in inbound tourism and hospitality. It incorporated valid guiding elements of action planning, management and the implementation of planning in public and private institutions, with consequent benefit to society. In this context, the participation of the University is considered important, for it can provide the free knowledge necessary to carry out strategic planning and the preparation and the training of managers who will be leaders in both the private and public spheres.

ACKNOWLEDGMENT

This paper is financed by National Funds provided by FCT - Foundation for Science and Technology through project UID/GES/04630/2013 We thank the University of Beira Interior, Faculty of Social and Human Sciences, Department of Management and Economics, Post-Doctoral Program in Management and Economics, with a focus on Management Strategy for Innovation and Sustainability, Covilhã, Portugal. Site: http://www.ubi.pt/Entidade/Ciencias_Sociais_e_Humanas.

REFERENCES

Brasil. (2013). *National Tourism Plan 2013-2016: tourism doing much more for Brazil, 2013.* Ministry of Tourism.

Brasil. (2014). Government of the State of Rondônia. Department of Planning, Budget and Management. Management of the Observatory and Regional Development. Gross Domestic Product (GDP) of the State of Rondônia – 2002 a 2012. Porto Velho, 2014.

Creswell, J. W. (2010). Research Projects: qualitative, quantitative and mixed methods (3rd ed.). Porto Alegre: Artmed.

Creswell, J. W. (2014). *Qualitative Research and Research Project: choosing among five approaches* (3rd ed.). Porto Alegre: Penso.

de Lima, R. P. (2011). *Community Base Tourism as Social Innovation* (Doctoral thesis). Postgraduate Program in Production Engineering, COPPE. Federal University of Rio de Janeiro. Rio de Janeiro: COPPE.

Emmendoerfer, M. L., Silva, F. C., & Lima, A. A. T. F. C. (2011). Evidences of Social Innovation in Public Management of tourism in Minas Gerais – Brazil: The model of tourist circuits on analysis.*PASOS. Revista de Turismo y Patrimonio Cultural*, *9*(2), 397–410.

Esteves, T. (2015). *Tourism Innovation in Lisbon* (Master's dissertation). University Europeia.

Freire, M. A. (2015). *Hospitality in professional training in tourism in Rio de Janeiro: searching for analytical categories (Master's Program in Hospitality). Anhembi Morumbi University*.

Gil, A. C. (2010). *How to design research projects*. São Paulo: Atlas.

Gómez, C. R. P., Falcão, M. C., Castillo, L. A. G., Correia, S. N., & de Oliveira, V. M. (2015). Community-based tourism as Social Innovation: Congruence between the constructs. *PASOS: Revista de Turismo y Patrimonio Cultural*, *13*(5), 1213–1227. doi:10.25145/j.pasos.2015.13.082

Gomide, C. S. A. (2014). *Attitudes, subjective norms and perceived behavioral control of a university population in relation to water consumption: analysis in the light of planned behaviour (TPB)* (Master's dissertation). Federal University of Viçosa. Administration Postgraduate Program. Retrieved from http://www.locus.ufv.br/bitstream/handle/123456789/6618/texto%20completo.pdf?sequence=1&isAllowed=y

Marconi, M., & Lakatos, E. M. (2011). *Scientific methodology* (6th ed.). São Paulo: Atlas.

Marconi, M., & Lakatos, E. M. (2012). *Research Techniques*. São Paulo: Atlas.

Oliveira, T. M. V. de. (2001). Scales of Attitude Measurement: Thurstone, Osgood, Stapel, Likert, Guttman, Alpert. *Administration Online: Practice, Research and Teaching, 2*(2).

Pedro, F. F. de S. (2013). Paradigms and strategic perspectives for indigenous ecotourism in Rondônia. *Tourism Virtual Magazine, 13*(2).

Pedro, F. F. de S. (2016). Strategy workshop for inbound tourism and hospitality with a focus on innovation. (Handout). Master's postgraduate program in administration – PPGMAD. Federal University of Rondônia. Porto Velho: PPGA.

Pezini, R., Manosso, F. C., Bizinelli, C., & Gândara, J. M. G. (2014). Inbound Tourism: an analysis of city tours in Curitiba. Tourism Vision and Action Electronic Magazine, 16(3).

Pimentel, R. F. D. (2012). *Brazilian hospitality at international tourism market. Academic Magazine of the Tourism Innovation Centre*. Rio de Janeiro: COPPE.

Ribeiro, E. N. (2011). *Swot Analysis - Strategic Planning for Implementation Analysis and Training of a Maintenance Team in an Industrial Segment Company. São João Del Rei*. Postgraduate Center of the Pitágoras Faculties.

Sanmartin, S. (2012). *Creativity and Innovation in Company: from the potential to creative action*. São Paulo: Trevisan.

Silveira, M. O., & Maia, M. L. A. (2015). Variables that influence the use of bicycles and the beliefs of planned behaviour theory. *Magazine Transportation, 23*(1).

Wada, E. K. (2012). Tourism: strategic planning and management capacity – regional development, production network and clusters. Manole.

Chapter 13
The Multiculturalility Issue on Globalization

Elsa Cristina Vieira
Universidade Aberta, Portugal

ABSTRACT

The globalization of markets emphasize the entrepreneurship phenomenon. Cantillon is identified as one of the pioneers in the subject. In this chapter, the authors work this subject in the field of sociology, focused on agency and structure pleadings, understandable as a human action, which starts from a rational choice and with an action sociology. Based on a doctoral research carried out with the objective of identifying the profile of women entrepreneurs, this chapter seeks to stylize some material that was left open in the empirical elements collected, namely the role of entrepreneurial immigrant communities in the Algarve region and the interculturality present in the behaviors observed.

INTRODUCTION

This chapter 'Migrant and Entrepreneurial Women on Algarve' identify the study object as migrant women living in the identified region.

This object raises questions to answer by determining for that purpose, the objective: to identify entrepreneurial profiles. For this it is necessary to analyze attitudes and behaviors that characterize the patterns of this social group.

Likewise, this study assesses the economic, social and cultural impacts that these entrepreneurial women activities have on the region.

The entrepreneurship phenomenon has been the target of several studies, with an eclecticism of positions (Baptista & Leitão, 2015; Campos & Soeiro, 2016; Boava & Macedo, 2011; Carvalho & Da Costa, 2015; Drucker, 2007; Filion, 2003, 2008, Lundström & Stevenson, 2005; Macrae, 1982; Marques In Silva, 2016; Portela, 2006; Sarkar, 2010; Shane & Venkataraman, 2000; Schumpeter, 1934, 1947, Stevenson & Lundström, 2001, 2002).

DOI: 10.4018/978-1-5225-7937-3.ch013

Although he exists since long-standing - Cantillon is identified as one of the pioneers in the subject (Sarkar, 2010) - has now an increased relevance with the globalizaton timeline. Entrepreneurship is a politicized and therefore very sensitive and complex issue (Campos & Soeiro, 2016, Corrêa da Silva, Piganatelli e Viegas, 2015, GEM, 2017). Nevertheless, the subject should not be feared, it lacks more contributions and more investigations in this topic.

This chapter works the subject in the field of Sociology, focused on agency and structure theory (Giddens, 2000). Understandable as an human action (Boava & Macedo, 2011), which starts from a rational choice (Scheefer, 2013) and based in the action sociology (Weber, 2010), this study gives contributes to identify entrepreneurial profiles.

In this issue, the conceptualization of entrepreneurship is different from create a business. The first one is to have an original ideia and the other is to put on practice (Sarkar, 2010). As the investigator reflects, people can start a business without any new improvement, just copying another one. But people can never be entrepreneurial copying other ideias. Having an ideia is to be entrepreneurial, and then, putting it on practice is to be a manager. The same agent can also be both things (entrepreneur and business man) on different stages, but here the entrepreneurship is focused on human resources, who can be creative, and the concept of business is focused in mechanic thinks. Thus, the concepts, on a sociological vision are distinct (Boava & Macedo, 2011).

Based on a doctoral research carried out with the objective of identifying the profile of women entrepreneurial, this script seeks to stylize some material that was left open in the empirical elements collected, namely the role of immigrant and migrant communities in the Algarve region who enterprise, and, also, the interculturality present in the behaviors observed.

Few studies have focused on immigrant and entrepreneurship community residing in the Algarve. This is one of the main reasons that motivated the presentation of this work chapter.

It is already clear that the methodological approach of this work is qualitative (Breckenridge et al., 2012; Kuckartz, 2014; Quivy & Van Campenhoudt, 2008; Silverman, 2013). To operationalize the collection of elements to analyse, had been done eighty interviews (sixty four to women immigrant and migrant), around Algarve. All the interviews had been done presencially and in the workplace from the interviewed woman.

This study issue intends to constructs profiles through the premise of the phases of a rational choice, e.g., intentionality, rationality, distinction between risk and uncertainty, distinction between strategic action and interdependent action (Downs, 2013; Scheeffer, 2013).

The empiric material has been segmentated using Maxqda software (Schonfelder, 2011).

It is important to identify that those women entrepreneurial - migrants and immigrants - who live now in the Algarve region, come from different naturalities and nationalities, e.g., Alentejo, Center and metropolitan region Lisbon, North, Madeira, Angola, France, South Africa, Argentina, Australia, Singapore, Sweden, Denmark, Brazil, Germany, Netherlands, United Kingdom.

This study contribution also aims to discuss the engagement of different cultures in the local ecosystem, the use of resources, dynamization, practices and behavior in autonomous work, in the entrepreneurial vision, following the development of the theoretical line of Hofstede (2001, 2005).

All this paper assumes the premise that the action is local but part of global knowledge (Vieira & Sales Oliveira, 2016; Vieira, 2018), so it's understood that the multiculturalism present in the Algarve region may allow a sharing of knowledge in the local, or, on the other hand, find a difficulty the Portuguese bureaucracies (Freire, Vala e Cabral, 2005).

From the analysis of the sample, are scaled the behaviors and their relationship to cultural dimentions (Hofstet, 2005; Hall, 2011; Trompenaars, 2012). Some authors who had study the local, identify an interculturality observed in the region (Covas, 2004; Oliveira, 2016; Rocha Trindade, 1993).

Finaly, as results of this work were built four profiles:

1. Free entrepreneurs
2. Optimistic entrepreneurs;
3. Fearful entrepreneurs
4. Entrepreneurial-business.

In order to reach this kind of profile types, it was necessary to carry out an analysis and contextualize the historical, economic, cultural and social theme, which is distributed in the next work points.

STEREOTYPES: GENDER AND CULTURAL

This thematic chapter analyzes two issues that in sociology are strongly debated in the literature, that is, the gender stereotypes in the field of Sociology of Work (Casaca, 2013, Coelho, 2014, Ferreira, 2010); and cultural stereotypes in the issue of immigrant communities, permeating the salient cultural differences of each country and the way they work in the field of work (ACIDI, 2012, Assembleia da República, 2016, Covas, 2004, Malheiros & Padilha, 2010, Turismo de Portugal, 2017).

This work begins by reflecting on gender issues and the weaknesses found in the labor market, particularly, horizontal segregations (equal jobs but unequal wages) and vertical segregations (it is easier to ascend to managerial positions by the male gender because there is inequality of opportunities between men and women, also the harassment at work, among others are the frequently concerns (Ferreira, 2010).

Public policies have a key role to play.

In Portugal, the work of the CIG (2017) has led to the awareness, in Weber's (2010) sense of many women and men. The issue of inequality affects not only women, but also men in their leisure field, and their responsibility to generate more gains for the family (Sales Oliveira, 2011; Schouten, 2012). Among other obstacles, this scenario reflects a deficit in the economy, engaging communities with greater gender inequalities at work (IFM, ILO, OCDE, WBG, 2014).

In an effort to balance this situation - and constantly monitor the reality of other countries - the Portuguese government approved the gender quantification law applied in the companies of Psi20 (Parlamento, 2017). This law leads the example from the top down, taking into account that the Portuguese private economy is mostly made up of micro and small companies.

However, the proposal approved by public policies does not reflect equality, since it proposes 33% of women to an always greater niche of men in power. Taking into account the Portuguese reality found, at 2014 were only register 12 women in 214 listed companies (INE, 2015). So, this new gender cotes law is a step forward.

Despite many efforts, the inequality of gender at work opportunities, in the mid-21st century, is latent.

In this empiric study, the women interviewed tend to emphasize the importance of gender issues - the effort traditionally added to the feminine. Some of them justify their behavior through habit, others because they live alone, others because they have a maid, others because they resort to family care. Seeking a phenomenological reduction for this reality, it can be deduced that these women are accommodated

with traditional roles or because they are entrepreneurial and independent, have an experiential way that escapes the sociological stigmas suffered by many other women, emphasizing the advantageous social class that is to be an entrepreneur (Coelho, 2013). In this way, they have obliterated the gender issues that become secondary because they don't feel it directly in their status quo.

Although most empirical responses converged in this sense, these gender issues do not end here. In the ideographic analysis it was verified that some women interviewed consciously revealed to have a greater effort in their daily tasks by the simple fact of being women, corroborating the literature already explored and thematized in this work.

One of the interviewees confirms *"Absolutely yes. I have to be a multitaske*r" [sic passim], already the other interviewee refers assertively that she opposes this stereotypes because it is necessary *"Yes. Especially because I need to gain the trust and credibility of a market traditionally considered for men, but I felt that there is more respect for my person - woman - as a businesswoman than when I worked for other companies"* [sic passim], which leads in this work reflection to understand the eidetic reduction mentioned above, the empowerment of women in their freedom, in the control of their lives.

The next woman interviewed is aware of this women stigma, so she reiterates *"I never let that being woman stop me doing everything I want"* [sic passim]. Other woman describes her daily journey, what she has to face and what is common to her *"is an additional challenge. I must be a super woman 24 hours a day. I am mother, boss, take care of the house, cook, my man only help if he is free"* [sic passim].

Curiously, other interviewee clarifies that had to reeducate the husband in this aspect *"My husband was not accustomed culturally, but gradually he changed and now he gives me much support"* [sic passim].

On the other hand, the opinion of other interviewee is different and she is proud of her multifacetism, which she said to be exclusive to women. *"It is fortunate to be a woman because we can have everything, profession and family, I do not feel overwhelmed"* [sic passim].

From other woman were take the simple answer *"Yes, domestic work is more for women"* [sic passim]. Clearly an obsolete thought in today's society, but that shapes a continuous reality; to corroborate this same reality, the next interviewed confidences her overhead *"Yes, it is true. My husband is a commercial and sometimes it is not easy to reconcile, so I have to make a big effort. The life of a woman is complicated "* [sic passim], showing she is being conformed.

When the subject crosses to the phenomenon of entrepreneurship, the reality remains (GEM, 2015, 2017). As observe, just only on 2015 the Global Entrepreneurship Monitor made the first report considering the women contribution on Entrepreneurship issues (GEM, 2017).

Talking about cultural issues, this chapter analyses the differences between worker traditions and different countries.

In an open and global market, investigators are concerned with studying the inevitable confrontation between different communities, the different paradigms coupled with different local cultural (Hall, 2011; Hofstede, 2003, 2005; Trompenaars, 2012). This present case takes into account the particular ecosystem of the Algarve region in Portugal.

It is important in this work point, to note that weren't find any stigmas of race and ethnicity, which does not invalidate that they may also exist in the region studied. This particular issue of ethnocentry on immigration people has been particularly analyzed in Sociology from the point of view of the needy population (Roldão, 2015), specially with economic difficulties.

However, the immigrant communities found on this work, are mostly coming from developed countries, e.g. the United Kingdom, Denmark, Sweden, the Netherlands (...), which leads this study to develop

the analysis from another perspective, i.e. the integration of agency on the structure (Giddens, 2000b), in entrepreneurship issues.

It should also be noted that about those communities, the UK people is demographically mostly represented in this region (INE, 2016) and also in this sample.

With respect to the reasons that led this women to undertake, note the chart that stands out to personal taste and passion for the area of activity (32.5%), relating freedom of choice (29%), continued experience in the sector activity 23%), translating the use of their own skills.

THE CASE OF ENTREPRENEURSHIP IMMIGRANTS ON ALGARVE REGION

Starting from an empirical data collection made during a doctoral research, this point intends to deepen some of the elements found.

Eighty interviews were conducted, forty of which were women entrepreneurial immigrants, twenty-four women migrate from other regions, and only sixteen born on this region.

Although this study didn't detected animosities caused by ethnocentrism, it is important to note that cultural confrontation exists, and Portuguese bureaucracies have been pointed out. This analysis, thus, encounter a structural problem, especially with regard to the reception of entrepreneurial activities by these immigrant women.

Figure 1. Distribution of the British community in the region

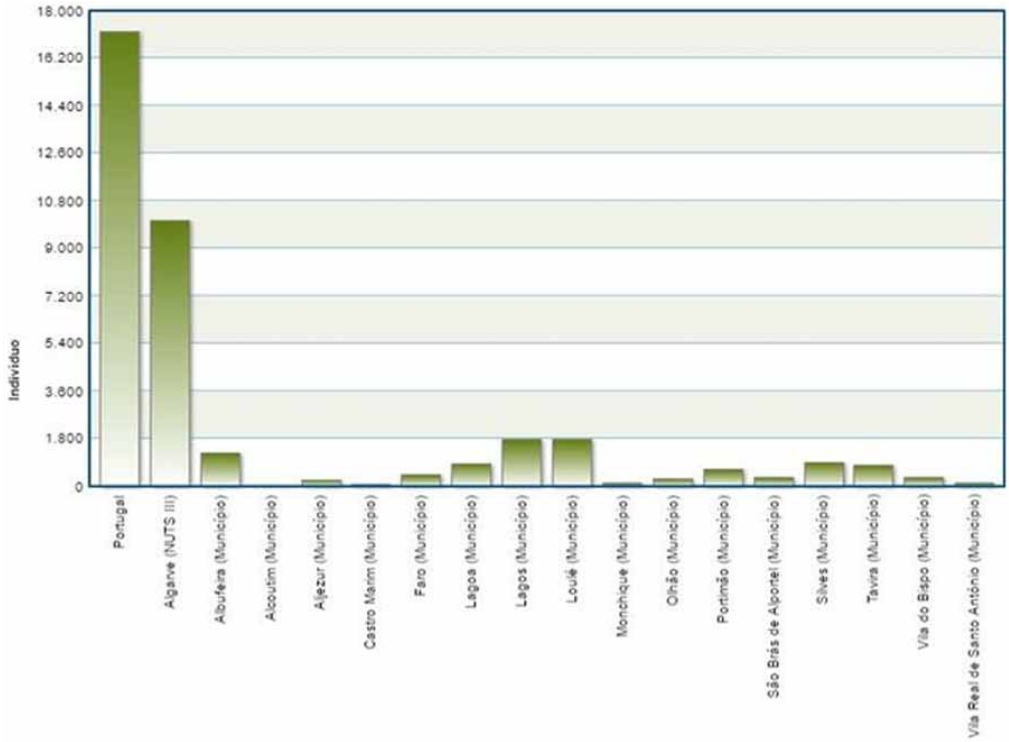
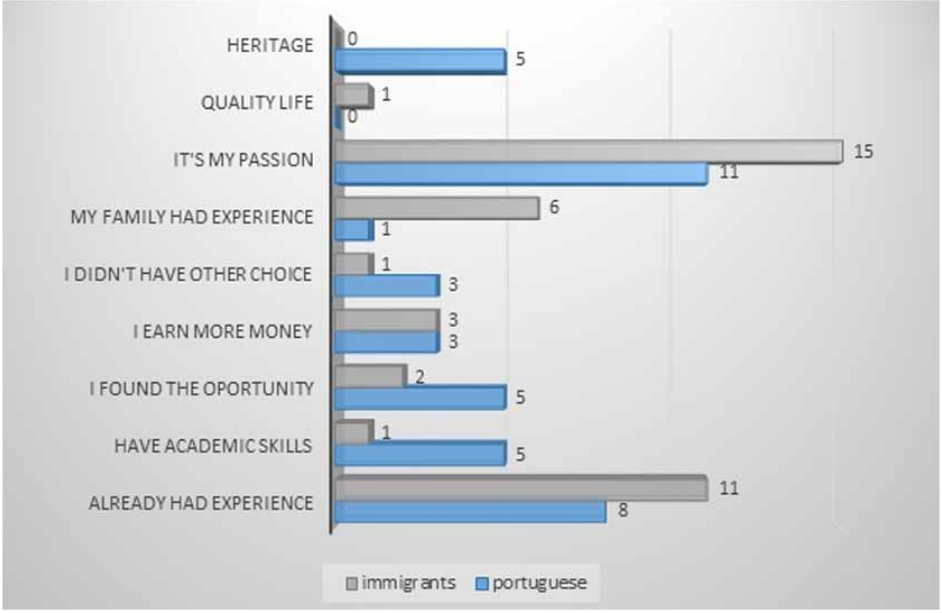


Figure 2. Reasons that generated the entrepreneurial attitude



It is important at this point to recall Freire's (1995) study on self-employment in Portugal. From two decades ago, it was already bureaucratic this country. However, this work reflect's if this is a problem that affects the whole population, Portuguese and immigrants, or if that is most strongly detected by those who come from another country. In addition, there is the problem of regionalization, since this object of study deals with the periphery (Portela, 2009).

Guided by Hofstede's (2001) survey, it is important to know the realities that will be encountered when there is population displacement with a view to integration in labor markets. On this subject, cultural differences are latent. The author (op cit.) suggests five cultural dimensions to explain the assimilation of the different behaviors between community: the distance of power (relative to the hierarchy of the Governments); aversion to uncertainty / risk (another problem when the subject is to be entrepreneurial); individualisms versus collectivism; masculinity versus femininity; and Confucian dimension (divides cultures / countries that focus on their short-term economic objectives from those that focus on the long term).

From the above, the object context of this work, fit the distance dimension of power directly related to the problem of the bureaucracies here confronted. The Confucian dimension also applies here, since this paper confronts that Portuguese public policies have set their goals for short-term resolutions, while neglecting the longevity of their actions.

This paper doesn't want to enter into political issues, controversies and complexities. Here, what matters is the importance of the structure in the reception of the agency (Giddens, 2000b). According to a recent report (OECD, 2017), Portugal has been able to neutralize many of the existing bureaucracies, seeking to prepare better for an open market, where reception is a crucial point, both the reception of the immigrant population and on another level, of entrepreneurial activities.

On the next chart it's possible to observe the different nationalities who enterprise at Portugal and the evolution on it.

Table 1. Evolution of immigrant entrepreneurship rates in Portugal by nationalities (IFDEP, 2015)

País de Nacionalidade	1981	1991	2001	2011
Total Europa	12	13,3	9,9	12,4
Alemanha	16,1	13,8	17,7	21,6
Espanha	15	18,4	11,6	16
França	7	5,4	10,2	14,6
Reino Unido	16,2	19,5	23	27,9
Roménia	-	-	4,4	8,2
Moldávia	-	-	2,6	8,7
Ucrânia	-	-	1,5	7,1
Total África	1,1	3,4	6,7	6,9
Angola	1,2	3,4	6,6	8,1
Cabo Verde	0,7	3	6,4	6
Guiné-Bissau	1,9	2,9	6,2	5,9
Moçambique	3	5,9	9,1	9,4
S. Tomé e Príncipe	0,2	2,6	6	5,4
Total América	5,1	8,8	13,6	11,8
Brasil	4,8	9,5	13,5	11,5
EUA	8,5	8,3	12,3	15,4
Venezuela	3,9	7,7	13,8	14,3
Total Ásia	9,8	21,3	19,1	28,3
China	22,2	24,1	36	42,2
Índia	7,9	17,6	7,6	10,6
Bangladesh	-	-	10,5	22
Paquistão	17	30,7	6,3	14,2
Oceânia	1,8	9,4	14,2	14,7
Total estrangeiros	5,1	7,7	10,2	12,1
Portugal	3,1	6,2	9,8	10,5
Total	3,2	6,2	9,8	10,5

In this regard, Malheiros and Padilha (2010) add that immigrant women have higher rates of entrepreneurial activity than native women.

Interculturality as a Social and Economic Added Value in the era of Globalization

Here it is important to conceptualize interculturality as the acceptance and neutralization of different cultures, that means the structural reception in front of the agency.

It is relevant to observe that Portugal is understandable as a peaceful country in this matter (Rocha Trindade, 1993; Covas, 2004, Oliveira, 2016, Malheiros & Padilha, 2010).

At this point, this can also reflect the human challenges, feminine empowerment (UERJ, 2013) and interculturality as an added value in labor issues.

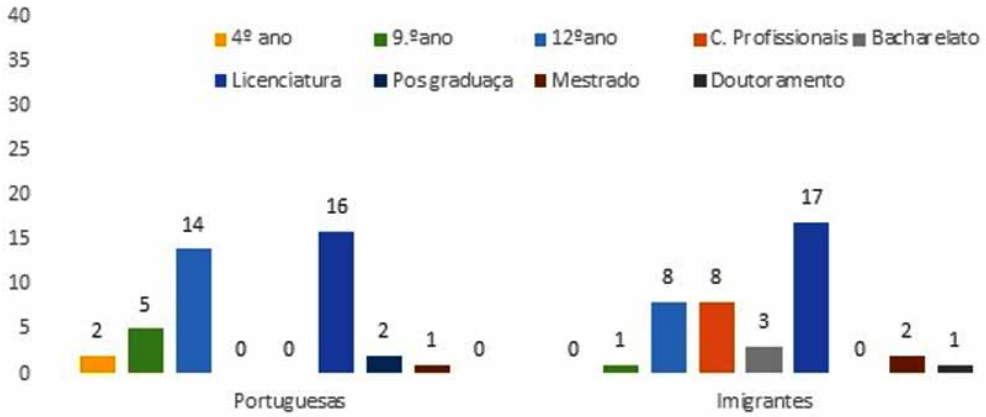
It is thus understandable that the exchange of knowledge between different cultures comes to enrich the place. From the global knowledge to the local, the soft skills (Mcclelland, 1973; Veiga, 2017) end up having a greater valuation in terms of entrepreneurship (Sarkar, 2010; Filion, 2008) and in terms of human capital (Becker, 1993).

The issue of skills is transversal when it comes to Entrepreneurship thematic.

This chapter also discuss the dichotomous relevance between hard and soft skills.

In the present case, it's possible to observe that immigrant communities operate in a multicultural region, since tourism is the predominant sector in the Algarve (David et al., 2015).

Figure 3. Literary qualifications of interviewees



Thus, the integration of these immigrants has probably become easier. The sharing of cultures, i.e. the present interculturality, adds new knowledge in labor matters, facilitates the internationalization of activities and perhaps the growth of the economic market, in addition to social issues.

However, investigators (Malheiros & Padilha, 2010) believe that this requirement will only be utilized with the performance of public policies in this area. This population must know how to take advantage of existing resources and take advantage of the opportunity that exists in the cohabitation of different cultures.

In this excerpt raises an important point of debate, which, as reviewed on literature, has been less worked in the literature on migration, i.e. the use of human potential, knowledge and specificities of each culture, for global enrichment. After all, they are experiencing the era of globalization (GEE, 2016; INE, 2015a; OCDE, 2017; PT2020, 2017; Sousa Santos, 2012; Touraine, 2005; Velho, 2016; WGI, 2015). Transports and communications, have shortened distances, but nothing like taking advantage of the physical presence of different communities.

The Algarve region opens up these possibilities (INE, 2011, 2016; Oliveira, 2016). The immigrant community take advantage of interculturalism to enrich themselves, both socially and economically.

The multicultural reality that characterizes the region studied, introduces a set of opportunities identified in the territorial enclave, i.e., the immigrants come to fill the desertification problems in certain localities of the region as this work had already analyzed, - bring with them new demands to the market, generating new activities, both for their own and for the autochthonous. There is a latent interculturality that this territorial ecosystem transports.

In addition, considering the predominance of the tourism sector in the region, this paper find that the English language is dominated by the local population, being acquired in the context of the activities practiced and in the relationship with the stakeholders, affirming itself as a social characteristic from the existing routinization in the Algarve.

On the economic side, were quantified the sample turnover, which amounts to sixty-five million euros, as well as the approximate number of thousand nine hundred and sixty-four jobs generated, it is axiomatic to identify the added value of these entrepreneurial women to the studied region. In the qualitative diagnosis it is salutary for this point to conclude that the survival prospects of these activities are mostly assured, and thus strengthens the theory that the female potential interviewee finds a positive

connection to local and international economic development. There is, however, a need to strengthen synergies with public and private institutions and the entrepreneurial fabric in order to overcome the problems of seasonality.

The cultural panorama stands out, since 50% of the interviewees are immigrants. In the field of cultural development, the predominant enclave in the territory studied, results in an exponential hybrid human capital, which consequently increases the potential for creativity that matches the profile required in entrepreneurship. In this regard, Giddens (2002) postulates that creativity relates to the basic trust of the individual. *"Self-confidence, by its very nature, is in a sense creative because it involves a commitment that is a 'leap in the dark', a hostage offering to chance, which means being prepared to embrace new experiences."* (Giddens, 2002, p. 44) In this empirical collection it's found the analogy of 'jump in the dark' by the expression 'Leap of faith' coined by one of the interviewees.

In the summary of the constituent elements, it's determined different considerations according to the vertex of observation. This study concludes in the area of economic development that the presence of immigrant communities in the region and even the role of entrepreneurs is a strong foundation in local growth. The weight of these entrepreneurs is corroborated by Oliveira (2016) in her study on the movement of immigrants in the Portuguese economy. According to the author, next to the great urban centers, it is in the Algarve region that these immigrants are concentrated in search of opportunities, producing considerable impacts in the local business structure. The number of jobs created, the turnover and also the dynamics with other local companies are the quantitative indicators taken in this work and that in themselves are revealing of this development.

In terms of social development, structures of relevance focus on the construction and sharing of knowledge that the interculturality present in the territory makes possible. An open society, polarized by the knowledge without frontiers, in the use of resources, is a society that moves towards development.

Moreover, the interaction resulting from entrepreneurial activities in this territory inexorably carries a multiplicity of entrepreneurial visions about the resources of the region, new demands inculcated by different customs in consumption and services. This reflects that the multicultural presence is inevitably constructive (Argento, 2012), i.e., here the communities are learning from the local to the global and contrariwise.

In social matters, it becomes possible to determine that women in the role of entrepreneur enrich their social representation, helping to solve stereotypes in the gender field. It is irrefutable that women have been up steps and revealing more and more of a portfolio of skills that prove their potential. Society needs women in the labor market and needs men in domestic care. It is not an exchange of roles, but an acceptance of the sharing of roles, for the sake of social, political and economic equilibrium. In the theme of entrepreneurship the importance of gender is deconstructed, as also the different cultures, are emphasizing human diversity.

Human Capital and Education: Building Profiles

After the Taylorist period (Touraine, 2005), the era of globalization has changed the focus of work. The need to undertake, to create, to innovate, has become a constant. It is surprising, to add, to adapt feasible solutions to the sustainability of markets. This is only possible through human capital. Becker (1993) addressed the theory of human capital, recognizing that the trump card of economic growth lies in the dedication of people to companies and organizations. To that end, this work will focus on these same

people first[1], empowering them, raising their capacities and fostering new opportunities to create, taking into account the desires and desires of this human capital.

About this, Macrae (1982) already affirmed the importance of intra-entrepreneurship in organizations.

Another important issue to be addressed in this work concerns market competition. When confronted with open markets, it's easily to find richer economies, with greater power of growth than others, better prepared for the adventure of globalization.

In these terms, it is important to return to the issue of corporate social responsibility (Negas & Lobão, 2014) and attention to human capital.

Czakon (2009) proposes as a solution to balance the potential of each country or region, the term Coopetition. It resides in a healthy competition in which cooperation between companies coexists, taking advantage of the local resources of each one.

The same seems conceived when already dealt with the concept of interculturality.

In addition to the contents already analyzed, this study had identified patterns of behavior that are revealing of different profiles, which were grouped into ideal types (Weber, 2010).

From the richness of the panoply of stylized characteristics in this analysis, it's illustrate four ideal types:

1. Ideal-type of free entrepreneurs
2. Ideal-type of optimistic entrepreneurs
3. Type-ideal fearful entrepreneurs
4. Ideal-type entrepreneurs-business

Making an analogy to the construction of this whole study and to the permanent debate between agency and structure, it relates that the way agents position themselves before the structure determine different profiles. Sarkar (2010) allegorically relates animals to disentangle behaviors of entrepreneurs. Here is used the image that links the different profiles found in this empirical field. In addition, in the hermeneutics of this work, the hand personifies the work. Thus, the different positions of the hands represented here are in line with the classifications taken and will be further studied individually, combining the explanatory theories underlying this study and after each profile characterization.

In the light of the Theory of Rational Choice, it translates a freedom of decision, driven by a reflection that takes into account personal well-being, an intention to act. These women focus on the first phase of a rational choice, i.e. on intentionality (Downs, 2013; Scheeffer, 2013), with the primary objective of their satisfaction with the autonomy gained in the role of entrepreneurs. They emphasize the taste and passion

Figure 4.

for what they do. The sociology of action allows this analysis to frame the Weberian understanding of rational actions with respect to values, i.e., these women prioritize their ability to do 'things', to act. It is this same collective action that empowers them. In comprehensive sociology this study determines this profile in the potentialities that are evident in these women and that they themselves recognize.

Group B identifies the ideal-type of the optimists and reveals an endless energy, an empowerment in the role of entrepreneurial woman. In this profile the woman also places in the horizons the concern for its future sustainability, i.e., the financial aspect balances and justifies its entrepreneurial skills. Keeping in the line of creativity and differentiation in the sector of activity that acts, is attentive to detect opportunities in the structure and open to new challenges, these criteria that distinguish it from group D.

In this approach and following the premise of rational choice, it's understood that this profile fits entrepreneurs in the distinction between strategic action and interdependent action (Downs, 2013, Scheeffer, 2013). This analysis connects agency power in the production of behaviors that involve a network of actors engaged in the same entrepreneurial purposes, i.e. the recognition of opportunities in the structure. Here, the importance of shared information and the awareness of these agents emerge, allowing them to outline ways to face life, solve problems and build their projects in a permanent alignment between agency and structure. In the way of acting in the markets, the permanent attention to the new demands, to the update of strategies, appearing the possibility of a conglomerate diversification. This profile is open to continuous learning, so it is able to produce the desired disruptive innovation in the market. However, it is necessary to take into account the very context in which these women are inserted and the opening of the surrounding structure to welcome this type of entrepreneurship.

Group C approaches the concept of 'Iberian fear' and identifies the ideal type of the fearful. Although they are eager to work, these women are overcome by structural and above all personal barriers (ontics in their self).

It translates the very fear contained in the conscious and the unconscious (self) of the interviewees, in the behavior and posture they assume in the undertaking. Based on the theoretical principle of rational choice, it's understand that these women struggle in the distinction between risk and uncertainty (Downs, 2013, Scheeffer, 2013).

Here it's discuss the debate on agency and structure and the position of these women in this conjuncture. It is in this fundamental scenario that the agents win the struggles over how they put up with the structure, overcome the so-called barriers. It is also important to reflect on their performance in the market, on the meaning and significance they have for them and on the objectives achieved or not. Hence it is to determine future learning, by opposing a closed cultural position and taking life choices, i.e. determined by a rational choice and not by an unreflective lack of the economic contingencies that they cross.

Group D identifies the ideal type of entrepreneurs, which this approach also calls goal conciliators, in cross-referencing characteristics of entrepreneurs and entrepreneurs. Considering the conceptual framework already developed on the individuality of the concepts of entrepreneurship and entrepreneurship, in this context it's integrated profiles of entrepreneurs that simultaneously share the profile of entrepreneurs. In this profile of engagement The conciliation, the existing agreement, the cooperation of entrepreneurs and entrepreneurs, inseparable for the growth and sustainability of an activity, but differentiated in its identity, its objectives and above all in its social role.

For the construction of this profile, it's understand that these women are in the phase of rationality, which is present in the theoretical assumption of a rational choice (Downs, 2013, Scheeffer, 2013).

In this scenario it is important to combine pre-existing knowledge with a continuous development of competencies. It is important to reflect that the addressing of human it's being, always unfinished and in permanent construction, engaged in the history and culture of the society that surrounds it.

This profile, understood as conciliator, identifies concentric diversifications, in the perspective of market monitoring, there is also a strong cooperation between agency and structure, or a positioning of the agents for that to happen.

It should be noted, however, that this coupling of the interviewees does not intend to make an exhaustive and absolute delimitation, only based on the available elements; e.g., observation and analysis of empirical discourses. It should be clarified that the categorization and distribution of these women in the four profiles, comes from an approximate reflection of the elements calculated to the ideal types constructed in this thesis. There would have to be a more in-depth investigation of Case Studies and a longitudinal character to determine irrefutable characteristics that are leaved here open for scientific work that may arise from here.

Entrepreneurship is a phenomenon that translates into polyphony of performances and knowledge, and is reflected by the latent human diversity in its creativity. In this corollary the borders of gender, age and nationality are deconstructed, in the understanding that each agent that undertakes has a distinct and very proper contribution to give, which also pays to attenuate the social cleavages that are more present in the context of entrepreneurship. Entrepreneurship connoted in this theoretical line produces a developmental effect on social structures. In addition, men and women may have different or similar contributions, but individually they add value to a theme that seeks creativity, provided they have equal opportunities to do so. In the field of gender studies, this study starts to carry out the disjointed approach to entrepreneurship, and find in the reason the discovery of limiting identities as preconceived roles and representations for men and women. The concept of entrepreneurship has no identity card because it is not static, it is in a vortex of permanent search for the innovative difference demandable in a global market. Moreover, the evolution of the entrepreneurial profiles accompanies the metamorphosis of societies, is reflected by the socioconstrutivism of Vygotsky (Liu & Chen, 2010), absent in the exact sciences but sown and demandable in the behavioral sciences.

The problem of education for entrepreneurship inexorably crosses the knowledge contained in transversal competences and fruit of experienced professional experiences (Freire, P., 2006; Rodrigues, 2000). Thus, if public policies aim to foster entrepreneurial profiles in society, it is imperative to adapt new models of education in academies, with a more incisive practical-pedagogical content, strengthened by storytelling (increasingly used by academics as a didactic tool (Berger & Quinney, 2005; Polletta, Chen, Gardner & Motes, 2011) and enriched by mentoring. With regard to the importance of transversal competences in entrepreneurship, this approach reflects that it is not the books that change the world, it is people. However, this paper reinforce that books change people, which in turn will change the world.

It is also important to go back to what has already been concluded in previous, time-scattered studies, which reinforce that *"past experience has drawn attention to the urgency of universities to adapt to the new investment needs in the human capital resource, and to redirect their development strategy for a new paradigm of lifelong learning (...)"* (Barreira, 2006, p. 13). The strategy involves a re-education of social roles, by acculturation of the importance of entrepreneurship, from the individual to the group, from the local to the global, resulting in the congregation of technique and science, allowing an heuristic teaching model.

In addition, the entrepreneurial culture, comes from the attitude, which can be changeable. It is important to clarify that the concept of attitude is understood here as the behavior or predisposition to achieve

something innovative, that makes a difference in society. And it is this attitude that the sociologist wants to find to delimit the profiles. It is important to emphasize that the role of the exact sciences is in this environment incapable of answering the truly decisive questions of human existence. The sociological view through phenomenology allows this study to find a sense that strengthens the role of the social sciences, i.e., to determine truths that are based on the lived human experiences (the acute awareness of the phenomena from the subjects that experience them and in relation to the observed context) and that justify attitudes and performance profiles in entrepreneurship.

CONCLUSION

Globalization brings with it the need to undertake, as already reviewed in the matter. However, the speed (Bauman, 2007) with which new labor realities arise, leads to the uncoordinated markets, where some lose others to gain, thus inevitably crossing political issues.

For this to happen, it is important to raise awareness (Freire) and the awareness (Weber, 2010) of human capital, both on ethical ways of acting in the market, responsibility of each one, and on potentialities and opportunities that are not really being exploited resources.

Understanding that although globalization eliminates borders, they still exist, and the local structure of a country / region needs constant adaptations to follow markets and to see opportunities.

The debate is permanent and current. The contributions with critical material are fundamental, so that assertive and scientifically valid conclusions are constructed.

It's concluded on this work:

1. Constructions of four ideal types that classify the position in the entrepreneurial attitude, based on the premise of the four phases that make up a rational choice.
2. Deconstructions of the categories of gender, age and nationality imposed by constructive and creative diversity, in the utilization of human potential
3. The explanatory role of transversal and social competences based on rational choice theory.

By the phrase analyzed in the empirical collection, it was possible to couple four more expressive behaviors in these women and that differentiate them according to motives and or objectives in entrepreneurship. The ideal types of free entrepreneurs (focusing on autonomy and creation), the optimistic entrepreneurs (who combine the opportunity factors with sustainability), the fearful entrepreneurs (understandable in the semiotics of the language used) and entrepreneurs (who combine the skills in creation - idea - and management - business). These profiles were constructed according to the content analysis of the discourses of these women, but they are not watertight, it's possible always find women who fit into one profile, or who show evidence according to lived contexts to occupy more than one classification in the ideal type built. What is conclusive is that these four profiles are basic to differentiate attitudes that foment the entrepreneurial action. It should also be added that the entrepreneurial profiles are not limited to these classifications generated from the qualitative sample obtained, strengthening the premise that entrepreneurship anchors in human diversity. The phenomenon is based on a permanent metamorphosis that always depends on the relationship between agency and structure.

Also, it's steel important to clarify the scientific contributions:

Contributions to the social sciences

1. The multiplicity of explanatory dimensions of the phenomenon of entrepreneurship.
2. The transversality found between the thematic of entrepreneurship traditionally most worked in Economics and Management) with strong dimensions of Sociology (such as gender and culture).
3. The phenomenology in the qualitative analysis allows the concentration of the significances in confrontation with the contexts involved in the and the entrepreneur.

The controversial question debated among analysts about whether entrepreneurship comes to dethrone professional careers and jobs for life, becomes collapsible if in this deepen reflection, i.e., first, entrepreneurship has always existed since it is an attitude and a choice of the human being, second, it is nowadays mainstreamed by the globalization of markets; thirdly, this same reality, rather than entrepreneurship itself, causes the metamorphosis at work, a mutual need arises. re) adaptation to new demands - both by the agents and by the structures - also resulting from epistemic reformulation in science and in the objects of study.

The phenomenon of entrepreneurship is not ipso facto a cause of this new reality, but an integral part of it, demystifying affirmations and dogmas that the 'way of undertaking' deprives realities and practices that belong to the past (although understandable as more stable in the labor market).

In refocusing on the contribution to the social sciences, this study looks at Bourdieu (1997) on the uses of science. The author stresses that the scientist proposes to determine the state of the world and the immanent tendencies to this, analyzing the change and looking at events. In this academic work it's propose to gauge current realities revisiting past realities. From the verified knowledge of the real, provide assertive interpretations of the facts, not constituting an attempt to prospective future elements, but rather leave clues for reflection for the querents or research for scientists.

In the present eclecticism to the concept of entrepreneurship, the constantly question is how to frame the theme, transversal in academies and in political life, with significant impacts on civil society. The Agency Theory, worked on Sociology, catalyzes the concerns of analysis for the behavior of the entrepreneur and the entrepreneur, allowing to enunciate the path of the question permeable to the human attitude and inseparable from the context experienced. Entrepreneurship concluded in this work is a human concept without gender, age or nationality.

In order to understand what causes the entrepreneurial attitude, it is necessary to first understand how it is interpreted by the agency itself. In the present study, it's concluded that the use of phenomenology enabled it to gauge the awareness of entrepreneurship among practitioners and thus to recognize conscious and rational profiles. It is important to clarify that this method allowed an open analysis of the continuous movement of human experience in its constructivism and that cognitive questions are treated in their existential prism of (global) meanings and significances (dependent on the individuality and diversity of the entrepreneurial agent.

In the course of the analysis, new concepts were constructed that will serve for other future analyzes and investigations in the thematic, e.g., ideal-type of free entrepreneurs, ideal-type of optimistic entrepreneurs, ideal-type of fearful entrepreneurs and ideal-type entrepreneurs. The epistemology that underlies entrepreneurship is in this work demarcated by new exegeses, i.e., focused on the field of knowledge of the Social Sciences, it unties the domains of study of Sociology and Economy, in order to seek to combat the complexity of the phenomenon and to clarify the nature engine that generates entrepreneurship. On

the other hand, the sociological concern is articulated with the economic concerns of teaching the same, complementing that the knowledge of an element as sensitive as is the act of undertaking, can only have consistency combining theories and practices, valuing the partner constructivism in class, thus protecting the Salvationist character of education and science in the field of entrepreneurship.

Contributions to the domain of Sociology

1. In the multiplicity of explanatory dimensions, entrepreneurship thought in the field of Sociology and its analytical disconnection to the concept of entrepreneurship allows for empirical evidence to date.
2. In the sociology of work, the framework of entrepreneurship needs epistemic agreements. The role of sociologist becomes increasingly pressing to diagnose behaviors in organizational context.

It's also relevant to conclude that in this study treats entrepreneurship in its individuality, in its conceptual specificity. Already it analyses the objectives of entrepreneurship, it's understood that they reside in innovation and creative difference, and also assumes this position as the difference in the scientific contribution. The argue that it is fundamental to distinguish this phenomenon from the concept of entrepreneurship, to determine profiles of a different nature. Although in general terms there is the observed tendency to confuse the connotation of the two concepts - entrepreneurship and business- it is important to clarify at the conclusion of an entire academic research path that in this approach the subject entrepreneurship are not addressing the entrepreneurship, which is why this qualitative empirical sample comprises diverse entrepreneurial actions in the economic, social and cultural domains. The root of the complexity of the studied phenomenon is also the absence of any more sociological visions that can substantiate what is not focused on the economist visions, in turn more replicated. It's important to observe that, even from other investigators, from other fields like Economy or Management (Sarkar, 2010) the concept of entrepreneurship depends on human resources. The fact of promoting a correct separation of the concepts of entrepreneurship and entrepreneurship allows to analyze the phenomenon in its exclusivity and to correctly segment the profiles associated with each one. While the former seeks diversity in human potential, the latter finds more closed profiles. It is not a question of overlapping different domains of study, but of aggregating knowledge to better scale the measures in society. The apodictic evidence establishes that the development of this theme is significant confusion in public policy, which leads in turn misinterpretations of matter the theme in sociology. This chapter concludes that it is necessary to disconnect the concepts to allow analysis aimed at the entrepreneurial engine: Agent.

The role of the sociologist appears in this reflection as fundamental for the refinement of the entrepreneurial actions. For Bourdieu (1997), the scientific working capital by the sociologist has a set power and works as a form of credit, i.e., presupposes confidence or belief of and that support and recognize. Thus, it can be deduce that agents, before formalized knowledge in science, act according to conscious and calculated intentions, according to methods and programs consciously elaborated. The author further stresses that this scholastic view is at the origin of the logicism view, being a power that is exercised only on agents who have the categories of perception necessary to know and recognize it. Entrepreneurship needs a more current analysis position in sociology and is thus add epistemic acquis field of Labor Sociology, focused on the observation of human behavior in the employment context, also with contributions to the field of organizations.

LIMITATIONS OF THE STUDY

The qualitative sample of eighty statements does not in any way aggregate the entrepreneurial corpus of the region, so that the field of entrepreneurial profiles can be closed. In addition it becomes fruitless to seek to exhaust the delimitation of profiles in this study, attending to the very concept of human diversity that is added as a foundation of entrepreneurship. On the other hand, the extensive sample for qualitative analysis, did not allow it to give this work a greater depth in the data processing. Nevertheless, of these eighty testimonies, an enriched content is reserved for future research on the subject.

Learning is not exhausted and the sense of research concerning social movements is not.

This work aware that no single isolated theory allows to understand all the sociological phenomena identified in an ongoing research, *"one theory focuses on power, another on everyday interaction and still another on values and norms. None of them is considered superior to any other; all emphasize different characteristics of the social domain."* (Baert & Silva, 2014, p.8) Theories thus complement each other as constitutive dimensions in the historical horizon, in the present and in the future.

The Pareto Law (Pareto, 2007; Sobaca Limited., 2010) was used to relate the scientific validity of any study, inasmuch as 80% constitute the development of science and 20% open the way to continuous research. Bourdieu (1997) reminds that scientific knowledge is what survived objections and can resist future objections. Validated opinion is one that is recognized because it no longer raises pertinent doubts or has no better explanation. Almeida (1994) corroborates that there is no unitary and universal science. There are yes, historically situated scientific formations, endowed with relative autonomy, with their own temporality, with unequal rhythms of development, and how their insertion into specific social structures is unequal. The epistemological reflection consists in promoting the distance between knowledge and ideologies. Given that ideological elements are light notions of knowledge, epistemological criticism proposes to destroy the false transparencies of more or less elaborate common sense that self-determine as knowledge, thus nullifying the effectiveness of the ideological obstacles that throughout the history of science are successively emerging as blockages to the cognitive appropriation of the real, limiting the scientific construction.

The methods of empirical collection - face-to-face interview with the reality of eighty women - are not exhaustive in the cycle of the complexity of the matter, not allowing to heal some questions that remain to be investigated, suggested later, and in everything that is omission in this study.

Clues for Further Investigations on the Subject Involved

Working the complexity of the phenomenon of entrepreneurship, the case of the multi-entrepreneur women that were find in the empirical collection has awakened the attention. Considering that it would be enriching for the scientific field, for deepen investigations in future, these cases through the method of life stories.

During the research were felt the need for the existence of statistical collections disaggregated by gender, age and nationality variables, in the mapping of activity sectors and with more exhaustive foci, i.e., by regions. There was a complete absence in the provisions, mainly through key institutions such as the National Institute of Statistics, and it seems that it's important to raise awareness of this sociological anguish.

It is also important in this line to add that each territory has its specific characteristics (geographic, social and cultural) and that in the case of this southern region the studies have been incipient. Identi-

cal studies, in the same territory and in the same qualitative sample, that allow the use of longitudinal methodologies can thus strengthen results in a proposal of academic continuity through research centers.

At the cultural level were found some studies who analyses this issue and have already shown some temporal distance, but others are more general, not limited to the Faro district (Malheiros & Padilha, 2010, Oliveira, 2016). Thus, and in what this cultural reality involves significantly, it's leaved open to a more detailed thematic study.

It is important to reinforce in this conclusion that the course of work involved by the researcher was produced in the construction of learning, in personal and academic enrichment, as well as in the internalized sensitization to the role of sociologist in the analysis of social realities as flaming as entrepreneurship, a task that this work focus with total attachment and that it finds it to be an essential basis in the field of Sociology, because it allows a more direct vision to the author of the entrepreneurial practices.

In the scenario of globalization and the metamorphoses of the labor market and the instabilities that mark this elastic moment, this chapter puts in premise that there is a continuous need to win new audiences, create new products and services. The multiculturality of this region favors this same demand. In addition, the installation of human diversity from other nationalities, ages and gender is an advantageous reality (IFM, ILO, OECD, 2014), and contributes to leverage the economy. In this approach it is salutary to conclude that harnessing the female potential, rooting new practices is emerging and consequently will produce new paradigms also reinforcing the scientific fabric of the social sciences that study the population movements and their impacts.

REFERENCES

ACIDI. (2012). *Estatística da evolução do empreendedorismo estrangeiro em Portugal*. Alto Comissariado para a Imigração e Diálogo Intercultural, I.P, Presidência do Conselho de Ministros. Available http://www.om.acm.gov.pt/documents/58428/207167/Empregadores+segundo+os+Censos.pdf/89aa3514-6bc8-4531-a071-f5d49f7920da

Almeida, J. F. (1994). *Introdução à Sociologia*. Lisboa: Universidade Aberta.

Argento, H. (2012). *Teoria construtivista*. Available at http://www.robertexto.com/archivo5/teoria_construtivista.htm/

Assembleia da República. (2016). *IMIGRAÇÃO Legislação Nacional*. Assembleia da República, DILP - Divisão de Informação Legislativa Parlamentar (Recolha de Legislação e Tratamento de Informação). Available at https://www.parlamento.pt/Legislacao/Documents/Dossie_LegislacaoNacional.pdf

Baert, P., & Silva, F. C. (2014). *Teoria Social Contemporânea*. Lisboa: Editora Mundos Sociais.

Baptista, R. & Leitão, J. (2015). *Entrepreneurship, Human Capital and Regional Development – Introduction*. Academic Press. doi:10.1007/978-3-319-12871-9_1

Barreira, A. P. (2006). *O Algarve e a Inovação – o Perfil Regional*. Faro: Universidade do Algarve.

Bauman, Z. (2007). *Liquid Times: Living in age of uncertainly*. Cambridge, UK: Polity Press.

Becker, G. (1993). Nobel Lecture: The Economic Way of Looking at Behavior. *Journal of Political Economy*, *101*(3), 385–409. doi:10.1086/261880

Berger, R., & Quinney, R. (2005). *Storytelling sociology : narrative as social inquiry*. Lynne Rienner Publishers.

Boava, D. L. T., & Macedo, F. M. F. (2011). *Empreendedorismo Explicitado à Maneira dos Filósofos. A Problemática Polissémica Intrínseca ao Empreendedorismo e das suas consequências para o estudo científico da atividade*. Porto Alegre: ANPAD -Associação Nacional de Pós-graduação e Pesquisa em Administração - V Encontro de Estudos em Estratégia.

Bourdieu, P. (1997). *Os usos sociais da ciência: Por uma sociologia clínica do campo científico: Pierre Bourdieu*. São Paulo: Editora UNESP.

Breckenridge. (2012). Choosing a methodological path: Reflections on the construtivist turn. *Grounded Theory Review*.

Campos, A., & Soeiro, J. (2016). *A Falácia do Empreendedorismo*. Lisboa: Bertrand. Lisboa.

Carvalho, L. C., & Da Costa, T. G. (2015). *Empreendedorismo, uma visão global e integradora*. Lisboa: Edições Sílabo.

Casaca, S. F. (2013). As novas dinâmicas laborais e os desafios da articulação com a vida familiar. *Sociologia, Problemas e Práticas, 72*, 31–52. Doi:10.7458/SPP2012722617

CIG. (2017). *Relatório intercalar de execução do V Plano Nacional para a Igualdade de Género, Cidadania e Não-Discriminação - 2016*. Available at https://www.cig.gov.pt/

Coelho, A. F. M. (2014). *Liderança Feminina: O impacto dos estereótipos de género no acesso das mulheres aos cargos de liderança de topo*. Lisboa: Universidade Católica Portuguesa.

Corrêa da Silva, I., Pignatelli, M., & Viegas, S. M. (2015). *Crise Económica em Portugal: Alterações nas Práticas Quotidianas e nas Relações Familiares*. Coimbra: Livro de Atas do 1º Congresso da Associação Internacional das Ciências Sociais e Humanas em Língua Portuguesa. Available at http://www.ces.uc.pt/projectos/finfam/ficheiros/Ribeiro_Frade_Coelho_Ferreira-Valente_2015.pdf

Covas, M. M. (2004). *Portugal na rota da imigração dos cidadãos comunitários: o caso da região algarvia*. V Congresso APS.

Czakon, W. (2009). *Power asymmetries, flexibility and the propensity to coopete: An empirical investigation of SMEs' relationships with franchisors*. Olney, UK: International Journal of Entrepreneurship and Small Business. doi:10.1504/ijesb.2009.024104

Downs, A. (2013). *Une théorie économique de la démocratie*. Bruxelles: Université de Bruxelles.

Drucker, P. (1993). *Innovation and entrepreneurship: Practice and principles* (15th ed.). New York: Longman Higher Education.

Drucker, P. (2007). *Practice of Management*. Oxford, UK: Taylor & Francis Ltd.

Ferreira, V. (2010). *A igualdade de Mulheres e Homens no Trabalho e no Emprego em Portugal*. Comissão para a Igualdade no Trabalho e no Emprego. Available at http://www.cite.gov.pt/asstscite/downloads/publics/Igualdade_CITE_NET.pdf

Filion, & ... . (2008). *Empreendedorismo de Base Tecnológica. Spin-off: criação de novos negócios a partir de empresas constituídas*. Rio de Janeiro: Editora Campus.

Filion & Laferté. (2003). *Carte routière pour un Québec entrepreneurial*. HEC. Available at https://www.google.pt/search?q=Carte+routière+pour+un+Québec+entrepreneurial%2C+Filion&oq=Carte+routière+pour+un+Québec+entrepreneurial%2C+Filion&aqs=chrome.69i57.2731-j0j7&sourceid=chrome&ie=UTF-8

Freire, J. (1995). *O Trabalho Independente em Portugal* (PhD). Lisboa: ISCTE -IUL.

Freire, J., Vala, J., & Cabral, M. V. (2005). *Atitudes Sociais dos Portugueses: Trabalho e Cidadania*. Lisboa: Imprensa de Ciências Sociais.

Freire, P. (2006). *Educação, Sociedade e Culturas*. Porto: Edições Afrontamento.

GEE. (2016). *Ambiente de Negócios -Investir em Portugal Hoje e Amanhã*. Available at www.gee.pt

GEM. (2015). *Women's Report. Special Topic Reports*. Available at www.gemconsortium.org/report/49281

GEM. (2017). *GEM 2016/2017 Global Report*. Global Entrepreneurship Monitor. Available at http://www.gemconsortium.org/report

Giddens, A. (1989). *Constituição da Sociedade*. Lisboa: Martins Fo.

Giddens, A. (2000a). *Dualidade da Estrutura: Agência e Estrutura*. Oeiras: Celta Editora.

Giddens, A. (2000b). *Sociologia*. Lisboa: Fundação Calaouste Gulbenkian.

Giddens, A. (2002). *Modernidade e Identidade*. Rio de Janeiro: J. Z. Editor.

Hall, E. T. (2011). *La Danse de la vie temps culturel, temps vécu*. La Rochelle: Points.

Hofstede, G. (2001). *Culture's consequences : comparing values, behaviors, institutions, and organizations across nations*. Sage Publications.

Hofstede, G. (2003). *Culturas e organizações: compreender a nossa programação mental*. Lisboa: Sílabo.

Hofstede, G. (2005). *Cultures and organizations: software of the mind*. Chicago: McGraw-Hill.

IFDEP. (2015). *Empreendedorismo nas Comunidades Imigrantes, um Olhar sobre Portugal*. Available at http://www.ifdep.pt/assets/empreendedorismo-com_imigrantes_ver_web.pdf

ILO. (2013). *Global Employment Trends for Youth 2013*. Available at http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_212423.pdf

INE. (2011). *Censos 2011.* INE.

INE. (2015a). *Empresas em Portugal -2013.* Publicações Instituto Nacional de Estatística. Available at https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_publicacoes&PUBLICACOESpub_boui=224784102&PUBLICACOEStema=55579&PUBLICACOESmodo=2

INE. (2015b). *Membros dos conselhos administrativos das empresas PSi20*. Available at https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_indicadores&indOcorrCod=0005959&contexto=pgi&selTab=tab10

INE. (2016). *Caracterização Socioeconómica do Município*. Instituto Nacional de Estatística, Available at https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_doc_municipios

Informa D&B. (2015). *Onde Param as Mulheres? Presença Feminina nas organizações em Portugal 2015*. Informa D&B. Available at http://informadb.pt/campanhas/barometro/2015/03/estudo-ondeparam-as-mulheres.pdf

Kuckartz, U. (2014). *Qualitative Text Analysis : a Guide to Methods, Practice and Using Software*. SAGE Publications. doi:10.4135/9781446288719

Liu, C. C., & Chen, J. (2010). Evolution Of Constructivism. *Contemporary Issues in Education Research*, *3*(4), 63. doi:10.19030/cier.v3i4.199

Lundström, A., & Stevenson, L. (2005). Entrepreneurship policy: Theory and practice. New York: Springer Science + Business Media.

Macrae, N. (1982). *We're all Intrepreneurial Now*. London: The Economist Journal.

Malheiros, J., & Padilha, B. (Eds.). (2010). Mulheres Imigrantes Empreendedoras. In *Colecção estudos de género 7*. Lisboa: CIG - Comissão para a Cidadania e Igualdade de Género. Available at http://www.igualdade.gov.pt/images/stories/documentos/documentacao/publicacoes/Mulheres_Emigrantes_Empreendedoras.pdf

Marques, A. P. (2016). Género e Potencial Empreendedor na encruzilhada da (in)dependência profissional. In Desigualdade e Políticas de Género (pp. 103-126). Vila Nova de Famalicão: Húmus.

McClelland, D. (1973). Testing for Competence Rather Than for Intelligence. *American Psychologist*. Available at https://www.therapiebreve.be/documents/mcclelland-1973.pdf

Monteiro, R., & Portugal, S. (2013). As políticas de conciliação nos planos nacionais para a igualdade: uma análise dos quadros interpretativos. *Ex-Aequo, 27*, 97–111. Available at http://www.scielo.mec.pt/pdf/aeq/n27/n27a07.pdf

Negas, M. C., & Lobão, M. F. (2014). *Ética no empreendedorismo*. Available at https://repositorioaberto.uab.pt/handle/10400.2/3254

OCDE. (2017). *Relatórios Econômicos da OCDE Portugal*. Organização para a Cooperação e Desenvolvimento Económico. Available at http://www.oecd.org/eco/surveys/Portugal-2017-OECD-economic-survey-overview-portuguese.pdf

OCDE, ILO, IFM, WBG. (2014). *Achieving stronger growth by promoting a more-gender-balanced economy*. Available at https://www.oecd.org/g20/topics/employment-and-social-policy/ILO-IMF-OECD-WBG-Achieving-stronger-growth-by-promoting-a-more-gender-balanced-economy-G20.pdf

Oliveira, C. R. (2016). *Diver-cidades empresariais em Portugal Estratégias de Imigrantes em mercados locais* (PhD). Lisboa: ISCTE- Instituto Universitário de Lisboa. Available at https://repositorio.iscte-iul.pt/bitstream/10071/13642/1/PhD Catarina Reis Oliveira 2016.pdf

Pareto, V. (2007). *Considerations On The Fundamental Principles Of Pure Political Economy*. Taylor & Francis. doi:10.4324/9780203934111

Parlamento. (2017). *Quotas de Género nas Empresas do Psi20*. Lei 62/2017 de 01 de agosto de 2017.

Passport to Trade 2.0. (2014). *Business etiquette in Portugal: punctuality, gift giving and Corporate Social Responsibility, Lifelong Learning Programme*. Available at http://businessculture.org/southern-europe/business-culture-in-portugal/business-etiquette-in-portugal/

Polletta, F., Chen, P. C. B., Gardner, B. G., & Motes, A. (2011). The sociology of storytelling. *Annual Reviews*, *37*(1), 109–130. doi:10.1146/annurev-soc-081309-150106

PORDATA. INE. (2016). *População estrangeira com estatuto legal de residente: total e por algumas nacionalidades*. Fundação Francisco Manuel dos Santos. Available at http://www.pordata.pt/DB/Municipios/Ambiente+de+Consulta/Tabela

Portela, J. (Ed.). (2006). *Microempreendedorismo em Portugal experiências e perspectivas Equipa Técnica do Estudo*. Available at https://eusouempreendedor.files.wordpress.com/2009/02/microempreendedorismoportugal_ivro_completo1.pdf

Portela, J. (2009). A economia ou é solidária ou é fratricida. *Revista Crítica de Ciências Sociais*, (84), 115–152. Doi:10.4000/rccs.412

PT2020. (2017). *Plano Global de Avaliação 2014-2020*. Available at https://www.portugal2020.pt/Portal2020/Media/Default/Docs/AVALIACAO/11_20170111_PGA_Revisão2016_aprovada_CIC-1.pdf

Quivy, R., & Van Campenhoudt, L. (2008). *Manual de investigação em ciências sociais (5th ed.)*. Lisboa: Gradiva.

Ramos, M. C. P. (2010). *Migrações e género - Trabalho, Empreendedorismo e Discriminações*. Florianopolis: Diáspora, Diversidades e Deslocamentos. Available at www.fazendogenero.ufsc.br/.../1278297633_ARQUIVO_ComunicacaoFlorianopolis

Rocha Trindade, M. B. (1993). Perspectivas sociológicas da interculturalidade. Lisboa: Universidade Aberta.

Rodrigues, A. D. (2000). *Para uma genealogia do discurso da globalização da experiência*. Lisboa: Universidade Nova de Lisboa. Available at www.bocc.ubi.pt/pag/rodrigues-adriano-globalizacao-experiencia.pdf

Rodrigues, E. (2009). *O lugar do género, dos homens e das mulheres na sociologia portuguesa: uma análise a partir da Associação Portuguesa de Sociologia*. Available at http://cies.iscte-iul.pt/destaques/documents/CIES-WP64_Rodrigues.pdf

Roldão, C. (2008). *Testando Modelos de Operacionalização. uma análise exploratória de modelos de operacionalização da estrutura de classes no quadro do European Social Survey -Round 2 (2014)*. CIES e-Working Paper. n.55.

Roldão, C. (2015). *Fatores e Perfis de Sucesso Escolar "Inesperado": Trajetos de Contratendência de jovens das classes populares e de origem africana* (PhD). Lisboa: ISCTE-IUL.

Sales Oliveira, C. (2011). *Mobilidade e classes médias em contexto metropolitano* (PhD). Lisboa: ISCTE - IUL.

Sales Oliveira, C. (2015). Sociologia, Problemas e Praticas. In *Sociologia, Problemas e Práticas* (pp. 137–151). Academic Press. Doi:10.7458/SPP2015776222

Santos. (2015). *Estratégia Regional de Investigação e Inovação para a Especialização Inteligente do Algarve (RIS3 Regional)*. Faro: CCDR-Alg.

Santos, S. P. (2012). As Teorias Feministas e a Evolução das Relações de Género na Sociedade. *Publication UEPG: Ciencias Sociais Aplicadas*, *20*(2), 213–223. doi:10.5212/PublicatioCi.Soc.v.20i2.0008

Sarkar, S. (2010). *Empreendedorismo e Inovação* (2nd ed.). Lisboa: Escolar Editora.

Scheeffer, F. (2013). *Teoria da Escolha Racional: a Evidenciação do Homo Economicus*. Academic Press. doi:10.5007/1806-5023.2013v10n1p28

Schonfelder, W. (2011). *CAQDAS and qualitative syllogism logic – NVivo 8 and Maxqda 10 compared*. Forum: Qualitative Social Research.

Schouten, J. (2012). *Para uma Sociologia de Género*. Lisboa: Húmus.

Venkataraman. (2000). *The Promise of Entrepreneurship as a Field of Research*. Academy of Management Review.

Schumpeter, J. (1934). *Theory of Economy Development*. New York: Oxford University Press.

Schumpeter, J. (1947). The creative response in Economy History. *The Journal of Economic History*, *7*, 149–159.

Silverman, D. (2013). *Doing Qualitative Research: A Practical Handbook* (4th ed.). London: Sage.

Sousa Santos, B. (1997). *Por uma concepção multicultural de direitos humanos*. Coimbra: Faculdade de Economia da Universidade de Coimbra e Centro de Estudos Sociais. Available at http://www.boaventuradesousasantos.pt/media/pdfs/Concepcao_multicultural_direitos_humanos_RCCS48.PDF

Sousa Santos, B. (2003). *Reconhecer para libertar: os caminhos do cosmopolitanismo multicultural. Introdução: para ampliar o cânone do reconhecimento, da diferença e da igualdade*. Rio de Janeiro: Civilização Brasileira. Available at http://www.do.ufgd.edu.br/mariojunior/arquivos/boaventura/reconhecerparalibertar.pdf

Sousa Santos, B. (2004). *Introdução: para ampliar o cânone do reconhecimento, da diferença e da igualdade*. Coimbra: CES -Centro de Estudos Sociais. Available at http://www.ces.uc.pt/publicacoes/res/pdfs/IntrodMultiPort.pdf

Sousa Santos, B. (2012). *A cor do tempo quando foge* (Vol. 2). Coimbra: Almedina.

Stevenson, L., & Lundström, A. (2001). Patterns and Trends in Entrepreneurship/SME Policy and Practice in Ten Economies. In *Entrepreneurship Policy for the Future Series*. Swedish Foundation for Small Business Research.

Stevenson, L., & Lundström, A. (2002). Beyond the Rhetoric: Defining Entrepreneurship Policy and Its Best Practice Components. In *Entrepreneurship Policy for the Future Series*. Swedish Foundation for Small Business Research.

Touraine, A. (2005). *Um novo paradigma: para compreender o mundo de hoje*. Lisboa: Instituto Piaget.

Trompenaars, A. (2012). *Riding the waves of culture: understanding diversity in global business*. London: Hodder & Stoughton General Division.

Turismo de Portugal. (2017). *Demografia e Geografia - Portal de Turismo do Algarve*. Turismo de Portugal. Available at http://www.visitalgarve.pt/visitalgarve/vPT/DescubraARegiao/99/Demografia+e+Geografia/

UERJ. (2013). *As diferentes abordagens do conceito de poder*. VI CONECO Congresso de Estudantes de Pós-Graduação em Comunicação. Available at http://www.coneco.uff.br/sites/default/files/institucional/as_diferentes_abordagens_do_conceito_de_poder.pdf

Velho, M. (2016). *Os melhores países para negócios em 2017. Portugal no top 20 da Forbes*. Dinheiro Vivo. Available at https://www.dinheirovivo.pt/economia/galeria/os-melhores-paises-para-negocios-em-2017-portugal-no-top-20-da-forbes/

Vieira, E. (2018). *O Empreendedorismo no Feminino na Região do Algarve* (PhD). Covilhã: Universidade da Beira Interior.

Vieira, E. & Sales Oliveira, C. (2016). *Pensar Global, Empreender Local*. Atas do 24 th Workshop APDR.

Weber, M. (2010). *Conceitos Sociológicos Fundamentais*. Lisboa: Edições 70.

WGI. (2015). *Worldwide Governance Indicators, Annual Update 1996-2015*. Worldwide Governance Indicators - knoema. Available at http://pt.knoema.com/WBWGI2014/worldwide-governance-indicators-annual-update?country=1001550-portugal

ENDNOTE

[1] This is an objective of Corporate Social Responsability (Passport to Trade 2.0, 2014), apply on the Companies and Organizations.

Chapter 14
Local Development and Poverty Reduction in Low-Income Rural Communities in the Northeast Brazil

Joao Conrado de Amorim Carvalho
https://orcid.org/0000-0001-8121-2539
Unidade de Ensino Superior Dom Bosco (UNDB), Brazil

ABSTRACT

The problem of poverty is becoming a concern worldwide for the potential for its dissemination. The phenomenon affects not only the less industrialized countries, but also those that have overcome the stage of underdevelopment. This chapter describes three case studies to understand how low-income rural communities in the Brazilian Northeast managed to mitigate their problems of social exclusion from a set of actions involving several agents. The results showed that the joint application of actions, such as the settlement of producers in expropriated lands, the installation of basic infrastructure, investments financed in irrigated agriculture, technical assistance, training, marketing support, and self-management are sufficient to reduce poverty and present results satisfactory.

INTRODUCTION

Economic achievements and different development programs are not always able to equate the social problems of a country. It is not without meaning that the world leaders have implemented policies to combat poverty since the phenomenon is complex and it is generally accepted that it is impossible to find a unique solution of universal application. Each country, and within them, each region coexists with its own specificities, requiring immersion in the underlying causes for the adoption of specific programs supported by other countries, since the phenomenon has the capacity to cross borders.

In this context, it is possible to perceive some initiatives that involve not only the government but the organized society in search of actions that provide the awareness to raise the quality of life and well-being

DOI: 10.4018/978-1-5225-7937-3.ch014

of the neediest sectors. The literature consulted demonstrates some initiatives focused on self-sustaining local development, as will be seen below. It is a new perspective that integrates the community, available natural resources and production technology. These actions have already presented promising results, since they provide decent living conditions for the families involved, allow the community to self-finance, eliminating the eternal dependence on government actions. These successful examples of poverty reduction involve the sustainable management of environmental resources, enabling beneficiary communities themselves to manage their resources and thereby generate income and employment in economically depressed areas.

Brazil is in the group of developing countries with serious social problems. Although poverty is located in all regions of the country, it can be perceived more severely in large regions where geography and climate are especially unfavorable to local development. The problem worsens when the government chooses to adopt large-scale public policies for the reduction of poverty of an immediate nature, seeking only to alleviate the deleterious effects of poor living conditions, to the detriment of a model focused on the medium and long term. In the last four decades, emergency programs have been implemented in one of the poorest regions of Brazil (Northeastern Region) in order to stop the effects of the drought that regularly affects the region. In more recent years, the government has opted to develop resource allocation programs through grants that guarantee a minimum of living conditions for beneficiary families. This program was applied not only in the poorest regions, but throughout the country.

Much criticism and applause were directed at such programs. Criticism centers on a number of important points, such as the fact that the programs require almost no consideration from participants other than keeping their children in school. Another criticism is that programs do not provide a "way out" for beneficiaries who can cross the poverty line and move up socially. There are also those who identify programs as a kind of crutch that makes the beneficiaries dependent and idle, inducing them to no longer engage in production or seek employment. Finally, some critics consider these social programs as catalysts of votes for the government. The applause comes from those who consider the programs as fair mechanisms of income distribution and provide some dignity to families who, without benefit, would be living in subhuman conditions.

However, although to a lesser extent, the country has been developing, since the 1980s, policies for the productive insertion of workers and communities, including the financing of public banks. These initiatives include the Programa de Geração de Renda (PROGER), the Programa Nacional de Apoio à Agricultura Familiar (PRONAF), the Programa de Crédito para a Reforma Agrária (PROCERA), the Fundos Constitucionais de Desenvolvimento (FNE, FNO e FCO) and the productive credit lines offered by the Banco Nacional de Desenvolvimento Econômico e Social (BNDES). These programs are made available to farmers and their associations in extremely satisfactory conditions, with adequate terms, subsidized interest rates and timely and sufficient credit to meet productive needs.

Considering, therefore, the perspective that it is possible to overcome the social difficulties through the organization of rural producers with the support of institutions of technical assistance and rural extension and adequate credit, this work aims to analyze how it is possible to mitigate the negative effects of the poverty reduction through the adoption of a local development mechanism supported by funding programs. To this end, three case studies were carried out in communities of rural workers. They were chosen because they presented characteristics that were common to each other. All of them are located in the Northeastern Region of Brazil, one of the poorest, with greater problems of social inequality and more neglected in relation to the priorities of allocation of public resources for long-term development. These communities originate from settlement programs for low-income producers who once practiced

subsistence farming and extractivism. The settlements were carried out through programs for the expropriation of large unproductive areas or that exploited a system of latinfundary production with great disproportion between the landlord and the low-paid or slavery-like workers. From the intervention of rural extension agencies and the support of financial agents, communities began to produce fruits, vegetables, animal products and extractive collection, reducing poverty indicators. The projects were supported by entities concerned with sustainable development, which planned and developed modern production techniques respecting the environmental diversity of each locality and the capacity of the producers involved. The projects were also supported by municipal management, which opened space for the insertion of production in school meals and provided conditions in terms of infrastructure so that the production surplus reached more demanding markets.

Data collection was carried out in the communities themselves through interviews with local leaders, rural workers and associate members. It was sought to detect, through a dialogical process, how each interviewee understood the process of local development from the interventions performed. Based on the answers obtained, it was sought to understand how each person was inserted in the productive process, how this person was able to participate in the decisions, how his opinion contributed to the self-management of the community and what benefits were provided in the new model implemented. It also sought to know to what extent the community strengthened and was prepared to address social inequalities and reduce the secular levels of poverty that had been the reality until then. The conclusions were reached based on the discourse analysis of the actors involved in the process.

This work is organized in sections. The first section (Introduction), describes the general perspective of the chapter, the objectives and methodology employed. The second section (Background) rescues concepts about poverty, social exclusion and local development, bringing to the discussion the opinion of different authors. It also presents the issues addressed, controversies and problems. In the following section (Solutions and Recommendations) the rural producers' communities where the study was developed and the results are presented, with discussion of the solutions and recommendations aligned with the issues addressed. In the next section (Future Research Directions), trends for future research are presented, and finally, in the last section (Conclusion), the reflexes of research findings and limitations are discussed.

BACKGROUND

There is much academic discussion about the concept of poverty. Khan, Iqbal and Rehman (2017) and Kwadzo (2015) argue that the eradication of poverty is one of humanity's greatest challenges, and because it affects different groups, it becomes a dominant issue in all countries. Their reflexes are not only economic, but they penetrate into social spheres. Jamal (2005) and Uceda-Maza and Alonso (2017) associate poverty with a series of causes of increased crime. Panadero, Vázquez and Martín (2017) attribute the elevation of the problems of alcoholism to the situation of poverty and social exclusion. Doering and Ward (2017) found evidence of increased infant mortality in poverty settings.

Pinto (2003) identifies that in all countries and regions there are plots of the population living on the margins of society, not positively affected by employment and income generation programs and little impacted by government social programs in the areas of health, education, culture, basic sanitation, infrastructure, etc. It is the poor population who are the excluded. Jamal (2005) considers poverty as a condition in which a person is unable to earn enough money to meet their basic needs for food, clothing

and livelihoods. Lötter (2016) considers poverty as the lack of economic capacity of human beings and sees two distinct effects that differ in degree: intermediate poverty and extreme poverty. People who are in the intermediate poverty stage do not have the economic capacity to participate in the activities of life in society or even develop their skills that can be appreciated by other human beings. The evolution to the stage of extreme poverty occurs when the loss of economic capacity is so great that individuals are no longer able to provide for their own basic needs, suffering from problems of lack of nutrition, housing and medical care. Lötter (2016) argues that there is a moral obligation of the population at large to eradicate poverty.

In this sense, Townsend (2006) argues that groups of the population can be considered in a state of poverty when they do not have the resources to eat properly, participate in activities and experience living conditions usually practiced in their community. His proposal moves away from Lötter (2016) when he states that poverty has structural causes. In this way, he refutes the idea of a culture of poverty that determines public policies to reach solutions of social mobility. For him, it is more practical and efficient to reformulate systems of distribution of resources in a universal and equitable way.

Holohan (2016) sought to identify causes of poverty by analyzing a number of studies conducted in Ireland. Some determinants of poverty confirm Townsend's (2006) proposition that they are structural causes, such as the large rural economic base, limited industrialization, the country becoming neutral in World War II, and the influence of Catholic teaching on their charity programs.

Some aspects of Lötter's propositions (2016) were contested by Metz (2016), Brock (2016) and Moellendrof (2016). These authors, in separate articles, criticized the determination of a moral obligation from different sources to eradicate poverty. For Moellendrof (2016), there are no moral reasons to support the struggle of the working class in reducing the capitalist oppression suffered, although it agrees with the proposed concepts. Metz (2016) identifies problems of relativism in the conception of Lötter (2016), since the concept cannot be applied to all societies. Brock (2016) also challenges the involvement of society as a whole in the eradication of poverty, failing to grasp the moral obligation to mobilize against poverty.

Akkan, Deniz and Ertan (2017) argue that belonging to some group with characteristics of poverty means belonging to a stigmatized space, that is, it involves the sphere of exclusion treated by Lötter (2016). This means that people do not have equal participation in society nor equal access to resources. They add that social exclusion eventually becomes the main barrier to access to four arenas: economic, political, cultural and spatial. The barrier to the economic arena is with the loss of employment and income opportunities, leading individuals to underemployment. The exclusion of the political arena occurs because of the weakening of representation and the impoverishment of social relations. Losing identity in the cultural arena refers to the threats of not belonging to groups that determine the lifestyle, such as religious, social, linguistic groups, etc. Being outside the space arena is related to the prospects of not participating in the environment in which individuals divide their activities and social relationships, such as schools, market, etc. The sum of these aspects contributes to immerse individuals in segregation and marginality. Laderchi, Saith and Stewart (2003) classify four approaches to define poverty: monetary poverty, capacity poverty, social exclusion and participation poverty, very close to the Lötter (2016) sands.

Uzma and Amjad (2017) have realized that in low-income communities, where women account for slightly more than half the population, they end up dealing with things that are not market-oriented, such as caring for the home and informal activities. However, in the larger families, women are pushed into the labor market, a fact that is reinforced when they have a higher educational level and can easily

obtain credit to boost productive activities. In these cases, poverty levels are reduced by the inflow of female labor income.

Ioris (2016) examined the phenomenon of poverty and development in the Amazon within a context of deficiency in infrastructure, economic isolation and institutional failures. Their concerns lay in the dichotomy between poverty and abundance of natural resources. The research results showed that, first, development takes place through the exercise of hegemony over total subjection, and secondly, that poverty cannot be alleviated by conventional mechanisms of growth. They suggest policies of insertion through exploitation that respect forest ecosystems.

At this point, Khan et al. (2017) found that education, technical training and the provision of job opportunities are factors that can eliminate poverty in a Pakistan-based survey in Karak district, Khyber Pakhtunkhwa. These authors realized that poverty is a phenomenon that is more rural than urban and requires multiple strategies, regional, specific and gender-focused intervention. The authors state that poverty is negatively connected with the absence of investments in human capital (health, education, and skills training). Awan, Iqbal and Wagas (2011) assert that in order to improve human capital and raise social welfare (walfare human), the most relevant factor is education. According to them, education improves health indicators and life expectancy which, in turn, feed education.

Ndhleve, Obi, and Nakin (2017) concentrated their studies in the Cape Province, South Africa. They took as their starting point the government's goal of reducing poverty by half, with the main focus being on publicly funded agriculture. The results indicate that this type of intervention can result in poverty reduction as long as there is priority in agricultural research and extension and rural infrastructure.

As discussed in this section, poverty concepts and measures did not reach consensus among researchers and academics. Kwadzo (2015) conducted research to compare three distinct approaches to poverty: monetary poverty, social exclusion, and capacity poverty. The results revealed that the three approaches classified as poor varied strata of the United States population, which led them to consider these approaches as inadequate. He argues, based on previous studies by Behn (1995, 2003) that, depending on the concept used, the results may present different estimates of a population as poor or not poor, which leads many researchers to adopt a particular definition based on your specific research goals, the availability of information, etc.

Some initiatives to alleviate poverty are focused on local development. Tenório (2007), along the same lines as Lötter (2016), considers that this type of development requires the interrelationship of several actors in society and the satisfaction of demands in the economic, social, cultural, environmental and physical-territorial dimensions. Projects in this sense must arise from the articulation of state actors and society, from the negotiation of interests, including divergent or conflicting interests. Kwadzo (2015) considers that, because the problem affects heterogeneous groups, the concept of poverty depends on the interest and experience of the groups.

Based on the different experiences reported in these surveys, we will present in the next section the local development achieved by three communities located in regions of extreme poverty in Northeast Brazil. The first of these is the Limoeiro community, a settlement based on an agrarian reform program in the municipality of Barras, in the state of Piauí, considered to be one of the poorest in Brazil. The other two communities, called Lagoas and Veredas, are located in the municipality of Barreirinhas, which is also very poor and has good growth expectations due to tourism. The three communities studied are formed by rural producers based in expropriated areas for agrarian reform purposes. These three cases were accompanied by members of ASIBEAM – Asociación Iberoamericana de Economía, Administración e Marketing.

SOLUTIONS AND RECOMENDATIONS

History and Economy of the Region

After the discovery of Brazil by the Portuguese, the process of colonization began by the installation of so-called hereditary captaincies. This system consisted in the donation of extensive land lots to the nobles to explore and colonize the area. The model soon submitted the natives to a peculiar regime of captivity in which, in addition to forced labor, it also aimed at conversion to Catholicism. Martins (2017) reports that indigenous slavery coexisted with the slavery of the African Negro, brought in to collaborate in agricultural production under a whip regime, and thereby contribute to the accumulation of the capital of large landowners, grantees of hereditary captaincies.

However, despite the exploitation of the labor force by the landowners, Maranhão, as well as the other States of the North and Northeast of Brazil, was forgotten by the Portuguese Crown (Lima, 2006), which led to the failure of the captaincy system. In 1621, the State of Maranhão was founded, comprising the territory of the present states of Maranhão, Piauí, Ceará, Pará and Amazonas, with some relevance in the production of sugarcane, tobacco, livestock and cocoa. Nevertheless, almost all of the population lived in conditions of extreme poverty, surviving from collecting, fishing and subsistence agriculture. With the expulsion of the Dutch, sugar production declined, no longer being able to afford the high import costs of African slaves.

In an attempt to solve the problem, the Portuguese Crown created the Commerce Company of Maranhão in 1682, monopolizing all the commerce undertaken in Maranhão for twenty years. This arrangement failed to achieve the objectives and provoked revolt in all social strata, further aggravating the region's poverty. A new attempt to solve the situation was implemented in the administration of the Marquis of Pombal, in the second half of the 1750s, with the founding of the General Trade Company of Grão-Pará and Maranhão, which took advantage of the great demand provoked by the Industrial Revolution, in England. Maranhão became a major exporter of cotton, making the state capital a large commercial warehouse. With the decline of activity, the State of Maranhão was extinguished in 1774 and the territory was subordinated to the general government in Rio de Janeiro.

With the advent of the imperial period, the Brazilian economy is started to show signs of recovery thanks to coffee plantations, which are centralized in the Southeast Region. In parallel, an intense campaign that determined the end of slavery began, releasing capital for other activities. The states of Maranhão and Piauí did not follow the new economic order, remaining among the poorest in Brazil. The local economic activities, besides not conforming to the reality, maintained the archaic model implanted since the occupation and colonization. Along this path, there was the apogee and economic decline that followed the Livestock Cycle, based on livestock farming oriented to the domestic market and that allowed to occupy the interior, mainly in lands of low quality and little infrastructure. This economic model prevailed over the regime of the great sesmarias, true latifundia that did little to exploit agriculture, taking advantage of the land to pasture herds and consequently increasing the power of the great landowners. The author claims that the farms absorbed the lands of the squatters and eliminated the small owners, counting, for this, with slaves and militias that demonstrated the power of force of the "colonels" (great owners).

In 1850, the population of Maranhão and Piauí was basically composed of people without access to property, on the margins of political power, often surviving at the expense of underemployment and the essentially rural distribution of income. Most worked for ranchers or survived from subsistence farming and extractivism. There were also merchants and people employed in public power, often linked by family

ties to large landowners and quite distant from the poor and uneducated mass. As the Brazilian economy developed throughout the second half of the nineteenth century to the present, the poorer regions (North and Northeast) were distancing themselves economically and socially from the large centers located in the South and Southeast of Brazil. Worse still, in the poorest regions the pockets of poverty remained intact mainly in rural areas, as is the case of the municipalities where the three communities in this case study are located. In this way, Brazil reaches the twenty-first century with regions with enormous industrial, technological and social dynamism coexisting with areas of extreme poverty, hunger and misery.

Multiple Case Studies

The multiple case study was carried out in three low income rural communities. The Limoeiro community is located in the State of Piauí in an area considered unproductive latifundio that was expropriated for agrarian reform purposes. The Lagoas and Veredas communities are located in the State of Maranhão, also in areas that were considered unproductive and used for agrarian reform.

Limoeiro Community

The Limoeiro community is a current example of the colonial model that prevailed in Piauí. The 1,222-hectare land area where the settlement of 32 families was built is part of a larger area that had been exploited over the centuries in the unproductive latifundia system. Located in the municipality of Barras, the community presents great biodiversity, with spots of the three biomes that characterize the State of Piauí, predominating the caatinga interspersed by the ciliary forest bordering the rivers Marathaoan and Longá.

Prior to expropriation, the area belonged to Mr. Pedro Marques and was used extensively for cattle, goats, sheep, swine and horses. Subsistence agriculture was practiced solely to supply the food needs of the family, cultivating rice, cassava, beans and corn, without any technique and with very low productivity. Over the years, the property has been used solely for the maintenance of the status quo of many generations of cattle ranchers and large landowners, to the detriment of numerous families who lived in their surroundings and sold their services at vile prices or accepted to explore small areas of the property as tenants. The exploratory model known as “renda” is a rudimentary and feudal system in which the landowner hands over to the settler a small area for planting or rearing, usually receiving in payment a fraction of the production obtained. Over the years, the usually successful fraction turned around 1/4 (a quarter) for the owner and 3/4 (three quarters) for the landless who leased the area.

Taking into account climatic conditions of successive droughts, soil poverty, the technical and financial impossibility of using more advanced production resources, and the inability to obtain sufficient credit for not offering guarantees to the banks, the volume produced was almost always very slight, making the system adopted mere subsistence agriculture. In addition, this model has helped to strengthen the owner’s figure and increase dependence on rural workers.

In November 2000 the area was expropriated and began the settlement process with the creation of an urban village, formation of agricultural field, foundation of a school, church and water supply system. The Association of Rural Workers of the Limoeiro Settlement was also constituted with the entrance of the 32 inhabitants of the locality, who divided only three residences. Little by little, other producers who lived near Limoeiro community joined the Association, reaching a total of 355 inhabitants distributed in 71 residences, the great majority in the age group up to thirty years.

Since its inception, the settlement project of the Limoeiro community has been monitored and supervised by multidisciplinary teams made up of technicians from the Municipality of Barras (PI), the Empresa Brasileira de Assistência Técnica e Extensão Rural (EMATER), the Instituto Brasileiro de Colonização e Reforma Agrária (INCRA) and the company Consultoria e Assessoria Agropecuária (PCAA). This team planned and executed courses and training in management, fruit grafting, organic vegetable production, agricultural techniques for young people and pedagogy. In addition, advanced techniques of cultivation, such as irrigation and fertilization, were applied, helping to increase the quality of the production and to reach productivity per hectare previously considered impossible. Today, 25 hectares of beans, ten hectares of watermelon, five hectares of corn and two hectares of vegetables are harvested. The community creates 150 cattle, eighty goats, eighty pigs and 210 chickens, in addition to extracting 2,500 kg of carnauba powder, transformed into wax that is marketed with exporters to the foreign market.

It is possible to perceive that the establishment of the settlement, the realization of training, the obtaining of financial resources and the support of the involved organs, provided, immediately, improvements in the quality of life and retention of wealth by the community. Nevertheless, it is important to identify how this process occurred.

The Limoeiro community, as well as all rural communities that do not receive any type of assistance in the interior of Piauí, suffered the exclusion process in all dimensions or arenas (Akan et al., 2017). This reality involved the community in a process of unfeasibility in the citizen insertion of all those who inhabit and, somehow, explore economic activities in the same space. The problem became gradually more severe when it was realized that the inhabitants crossed the border from intermediate poverty to absolute poverty, as explained by Lötter (2016), proving incapable of accessing job offers, qualifying themselves to improve the educational level and, in more extreme cases, even to provide the means of their own subsistence, accepting to perform activities analogous to slavery.

When the rural worker reaches the stage of extreme poverty, the social stigma expands in such a way that it is seen as a risk to society. Because of the poor financial condition that does not provide care with hygiene, clothing and appearance in general, this person is usually associated with crimes or problems, emerging as the first suspect, even before a more consistent calculation. Associated with this, the lack of training hampers the chances of getting formal work in the market, helping to perpetuate their poverty. Wandering in search of occupation and with a ragged look, the rural worker who lives on the margins of society ends up being stereotyped as lazy, vagabond, unemployed or marginal.

In these conditions, the worker of these communities ends up plunging into problems with alcoholism and illicit drugs, contracting diseases and cannot be treated. Demoralized in all respects, it is unable to access social welfare programs, seek support from social assistance agencies and, in some cases, even refuse the support of such bodies and even the family, aggravating the process of exclusion to the limit of survival.

In an effort to survive, communities like Limoeiro develop a system of exploitation considered environmentally incorrect. The lack of resources and appropriate technology refers rural farmers to the practices of their ancestors, which can be described in the following stages: 1) clearing of vegetation and use of wood; 2) burning of the forest after being dry; 3) planting at the beginning of the rainy season; 4) manual cleaning of weeds; 5) harvesting; 6) payment of income to the owner, reserve of subsistence and seed for planting in the next season and sale of surplus, when there are leftovers for this. The process degrades the soils, destroys the forests and is very low efficiency and productivity. In the case of family farming, the areas explored in this way are limited to the capacity of exploitation of a family nucleus, almost always limited to one or two hectares.

This system transforms the rural producer into a kind of nomad within the larger area reserved for him, since exploitation in these circumstances disables the area being exploited for at least three or four years until the land can regain its productive capacity. In addition, the burning system entails enormous environmental damage, such as the death of live specimens inhabiting the burned area, the emission of pollutants into the atmosphere, the heating of the planet and the silting up of watercourses in the vicinity of farms.

The process of intervention in the Limoeiro community began to occur with the settlement of the rural producers in the expropriated area for agrarian reform purposes. One of the most important factors in making the enterprise more effective in combating poverty was the conviction of the organizations that supported and planned the operational model that settled families should be the ladies of their own destiny. In other words, the power to make decisions has become the key to overcoming poverty and empowering individuals to produce and retain their wealth.

In order for the community to exercise this power, it was necessary to train its members with training that enabled them not only to manage the business, but also to produce using modern techniques and greater environmental respect. Parallel to this, the community was endowed with basic infrastructure that would provide the residents with the dignity necessary to live in a healthy environment and equipped with conditions for educational, social and cultural development of their members.

Vanuza, one of the producers and former president of the Association, says that the settlement was installed in the year 2000. She recalls that before the installation there was only one source of water to drink, there was no electricity and the pioneer families had only eight heads of cattle. Today there are more adequate sources of water, there is electricity, straw houses have been replaced by masonry and tile houses and a health post has been built. There is also an agricultural field with 44 irrigated hectares, main source of production and community resources. She adds that beans, corn, manioc, watermelon and vegetables in general are sufficient for subsistence of the families and commercialization of the surplus. She reassures that the economic situation of the settlers has improved enough, although there is still a lack of action to definitively overcome poverty. In the educational aspect, reports that the children of the residents had nowhere to study and today there are already people who have obtained university course.

Vanuza also emphasizes that female labor is one of the most important points in the formation of community income. According to her, there are families that depend exclusively on women, either in the gardens or even in irrigated agriculture. Her opinion is reinforced by the opinion of the producer Esmeralda, who plants carrots, watermelons, vegetables and beans. She explains that the production is all intended to supply the headquarters of the municipality and neighboring cities.

The Limoeiro settlement uses organic principles of production, free of pesticides and fertilizers. The entire production process incorporates local products such as animal manure and carnauba straw, an excellent fertilizer and also mulch to retain water and provide nutrients in the decomposition process. Residents say they use the water from the river to water the plants and still practice small-scale fishing for food supplementation.

The extractivism of carnauba, a plant native to the Brazilian Northeast, is a sustainable activity. The extraction of the straw keeps the palm alive, which recomposes its straw, and can be exploited infinitely. Besides the straw being used in agriculture, the extracted powder is transformed into wax with numerous applications in the industry. Basically, its destination is the exporters who sell to the United States and England.

The City Hall of Barras decided to take advantage of the production of the Limoeiro settlement in the school lunch of the school network. This governmental decision proved to be a very important element

to guarantee the commercialization of the products and, in this way, to reinforce the cash flow of the community, improving the quality of life of the residents. Manoel Antônio, the engineer responsible for implementing the plan, maintains that the project received financial support from Banco do Brasil in through a special credit line for settlements that included irrigation equipment. In this way, it was possible to make crop rotation and diversify production a way to reduce uncertainties not only in relation to the possibilities of productive failure, but also to achieve better prices in the off season.

The example of the Limoeiro community has attracted the attention of residents of other communities who move there in search of opportunities. Francisco Nunes, 56, with five children, and his brother Antonio Nunes, aged 33 and two children, said that they lived in the community of Riacho Verde, near Limoeiro. They say that they had a very difficult childhood and adolescence, lived with hunger and helped their father in the field service. In the old community, they lived from the hunting of wild animals (prohibited practice in Brazil) and artisanal fishing, just for survival. Today, already integrated in the Limoeiro community, they plant watermelon, beans and corn. Although they have not had a chance to study, they provide education for their children at the community school. They feel that they are fulfilled in guaranteeing a decent life to the family and no longer feel excluded as before.

Lagoas Community

The Lagoas Community was also created from a process of settlement of low-income rural producers in an expropriated area, in 1915, when the first inhabi seat headquarters of the municipality of Barreirinhas, belonging to the microregion of the Lençóis Maranhenses. Throughout eight decades the community was forgotten by the authorities, addressing the same problems faced by the Limoeiro Community previously described. Its inhabitants entered the 21st century without having electric power, schools, access roads, treated water and basic sanitation. In 1994, the community created an Association of Producers and began the process of regularization of the area, but they faced difficulties in obtaining support because the majority of the inhabitants did not even have identification documents.

In 2008, the Association became a cooperative and received financial support from the Banco Nacional de Desenvolvimento Econômico e Social - BNDES for the planting of vegetables, fruits and poultry production. The project was encouraged by the Instituto do Agronegócio do Maranhão - Inagro, by the Empresa Brasileira de Pesquisa Agropecuária - Embrapa and the Universidade Estadual do Maranhão - UEMA, allowing to implement these activities with technical assistance for production, marketing and management. After the implementation of this project, the community managed to generate value for local production and, in this way, reduce the indicators of poverty and social inequality.

The offer of the products by the inhabitants of the Lagoas community came to meet an increasing demand derived from the tourist development in the Lençóis Maranhenses. As of 2003, when the region became a tourist destination as a result of an extensive marketing campaign, many hotels, inns and restaurants were installed in Barreirinhas and these enterprises began to demand the products produced by the cooperative.

The Lagoas community is located in a region of transition between the Cerrado (a kind of sparse vegetation and low fertility area of land) and the dunes, surrounded by a web of streams that feed innumerable lagoons. Before the project, the community consisted of 46 families with an average of three children and lived off the exploitation of natural resources. In the process of division of tasks, it was possible for men to act as collectors, hunters, fishermen and agricultural producers and for women to produce handicrafts, sweets and take care of children.

Due to the poor soils, the lack of productive infrastructure and the difficulty of access these grounds, agricultural production was incipient and restricted to the cultivation of cassava, corn, beans and rice. The income of the families, therefore, did not reach thirty dollars per month, a value equivalent to 1/8 of the minimum wage in force in Brazil.

Currently, the community is made up of more than eighty families that produce in a cooperative regime, using modern techniques adapted to local conditions. It achieved a productivity gain and reduced production cycle, providing greater financial return to the community. In addition to reserving part of the products for their own consumption, the producers market more than fifteen agricultural products for the tourism network, generating results for families.

Today all inhabitants reside in masonry and tile houses, equipped with electricity, have a refrigerator, televisions, treated water and other amenities. There are schools for children and some residents even have vehicles for locomotion. The average income per producer exceeds the current minimum wage, making families less and less dependent on government social programs.

Before the implementation of the project, the inhabitants of the Lagoas community were limited to the cycles of nature, collecting and producing almost exclusively for their own consumption. The little surplus had no quality, and, for that reason, it did not reach more demanding markets. The production facilities were precarious, there was no organization and management and most of the producers were not able to interact with the market simply because no documentation existed.

The project implemented modern production techniques, such as mechanized soil preparation, irrigation use, selection of seeds and improved seedlings, proper handling techniques, selection practices and product packaging to meet market demands. The producers and their families received intensive training, learning not only to produce, but also to improve the presentation of the product and negotiate better sales conditions.

If before the production of low quality was sold at low prices, today the products are sought by the hotel chain and restaurants of Barreirinhas, exactly because they are fresh, produced within the concept of natural and healthy agriculture. Thus, they are more valued and commercialized at prices compatible with that of other producers.

The transformation process began with a diagnosis made by the Instituto do Agronegócio do Maranhão - INAGRO to identify opportunities for local development in low-income communities. Inagro is a non-governmental organization (NGO) that supports producer associations in the improvement of cultivation and commercialization techniques. The diagnosis pointed to opportunities for the exploitation of vegetables, fruits and raising of chicken and small animals, as well as handicrafts. Alliances were made with the Empresa Brasileira de Pesquisa Agropecuária - Embrapa, with know-how in the cultivation in regions of low productivity, and with the Universidade Estadual do Maranhão - UEMA, enabled to promote assistance to entrepreneurship.

Financial support was sought along with the Banco de Desenvolvimento Econômico e Social - BNDES, which agreed to contribute a little over 350,000 dollars in non-reimbursable resources, allowing the implementation of different production systems, such as the expansion of cassava, corn, beans and rice, the production of irrigated vegetables, the implantation of fruits (cashew, lemon, papaya, coconut and açaí) and the breeding of small animals (chicken and goats). The production that used rudimentary techniques, like scorching, happened to be made with intensive use of agricultural implements, correction of soils and natural fertilizers. Vegetables and fruits are initially grown in nurseries and then transplanted to prepared areas, raising productivity and quality. The creation of small animals was also introduced with the use of modern equipment and management techniques adapted to the region.

The community took a huge step forward. Before, it survived with a minimum of dignity, producing only for consumption. Today, it offers consumers diversified products with quality, at any time of the year. It is integrated, in this way, with the natural growth process of the Lençóis Maranhese, retaining results distributed among the members of the community.

The results were quite encouraging and helped to make other alliances (the municipal council built a school and the government of the State brought the electric power to the community). Today, the Lagoas project is an example copied by other communities that also want to integrate into economic development.

Veredas Community

The Veredas community also occupies a settlement area formed in the enclave of three localities (Veredas, Rio Grande and Vereda dos Teodoros) in the Preguiças River springs, implanted in an agrarian reform program in the 1990s. Due to the state of abandonment, the community was never able to implement a production system that would provide its members with quality of life. In this way, they survived by exploring subsistence agriculture, which used aggressive practices and was compromising the conservation of the river's spring. These practices involved the irregular extraction of wood, the deforestation of riparian areas and the use of fires for the preparation of areas for planting.

In 2012 the community was chosen by the Inagro – Instituto do Agronegócio do Maranhão to participate in a project to revitalize the source of the Preguiças River, the most important river in the Lençóis Maranhenses region. The project was officially launched in June 2014, after having won support from Petrobras (big Brazilian state oil company) and other agricultural development entities.

From this project, the community not only modified its agricultural exploitation practices, moving to adopt modern means of production, but diversified production and managed to reverse the state of poverty in which it was. In parallel, the Preguiças River, on which more than eighty thousand people depend, has interrupted the aggression process in its springs and nearby areas, avoiding settlement and generating positive expectations for the entire productive chain that depends on it.

Today, the community sells the surplus of its agricultural production, produces sweets, fruit pulp, cassava flour and, in addition, poultry and eggs. It receives, also, great flow of tourists in search of natural products and artifacts of craftsmanship of good quality.

The settlement gathers about five hundred people who benefited directly from the project. Before the intervention, these people lived from the cultivation of cassava, extractivism, fishing and other activities for the subsistence of the families. The average monthly income was less than thirty dollars, which did not allow them a decent life. They lived in houses made of mud and covered with straw, they did not have access to the electricity and water network and faced enormous difficulties for displacement and access to credit. Most depended on the government's social programs for the support of the family.

After the project, the reforested areas allowed for the exploitation of bananas, beans, corn, rice and cassava, taking advantage of the natural irrigation waters of the river itself. The additional income was added to the families involved in the project from the exploitation of handicrafts, sweets, etc. Today, most people already have brick and tile houses, connected to the power and water network, have appliances and some residents have vehicles. The average yield of the producers involved revolves around the minimum wage in Brazil and the effects of seasonality have been eliminated.

The main goal of the project to revitalize the Preguiças River springs was to stop the settlement processor of the most important river in the Lençóis Maranhenses region and, at the same time, to increase the fixation of rural producers in their premises, improving the condition of life of families. Upon

receiving the sponsorship of the Petrobras Socioambiental program, the project could benefit more than five hundred people directly linked to the assisted communities, allowing them to leave rudimentary practices of exploitation of natural resources and raisins to develop a sustainable production regime.

For people directly affected, there were improvements in the quality of life, an increase in profits from the sale of surplus production and a reduction in the poverty indicators that characterize the population over decades. The producers raised their status as simple collectors for food producers and other inputs that meet the demand levels of the tourist pole.

Indirectly, the project benefited all the productive chains established along the river or dependent on it, such as tourism, fishing and irrigation. The system of exploitation prior to the project was compromising the survival of the river, precisely because the deforestation in the margins and the irregular exploitation of the springs had serious consequences for the perpetuation of the flow of the waters. With these irregular procedures stagnant, the river gained new expectation of survival and with it more than 2,500 people occupied in the productive chains and close to 50 thousand tourists who frequent the region annually.

The members of the Veredas community Veredas and adjacencies (Rio Grande and Vereda dos Teodoros) lived in sub-Saharan conditions before the intervention that sought to revitalize the Preguiças River. After the project, they not only contributed to maintain the perpetual river and benefit the entire productive chain along the course of the river, as it is also inserted in the chain of tourism, becoming suppliers of natural foods for the network of restaurants and hotels and crafts for tourists.

The products they offer meet the requirements of healthy products, perfectly suited to the concept of socio-environmental responsibility. In addition, it attends to the qualitative aspects, which makes them well accepted and even desired by the general public.

Another positive result to highlight is the development of environmental awareness in the community. Formerly responsible for the degradation that was compromising the environment, today they are responsible for the maintenance of nature. In this aspect, they propagate the idea of clean production and transfer all that concept to the products offered.

FUTURE RESEARCH DIRECTIONS

The whole world lives with the phenomenon of poverty, regardless of the level of development of each nation. Rich countries are not immune to the problem, as there are numerous communities on the margins of the wealth distribution process and still live with migratory flows, which bring to their territories a wide range of people who flee from the bad situations in their countries of origin. Developing countries and those that are still underdeveloped are facing the situation with the greatest impact. In most cases, the inability to reverse or at least minimize the problem goes beyond centuries and goes beyond the meager resources generated internally. It further aggravates the harsh reality of the involvement of rulers with corruption and the diversion of resources to the very pocket of politicians, failing to achieve social welfare.

In this sense, we point out some future directions of research involving the theme. The indication of these future researches also has to do with limitations of this work, which can be solved by expanding the scope of work, broader scope in research and coverage of other regions also dependent on resources. It is convenient to incorporate some new variables in future research, searching correlations between poverty, ethics and social justice. In this case, issues involving diversion of resources, illicit enrichment, and other misconduct that may delay or impinge on local development may become evident.

Another point to be explored in future research concerns issues of gender, race, color, sexual orientation, and groups representing minorities. It is important to draw a parallel between the effort to reduce poverty, local development and the role of each of these social variables, in order to capture possible discrimination. Finally, quantitative research involving the cross-referencing of variables related to poverty and local development with investment financing, technical assistance, rural extension and community self-management would be advisable.

CONCLUSION

This research, a multiple study of inclusive cases, sought to understand how to overcome the stage of extreme poverty through agricultural exploitation financed and assisted by rural extension agencies. One of the main concerns was to give voice to the actors involved in the process, that is, the rural producers of the Limoeiro, Lagoas and Veredas communities, the object of the case study.

The leap in quality of life experienced by the members of the communities surveyed was evident. All of them gave rise in all arenas, transporting them the opposite way that left behind extreme poverty and even intermediate poverty to the level of economic, political, cultural and spatial insertion. This process of improvement took place precisely through the development of guided projects in which the communities themselves were able to define their objectives and set their goals.

The supply of basic infrastructure needs, such as water, energy, school, leisure, health and the means of production were among the priorities of the settlement producers. From the earliest days, generations of the excluded survived under semi-slavery, without being able to exercise their prerogatives as a citizen with rights. These needs were solved immediately, even at the implementation stage of the enterprise.

Another strong mainstay of the success of the three settlements was the development of a sense of cooperation in which the dynamic participation of men and women around production in a common space of mutual aid prevailed over individualism. No single producer would be able to reach the market efficiently, since it would not have production volume to justify marketing costs. The joining of forces to overcome obstacles was therefore a crucial element for the improvements achieved by the communities, extending to all its participants.

Investments in education and qualification cannot fail to be mentioned. From an early stage, the communities realized that the educational improvement of the group was an element to be pursued so that people could even feel encouraged to question their reality. In this context, the female role played a major part in that it left behind the historical tradition of reserving to women domestic tasks to become the protagonists of the means of production. This reality represented a rupture of paradigms when it was inserted women as a resource-providing element, some of them assuming a leadership role in the community itself.

Last but not least, the development of a self-sustaining farming system adhering to the environmentally sound precepts as a driving force for maintaining man in his productive area, eliminating degrading and nomadic exploitation and achieving high levels of productivity. The use of local resources and inputs to strengthen the concept of organic agriculture and to offer products of better quality and greater acceptance stands out at this point.

Therefore, extreme poverty in rural areas can be overcome through mechanisms to support poor communities that have a real intention to prosper. The development of a plan that involves technological training, technical assistance, adequate financial resources and marketing support are essential elements

to foster the community spirit of production, to engage the female force in the productive process while respecting the ecological limits of the locality. In this process, one can perceive mutually reinforcing elements, such as the effort to raise the educational level, feeding the spirit of citizenship and democratic participation, which in turn engages men and women in the process of self-management of the community and, consequently, moves the whole cycle that elevates not only the economic, political, spatial and cultural gains. It is even believed that the situation of many communities that were also settled in large unproductive areas and did not achieve promising results or failed can be explained by the lack of use of planning mechanisms, capacity building of producers, leadership development and respect for the environment.

This study, although restricted to three communities that have been experiencing relative success in their activities, can be extended as an example to other communities that are still in the stage of poverty and without solutions to the social exclusion in which they find themselves.

REFERENCES

Akkan, B., Deniz, M. N., Ertan, M. (2017). The Romanization of poverty: spatial stigmatization of Roma neighborhoods in Turkey. *Romani Studies 5, 27*(1), 73-93.

Brock, G. (2016). How should we discharge our responsabilities to eradicate poverty? *Res Publica (Liverpool, England)*, *22*(3), 301–315. doi:10.100711158-016-9328-z

Doering, J. J., & Ward, T. C. S. (2017). Interface among poverty, air mattress industry trends, policy, and infant safety. *AJPH Research, 107*(6). doi:10.2105/AJPH.2017.303709

Holohan, C. (2016). Conceptualizing and responding to poverty in the Republic Ireland in the 19602: A case study of Dublin. *Social History*, *41*(1), 34–53. doi:10.1080/03071022.2015.1108711

Ioris, A. A. R. (2016). The paradox of poverty in rich ecosystems: Impoverishment and development in the Amazon of Brazil and Bolivia. *The Geographical Journal*, *182*(2), 178–189. doi:10.1111/geoj.12124

Jamal, H. (2005). In search of poverty predictors: The case of urban and rural Pakistan. *Pakistan Development Review*, *44*(1), 37–55. doi:10.30541/v44i1pp.37-55

Khan, A. U., Iqbal, T., & Rehman, Z. U. (2017). Impact of human capital on poverty alleviation in district Karak, Khyber Pakhtunkhwa. *The Dialogue*, *11*(2).

Kwadzo, M. (2015). Choosing concepts and measurements of poverty: A comparison of three major poverty approaches. *Journal of Poverty*, *19*(4), 409–423. doi:10.1080/10875549.2015.1015067

Laderchi, C., Saith, R., & Stewart, F. (2003). Does it matter that we do not agree on the definition of poverty: A comparison of four approaches. *Oxford Development Studies*, *31*(3), 233–274. doi:10.1080/1360081032000111698

Lima, C. (2006). *História do Maranhão* (2nd ed.). São Paulo: Instituto Geia.

Lötter, H. P. P. (2016). Poverty, ethics and justice revisited. *Res Publica (Liverpool, England)*, *22*(3), 343–361. doi:10.100711158-016-9319-0

Metz, T. (2016). The nature of poverty as an inhuman condition. *Res Publica (Liverpool, England)*, *22*(3), 327–342. doi:10.100711158-016-9318-1

Moellendrof, D. (2016). Anti-poverty, development, and the limits of progress. *Res Publica (Liverpool, England)*, *22*(3), 317–325. doi:10.100711158-016-9329-y

Ndhleve, S., Obi, A., & Nakin, M. D. V. (2017). Public spending on agriculture and poverty in eastern Cape Province, South Africa. *African Studies Quarterly, 17*(2).

Panadero, S., Vázque, J. J., & Martín, R. M. (2017). Alcohol, poverty and social exclusion: Alcohol consumption among the homeless and those at risk of social exclusion in Madrid. *Adicciones*, *29*(1), 33–36. doi:10.20882/adicciones.830 PMID:27391851

Pinto, L. F. S. (2003). *Gestão-cidadã: ações estratégicas para a participação social no Brasil*. Rio de Janeiro: Editora FGV.

Tenório, F. G. (2007). *Cidadania e desenvolvimento local.* Rio de Janeiro: FGV; Ijuí: Ed. Unijuí.

Townsend, P. (2006). Measures and explanations of poverty in high income and low-income countries: the problems of operationalizing the concepts of development, class and poverty. In *The Concept of Poverty: Working Papers on Methods of Investigation and Life-styles of the Poor in Different Countries.* Academic Press.

Uzma, H., & Amjad, A. (2017). The role of working women in poverty reduction (a case study of district Peshawar). *The Dialogue.*, *12*(2).

Chapter 15
Roles of Market Orientation and Social Orientation on Sustainability:
Case Studies in Rural SMEs in Cáceres

Joaquim Vaz
Faculdade de Ciências Sociais e Humanas da UBI, Spain

Jose Francisco Santiago
Premier Wealth and Asset Management, UK

ABSTRACT

The empirical literature relates increasingly competitive environments to innovative business activities. The chapter aims at analyzing proactivity as a condition of the dynamics to which organizations are obliged to search for, devise, and generate an adequate response, accompanied by the capacity for innovation and sustainability in the nature of the response to achieve a competitive advantage. This chapter contributes to the understanding of small business innovation capacity. It proposes a model that starts from the market orientation and the social orientation, as variables that enhance the innovation capacity of the companies, impelling in this way, their response to the needs of the customers. A multi-case study is used to validate the said model in the SMEs rural in Cáceres. The results show a reactive market orientation and a high awareness of generating sustainability conditions. This means that environmental and social orientation should be maintained or adapted to so innovation can be sustainable in the long run.

INTRODUCTION

At present, having satisfied customers is not enough, this has led companies of different sizes, especially small and medium-sized companies, to develop a mechanism to obtain, generate customer information, markets and competition to support the development of strategies and innovative activities that enable them to respond quickly to the competitive environment. According to (Song et al., 2009) innovation is an important source of competitive advantage. Therefore, for innovation to succeed, it is necessary to

DOI: 10.4018/978-1-5225-7937-3.ch015

instill a culture of constant search for opportunities that impacts the quality of innovation. Successful innovation, understood as a positive exit from the innovation process, is the primary means by which firms maintain and expand their product and customer markets (Baker and Sinkula 2005). This panorama implies the need to pay special attention to a high management to the achievement of the superior performance objectives in the companies.

Vasconcello (2013) corroborates with the approach of the previous authors and adds that the innovation will allow a strategic positioning that will allow the maintenance and / or increase of the business performance. In this same line of thought, Han et al., 1998; Hult et al., 2004, affirm that a large number of studies suggest that the market orientation is positively associated with a superior performance, for example: number of innovations adopted.

Hooley et al. (2005) reinforces the above, considering that the increase in market orientation implies the development of customer relationships and the ability to develop and launch new goods and services.

However, there is still no consensus on the role of market orientation in the success of innovation. For example, some researchers propose that a market-oriented firm may diminish its ability to innovate if it only listens to consumers' voice (Christensen and Bower 1996, Lukas and Ferrell 2000 and Widiana M. E. 2017).

In the light of the above, the lack of consensus on the role of market orientation in innovation, the aim of this exploratory work is to contribute to the improvement of knowledge about involvement, and the proactive market in the development of the innovation process in SMEs "caceres".

Formulation of Permissions

Kohli and Jaworski (1990) consider market orientation capabilities as a source of competitive advantage with an effect on financial and market performance, especially those market-oriented organizations. Likewise, (Slater and Narver 1995) suggest that market orientation is a solid basis for the creation of such value capabilities and is a determining factor in profitability and performance. Later (Jaworski and Kohli 1996) show that market-oriented firms actually perform significantly better than less-targeted firms, especially on variables related to profitability, adaptability, and customer satisfaction.

On the other hand, (Day 1994, Lionakis, K., & Avlonitis, G. J. 2014) explain in general terms how market orientation improves performance by providing organizations with a greater capacity to understand, attract and retain customers. Other studies, however, suggest that there is no significant relationship or mixed results between the two arguments. According to Han (1998), innovation is the hidden link between market orientation and organizational performance. In this perspective, (Naver et al., 2004) consider that the latent needs are universal, exist in each client and can be discovered by a company that undertakes to focus and seek in a disciplined way, through careful observation of clients' behaviors, possible solutions to the problems they face. Therefore, for a company to improve performance it must go beyond the current or conscious needs of customers trying to discover their future and latent needs. This requires that the company continuously exceeds the expectations of its customers defined by (Narver et al. 2004) as pro-active market orientation dimension.

A proactive market orientation will alert companies to new markets and reflect an exploratory learning behavior that involves the search for new and diverse information of needs that clients do not yet consider conscious (Atuahene-Gima et al., 2005; Narver et al., 2004). This implies a positive effect of the proactive market orientation on performance.

Thus, considering the argument presented above, the following assumptions can be made:

P1. *Market orientation is positively related to innovation capacity* and as sub-commissions the following are considered:
P1.1. Proactive market orientation positively relates innovation capacity
P1.2. Reactive market orientation positively relates to innovation capacity

As stated in the previous assumption, most of the most recognized companies care about what customers want and carry out market investigations that allow them to know the tastes and preferences of their customers and thus offer them what they want. However, the marketing manager and product manager must be warned that the market research study does not guarantee an approach or market orientation, apart from learning to care for or improve the long-term interests of individuals and society (Lamb, 2011).

On the other hand, the work developed (Vander Linde et al., 2016) concluded that properly developed environmental standards can catalyze innovations, reduce costs and aggregate values, thus allowing more efficient use of resources.

In addition to the above, for a company to be competitive, it is necessary to develop a process of sustainable innovation, (Pujari 2006, Dangelico, RM, et al, 2017), demonstrated the effect of eco-innovation in the development of new products in performance of the market in North American companies. In this way, the following assumption is proposed:

P2. Social orientation relates directly to the capacity for innovation

Finally, (Dinacyt 2003), it considers innovative companies, those whose innovation activities resulted from the results of the market introduction:

- Of a new or significantly improved good or service;
- Of new or significantly improved production methods;
- Of a new organizational method;
- Of new methods for marketing (marketing innovation).

This latter categorization may be important for innovation performance. Although in certain cases, innovation starts in the R & D function, marketing plays a crucial role for innovation to succeed. Normally the activities of the R & D department should coordinate with the activities of other departments, as indicated (Burgelman and Maidique 1988). In this way, both R & D and engineering need to coordinate with the marketing function to ensure that the new product has the characteristics and qualities customers need and want. It is at this point that marketing has a preponderant role in the capacity for marketing innovation and development of new products.

According to Christensen's (2001) viewpoint, a company's ability to innovate can be grouped into three classes of factors: resources, processes and values or marketing culture. According to Hooley et al. (2005), the marketing culture of the organization is manifested by the level of market orientation. The latter takes time to build is complex, developed by unspoken skills. This means that it is almost impossible to transfer knowledge and experience from one company to another. Therefore, organizations that are capable of successfully developing a number of innovations are able to integrate and combine market orientation with other key factors to stimulate innovation and achieve a sustainable innovative outcome (Lawson and Samson, 2001; Hauge, Elisabet S., et al., 2017). In this way, the effect of market orientation on innovation is justified.

In relation to the performance of new product development programs (Atuahene-Gima et al., 2005) and the success of new products (Narver et al., 2004), there is still no consensus on the role of market orientation in success of innovation. The latter author considers that the disagreement on the relationship between market orientation and innovation success stems from a narrow understanding of market orientation, which has traditionally been conceived as a reactive orientation, needs. On the other hand, the aforementioned study establishes that a complete orientation to the market also appears in a proactive way that concerns the discovery and satisfaction of future needs not expressed spontaneously by customers, previously considered by (Day, 1994).

According to Hurley and Hult (1998), innovation can be considered as a precedent for the performance of new products, culminating in: more effective levels of customer satisfaction and loyalty (Mavondo, Chimhazi and Stewart, 2005); better sales volume results and market share (Hooley et al., 2005).

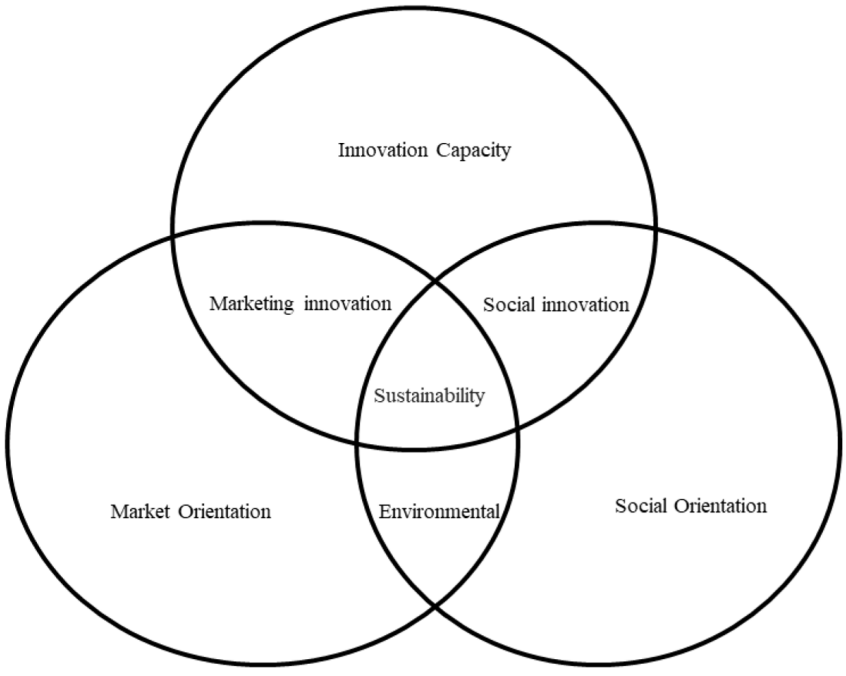
On the other hand, optimum marketing management ensures the fast and reliable delivery of products to the customer and consequently the total increase in sales and market share (Jacobs, Chase, & Aquilano, 2010). According to the argument, the following premise is proposed:

P3. Innovation capacity is positively related to innovation.

Theoretical Model

As shown in the following figure, we establish the interrelationship between the main constructs: Innovation capacity, market orientation and social orientation.

Figure 1. Interrelation between constructs
Source: Own elaboration



Based on the understanding of the proactive market orientation (Narver et al., 2004) and other previous contributions in the marketing area, especially the work led by Hooley et al. (2005) the theoretical model object of this investigation:

RESEARCH METHODOLOGY

In order to test the theoretical model, the qualitative analysis was carried out, through the case study, according to the phases established by (Yin, R. 1994). The justification for choosing the case study is that it is a poorly investigated phenomenon, which requires an in-depth study of a few cases. The choice of the cases was carried out by means of a logical and theoretical, non-statistical and random sample, looking for a response and analytical generalization before statistical generalization (Ragin and Becker 1992; and Yin 1994).

The formation of the sample was a progressive process, initially identified through ADISGATA (Association for Rural Development of Sierra de Gata in Cáceres). These are companies that do not exceed 14 employees, of which 7 companies were interviewed and one of them was excluded from the analysis because they did not fit the purpose of the study in question.

And, with the evidence acquired in the field work, we proceeded to:

- More relevant transcript of each case of the opinion of the managers of the companies analyzed in relation to Marketing Innovation and Market Orientation, Performance;
- And validation of these assumptions.

For a further simplification of the nomenclature of the investigated companies, they will already be referred to as case A, B, C, D, E and F, respectively.

Evidence Analysis: Global Case Analysis

In this section, we discuss the applicability of the theoretical model developed previously, proving, on the one hand, its theoretical consistency to the reality of the "cacereño" business fabric and, on the other

Figure 2. Theoretical model of the relation between the constructs
Source: Own elaboration

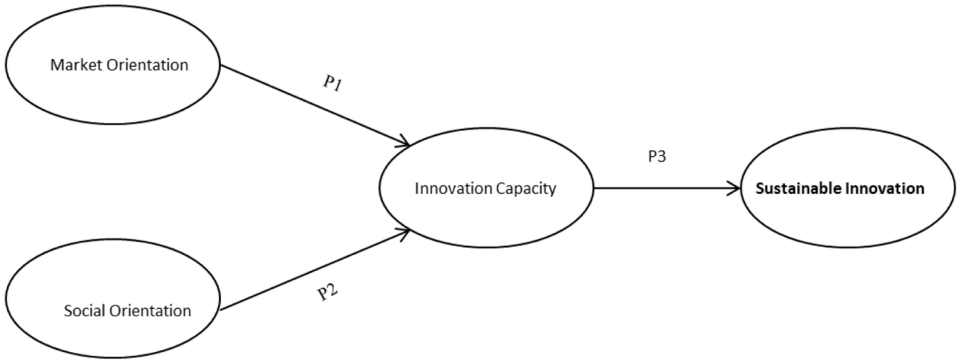


Table 1. Characterization of Sample Companies

Cases	Cases Description	Sector of Activity	Number of Workers
A	Spirulina Koru	Food Industry	2
B	Val de Xálima Honey and Pollen	Food Industry	4
C	"As Pontis" Oil Factory	Food Industry	10
D	" El Pilar" Rural House	Rural Tourism	2
E	"Dona Francisca" Cheese Factory	Food Industry	10
F	Artesanal Boilermaking	Arts & Workshops	14

Source: Own elaboration

hand, a comparison of the answers is made to arrive at important conclusions as which permits lose meaning in this reality. It was established the verification of the previous assumptions, requesting to the managers of the 6 companies if they seemed true or false the items related to the constructs.

Concerning the first assumption "Proactive market orientation has a positive impact on innovation capacity". You can see in the following representation the result of the survey applied to these companies, related to the items of the market orientation.

In the study of the validity of the assumption P1.1, we studied the responses to the survey concerning the conditions present in the 6 cases analyzed and, in general, the majorities of the answers are negative, from the outset, could deduce that there is no influence of the market orientation proactive approach to innovation capacity.

In contrast, it can be verified that the majority of the responses of the items in the previous table are positive; these results allow to validate the assumption P1.2.

On the other hand, this analysis is reinforced with the transcription of the company's management F "We do things as customers like".

In short, there is influence of market orientation on innovation capacity, since P1.1 is validated although P1.2 is not validated, thus re-establishing P1 in Guidance for the reactive market positively relates capacity for innovation

With regard to social orientation, Table 4 describes the most relevant interview transcripts to management.

Table 2. Frequency of responses to proactive market orientation and innovation capacity (P1.1)

Guidance for the Proactive Market (Source: Narver et al., 2004)	Cases						Present Condition	No Condition Present
Description of scaling items	A	B	C	D	E	F	+	-
We help our customers anticipate market trends	+	-	+	-	-	-	2	4
We continually try to discover additional customer needs	-	-	-	-	+	+	2	4
We look for opportunities in areas where our clients find it difficult to express your needs	-	-	-	-	-	+	1	5

Source: Elaboration based on Narver et al., 2004

Table 3. Frequency of responses to reactive market orientation and innovation capacity (P1.2)

Reactive Market Orientation	Cases						Present Condition	No Condition Present
Description of scaling items	A	B	C	D	E	F	+	-
Our strategy for competitive advantage is based on our understanding of the customer's need.	+	+	+	+	+	+	6	0
We measure customer satisfaction in a systematic and frequent way	+	+	+	+	+	-	5	1
We are more targeted to our customers than our main competitors.	+	+	+	+	+	+	6	0

Source: Elaboration based on Narver et al., 2004

Table 4. Description of the most relevant interview transcripts to management

Cases	Capacity for Innovation
A	The best solution for preserving product properties.
B	Offer the product with flower essence.
C	Improve the manufacturing process, keeping the properties of olive oil to a minimum and generating less waste..
D	To bring the client closer to the experience of rural activities.
E	Use waste for different sub products.
F	Search methods and procedures very accurately to produce less waste.

Source: Own elaboration

According to the environs of the previous table, it can be deduced that in all cases there is a positive relation between the capacity for innovation and sustainability, so that assumption 2.

Finally, in relation to the capacity for innovation, the affirmative (+) and negative (-) responses obtained from the semi-structured survey applied are reflected in Table 5.

As shown in the previous table, the capacity for innovation on innovation is partially present, since the positive responses fall on the management of the entrepreneurs while the negative ones relate to those of the employees, but also can be corroborated with the transcription of the interview response of some managers:

- "I seek social and economic benefit"
- "I acquire technology to generate less waste"

Thus, assumption 3 will be changed, given that the driving force of innovation in all cases is the entrepreneur.

P3: The entrepreneur's innovation capabilities are positively related to innovation.

Table 5. Frequency of responses on innovation capacity (P3)

Description of Scale ITEMS	Cases						Present Condition	No Condition Present
Description of Scaling Items	**A**	**B**	**C**	**D**	**E**	**F**	**+**	**-**
There is the ability to successfully launch new products	+	+	+	+	+	-	5	1
There are new processes of effective product development	-	-	+	+	+	-	3	3
The management bet on attracting talents, qualified and proactive personnel, capable of leading projects from their gestation phase to their stage of marketing or implementation	+	-	-	-	+	-	2	4
Management has a system for obtaining information from current clients and markets	+	-	+	+	+	+	5	1
Management has a person with the ability to identify and analyze the business trends	+	-	-	-	+	-	2	4
Management systematically evaluates efforts in innovation or product development to ensure the level of quality customers desire	+	-	-	-	+	-	2	4

Source: Own elaboration based on Hooley et al. 2005

FINAL CONSIDERATIONS

The premises presented in this research were developed in the proposal of a model that validated the relation of orientation to the market, social orientation and innovation.

As indicated in the following table, it was verified that all the assumptions mentioned in the proposed model are confirmed, except: P1.1 not validated and P2 reformulated.

The sustainable innovation model applied to small firms in Cacereñas is partially validated, since the sub-premise (P1.1) was not validated and (P2) was changed. However, it came to the conclusion that

Figure 3. Validated model after case studies

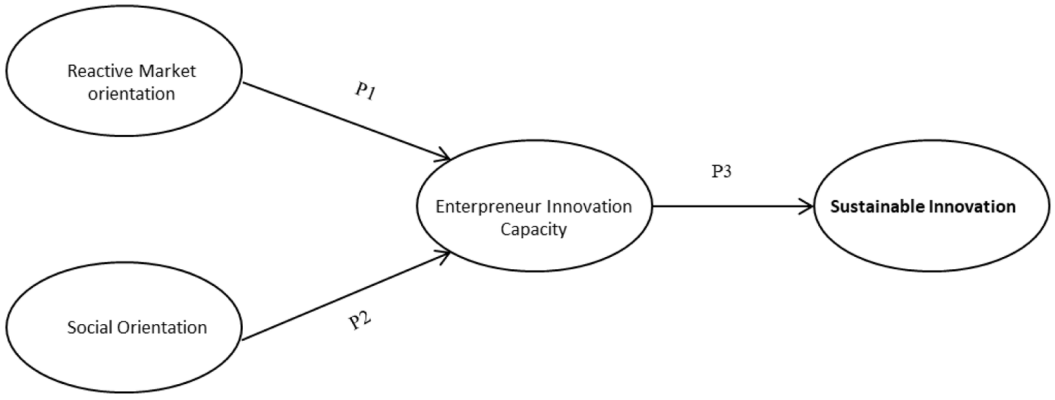


Table 5.

Premises	Relationship	Premise Confirmation
P1.1	Proactive market orientation positively relates innovation capacity	Not validated
P1.2	Guidance for how the reactive market positively relates to innovation capacity	Confirmed
P2	The social orientation relates directly to the entrepreneur's capacity for innovation	Reformulated
P3	Innovation capacity is positively related to innovation.	Confirmed
P5	Collaboration between SMEs together with the public institution generates environmental performance	Confirmed

there is a reactive market orientation, that is, they only meet the needs expressed by the clients and the activities related to the market orientation are developed by the entrepreneurs, according to the majority of respondents. With regard to eco-innovation, according to transcripts related to social orientation, it is present in all cases and there is an unamity between the interviewees in the positive relation between capacity for innovation and sustainability. Finally, with regard to the capacity for innovation, the items that represent the entrepreneur's capacity for innovation hold the majority of affirmative answers, thus, it is concluded that the driving force of innovation is the entrepreneur, as manifested by the majority of enterpreneurs.

Limitations of the Study

Because it was an exploratory study, some barriers were found throughout the investigation, which were sought to fill. In this context, the main limitations are:

- The first limitation of the study is a contradiction between verbal and non-verbal communication, for which reason one of the companies was excluded from the analysis.
- Second, the reluctance of managers to participate in the case study and respond to the questionnaire.
- The companies under study belong to different sectors, not allowing to know the market orientation effect of each sector in the innovation process.

FUTURE GUIDANCE

Based on the research developed and with the purpose of providing new perspectives for the deeper knowledge of the population, some considerations are suggested for future investigations:

- Triangulation of results between the SMEs of Cáceres Branco and adjacent Portuguese companies.
- The validated and changed assumptions will lead to the generation of hypotheses; and with a sufficient sample number one can carry out the quantitative study and compare the result with the case study.
- The four cases analyzed may allow the analysis of transferability to another context.

Finally, in this study, several contributions were presented, both at the theoretical and practical level, aimed at entrepreneurs, providing some implications in the understanding of Marketing, particularly in the orientation to the proactive market. Thus, an organization seeking market-based innovation must have qualified and proactive human resources to meet the needs in areas where customers find it difficult to express their needs.

REFERENCES

Atuahene-Gima, K. (1995). An exploratory analysis of the impact of market orientation on new product performance. *Journal of Product Innovation Management*, *12*(4), 275–293. doi:10.1016/0737-6782(95)00027-Q

Burgelman, R. A., & Maidique, M. A. (1988). *Strategic Management of Technology and Innovation*. Irwin.

Calderón, G. G. A., García, V. G. A., & Lafuente, A. M. G. (2016). Análisis de Innovación en la pequeña y mediana empresa del sector productivo aplicando data envelopment analysis (dea). In *Memorias del Congreso de la Red Internacional de Investigadores en Competitividad* (*Vol. 9*, No. 1, pp. 1158-1176). Academic Press.

Christensen, C. M. (2001). Assessing your organization's innovation capabilities. *Leader to Leader*, *21*, 27–37.

Dangelico, R. M., Pujari, D., & Pontrandolfo, P. (2017). Green Product Innovation in Manufacturing Firms: A Sustainability Oriented Dynamic Capability Perspective. *Business Strategy and the Environment*, *26*(4), 490–506. doi:10.1002/bse.1932

Day, G. S. (1994). The capabilities of market-driven organizations. *Journal of Marketing*, *58*(4), 37–52. doi:10.1177/002224299405800404

Deshpande, Â. R., Farley, J., & Webster, F. (1993). Corporate cultures, customer orientation, and innovativeness in Japanese firms: a quadrad analysis. *Journal of Marketing, 57*, 23-7.

Dinacyt. (2003). *El proceso de innovación en la industria uruguaya*. Resultados de la Encuesta de Actividades de Innovación (1998-2002). Uruguay: Ministerio de Educación y Cultura, Dirección Nacional de Ciencia, Tecnología e Innovación.

Grinstein, A. (2008). The effect of market orientation and its components on innovation consequences: A meta-analysis. *Journal of the Academy of Marketing Science*, *36*(2), 166–173. doi:10.100711747-007-0053-1

Han, J. K., Kim, N., & Srivastava, R. (1998). Market orientation and organizational performance: Is innovation a missing link? *Journal of Marketing*, *62*(4), 30–45. doi:10.1177/002224299806200403

Hauge, E. S., Kyllingstad, N., Maehle, N., & Schulze-Krogh, A. C. (2017). Developing cross-industry innovation capability: Regional drivers and indicators within firms. *European Planning Studies*, *25*(3), 388–405. doi:10.1080/09654313.2016.1276158

Hierro Parolin, S. R., Vasconcellos, E., Volpato, M., & Marcelo Laurindo, A. (2013). Barriers and facilitators of collaborative management in technological innovation projects. *Journal of Technology Management & Innovation*, *8*, 43–43. doi:10.4067/S0718-27242013000300043

Hooley, Greenley, G. E., Cadogan, J. W., & Fahy, J. (2005). The performance impact of marketing resources. *Journal of Business Research*, *58*(1), 18–36. doi:10.1016/S0148-2963(03)00109-7

Hult, G. T. M., Hurley, R. F., & Knight, G. A. (2004). Innovativeness: Its antecedents and impact on business performance. *Industrial Marketing Management*, *33*(5), 429–438. doi:10.1016/j.indmarman.2003.08.015

Hurley, R. F., & Hult, G. T. M. (1998). Innovation, market orientation, and organizational learning: An integration and empirical examination. *Journal of Marketing*, *62*(3), 42–54. doi:10.1177/002224299806200303

Jacobs, S., Chase, R., & Aquilano, N. (2009). *Operation and Supply Management* (12th ed.). New York: McGraw-Hill.

Jaworski, B. J., & Kohli, A. K. (1996). Market orientation: Review, refinement, and roadmap. *Journal of Focused Management*, *1*(2), 119–135. doi:10.1007/BF00128686

Kohli, A., Jaworski, B., & Kumar, A. (1993). MARKOR: A measure of market orientation. *JMR, Journal of Marketing Research*, *30*(November), 467–477. doi:10.1177/002224379303000406

Kohli, A. K., & Jaworski, B. J. (1990). Market orientation: The construct, research propositions, and managerial implications. *Journal of Marketing*, *54*(2), 1–18. doi:10.1177/002224299005400201

Lamb, D. (2011). *Regreening the Bare Hills: tropical forest restoration in the Asia-Pacific region*. Academic Press.

Lawson, B., & Samson, D. (2001). Developing Innovation Capability in organizations: A dynamic capability approach. *International Journal of Innovation Management*, *5*(3), 377–400. doi:10.1142/S1363919601000427

Li, T., & Calantone, R. (1998). The impact of market knowledge competence on new product advantage: Conceptualization and empirical examination. *Journal of Marketing, 62*(4), 13-29.

Linde, V. (1995). van der Linden, B., & Freeman, R. E. (2017). Profit and Other Values: Thick Evaluation in Decision Making. *Business Ethics Quarterly*, 1–27.

Lionakis, K., & Avlonitis, G. J. (2014). The impact of sales managers' market orientation on marketing-sales conflict and company performance. In *2014 Global Marketing Conference at Singapore* (pp. 480-489). Academic Press.

Mavondo, F. T., Chimhanzi, J., & Stewart, J. (2005). *Learning orientation and market orientation*. Academic Press.

Narver, J. C., Slater, S. F., & Maclachlan, D. L. (2004). Responsive and proactive market orientation and new product success. *Journal of Product Innovation Management*, *21*(5), 334–347. doi:10.1111/j.0737-6782.2004.00086.x

Oswald, M., & Brettel, M. (2017). A Five-Country Study on the Curvilinear Performance Consequences of Responsive and Proactive Market Orientation. In The Customer is NOT Always Right? Marketing Orientationsin a Dynamic Business World (pp. 786-786). Academic Press. doi:10.1007/978-3-319-50008-9_210

Ozdemir, S., Kandemir, D., & Eng, T. Y. (2017). The role of horizontal and vertical new product alliances in responsive and proactive market orientations and performance of industrial manufacturing firms. *Industrial Marketing Management*.

Pelham, A., & Wilson, D. (1996). A longitudinal study of the impact of market structure, firm structure, strategy, and market orientation culture on dimensions of business performance. *Journal of the Academy of Marketing Science*, *24*(1), 27–43. doi:10.1007/BF02893935

Porter, M. E. (1995, September). Green and Competitive: Breaking the Stalemate. *Harvard Business Review*.

Ragin, C. C., & Becker, H. S. (1992). *What is a Case? Exploring the Foundations of Social Inquiry*. New York: Cambridge University.

Rangaswamy, A., Giles, C. L., & Seres, S. (2009). A Strategic Perspective on Search Engines: Thought Candies for Practitioners and Researchers. *Journal of Interactive Marketing*, *23*(1), 49–60. doi:10.1016/j.intmar.2008.10.006

Schwandt, T. A., & Gates, E. F. (2017). Official science methodology is the study of how a particular kind of investigation should. The SAGE Handbook of Qualitative Research, 341.

Slater, S. F., & Narver, J. C. (1994). Does competitive environment moderate the market orientation-performance relationship? *Journal of Marketing*, *58*(1), 46–55. doi:10.1177/002224299405800104

Slater, S. F., & Narver, J. C. (1995). Market orientation and the learning organization. *Journal of Marketing*, *59*(3), 63–74. doi:10.1177/002224299505900306

Song, & Noh, J. (2009). Best new product development and management practices in the Korean high-tech industry. *Industrial Marketing Management*, *35*(3), 262–278. doi:10.1016/j.indmarman.2005.04.007

Van der Linden, P., Marchini, A., Dolbeth, M., Patrício, J., Veríssimo, H., & Marques, J. C. (2016). The performance of trait-based indices within an estuarine environment. *Ecological Indicators*, *61*, 378–398. doi:10.1016/j.ecolind.2015.09.039

William, E. (2005). *Baker and James m. Sinkula*. Market Orientation and the New Product Paradox.

Yannopoulos, P., Auh, S., & Menguc, B. (2012). Achieving fit between learning and market orientation: Implications for new product performance. *Journal of Product Innovation Management*, *29*(4), 531–545. doi:10.1111/j.1540-5885.2012.00923.x

Yin, R. (1994). *Case Study Research: Design and Methods*. Thousand Oaks, CA: Sage Publications.

Compilation of References

Aas, T. H., & Pedersen, P. E. (2011). The impact of service innovation on firm-level financial performance. *Service Industries Journal*, *31*(13), 2071–2090. doi:10.1080/02642069.2010.503883

Abrahamson, E. (1991). Managerial fads and fashions: The diffusion and refection of innovations. *Academy of Management Review*, *16*(3), 586–612. doi:10.5465/amr.1991.4279484

Abrahamson, E. (1996). Management fashion. *Academy Ol Management Review*, *21*(1), 254–285. doi:10.5465/amr.1996.9602161572

Aceituno, P. A., Hernández, M. L. C., & García, C. B. (2010). *Quinto informe INNOVACEF: evolución y futuro de las oficinas universitarias de transferencia de los resultados de la investigación* (1138-9532).

ACIDI. (2012). *Estatística da evolução do empreendedorismo estrangeiro em Portugal*. Alto Comissariado para a Imigração e Diálogo Intercultural, I.P, Presidência do Conselho de Ministros. Available http://www.om.acm.gov.pt/documents/58428/207167/Empregadores+segundo+os+Censos.pdf/89aa3514-6bc8-4531-a071-f5d49f7920da

ACT – Arquivo de Ciência e Tecnologia. Traz informações sobre a história e memória da Ciência, Tecnologia e Inovação em Portugal. (2017). *Desenvolvido pela Fundação para a Ciência e Tecnologia.* Disponível em: http://act.fct.pt/historia-da-ciencia/historia-e-memoria-da-ciencia-tecnologia-e-inovacao-em-portugal/

Adil, D., Al Ghaswyneh, O. F. M., & Albkour, A. M. (2013). SERVQUAL and SERVPERF: A review of measures in services marketing research. *Global Journal of Management and Business Research*, *13*(6).

Akkan, B., Deniz, M. N., Ertan, M. (2017). The Romanization of poverty: spatial stigmatization of Roma neighborhoods in Turkey. *Romani Studies 5, 27*(1), 73-93.

Alänge, S., Jacobsson, S., & Jaryehammar, A. (1998). Some aspects of an analytical framework for studying the diffusion of organizational innovations. *Technology Analysis and Strategic Management*, *10*(1), 3–21. doi:10.1080/09537329808524301

Alarcón Osuna, M. A., & Díaz Pérez, C. C. (2016). La empresa de base tecnológica y su contribución a la economía mexicana en el periodo 2004-2009. *Contaduría y Administración*, *61*(1), 106–126. doi:10.1016/j.cya.2015.09.004

Alles, M. (2006). *Desarrollo del talento humano basado en competencias*. Buenos Aires, Argentina: Ediciones Granica S.A.

Almeida, J. F. (1994). *Introdução à Sociologia*. Lisboa: Universidade Aberta.

Almus, M., & Nerlinger, E. A. (1999). Growth of New Technology-Based Firms: Which Factors Matter? *Small Business Economics*, *13*(2), 141–154. doi:10.1023/A:1008138709724

Al-Tuwaijri, S. A., Christensen, T. E., & Hughes, K. E. II. (2004). The relations among environmental disclosure, environmental performance, and economic performance: A simultaneous equations approach. *Accounting, Organizations and Society*, *29*(5), 447–471. doi:10.1016/S0361-3682(03)00032-1

Amaral Filho, J. (2006). O impacto económico da integração de Portugal na Europa. *Nação e Defesa*, *115*, 113–128.

Amara, N., Landry, R., & Doloreux, D. (2009). Patterns of innovation in knowledge-intensive business services. *Service Industries Journal*, *29*(4), 407–430. doi:10.1080/02642060802307847

Amossé, T., Bryson, A., Forth, J., & Petit, H. (2016). Managing and working in Britain and France: An introduction. In T. Amossé, A. Bryson, J. Forth, & H. Petit (Eds.), *Comparative workplace employment relations. An analysis of practice in Britain and France* (pp. 1–26). Palgrave MacMillan. doi:10.1057/978-1-137-57419-0_1

Ansari, S. M., & Zajac, E. J. (2010). Made to fit: How pratices vary as they diffuse. *Academy of Management Review*, *35*(1), 67–92.

Aragón-Correa, J. A., Hurtado-Torres, N., Sharma, S., & García-Morales, V. J. (2008). Environmental strategy and performance in small firms: A resource-based perspective. *Journal of Environmental Management*, *86*(1), 88–103. doi:10.1016/j.jenvman.2006.11.022 PMID:17239519

Arcidiacono, P. (2004). Ability sorting and the returns to college major. *Journal of Econometrics*, *121*(1), 343–375. doi:10.1016/j.jeconom.2003.10.010

Argento, H. (2012). *Teoria construtivista*. Available at http://www.robertexto.com/archivo5/teoria_construtivista.htm/

Aristovnik, A., & Jaklič, K. (2013). Job satisfaction of older workers as a factor of promoting labour market participation in the EU: The case of Slovenia. *Revija za Socijalnu Politiku*, *20*(2), 123–148. doi:10.3935/rsp.v20i2.1126

Armbruster, H., Bikfalvi, A., Kinkel, S., & Lay, G. (2008). Organizational innovation: The challenge of measuring non-technical innovation in large-scale surveys. *Technovation*, *28*(10), 644–657. doi:10.1016/j.technovation.2008.03.003

Aspers, P. (2010). Using design for upgrading in the fashion industry. *Journal of Economic Geography*, *10*(2), 189–207. doi:10.1093/jeg/lbp030

Assembleia da República. (2016). *IMIGRAÇÃO Legislação Nacional*. Assembleia da República, DILP - Divisão de Informação Legislativa Parlamentar (Recolha de Legislação e Tratamento de Informação). Available at https://www.parlamento.pt/Legislacao/Documents/Dossie_LegislacaoNacional.pdf

Atuahene-Gima, K. (1995). An exploratory analysis of the impact of market orientation on new product performance. *Journal of Product Innovation Management*, *12*(4), 275–293. doi:10.1016/0737-6782(95)00027-Q

Audretsch, D. B., Lehmann, E. E., & Warning, S. (2005). University spillovers and new firm location. *Research Policy*, *34*(7), 1113–1122. doi:10.1016/j.respol.2005.05.009

Autio, E. (2017). Growth of Technology-based New Firms. In D. L. S. H. Landström (Ed.), The Blackwell Handbook Of Entrepreneurship. Blackwell.

Autio, E. (1997). New, technology-based firms in innovation networks symplectic and generative impacts. *Research Policy*, *26*(3), 263–281. doi:10.1016/S0048-7333(96)00906-7

Autio, E., & Yli-Renko, H. (1998). New, technology-based firms in small open economies—An analysis based on the Finnish experience. *Research Policy*, *26*(9), 973–987. doi:10.1016/S0048-7333(97)00054-1

Azar, G., & Ciabuschi, F. (2017). Organizational innovation, technological innovation, and export performance: The effects of innovation radicalness and extensiveness. *International Business Review*, *26*(2), 324–336. doi:10.1016/j.ibusrev.2016.09.002

Aziri, B (2011). Job satisfaction: A literature review. *Management Research and Practice, 3*(4), 77-86.

Babakus, E., & Mangold, W. G. (1991). Adapting the SERVQUAL scale to Hospital services: An Empirical Investigation. *Health Services Research*, *26*(6), 767–786. PMID:1737708

Badri, M. A., Abdulla, M., & Al-Madani, A. (2005). Information technology center service quality: Assessment and application of SERVQUAL. *International Journal of Quality & Reliability Management*, *22*(8/9), 819–848. doi:10.1108/02656710510617247

Baert, P., & Silva, F. C. (2014). *Teoria Social Contemporânea*. Lisboa: Editora Mundos Sociais.

Bago d'Uva, T., & Fernandes, M. (2017). Mobilidade social em Portugal. Fundação Francisco Manuel dos Santos.

Bakken, L., Brown, N., & Downing, B. (2017). Early childhood education: The long-term Benefits. *Journal of Research in Childhood Education*, *31*(2), 255–269. doi:10.1080/02568543.2016.1273285

Balaji, M. S., & Roy, S. K. (2017). Value co-creation with Internet of things technology in the retail industry. *Journal of Marketing Management*, *33*(1-2), 7–31. doi:10.1080/0267257X.2016.1217914

Baldwin, J. R., & Gellatly, G. (1998). *Are There High-Tech Industries or Only High-Tech Firms? Evidence from New Technology-Based Firms*. Statistics Canada Working Paper (120). Available at SSRN: https://ssrn.com/abstract=143867

Baltazar, M. S., Vieira, C., Vieira, I., & Rego, C. (2013). *Acesso ao ensino superior e mobilidade social dos portugueses*. 3ª Conferência FORGES, Universidade Federal de Pernambuco, Recife, Brasil.

Baptista, R. & Leitão, J. (2015). *Entrepreneurship, Human Capital and Regional Development – Introduction*. Academic Press. doi:10.1007/978-3-319-12871-9_1

Barbeiro, H. (2003). *Talk to lead - a media training manual*. São Paulo: Futura.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, *17*(1), 99–120. doi:10.1177/014920639101700108

Baron, R (1991). Motivation in work settings: Reflections on the core of organizational research. *Motivation and Emotion, 15*(1), 1-8. doi:10.1007/BF00991472

Barquero, A. V. (2011). *Desenvolvimento endógeno em tempos de globalização*. Porto Alegre: Editora da Universidade/FEE.

Barras, R. (1990). Interactive innovation in financial and business services: The vanguard of the service revolution. *Research Policy*, *19*(3), 215–237. doi:10.1016/0048-7333(90)90037-7

Barreira, A. P. (2006). *O Algarve e a Inovação – o Perfil Regional*. Faro: Universidade do Algarve.

Bateman, T., & Organ, D. (1983). Job satisfaction and the good soldier: The relationship between affect and employee "citizenship". *Academy of Management Journal*, *26*(4), 587–595. doi:10.2307/255908

Battisti, G., & Iona, A. (2009). The intra-firm diffusion of complementary innovations: Evidence from the adoption of management practices by british establishments. *Research Policy*, *38*(8), 1326–1339. doi:10.1016/j.respol.2009.06.002

Battisti, G., & Stoneman, P. (2010). How innovative are UK firms? Evidence from the fourth UK Community Innovation Survey on synergies between technological and organizational innovations. *British Journal of Management*, *21*(1), 187–206. doi:10.1111/j.1467-8551.2009.00629.x

Bauman, Z. (2007). *Liquid Times: Living in age of uncertainly*. Cambridge, UK: Polity Press.

Beard, N. D. (2008). The branding of ethical fashion and the consumer: A luxury niche or mass- market reality? *Fashion Theory*, *12*(4), 447–468. doi:10.2752/175174108X346931

Beccali, M., Cellura, M., Ludiello, M., & Mistretta, M. (2009). Resource consumption and environmental impacts of the agrofood sector: Life cycle assessment of Italian citrus based products. *Environmental Management*, *43*(4), 707–724. doi:10.100700267-008-9251-y PMID:19184189

Becker, G. (1962). Investment in human capital: A theoretical analysis. *Journal of Political Economy*, *70*(5, Part 2), 9–49. doi:10.1086/258724

Becker, G. (1993). Nobel Lecture: The Economic Way of Looking at Behavior. *Journal of Political Economy*, *101*(3), 385–409. doi:10.1086/261880

Becker, G., & Tomes, L. (1979). An equilibrium theory of the distribution of income and intergenerational mobility. *Journal of Political Economy*, *87*(6), 1153–1189. doi:10.1086/260831

Becker, G., & Tomes, L. (1986). Human capital and the rise and fall of families. *Journal of Labor Economics*, *4*(3), S1–S39. doi:10.1086/298118 PMID:12146356

Beck, N., & Rygl, D. (2015). Categorization of multiple channel retailing in Multi-, Cross-, and Omni-Channel Retailing for retailers and retailing. *Journal of Retailing and Consumer Services*, *27*, 170–178. doi:10.1016/j.jretconser.2015.08.001

Beever, E. A., & Belant, J. L. (Eds.). (2012). *Ecological consequences of climate change: mechanisms, conservation and management*. New York: CRC Press.

Belfield, C., Britton, J., Buscha, F., Dearden, L., Dickson, M., van der Erve, L., . . . Zhu, Y. (2018). *The relative labour market returns to different degrees.* Retrieved from https://www.ifs.org.uk/publications/13036

BEPA. (2010). Empowe6ring people, driving change: Social Innovation in the European Union. BEPA – Bureau of Policy Advisers, European Commission.

Berger, R., & Quinney, R. (2005). *Storytelling sociology : narrative as social inquiry*. Lynne Rienner Publishers.

Bernatchez, J. (2006). L'innovacion sociale et l'université au Québec: Le défi de rendre opératoire un concept polysémique. École nationale d'administration publique (ENAP) de l'Université du Québec.

Berry, L. L., Zeithaml, V. A., & Parasuraman, A. (1985). Quality Counts in Services too. *Business Horizons*, *28*(3), 44–52. doi:10.1016/0007-6813(85)90008-4

Bešlić, I, & Bešlić, D (2008). Zadovoljstvo poslom. *Škola biznisa, 3*, 154-162.

Bezes, C. (2016). Comparing online and in-store risks in multichannel shopping. *International Journal of Retail & Distribution Management*, *44*(3), 284–300. doi:10.1108/IJRDM-02-2015-0019

Bienaymé, A. (1986). The dynamics of innovation. *International Journal of Technology Management*, *1*(1-2), 133–159. doi:10.1504/ijtm.1986.026103

Bignetti, L. P. (2011). As inovações sociais: Uma incursão por ideias, tendências e focos de pesquisa. *Ciências Sociais Unisinos*, *47*(1), 3–14. doi:10.4013/csu.2011.47.1.01

Birkinshaw, J., Hamel, G., & Mol, M. J. (2008). Management innovation. *Academy of Management Review*, *33*(4), 825–845. doi:10.5465/amr.2008.34421969

Birskinshaw, J. (2006). How management innovation happens. *MIT Sloan Management Review*, *47*(4), 81–88.

Bitner, M. J., Booms, B. H., & Tetreault, M. S. (1990). The service encounter: Diagnosis favourable and unfavourable incidents. *Journal of Marketing*, *54*(1), 71–84. doi:10.1177/002224299005400105

Blanden, J. (2009). *How much can we learn from international comparisons of intergenerational mobility?* Retrieved from http://eprints.lse.ac.uk/28283/

Blanden, J., Gregg, P., & Macmillan, L. (2007). Accounting for intergenerational income persistence: Noncognitive skills, ability and education. *Economic Journal (London)*, *117*(519), C43–C60. doi:10.1111/j.1468-0297.2007.02034.x

Bloch, P. (2002). *Do you want to talk better?* Rio de Janeiro: Revinter.

Blundell, R., Dearden, L., & Sianesi, B. (2005). Evaluating the effect of education on earnings: Models, methods and results from the national child development survey. *Journal of the Royal Statistical Society. Series A (General)*, *168*(3), 473–513. doi:10.1111/j.1467-985X.2004.00360.x

Boava, D. L. T., & Macedo, F. M. F. (2011). *Empreendedorismo Explicitado à Maneira dos Filósofos. A Problemática Polissémica Intrínseca ao Empreendedorismo e das suas consequências para o estudo científico da atividade*. Porto Alegre: ANPAD -Associação Nacional de Pós-graduação e Pesquisa em Administração - V Encontro de Estudos em Estratégia.

Bobila, M. (2015). Mastered offers online courses taught by Tim Blanks, Nick Knight, Katie Hillier and more. *Fashionista*. Retrieved from https://fashionista.com/2015/10/mastered-courses-perri-lewis

Bogers, M., & Horst, W. (2014). Collaborative prototyping: Cross-fertilization of knowledge in prototype-driven problem solving. *Journal of Product Innovation Management*, *31*(4), 744–764. doi:10.1111/jpim.12121

Bogetić, Z., Stojković, D., & Milošević, S. (2016). Shopper marketing strategy in food retailing. *Economics of Agriculture*, *63*(1), 189–204.

Boiral, O., Henri, J. F., & Talbot, D. (2012). Modeling the impacts of corporate commitment on climate change. *Business Strategy and the Environment*, *21*(8), 495–516. doi:10.1002/bse.723

Bourdieu, P. (1997). *Os usos sociais da ciência: Por uma sociologia clínica do campo científico: Pierre Bourdieu*. São Paulo: Editora UNESP.

Bourguignon, F., Ferreira, F., & Menéndez, M. (2003). *Inequality of outcomes and inequality of opportunities in Brazil.* Retrieved from http://documents.worldbank.org/curated/pt/934871468770353839/Inequality-of-outcomes-and-inequality-of-opportunities-in-Brazil

Bouzaabia, O., Van Riel, A. C., & Semeijn, J. (2013). Managing in-store logistics: A fresh perspective on retail service. *Journal of Service Management*, *24*(2), 112–129. doi:10.1108/09564231311323926

Brasil. (2013). *National Tourism Plan 2013-2016: tourism doing much more for Brazil, 2013.* Ministry of Tourism.

Brasil. (2014). Government of the State of Rondônia. Department of Planning, Budget and Management. Management of the Observatory and Regional Development. Gross Domestic Product (GDP) of the State of Rondônia – 2002 a 2012. Porto Velho, 2014.

Breckenridge. (2012). Choosing a methodological path: Reflections on the construtivist turn. *Grounded Theory Review*.

Breen, R. (2010). Educational expansion and social mobility in the 20th century. *Social Forces*, *89*(2), 365–388. doi:10.1353of.2010.0076

Brennan, P. F., Downs, S., & Casper, G. (2010). Project HealthDesign: Rethinking the power and potential of personal health records. *Journal of Biomedical Informatics*, *43*(5), S3–S5. doi:10.1016/j.jbi.2010.09.001 PMID:20937482

Brezis, E., & Hellier, J. (2018). Social mobility at the top and the higher education system. *European Journal of Political Economy*, *52*, 36–54. doi:10.1016/j.ejpoleco.2017.04.005

Britton, J., Dearden, L., Shephard, N., & Vignoles, A. (2016). *How English domiciled graduate earnings vary with gender, institution attended, subject and socio-economic background*. Retrieved from https://www.ifs.org.uk/uploads/publications/wps/wp201606.pdf

Brock, G. (2016). How should we discharge our responsabilities to eradicate poverty? *Res Publica (Liverpool, England)*, *22*(3), 301–315. doi:10.100711158-016-9328-z

Brown, M. (2001). Unequal pay, unequal responses? Pay referents and their implications for pay level satisfaction. *Journal of Management Studies*, *38*(6), 879–896. doi:10.1111/1467-6486.00263

Brown, T. J., Churchil, G. A., & Peter, J. P. (1993). Improving the measurement of service quality. *Journal of Retailing*, *69*(81), 127–139. doi:10.1016/S0022-4359(05)80006-5

Brunswicker, S., & Chesbrough, H. (2018). The Adoption of Open Innovation in Large Firms: Practices, Measures, and Risks A survey of large firms examines how firms approach open innovation strategically and manage knowledge flows at the project level. *Research Technology Management*, *61*(1), 35–45. doi:10.1080/08956308.2018.1399022

Bueno, W. C. (2003). *Business communication: theory and research*. Barueri: Manole.

Burgelman, R. A., & Maidique, M. A. (1988). *Strategic Management of Technology and Innovation*. Irwin.

Burnett, R. D., & Hansen, D. R. (2008). Ecoefficiency: Defining a role for environmental cost management. *Accounting, Organizations and Society*, *33*(6), 551–581. doi:10.1016/j.aos.2007.06.002

Busch, T. (2011). Organizational adaptation to disruptions in the natural environment: The case of climate change. *Scandinavian Journal of Management*, *27*(4), 389–404. doi:10.1016/j.scaman.2010.12.010

Busch, T., & Hoffmann, V. H. (2011). How Hot Is Your Bottom Line? Linking Carbon and Financial Performance. *Business & Society*, *50*(2), 233–265. doi:10.1177/0007650311398780

Cable, D., & Turban, D. B. (2003). The value of organizational reputation in the recruitment context: A brand-equity perspective. *Journal of Applied Social Psychology*, *33*(11), 2244–2266. doi:10.1111/j.1559-1816.2003.tb01883.x

Cainelli, G., Evangelista, R., & Savona, M. (2006). Innovation and economic performance in services: A firm-level analysis. *Cambridge Journal of Economics*, *30*(3), 435–458. doi:10.1093/cje/bei067

Calderón, G. G. A., García, V. G. A., & Lafuente, A. M. G. (2016). Análisis de Innovación en la pequeña y mediana empresa del sector productivo aplicando data envelopment analysis (dea). In *Memorias del Congreso de la Red Internacional de Investigadores en Competitividad* (*Vol. 9*, No. 1, pp. 1158-1176). Academic Press.

Camisón, C., & Villar-López, A. (2011). Non-technical innovation: Organizational memory and learning capabilities as antecedent factors with effects on sustained competitive advantage. *Industrial Marketing Management*, *40*(8), 1294–1304. doi:10.1016/j.indmarman.2011.10.001

Camisón, C., & Villar-López, A. (2014). Organizational innovation as an enabler of technological innovation capabilities and firm performance. *Journal of Business Research*, *67*(1), 2891–2902. doi:10.1016/j.jbusres.2012.06.004

Campbell, J. M., & Fairhurst, A. E. (2016). Reducing the intention-to-behaviour gap for locally produced foods purchasing: The role of store, trust, and price. *International Journal of Retail & Distribution Management*, *44*(5), 508–523. doi:10.1108/IJRDM-08-2015-0121

Campos, A., & Soeiro, J. (2016). *A Falácia do Empreendedorismo*. Lisboa: Bertrand. Lisboa.

Cao, L., & Li, L. (2015). The impact of cross-channel integration on retailers' sales growth. *Journal of Retailing*, *91*(2), 198–216. doi:10.1016/j.jretai.2014.12.005

Capraro, A. J., & Srivastava, R. K. (1997). Has the influence of financial performance on reputation measures been overstated? *Corporate Reputation Review*, *1*(1), 86–92. doi:10.1057/palgrave.crr.1540023

Cardoso, J. A. (2015, March 15). Um Site Que Nos Ajuda a Ser Designers De Moda. *Público*. Retrieved from http://lifestyle.publico.pt/artigos/345922_um-site-que-nos-ajuda-a-ser-designers-de-moda

Carlborg, P., Kindström, D., & Kowalkowski, C. (2014). The evolution of service innovation research: A critical review and synthesis. *Service Industries Journal*, *34*(5), 373–398. doi:10.1080/02642069.2013.780044

Carlsson, B., & Stankiewicz, R. (1991). On the nature, function and composition of technological systems. *Journal of Evolutionary Economics*, *1*(2), 93–118. doi:10.1007/BF01224915

Carvalho, A., & Areal, N. (2016). Great places to work: Resilience in times of crisis. *Human Resource Management*, *55*(3), 479–498. doi:10.1002/hrm.21676

Carvalho, L. C., & Da Costa, T. G. (2015). *Empreendedorismo, uma visão global e integradora*. Lisboa: Edições Sílabo.

Carvalho, P. M. R., & González, L. (2006). Modelo explicativo sobre a intenção empreendedora. *Comportamento Organizacional e Gestão*, *12*(1), 43–65.

Casaca, S. F. (2013). As novas dinâmicas laborais e os desafios da articulação com a vida familiar. *Sociologia, Problemas e Práticas, 72*, 31–52. Doi:10.7458/SPP2012722617

Cassiolato, J. E., Britto, J. N. P., & Vargas, M. A. (2005). *Cooperative arrangements and innovation in Brazilian industry. In Innovations, technological standards and performance of Brazilian industrial firms* (pp. 511–577). Brasília: IPEA.

Castaldo, S. (2007). Le potenzialità dell'innovazione tecnologica: L'e-tailing, cap. 16. In Distribuzione (vol. 11). Collana Management.

Causa, O., & Johansson, A. (2009). *Intergenerational social mobility*. Retrieved from https://www.oecd-ilibrary.org/economics/intergenerational-social-mobility_223106258208

Causa, O., Dantan, S., & Johansson, A. (2009). *Intergenerational social mobility in European OECD countries*. Retrieved from https://www.oecd-ilibrary.org/economics/intergenerational-social-mobility-in-european-oecd-countries_223043801483

Černe, M., Jaklič, M., & Škerlavaj, M. (2013). Management innovation in focus: The role of knowledge exchange, organizational size, and IT system development and utilization. *European Management Review*, *10*(3), 153–166. doi:10.1111/emre.12013

Ceylan, C. (2013). Commitment-based HR practices, different types of innovation activities and firm innovation performance. *International Journal of Human Resource Management*, *24*(1), 208–226. doi :10.1080/09585192.2012.680601

Chamanski, A., & Waagø, S. J. (2001). Organizational Performance of Technology-Based Firms – the Role of Technology and Business Strategies. *Enterprise and Innovation Management Studies*, *2*(3), 205–223. doi:10.1080/14632440110105062

Chesbrough, H. W. (2003). *Open Innovation: the new imperative for creating and profiting from technology*. Boston: Harvard Business Scholl Press.

Chesbrough, H. W. (2006). Open Innovation: a new paradigm for understanding industrial innovation. In H. W. Chesbrough & W. J. Vanhaverbeke (Eds.), *Open Innovation: researching a new paradigm*. New York: Oxford University Press.

Chesbrough, H., & Brunswicker, S. (2013). *Managing open innovation in largefirms*. Stuttgart: FraunhoferInstitute for Industrial Engineering.

Chetty, R., Hendren, N., Kline, P., & Saez, E. (2014). *Where is the land of opportunity? The geography of intergenerational mobility in the United States*. Retrieved from http://www.equality-of-opportunity.org/assets/documents/mobility_geo.pdf

Chevalier, A. (2011). Subject choice and earnings of UK graduates. *Economics of Education Review*, *30*(6), 1187–1201. doi:10.1016/j.econedurev.2011.04.007

Chiavenato, I. (2005). *Managing with People: Turning the Executive into a Great People Manager*. Rio de Janeiro: Elselvier.

Chiou, E., Venkatraman, V., Larson, K., Li, Y., Gibson, M., & Lee, J. D. (2014). Contextual Design of a Motivated Medication Management Device. *Ergonomics in Design*, *22*(1), 8–15. doi:10.1177/1064804613508950

Choi, T. Y., & Eboch, K. (1998). The TQM paradox: Relations among TQM practices, plant performance, and customer satisfaction. *Journal of Operations Management*, *17*(1), 59–75. doi:10.1016/S0272-6963(98)00031-X

Christensen, C. M. (2001). Assessing your organization's innovation capabilities. *Leader to Leader*, *21*, 27–37.

Churchill, G. A., & Suprenant, C. (1982). An investigation into the determinants of customer satisfaction. *JMR, Journal of Marketing Research*, *19*(4), 491–504. doi:10.1177/002224378201900410

Chusseau, N., Hellier, J., & Ben-Halima, B. (2013). Education, Intergenerational Mobility and Inequality. In J. Hellier & N. Chusseau (Eds.), *Growing Income Inequalities* (pp. 227–273). London: Palgrave Macmillan. doi:10.1057/9781137283306_9

CIG. (2017). *Relatório intercalar de execução do V Plano Nacional para a Igualdade de Género, Cidadania e Não-Discriminação - 2016*. Available at https://www.cig.gov.pt/

CIPE (2014). *Creating the Environment for Entrepreneurial Success*. Center for International Private Enterprises (CIPE), (202),70.

Clark, A., Kristensen, N., & Westergard-Nielsen, N. (2007). Job satisfaction and co-worker wages: Status or signal? *Economic Journal (London)*, *119*(536), 430–447. doi:10.1111/j.1468-0297.2008.02236.x

Clark, H. (2008). SLOW + FASHION an Oxymoron or a Promise for the future? *Fashion Theory*, *12*(4), 427–446. doi:10.2752/175174108X346922

Clarysse, B., Bruneel, J., & Wright, M. (2011). Explaining growth paths of young technology-based firms: Structuring resource portfolios in different competitive environments. *Strategic Entrepreneurship Journal*, *5*(2), 137–157. doi:10.1002ej.111

Cloutier, J. (2003). *"Qu'est-ce que l'innovation sociale?" Cahier du CRISES – Centre de Recherche sur les Innovations Sociales*. Québec, Canada: Collection Études Théoriques.

Coelho, A. F. M. (2014). *Liderança Feminina: O impacto dos estereótipos de género no acesso das mulheres aos cargos de liderança de topo*. Lisboa: Universidade Católica Portuguesa.

Coeurderoy, R., & Murray, G. (2008). Regulatory environments and the location decisions of start-ups: evidence from the first international market entries of new technology-based firms. *Journal of International Business Studies*.

Colombo, M. G., D'Adda, D., & Pirelli, L. H. (2016). The participation of new technology-based firms in EU-funded R&D partnerships: The role of venture capital. *Research Policy*, *45*(2), 361–375. doi:10.1016/j.respol.2015.10.011

Colombo, M. G., Delmastro, M., & Grilli, L. (2004). Entrepreneurs' human capital and the start-up size of new technology-based firms. *International Journal of Industrial Organization*, *22*(8), 1183–1211. doi:10.1016/j.ijindorg.2004.06.006

Colombo, M. G., & Grilli, L. (2005). Founders' human capital and the growth of new technology-based firms: A competence-based view. *Research Policy*, *34*(6), 795–816. doi:10.1016/j.respol.2005.03.010

Colombo, M. G., & Grilli, L. (2010). On growth drivers of high-tech start-ups: Exploring the role of founders' human capital and venture capital. *Journal of Business Venturing*, *25*(6), 610–626. doi:10.1016/j.jbusvent.2009.01.005

Connelly, R., Gayle, V., & Lambert, P. (2016). A review of occupation-based classifications for social survey research. *Methodological Innovations*, *9*, 1–14. doi:10.1177/2059799116638003

Conway, N., Deakin, S., Komzelmann, S., Petit, H., Rebérioux, A., & Wilkinson, F. (2008). The influence of stock market listing on human resource management: Evidence for France and Britain. *British Journal of Industrial Relations*, *46*(4), 632–673. doi:10.1111/j.1467-8543.2008.00698.x

Coombs, R., & Miles, I. (2000). Innovation, measurement and services: the new problematique. In J. S. Metcalfe & I. Miles (Eds.), *Innovation Systems in the Service Economy* (pp. 83–102). Dordrecht: Kluwer. doi:10.1007/978-1-4615-4425-8_5

Coombs, R., & Tomlinson, M. (1998). Patterns in UK company innovation styles: New evidence from the CBI innovation trends survey. *Technology Analysis and Strategic Management*, *10*(3), 295–310. doi:10.1080/09537329808524318

Corrêa da Silva, I., Pignatelli, M., & Viegas, S. M. (2015). *Crise Económica em Portugal: Alterações nas Práticas Quotidianas e nas Relações Familiares*. Coimbra: Livro de Atas do 1º Congresso da Associação Internacional das Ciências Sociais e Humanas em Língua Portuguesa. Available at http://www.ces.uc.pt/projectos/finfam/ficheiros/Ribeiro_Frade_Coelho_Ferreira-Valente_2015.pdf

Corrêa, M. L. G. (2002). *Language and social communication - visions of modern linguistics*. São Paulo: Parábola Editorial.

Coutinho, C. P. (2015). *Metodologia de investigação em ciências sociais humanas: teoria e prática*. Coimbra: Ed. Almedina;

Covas, M. M. (2004). *Portugal na rota da imigração dos cidadãos comunitários: o caso da região algarvia*. V Congresso APS.

Creswell, J. W. (2010). Research Projects: qualitative, quantitative and mixed methods (3rd ed.). Porto Alegre: Artmed.

Creswell, J. W. (2014). *Qualitative Research and Research Project: choosing among five approaches* (3rd ed.). Porto Alegre: Penso.

Criswell, C., & Martim, A. (2007). *10 Trends: A Study in Senior Executives' Views on the Future*. Centro de LiderançaCriativa.

Cronin, J. Jr, & Taylor, S. (1992). Measuring service quality: A reexamination and extension. *Journal of Marketing*, *56*(3), 55–68. doi:10.1177/002224299205600304

Crow, R., Gage, H., Hampson, S., Hart, J., Kimber, A., Storey, L., & Thomas, H. (2002). The measurement of satisfaction with healthcare: Implications for practice from a systematic review of the literature. *Health Technology Assessment*, *6*(32), 1–244. doi:10.3310/hta6320 PMID:12925269

Cruchinho, A. (2009). *Design - A Construção Contínua de Competências*. Tese de Doutoramento em engenheira Têxtil, Escola de Engenheira da Universidade do Minho, Portugal. Retrieved from: https://repositorium.sdum.uminho.pt/bitstream/1822/10162/4/T ese_Dout_Alex_Gomes.pdf

Cua, K. O., McKone, K. E., & Schroeder, R. G. (2001). Relationships between implementation of TQM, JIT, and TPM and manufacturing performance. *Journal of Operations Management*, *19*(6), 675–694. doi:10.1016/S0272-6963(01)00066-3

Czakon, W. (2009). *Power asymmetries, flexibility and the propensity to coopete: An empirical investigation of SMEs' relationships with franchisors*. Olney, UK: International Journal of Entrepreneurship and Small Business. doi:10.1504/ijesb.2009.024104

D'Addio, A. (2007). *Intergenerational transmission of disadvantage: mobility or immobility across generations? A review of the evidence for OECD countries*. Retrieved from https://www.oecd.org/els/38335410.pdf

Daft, R. L. (1978). A Dual-Core model of organizational innovation. *Academy of Management Journal*, *21*(2), 193–210.

Damanpour, F. (2010). An integration of research findings of effects of firm size and market competition on product and process innovations. *British Journal of Management*, *21*(4), 996–1010. doi:10.1111/j.1467-8551.2009.00628.x

Damanpour, F. (2014). Footnotes to research on management innovation. *Organization Studies*, *35*(9), 1265–1285. doi:10.1177/0170840614539312

Damanpour, F., & Aravind, D. (2012). Managerial innovation: Conceptions, processes, and antecedents. *Management and Organization Review*, *8*(2), 423–454. doi:10.1111/j.1740-8784.2011.00233.x

Damanpour, F., & Evan, W. M. (1984). Organizational innovation and performance: The problem of "organizational lag.". *Administrative Science Quarterly*, *29*(3), 392–409. doi:10.2307/2393031

Damanpour, F., & Gopalakrishnan, S. (2001). The dynamics of the adoption of product and process innovations in organizations. *Journal of Management Studies*, *38*(1), 45–65. doi:10.1111/1467-6486.00227

Damanpour, F., & Schneider, M. (2009). Characteristics of innovation and innovation adoption in public organizations: Assessing the role of managers. *Journal of Public Administration: Research and Theory*, *19*(3), 495–522. doi:10.1093/jopart/mun021

Damanpour, F., Walker, R. M., & Avellaneda, C. N. (2009). Combinative effects of innovation types and organizational performance: A longitudinal study of service organizations. *Journal of Management Studies*, *46*(4), 650–675. doi:10.1111/j.1467-6486.2008.00814.x

Dangelico, R. M., Pujari, D., & Pontrandolfo, P. (2017). Green Product Innovation in Manufacturing Firms: A Sustainability Oriented Dynamic Capability Perspective. *Business Strategy and the Environment*, *26*(4), 490–506. doi:10.1002/bse.1932

Davies, G., Chun, R., Vinhas da Silva, R., & Roper, S. (2003). *Corporate reputation and competitiveness*. London: Routledge.

Dawes, J., & Nenycz-Thiel, M. (2014). Comparing retailer purchase patterns and brand metrics for in-store and online grocery purchasing. *Journal of Marketing Management*, *30*(3-4), 364–382. doi:10.1080/0267257X.2013.813576

Dawson, J., Fitzpatrick, R., Murray, D., & Carr, A. (1998). Questionnaire on the perceptions of patients about total knee replacement. *The Journal of Bone and Joint Surgery. British Volume*, *80*(1), 63–69. doi:10.1302/0301-620X.80B1.7859 PMID:9460955

Day, G. S. (1994). The capabilities of market-driven organizations. *Journal of Marketing*, *58*(4), 37–52. doi:10.1177/002224299405800404

de Lima, R. P. (2011). *Community Base Tourism as Social Innovation* (Doctoral thesis). Postgraduate Program in Production Engineering, COPPE. Federal University of Rio de Janeiro. Rio de Janeiro: COPPE.

De Negri, J. A. (2005). *Innovations, technological standards and performance of Brazilian industrial firms*. Brasília: IPEA.

De Noronha Vaz, T. (2005). Desenvolvimento regional e inovação empresarial: o impacto do desenvolvimento local nas determinantes da inovação das pequenas empresas. *Revista Paranaense de Desenvolvimento, 108*, 7-24.

De Noronha Vaz, T., Leeuwen, E. S., & Nijkamp, P. (2013). *Towns in the Rural World*. London: Routledge. Retrieved from https://www.routledge.com/Towns-in-a-Rural-World/VazLeeuwen/p/book/9781409406921

De Noronha Vaz, T., Cesário, M., & Fernandes, S. (2009). Cesário, Marisa; Fernandes, Sílvia. Interaction between innovation in small firms and their environments: An exploratory study. *European Planning Studies*, *14*(01), 95–117. doi:10.1080/09654310500339893

Delmas, M. A., & Nairn-Birch, N. S. (2010). *Is The Tail Wagging The Dog? An Empirical Analysis of Corporate Carbon Footprints and Financial Performance*. UCLA.

Derwall, J., Günster, N., Bauer, R., & Koedijk, K. (2004). The eco-efficiency premium puzzle. *Financial Analysts Journal*, *61*(2), 51–63. doi:10.2469/faj.v61.n2.2716

Deshpande, Â. R., Farley, J., & Webster, F. (1993). Corporate cultures, customer orientation, and innovativeness in Japanese firms: a quadrad analysis. *Journal of Marketing, 57*, 23-7.

Dimaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, *48*(2), 147–160. doi:10.2307/2095101

Dinacyt. (2003). *El proceso de innovación en la industria uruguaya*. Resultados de la Encuesta de Actividades de Innovación (1998-2002). Uruguay: Ministerio de Educación y Cultura, Dirección Nacional de Ciencia, Tecnología e Innovación.

Djellal, F., & Gallouj, F. (2001). Patterns of innovation organisation in service firms: Postal survey results and theoretical models. *Science & Public Policy*, *28*(1), 57–67. doi:10.1093pp/28.1.57

Dodgson, M., Gann, D., & Salter, A. (2006). The role oftechnology in the shift towards open innovation: the case of Procter & Gamble. Academic Press.

Doering, J. J., & Ward, T. C. S. (2017). Interface among poverty, air mattress industry trends, policy, and infant safety. AJPH Research, 107(6). doi:10.2105/AJPH.2017.303709

Donabedian, A. (1984). *La Calidad de la Atención Médica*. La Prensa Mexicana.

Dong, X. D., Zhang, Z., Hinsch, C. A., & Zou, S. (2016). Reconceptualizing the elements of market orientation: A process-based view. *Industrial Marketing Management*, *56*, 130–142. doi:10.1016/j.indmarman.2015.12.005

Downs, A. (2013). *Une théorie économique de la démocratie*. Bruxelles: Université de Bruxelles.

Downs, G. W. Jr, & Mohr, L. B. (1976). Conceptual issues in the study of innovation. *Administrative Science Quarterly*, *21*(4), 700–714. doi:10.2307/2391725

Drejer, I. (2004). Identifying innovation in surveys of services: A Schumpeterian perspective. *Research Policy*, *33*(3), 551–562. doi:10.1016/j.respol.2003.07.004

Drucker, P. (1993). *Innovation and entrepreneurship: Practice and principles* (15th ed.). New York: Longman Higher Education.

Drucker, P. (2007). *Practice of Management*. Oxford, UK: Taylor & Francis Ltd.

Drucker, P. F. (2002). The discipline of innovation. *Harvard Business Review*, *80*, 95–104. PMID:12195923

Ehrenfeld, J. R. (2005). Eco-efficiency: Philosophy, theory, and tools. *Journal of Industrial Ecology*, *9*(4), 6–8. doi:10.1162/108819805775248070

Ekins, P. (2005). Eco-efficiency motives, drivers, and economics implications. *Journal of Industrial Ecology*, *9*(4), 12–14. doi:10.1162/108819805775247981

Elg, U. (2007). Market orientation processes in retailing: a cross-national study. *European Journal of Marketing, 41*(5/6), 568-589.

Elisha, B. (2005). Nonverbal behavior in education. In The new handbook of methods in nonverbal behavior research. Pondicherry, India: SPI Publisher Services.

Elsbach, K. D., & Glynn, M. A. (1996). Believing your own "PR": Embedding identification in strategic reputation. *Advances in Strategic Management*, *13*, 65–90.

Emmendoerfer, M. L., Silva, F. C., & Lima, A. A. T. F. C. (2011). Evidences of Social Innovation in Public Management of tourism in Minas Gerais – Brazil: The model of tourist circuits on analysis.*PASOS. Revista de Turismo y Patrimonio Cultural*, *9*(2), 397–410.

Eriksson, T. (2006). *American Exceptionalism in a New Light: A Comparison of Intergenerational Earnings Mobility in the Nordic Countries, the United Kingdom and the United States*. Retrieved from ftp.iza.org/dp1938.pdf

Erkko, S., Melanen, M., & Mickwitz, P. (2005). Eco-efficiency in the Finnish EMAS reports – a buzz word? *Journal of Cleaner Production*, *13*(8), 799–813. doi:10.1016/j.jclepro.2003.12.027

Estatísticas do Concurso Nacional de Acesso de 2010: comparação por curso. (2010). Retrieved from http://www.dges.mctes.pt/guias/pdfs/statcol/2010/StatsCurso10.pdf

Estatísticas do Concurso Nacional de Acesso de 2016: comparação por curso. (2016). Retrieved from http://www.dges.mctes.pt/guias/pdfs/statcol/2016/StatsCurso16.pdf

Esteves, T. (2015). *Tourism Innovation in Lisbon* (Master's dissertation). University Europeia.

Estratégia de Lisboa. Plano Nacional De Reformas Portugal. Lisboa: Gabinete do Coordenador Nacional da Estratégia de Lisboa e do Plano Tecnológico. (2008). Disponível em: ec.europa.eu/social/BlobServlet?docId=6179&langId=pt

European Commission. (2008). *Entrepreneurship in higher education, especially within non- business studies.* Final Report of the Expert Group. Retrieved from: http://scholar.google.com/scholar?hl=en&btnG=Search&q=intitle:Entrepreneurship+in+hig her+education+,+especially+within+non- business+studies#0%5Cnhttp://europa.eu.int/comm/enterprise/entrepreneurship/support_measures/index.htm

European Commission. (2012). *EUR 25189 — Knowledge-intensive (business) services in Europe*. Luxembourg: Office of the European Union.

European Commission. (2013). *Entrepreneurship 2020 Action Plan Reigniting the entrepreneurial spirit in Europe*. COM (2012) 795 final. Retrieved from http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52012DC0795&from=EN

European Commission. (2013). Social innovation research in the European Union. Approaches, findings and future directions. *Policy Review*. Retrieved from http://ec.europa.eu/research/socialsciences/pdf/social_innovation.pdf

Evangelista, R. (2000). Sectoral patterns of technological change in services. *Economics of Innovation and New Technology*, *9*(3), 183–222. doi:10.1080/10438590000000008

Evangelista, R., & Vezzani, A. (2010). The economic impact of technological and organizational innovations. A firm-level analysis. *Research Policy*, *39*(10), 1253–1263. doi:10.1016/j.respol.2010.08.004

Evans, M. (2011). Case Studies in the Evaluation and Evolution of Tools to Support Design Education. In *Researching Design Education 1st International Symposium for Design Education Researchers CUMULUS Association//DRS SIG on Design Pedagogy* (pp. 168–186). Paris, France: Academic Press. Retrieved from http://www. designresearchsociety. org/docs- procs/paris11/paris-procs11.pdf

Evan, W. (1966). Organizational lag. *Human Organization*, *25*(1), 51–53. doi:10.17730/humo.25.1.v7354t3822136580

FE – Fundo Estruturais. (n.d.). *25 anos de Fundos Estruturais: Olhares sobre a evolução da sociedade, da economia e das instituições em Portugal*. Disponível em: http://www.tvi.iol.pt/pdf/25_anos_de_fundos_estruturais/25_anos_de_fundos_estruturais-fundos.pdf

Felismino, E. (2017). Têxtil: um setor que anda mais depressa do que o país. *Economia Online*. Retrieved from https://eco.pt/2017/05/02/textil-um-setor-que-anda-mais- depressa-do-que-o-pais/

Fernández-Gámez, M. A., Gil-Corral, A. M., & Galán-Valdivieso, F. (2016). Corporate reputation and market value: Evidence with generalized regression neural networks. *Expert Systems with Applications*, *46*, 69–76. doi:10.1016/j.eswa.2015.10.028

Ferner, A. (1997). Country of origin effects and HRM in multinational companies. *Human Resource Management Journal*, *7*(1), 19–37. doi:10.1111/j.1748-8583.1997.tb00271.x

Ferreira, V. (2010). *A igualdade de Mulheres e Homens no Trabalho e no Emprego em Portugal*. Comissão para a Igualdade no Trabalho e no Emprego. Available at http://www.cite.gov.pt/asstscite/downloads/publics/Igualdade_CITE_NET.pdf

Fields, D., Chan, A., & Akhtar, S. (2002). Organizational context and human resource management strategy: A structural equation analysis of Hong Kong firms. *International Journal of Human Resource Management*, *11*(2), 264–277. doi:10.1080/095851900339864

Filion & Laferté. (2003). *Carte routière pour un Québec entrepreneurial*. HEC. Available at https://www.google.pt/search?q=Carte+routière+pour+un+Québec+entrepreneurial%2C+Filion&oq=Carte+routière+pour+un+Québec+entrepreneurial%2C+Filion&aqs=chrome.69i57.2731-j0j7&sourceid=chrome&ie=UTF-8

Filion, & ... . (2008). *Empreendedorismo de Base Tecnológica. Spin-off: criação de novos negócios a partir de empresas constituídas*. Rio de Janeiro: Editora Campus.

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior. An introduction to theory and research*. Reading, MA: Addison-Wesley.

Fombrun, C. J., Gardberg, N. A., & Barnett, M. L. (2000). Opportunity platforms and safety nets: Corporate citizenship and reputational risk. *Business and Society Review*, *105*(1), 85–106. doi:10.1111/0045-3609.00066

Fombrun, C. J., & Shanley, M. (1990). What's in a name? Reputation building and corporate strategy. *Academy of Management Journal*, *33*(2), 233–258.

Freire, J. (1995). *O Trabalho Independente em Portugal* (PhD). Lisboa: ISCTE -IUL.

Freire, J., Vala, J., & Cabral, M. V. (2005). *Atitudes Sociais dos Portugueses: Trabalho e Cidadania*. Lisboa: Imprensa de Ciências Sociais.

Freire, M. A. (2015). *Hospitality in professional training in tourism in Rio de Janeiro: searching for analytical categories (Master's Program in Hospitality). Anhembi Morumbi University*.

Freire, P. (2006). *Educação, Sociedade e Culturas*. Porto: Edições Afrontamento.

Friedman, T. (2013). Need a Job? Invent It. *The New York Times*. Retrieved from http://www.nytimes.com/2013/03/31/opinion/sunday/friedman-need-a-job-invent- it.html?_r1⁄40

Friedman, R. (2014). *The best place to work. The art and science of creating an extraordinary workplace.* Penguin.

Fryxell, G, & Gordon, M (1989). Workplace justice and job satisfaction as predictors of satisfaction with union and management. *Academy of Management Journal, 32*(4), 851-866. doi:10.2307/256571

Fukugawa, N. (2006). Science parks in Japan and their value-added contributions to new technology-based firms. *International Journal of Industrial Organization*, *24*(2), 381–400. doi:10.1016/j.ijindorg.2005.07.005

Fulmer, I. S., Gerhart, B., & Scott, K. S. (2003). Are the 100 Best better? An empirical investigation of the relationship between being a "Great Place to Work" and firm performance. *Personnel Psychology*, *56*(4), 965–993. doi:10.1111/j.1744-6570.2003.tb00246.x

Furnham, A. (2001). *Body language at work*. São Paulo: Nobel.

Gadrey, J., Gallouj, F., & Weinstein, O. (1995). New modes of innovation: How services benefit industry. *International Journal of Service Industry Management*, *6*(3), 4–16. doi:10.1108/09564239510091321

Gago, D., & Rubalcaba, L. (2007). Innovation and ICT in service firms: Towards a multidimensional approach for impact assessment. *Journal of Evolutionary Economics*, *17*(1), 25–44. doi:10.100700191-006-0030-8

Gallego-Álvarez, I., Segura, L., & Martínez-Ferrero, J. (2015). Carbon emission reduction. The impact on the financial and operational performance of international companies. *Journal of Cleaner Production*, *103*, 149–159. doi:10.1016/j.jclepro.2014.08.047

Gallego, J., Rubalcaba, L., & Hipp, C. (2013). Services and organisational innovation: The right mix for value creation. *Management Decision*, *51*(6), 1117–1134. doi:10.1108/MD-11-2012-0446

Gallie, D. (2007). Production regimes and the quality of employment in Europe. *Annual Review of Sociology*, *33*(1), 85–104. doi:10.1146/annurev.soc.33.040406.131724

Gallouj, F. (1998). Innovating in reverse: Services and the reverse product cycle. *European Journal of Innovation Management*, *1*(3), 123–138. doi:10.1108/14601069810230207

Gallouj, F. (2002). Innovation in services and the attendance old and new myths. *Journal of Socio-Economics*, *31*(2), 137–154. doi:10.1016/S1053-5357(01)00126-3

Gallouj, F., & Savona, M. (2009). Innovation in services: A review of the debate and a research agenda. *Journal of Evolutionary Economics*, *19*(2), 149–172. doi:10.100700191-008-0126-4

Gallouj, F., Weber, K. M., Stare, M., & Rubalcaba, L. (2015). The futures of the service economy in Europe: A foresight analysis. *Technological Forecasting and Social Change*, *94*, 80–96. doi:10.1016/j.techfore.2014.06.009

Gallouj, F., & Weinstein, O. (1997). Innovation in services. *Research Policy*, *26*(4-5), 537–556. doi:10.1016/S0048-7333(97)00030-9

Gallouj, F., & Windrum, P. (2009). Services and services innovation. *Journal of Evolutionary Economics*, *19*(2), 141–148. doi:10.100700191-008-0123-7

Ganotakis, P. (2012). Founders' human capital and the performance of UK new technology based firms. *Small Business Economics*, *39*(2), 495–515. doi:10.100711187-010-9309-0

Ganotakis, P., & Love, J. H. (2011). R&D, product innovation, and exporting: Evidence from UK new technology based firms. *Oxford Economic Papers*, *63*(2), 279–306. doi:10.1093/oep/gpq027

Ganzeboom, H., De Graaf, P., & Treiman, D. (1992). A standard international socio-economic index of occupational status. *Social Science Research*, *21*(1), 1–56. doi:10.1016/0049-089X(92)90017-B

Gardan, J. (2015). Definition of users' requirements in the customized product design through a user-centered translation method. *International Journal on Interactive Design and Manufacturing*.

Gebauer, H. (2011). Exploring the contribution of management innovation to the evolution of dynamic capabilities. *Industrial Marketing Management*, *40*(8), 1238–1250. doi:10.1016/j.indmarman.2011.10.003

GEE. (2016). *Ambiente de Negócios -Investir em Portugal Hoje e Amanhã*. Available at www.gee.pt

GEM. (2015). *Women's Report. Special Topic Reports*. Available at www.gemconsortium.org/report/49281

GEM. (2017). *GEM 2016/2017 Global Report*. Global Entrepreneurship Monitor. Available at http://www.gemconsortium.org/report

Gershman, M., Roud, V., & Thurner, T. W. (2018). Open innovation in Russian state-owned enterprises. *Industry and Innovation*, 1–19.

Giddens, A. (2002). *Modernidade e Identidade*. Rio de Janeiro: J. Z. Editor.

Giddens, A. (1989). *Constituição da Sociedade*. Lisboa: Martins Fo.

Giddens, A. (2000a). *Dualidade da Estrutura: Agência e Estrutura*. Oeiras: Celta Editora.

Giddens, A. (2000b). *Sociologia*. Lisboa: Fundação Calaouste Gulbenkian.

Gil, A. C. (2010). *How to design research projects*. São Paulo: Atlas.

Gliem, R., & Gliem, J. (2001). Job satisfaction of civil service and administrative and professional staff in the College of Food, Agricultural, and Environmental Sciences. *28th Annual National Agricultural Education Research Conference.*

Global Entrepreneurship Monitor. (2017). *Global Report 2016/2017*. Author.

Gómez, C. R. P., Falcão, M. C., Castillo, L. A. G., Correia, S. N., & de Oliveira, V. M. (2015). Community-based tourism as Social Innovation: Congruence between the constructs. *PASOS: Revista de Turismo y Patrimonio Cultural*, *13*(5), 1213–1227. doi:10.25145/j.pasos.2015.13.082

Gomide, C. S. A. (2014). *Attitudes, subjective norms and perceived behavioral control of a university population in relation to water consumption: analysis in the light of planned behaviour (TPB)* (Master's dissertation). Federal University of Viçosa. Administration Postgraduate Program. Retrieved from http://www.locus.ufv.br/bitstream/handle/123456789/6618/texto%20completo.pdf?sequence=1&isAllowed=y

Goodman, S., & Remaud, H. (2015). Store choice: How understanding consumer choice of 'where' to shop may assist the small retailer. *Journal of Retailing and Consumer Services*, *23*, 118–124. doi:10.1016/j.jretconser.2014.12.008

Gotsch, M., & Hipp, C. (2012). Measurement of innovation activities in the knowledge-intensive services industry: A trademark approach. *Service Industries Journal*, *32*(13), 2167–2184. doi:10.1080/02642069.2011.574275

Granstrand, O. (1998). Towards a theory of the technology-based firm. *Research Policy*, *27*(5), 465–489. doi:10.1016/S0048-7333(98)00067-5

Gray, J., & Laidlaw, H. (2002). Part-time employment and communication satisfaction in an Australian retail organization. *Employee Relations*, *24*(2), 211–228. doi:10.1108/01425450210420929

Greenly, G. E., Hooley, G. J., & Rudd, J. M. (2005). Market orientation in a multiple stakeholder orientation context: Implications for marketing capabilities and assets. *Journal of Business Research*, *58*(11), 1483–1494. doi:10.1016/j.jbusres.2004.07.004

Greenpeace y European Renewal Energy Council (EREC). (2008). *Energy Revolution. A sustainable global energy outlook*. Retrieved from http://www.greenpeace.es/

Grilli, L., & Murtinu, S. (2015). New technology-based firms in Europe: Market penetration, public venture capital, and timing of investment. *Industrial and Corporate Change*, *24*(5), 1109–1148. doi:10.1093/icc/dtu025

Grinstein, A. (2008). The effect of market orientation and its components on innovation consequences: A meta-analysis. *Journal of the Academy of Marketing Science*, *36*(2), 166–173. doi:10.100711747-007-0053-1

Groen, A., Cook, G., & Van der Sijde, P. (2015). *New technology-based firms in the new millennium*. Emerald Group Publishing. doi:10.1108/S1876-0228201511

Groves, R. M., Fowler, J. F. J., Couper, M. P., Lepkowski, J. M., Singer, E., & Tourangeau, R. (2004). Survey Methodology. Hoboken, NJ: Wiley-Interscience.

Gruber-Muecke, T., & Hofer, K. M. (2015). Market orientation, entrepreneurial orientation and performance in emerging markets. *International Journal of Emerging Markets*, *10*(3), 560–571. doi:10.1108/IJoEM-05-2013-0076

Guinot, J., Chiva, R., & Mallén, F. (2015). Altruismo y capacidad de aprendizaje organizativo: Un estudio en las empresas mejor valoradas por los trabajadores en España. *Universia Business Review*, (45): 92–109.

Guiraud, P. (2001). *The language of the body*. São Paulo: Ática.

Gumperz, J. J. (1982). *Discourse strategies*. Cambrige, UK: Cambrige University Press. doi:10.1017/CBO9780511611834

Gunday, G., Ulusoy, G., Kilic, K., & Alpkan, L. (2011). Effects of innovation types on firm performance. *International Journal of Production Economics*, *133*(2), 662–676. doi:10.1016/j.ijpe.2011.05.014

Hagberg, J., Sundstrom, M., & Egels-Zandén, N. (2016). The digitalization of retailing: An exploratory framework. *International Journal of Retail & Distribution Management*, *44*(7), 694–712. doi:10.1108/IJRDM-09-2015-0140

Hair, J., Yerson, R., Tatham, R., & Black, W. (1999). *Análisis Multivariante*. Madrid: Pearson Educacion.

Hall, B. H., Lotti, F., & Mairesse, J. (2009). Innovation and productivity in SMEs: Empirical evidence for Italy. *Small Business Economics*, *33*(1), 13–33. doi:10.100711187-009-9184-8

Hall, E. T. (2011). *La Danse de la vie temps culturel, temps vécu*. La Rochelle: Points.

Hall, R. (1992). The strategic analysis of intangible resources. *Strategic Management Journal*, *13*(2), 135–144. doi:10.1002mj.4250130205

Hamel, G. (2006). The why, what, and how of management innovation. *Harvard Business Review*, 72–84. PMID:16485806

Hamilton, J. (1995). Pollution as news: Media and stock market reactions to the toxic release inventory data. *Journal of Environmental Economics and Management*, *28*(1), 98–113. doi:10.1006/jeem.1995.1007

Han, J. K., Kim, N., & Srivastava, R. (1998). Market orientation and organizational performance: Is innovation a missing link? *Journal of Marketing*, *62*(4), 30–45. doi:10.1177/002224299806200403

Hao, L., & Pong, S.-L. (2008). The role of school in the upward mobility of disadvantaged immigrants' children. *The Annals of the American Academy of Political and Social Science*, *620*(1), 62–89. doi:10.1177/0002716208322582 PMID:25418989

Hargrave, T., & Van De Ven, A. H. (2006). A collective action model of institutional innovation. *Academy of Management Review*, *31*(4), 864–888. doi:10.5465/amr.2006.22527458

Hart, S. L. (1995). A Natural-Resource-Based view of the firm. *Academy of Management Review*, *20*(4), 986–1014. doi:10.5465/amr.1995.9512280033

Hart, S. L., & Ahuja, G. (1996). Does it pay to be green? An empirical examination of the relationship between emission reduction and firm performance. *Business Strategy and the Environment*, *5*(1), 30–37. doi:10.1002/(SICI)1099-0836(199603)5:1<30::AID-BSE38>3.0.CO;2-Q

Hatakeda, T., Kokubu, K., Kajiwara, T., & Nishitani, K. (2012). Factors Influencing Corporate Environmental Protection Activities for Greenhouse Gas Emission Reductions: The Relationship Between Environmental and Financial Performance. *Environmental and Resource Economics*, *53*(4), 455–481. doi:10.100710640-012-9571-5

Hauge, E. S., Kyllingstad, N., Maehle, N., & Schulze-Krogh, A. C. (2017). Developing cross-industry innovation capability: Regional drivers and indicators within firms. *European Planning Studies*, *25*(3), 388–405. doi:10.1080/09654313.2016.1276158

Hecker, A., & Ganter, A. (2013). The influence of product market competition on technological and management innovation: Firm-level evidence from a large-scale survey. *European Management Review*, *10*(1), 17–33. doi:10.1111/emre.12005

Heitor, M. (2015). Ciência e conhecimento na modernização de Portugal: a formulação de políticas públicas na superação do atraso cientifico e na democratização do acesso ao conhecimento. In *40 Anos de Políticas de Ciência e Ensino Superior em Portugal*. Lisboa: Almedina. Disponível em: http://www.manifesto2015.com/docs/capitulo-politicas-C-T-MHeitor-11mai2015.pdf

Helm, S. (2007). One Reputation or Many? Comparing Stakeholders' Perceptions of Corporate Reputation. *Corporate Communications*, *12*(3), 238–254. doi:10.1108/13563280710776842

Henderson, M., Sullivan, A., Andres, J., & Moulton, V. (2008). Social class, gender and ethnic differences in subjects taken at age 14. *Curriculum Journal*, *29*(3), 298–318. doi:10.1080/09585176.2017.1406810

Hendricks, L. (1999). *Do redistributive policies promote intergenerational mobility?* Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=201028

Henri, J., & Journeault, M. (2010). Eco-control: The influence of management control systems on environmental and economic performance. *Accounting, Organizations and Society*, *35*(1), 63–80. doi:10.1016/j.aos.2009.02.001

Hervas-Oliver, J. L., Boronat-Moll, C., & Sempere-Ripoll, F. (2016). On process innovation capabilities in SMEs: A taxonomy of process-oriented innovative SMEs. *Journal of Small Business Management*, *54*(S1), 113–134. doi:10.1111/jsbm.12293

Hervas-Oliver, J. L., Ripoll-Sempere, F., & Moll, C. B. (2016). Does management innovation payoff in SMEs? Empirical evidence for Spanish SMEs. *Small Business Economics*, *47*(2), 507–533. doi:10.100711187-016-9733-x

Hervas-Oliver, J. L., Sempere-Ripoll, F., Boronat-Moll, C., & Rojas-Alvarado, R. (2017). On the joint effect of technological and management innovations on performance: Increasing or diminishing returns? *Technology Analysis and Strategic Management*, *0*(0).

Hierro Parolin, S. R., Vasconcellos, E., Volpato, M., & Marcelo Laurindo, A. (2013). Barriers and facilitators of collaborative management in technological innovation projects. *Journal of Technology Management & Innovation*, *8*, 43–43. doi:10.4067/S0718-27242013000300043

Hinkin, T. R., & Tracey, J. B. (2010). What makes it so great? An analysis of human resources practices among *Fortune*'s Best Companies to Work for. *Cornell Hospitality Quarterly*, *51*(2), 158–170. doi:10.1177/1938965510362487

Hipp, C., & Grupp, H. (2005). Innovation in the service sector: The demand for service-specific innovation measurement concepts and typologies. *Research Policy*, *34*(4), 517–535. doi:10.1016/j.respol.2005.03.002

Hipp, C., Tether, B. S., & Miles, I. (2003). Effects of innovation in standardised, customised and bespoke services: evidence from Germany. In J. Tidd & F. M. Hull (Eds.), *Service Innovation: Organizational Responses to Technological Opportunities & Market Imperatives* (pp. 175–210). London: Imperial College Press. doi:10.1142/9781848161306_0007

Hisrich, R. D. (1990). Entrepreneurship / Intrapreneurship. *The American Psychologist*, *45*(2), 209–222. doi:10.1037/0003-066X.45.2.209

Hisrich, R., Grant, S., Langan-fox, J., & Grant, S. (2007). Entrepreneurship Research and Practice: A Call to Action for Psychology. *The American Psychologist*, *62*(6), 575–589. doi:10.1037/0003-066X.62.6.575 PMID:17874898

Hoff, D. N. (2011). A história importa: proposta de estrutura analítica para o estudo de path-dependence. *Ensaios FEE, 32*(1), 7-30.

Hoffman, A. J. (2005). Climate change strategy: The business logic behind voluntary greenhouse gas reductions. *California Management Review*, *47*(3), 21–46. doi:10.2307/41166305

Hofstede, G. (2001). *Culture's consequences : comparing values, behaviors, institutions, and organizations across nations*. Sage Publications.

Hofstede, G. (2003). *Culturas e organizações: compreender a nossa programação mental*. Lisboa: Sílabo.

Hofstede, G. (2005). *Cultures and organizations: software of the mind*. Chicago: McGraw-Hill.

Hohlfeldt, A., Martino, L. C., & França, V. V. (2003). *Theories of Communication*. Petropolis: Vozes.

Hollen, R. M. A., Van Den Bosch, F. A. J., & Volberda, H. W. (2013). The role of management innovation in enabling technological process innovation: An inter-organizational perspective. *European Management Review*, *10*(1), 35–50. doi:10.1111/emre.12003

Holohan, C. (2016). Conceptualizing and responding to poverty in the Republic Ireland in the 19602: A case study of Dublin. *Social History*, *41*(1), 34–53. doi:10.1080/03071022.2015.1108711

Hooley, Greenley, G. E., Cadogan, J. W., & Fahy, J. (2005). The performance impact of marketing resources. *Journal of Business Research*, *58*(1), 18–36. doi:10.1016/S0148-2963(03)00109-7

Hoopes, D. G., & Madsen, T. L. (2008). A capability-based view of competitive heterogeneity. *Industrial and Corporate Change*, *17*(3), 393–426. doi:10.1093/icc/dtn008

Hoopes, D. G., Madsen, T. L., & Walker, G. (2003). Guest editors' introduction to the special issue: Why is there a resource-based view? Toward a theory of competitive heterogeneity. *Strategic Management Journal*, *24*(10), 889–902. doi:10.1002mj.356

Hoppock, R. (1935). *Job Satisfaction*. New York: Harperand Brothers.

Horváthová, E. (2010). Does environmental performance affect financial performance? A meta-analysis. *Ecological Economics*, *70*(1), 52–59. doi:10.1016/j.ecolecon.2010.04.004

Hudák, M., Kianičková, E., & Madleňák, R. (2017). The importance of e-mail marketing in e-commerce. *Procedia Engineering*, *192*, 342–347. doi:10.1016/j.proeng.2017.06.059

Hult, G. T. M., Hurley, R. F., & Knight, G. A. (2004). Innovativeness: Its antecedents and impact on business performance. *Industrial Marketing Management*, *33*(5), 429–438. doi:10.1016/j.indmarman.2003.08.015

Huppes, G., & Ishikawa, M. (2005). Eco-efficiency and its terminology. *Journal of Industrial Ecology*, *9*(4), 43–46. doi:10.1162/108819805775247891

Hurley, R. F., & Hult, G. T. M. (1998). Innovation, market orientation, and organizational learning: An integration and empirical examination. *Journal of Marketing*, *62*(3), 42–54. doi:10.1177/002224299806200303

Iannelli, C., Smyth, E., & Kleine, M. (2016). Curriculum differentiation and social inequality in higher education entry in Scotland and Ireland. *British Educational Research Journal*, *42*(4), 561–581. doi:10.1002/berj.3217

Ibrahim, H. I., & Shah, K. A. M. (2013). Effects of organizational characteristics factors on the implementation of strategic human resource practices: Evidence from malaysian manufacturing firms. *Economia. Seria Management*, *16*(1), 5–24.

IFDEP. (2015). *Empreendedorismo nas Comunidades Imigrantes, um Olhar sobre Portugal*. Available at http://www.ifdep.pt/assets/empreendedorismo-com_imigrantes_ver_web.pdf

ILO. (2013). *Global Employment Trends for Youth 2013*. Available at http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_212423.pdf

INE. (2011). *Censos 2011.* INE.

INE. (2015a). *Empresas em Portugal -2013.* Publicações Instituto Nacional de Estatística. Available at https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_publicacoes&PUBLICACOESpub_boui=224784102&PUBLICACOEStema=55579&PUBLICACOESmodo=2

INE. (2015b). *Membros dos conselhos administrativos das empresas PSi20*. Available at https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_indicadores&indOcorrCod=0005959&contexto=pgi&selTab=tab10

INE. (2016). *Caracterização Socioeconómica do Município*. Instituto Nacional de Estatística, Available at https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_doc_municipios

Informa D&B. (2015). *Onde Param as Mulheres? Presença Feminina nas organizações em Portugal 2015*. Informa D&B. Available at http://informadb.pt/campanhas/barometro/2015/03/estudo-ondeparam-as-mulheres.pdf

Ioris, A. A. R. (2016). The paradox of poverty in rich ecosystems: Impoverishment and development in the Amazon of Brazil and Bolivia. *The Geographical Journal*, *182*(2), 178–189. doi:10.1111/geoj.12124

Iwata, H., & Okada, K. (2011). How Does Environmental Performance Affect Financial Performance? Evidence from Japanese Manufacturing Firms. *Ecological Economics*, *70*(9), 1691–1700. doi:10.1016/j.ecolecon.2011.05.010

Jackson, S., & Schuler, R. S. (1995). Understanding human resource management in the context of organizations and their environments. *Annual Review of Psychology*, *46*(1), 237–264. doi:10.1146/annurev.ps.46.020195.001321 PMID:19245335

Jacobs, S., Chase, R., & Aquilano, N. (2009). *Operation and Supply Management* (12th ed.). New York: McGraw-Hill.

Jaffe, A., Peterson, S., Portney, P., & Stavins, R. (1995). Environmental regulation and the competitiveness of U.S. manufacturing: What does the evidence tell us? *Journal of Economic Literature*, *33*(1), 132–163.

Jain, S. K., & Gupta, G. (2004). Measuring Service Quality: SERVQUAL vs. SERVPERF scales. *Vikalpa*, *29*(2), 25–37. doi:10.1177/0256090920040203

Jakobson, R. (1969). *Linguistics and communication*. São Paulo: Cultrix.

Jamal, H. (2005). In search of poverty predictors: The case of urban and rural Pakistan. *Pakistan Development Review*, *44*(1), 37–55. doi:10.30541/v44i1pp.37-55

Jäntti, M., Bratsberg, B., Røed, K., Raaum, O., Naylor, R., Österbacka, E., ... Kerckhoff, A. (1995). Institutional arrangements and stratification processes in industrial societies. *Annual Review of Sociology*, *21*(1), 323–347. doi:10.1146/annurev.so.21.080195.001543

Jaworski, B. J., & Kohli, A. K. (1996). Market orientation: Review, refinement, and roadmap. *Journal of Focused Management*, *1*(2), 119–135. doi:10.1007/BF00128686

Jenson, J. (2014). *Modernising paradigms. Social investments via social innovation*. Paper presented at the Towards Inclusive Employment and Welfare Systems for a Social Europe Conference, Berlin, Germany.

Jitpaiboon, T., Park, J. A., & Truong, D. (2006). The effects of employee autonomy, top management support, and pride on performance of hotel employees. *Review of Business Research*, *6*(3).

Johannessen, J. A., Olsen, B., & Lumpkin, G. T. (2001). Innovation as newness: What is new, how new, and new to whom? *European Journal of Innovation Management*, *4*(1), 20–31. doi:10.1108/14601060110365547

Johnson, D. (2001). What is innovation and entrepreneurship? Lessons for larger organisations. *Industrial and Commercial Training*, *33*(4), 135–140. doi:10.1108/00197850110395245

Jones-Evans, D., & Westhead, P. (1996). The high technology small firm sector in the UK. *International Journal of Entrepreneurial Behaviour & Research*, *2*(1), 15–35. doi:10.1108/13552559610110691

Kabak, K.E., Sen, A., Gocer, K., Küçüksöylemez, S., & Tuncer, G. (2014). Strategies for employee job satisfaction: A case of service sector. *Procedia - Social and Behavioral Sciences, 150*(15), 1167-1176. doi: .sbspro.2014.09.132 doi:10.1016/j

Kajalo, S., & Lindblom, A. (2015). Market orientation, entrepreneurial orientation and business performance among small retailers. *International Journal of Retail & Distribution Management*, *43*(7), 580–596. doi:10.1108/IJRDM-04-2014-0044

Kannan, P. K., & Li, H. A. (2017). Digital marketing: A framework, review and research agenda. *International Journal of Research in Marketing*, *34*(1), 22–45. doi:10.1016/j.ijresmar.2016.11.006

Kanter, R. M. (1999). From spare change to real change. *Harvard Business Review*, *7*(3), 122–132. PMID:10387574

Karatum, S. (2017). The Place of Digital Marketing on Turkish Small Businesses. Journal of International Trade. *Logistics and Law*, *3*(2), 36.

Karsh, M. B., & MacIver, D. (2010). Impacts of climate extremes on biodiversity in the Americas. In F. Dallmeier (Ed.), *Climate change, biodiversity and sustainability in the Americas: impacts and adaptations*. Washington, DC: Smithsonian Institution Scholarly Press.

Katzy, B., Turgut, E., & Holzmann, T. (2013). Technology Analysis & Strategic Innovation intermediaries: a process view on open innovation coordination. In Innovation intermediaries : a process view on technology analysis & strategic management.(pp. 37–41).

Kelley, D. J., Singer, S., & Herrington, M. (2016). *Global Entrepreneurship Monitor 2015/2016 Global Report*. Retrieved from: www.gemconsortium.org

Kennedy, M., & Fiss, P. (2009). Institutionalization, framing, and diffusion: The logic of TQM adoption and implementation decisions among U.S. hospitals. *Academy of Management Journal*, *52*(5), 897–918. doi:10.5465/amj.2009.44633062

Khan, A. U., Iqbal, T., & Rehman, Z. U. (2017). Impact of human capital on poverty alleviation in district Karak, Khyber Pakhtunkhwa. *The Dialogue*, *11*(2).

Khanagha, S., Volberda, H. W., Sidhu, J., & Oshri, I. (2013). Management innovation and adoption of emerging technologies process innovation: An inter-organizational perspective. *European Management Review*, *10*, 51–67. doi:10.1111/emre.12004

Kilbourne, W. E., Duffy, J. A., Duffy, M., & Giarchi, G. (2004). The applicability of SERVQUAL in cross-national measurements of health-care quality. *Journal of Services Marketing*, *18*(6/7), 524–533. doi:10.1108/08876040410561857

Kimberly, J. R., & Evanisko, M. J. (1981). Organizational innovation: The influence of individual, organizational, and contextual factors on hospital adoption of technological and administrative innovations. *Academy of Management Journal*, *24*(4), 689–713. PMID:10253688

Kim, D.-Y., Kumar, V., & Kumar, U. (2012). Relationship between quality management practices and innovation. *Journal of Operations Management*, *30*(4), 295–315. doi:10.1016/j.jom.2012.02.003

Kim, S. (2002). Participative management and job satisfaction: Lessons for management leadership. *Public Administration Review*, *62*(2), 231–241. doi:10.1111/0033-3352.00173

King, A. A., & Lenox, M. J. (2001). Does it really pay to be green? An empirical study of firm environmental and financial performance: An empirical study of firm environmental and financial performance. *Journal of Industrial Ecology*, *5*(1), 105–116. doi:10.1162/108819801753358526

King, A. A., & Lenox, M. J. (2002). Exploring the locus of profitable pollution reduction. *Management Science*, *48*(2), 289–299. doi:10.1287/mnsc.48.2.289.258

Knapp, M. L., & Hall, A. J. (1999). *Nonverbal Communication in Human Interaction*. São Paulo: Ed. JSN.

Kohli, A. K., & Jaworski, B. J. (1990). Market orientation: The construct, research propositions, and managerial implications. *Journal of Marketing*, *54*(2), 1–18. doi:10.1177/002224299005400201

Kohli, A., Jaworski, B., & Kumar, A. (1993). MARKOR: A measure of market orientation. *JMR, Journal of Marketing Research*, *30*(November), 467–477. doi:10.1177/002224379303000406

Kollmer, H., & Dowling, M. (2004). Licensing as a commercialisation strategy for new technology-based firms. *Research Policy*, *33*(8), 1141–1151. doi:10.1016/j.respol.2004.04.005

Konar, S., & Cohen, M. A. (2001). Does the market value environmental performance? *The Review of Economics and Statistics*, *83*(2), 281–289. doi:10.1162/00346530151143815

Kortekaas, F. (2007). *HRM, organizational performance and the role of firm size* (Master's thesis). Erasmus School of Economics, Rotterdam, The Netherlands.

Kotha, S., Rajgopal, S., & Rindova, V. P. (2001). Reputation building and performance: An empirical analysis of the top-50 pure internet firms. *European Management Journal*, *19*(6), 571–586. doi:10.1016/S0263-2373(01)00083-4

Kozar, J. M., & Connell, K. H. (2013). The Millennial graduate student: Implications for educators in the fashion discipline. *International Journal of Fashion Design. Technology and Education*, *6*(3), 149–159. doi:10.1080/17543266.2013.795611

Kozar, J. M., & Connell, K. H. (2015). The fashion internship experience: Identifying learning outcomes in preparing students for the real world. *International Journal of Fashion Design. Technology and Education*, *8*(1), 3–11. doi:10.1080/17543266.2014.974690

Kuckartz, U. (2014). *Qualitative Text Analysis : a Guide to Methods, Practice and Using Software*. SAGE Publications. doi:10.4135/9781446288719

Kujala, S. I. (2008). Effective user involvement in product development by improving the analysis of user needs. *Behaviour & Information Technology*, *27*(6), 457–473. doi:10.1080/01449290601111051

Kunsch, M. (2003). *Public relations planning in integrated communications* (4th ed.). São Paulo: Summus.

Kurz, E. (2010). *Analysis on fashion design entrepreneurship: challenges and supporting models* (Master's dissertation of Science in Fashion Management). University of Borås, Sweden.

Kwadzo, M. (2015). Choosing concepts and measurements of poverty: A comparison of three major poverty approaches. *Journal of Poverty*, *19*(4), 409–423. doi:10.1080/10875549.2015.1015067

Kyrillos, L. C. R., & Jung, M. (2015). *Communicate to lead*. São Paulo: Contexto.

Kyrillos, L. C. R., Mercatelli, C. R., Coelho, R. R., Donegá, R. S., Pereira, M. J., Santos, T. M., & Viola, I. C. (2000). Comparative Analysis of the Communication of Television Reporters in Spontaneous and Professional Issuance. In L. P. Ferreira & H. O. Costa (Eds.), *VozAtiva*. São Paulo: Roca.

Laderchi, C., Saith, R., & Stewart, F. (2003). Does it matter that we do not agree on the definition of poverty: A comparison of four approaches. *Oxford Development Studies*, *31*(3), 233–274. doi:10.1080/1360081032000111698

Ladhari, R. (2009). A review of twenty years of SERVQUAL research. *International Journal of Quality and Service Sciences*, *1*(2), 172–198. doi:10.1108/17566690910971445

Lam, A. (2004). *Organizational innovation. BSBM Working Papers* (Vol. 1, no. 3). Uxbridge.

Lamb, D. (2011). *Regreening the Bare Hills: tropical forest restoration in the Asia-Pacific region*. Academic Press.

Larke, R., Kilgour, M., & O'Connor, H. (2018). Build touchpoints and they will come: Transitioning to omnichannel retailing. *International Journal of Physical Distribution & Logistics Management*, *48*(4), 465–483. doi:10.1108/IJPDLM-09-2016-0276

Lawrence, P. R. (1954). How to deal with resistance to change. *Harvard Business Review*, *32*(3), 49–57.

Lawson, B., & Samson, D. (2001). Developing Innovation Capability in organizations: A dynamic capability approach. *International Journal of Innovation Management*, *5*(3), 377–400. doi:10.1142/S1363919601000427

LeBlanc, G., & Nguyen, N. (1988). Customers satisfaction with service quality in financial institutions. *International Journal of Bank Marketing*, *6*(4), 7–18. doi:10.1108/eb010834

Leiblein, M. J., & Madsen, T. L. (2009). Unbundling competitive heterogeneity: Incentive structures and capability influences on technological innovation. *Strategic Management Journal*, *30*(7), 711–735. doi:10.1002mj.746

Lemos, M. B. (2005). *The territorial organization of industry in Brazil. Innovations, technological standards and performance of Brazilian industrial firms*. Brasília: IPEA.

Levine, D. (1999). *Choosing the right parents: Changes in the intergenerational transmission of inequality between the 1970s and early 1990s*. Institute of Industrial Relations, University of Berkley, Working Paper 072-99. Retrieved from https://pdfs.semanticscholar.org/cc50/1eee3506a9742dc98aa6b32c99b429c9d118.pdf

Lewis, J., Whysall, P., & Foster, C. (2014). Drivers and technology-related obstacles in moving to multichannel retailing. *International Journal of Electronic Commerce*, *18*(4), 43–68. doi:10.2753/JEC1086-4415180402

Li, T., & Calantone, R. (1998). The impact of market knowledge competence on new product advantage: Conceptualization and empirical examination. *Journal of Marketing, 62*(4), 13-29.

Lieberman, M. B., & Montgomery, D. B. (1988). First-mover advantages. *Strategic Management Journal*, *9*(S1), 41–58. doi:10.1002mj.4250090706

Li, L., Qian, G., & Qian, Z. (2012). The performance of small and medium-sized technology-based enterprises: Do product diversity and international diversity matter? *International Business Review*, *21*(5), 941–956. doi:10.1016/j.ibusrev.2011.11.003

Lima, C. (2006). História do Maranhão (2nd ed.). São Paulo: Instituto Geia.

Linde, V. (1995). van der Linden, B., & Freeman, R. E. (2017). Profit and Other Values: Thick Evaluation in Decision Making. *Business Ethics Quarterly*, 1–27.

Lionakis, K., & Avlonitis, G. J. (2014). The impact of sales managers' market orientation on marketing-sales conflict and company performance. In *2014 Global Marketing Conference at Singapore* (pp. 480-489). Academic Press.

Liu, C. C., & Chen, J. (2010). Evolution Of Constructivism. *Contemporary Issues in Education Research*, *3*(4), 63. doi:10.19030/cier.v3i4.199

Lloyd, S. (1982). Least squares quantization in PCM. *IEEE Transactions on Information Theory*, *28*(2), 129–137. doi:10.1109/TIT.1982.1056489

Lockett, A., & Wright, M. (2005). Resources, capabilities, risk capital and the creation of university spin-out companies. *Research Policy*, *34*(7), 1043–1057. doi:10.1016/j.respol.2005.05.006

Löfsten, H., & Lindelöf, P. (2002). Science Parks and the growth of new technology-based firms—Academic-industry links, innovation and markets. *Research Policy*, *31*(6), 859–876. doi:10.1016/S0048-7333(01)00153-6

López-Sánchez, J. A., & Santos-Vijande, M. L. (2015). How value creation and relationship quality coalignment affects a firms's performance: An empirical analysis. *Journal of Marketing Channels*, *22*(3), 214–230. doi:10.1080/1046669X.2015.1071592

Loscocco, K., & Spitze, G. (1990). Working conditions, social support, and the well-being of female and male factory workers. *Journal of Health and Social Behavior*, *31*(4), 313–327. doi:10.2307/2136816 PMID:2135934

Lothe, S., Myrtveit, I., & Trapani, T. (1999). Compensation systems for improving environmental performance. *Business Strategy and the Environment*, *8*(6), 313–321. doi:10.1002/(SICI)1099-0836(199911/12)8:6<313::AID-BSE219>3.0.CO;2-C

Lötter, H. P. P. (2016). Poverty, ethics and justice revisited. *Res Publica (Liverpool, England)*, *22*(3), 343–361. doi:10.100711158-016-9319-0

Lovelock, C., & Gummesson, E. (2004). Whither services marketing? *Journal of Service Research*, *7*(1), 20–41. doi:10.1177/1094670504266131

Lundström, A., & Stevenson, L. (2005). Entrepreneurship policy: Theory and practice. New York: Springer Science + Business Media.

Luque, T. (2000). *Técnicas de Análisis de Datos en Investigación de Mercados*. Madrid: Ed. Pirámide.

MacQueen, J. (1967). Some methods for classification and analysis of multivariate observations. In *Fifth Berkeley Symposium on Mathematics. Statistics and Probability*. University of California Press.

Macrae, N. (1982). *We're all Intrepreneurial Now*. London: The Economist Journal.

Maggioni, I. (2016). What drives customer loyalty in grocery retail? Exploring shoppers' perceptions through associative networks. *Journal of Retailing and Consumer Services*, *33*, 120–126. doi:10.1016/j.jretconser.2016.08.012

Malheiros, J., & Padilha, B. (Eds.). (2010). Mulheres Imigrantes Empreendedoras. In *Colecção estudos de género 7*. Lisboa: CIG - Comissão para a Cidadania e Igualdade de Género. Available at http://www.igualdade.gov.pt/images/stories/documentos/documentacao/publicacoes/Mulheres_Emigrantes_Empreendedoras.pdf

March-Chorda, I., & Yagüe-Perales, R. M. A. (1999). A new tool to classifying new technology-based firm prospects and expectations. *The Journal of High Technology Management Research*, *10*(2), 347–376. doi:10.1016/S1047-8310(99)00011-5

Marconi, M., & Lakatos, E. M. (2011). *Scientific methodology* (6th ed.). São Paulo: Atlas.

Marconi, M., & Lakatos, E. M. (2012). *Research Techniques*. São Paulo: Atlas.

Marques, A. P. (2016). Género e Potencial Empreendedor na encruzilhada da (in)dependência profissional. In Desigualdade e Políticas de Género (pp. 103-126). Vila Nova de Famalicão: Húmus.

Marques, J. P., Caraça, J. M. G., & Diz, H. (2006). How Can University-Industry-Government Interactions Change the Innovation Scenario in Portugal? – the case of the University of Coimbra. *Technovation*, *26*(04), 534–542. doi:10.1016/j.technovation.2005.04.005

Martilla, J. A., & James, J. C. (1977). Importance-Performance analysis. *Journal of Marketing*, *41*(1), 77–79. doi:10.1177/002224297704100112

Martins, R. (2015, May 22). Portugal vai Receber 48 Milhões de Euros para Combater o Desemprego Jovem. *Público*. Retrieved from: http://www.publico.pt/economia/noticia/portugal-vai-receber-48-milhoes-de- euros-para-combater-desemprego-jovem-1696514

Maskell, P. (1998). *Competitiveness, Localized Learning and Regional Development: Specialization and Prosperity in Small Open Economies London*. Routledge. doi:10.4324/9780203276921

Mavondo, F. T., Chimhanzi, J., & Stewart, J. (2005). *Learning orientation and market orientation*. Academic Press.

Mazis, M. B., Antola, O. T., & Klippel, T. E. (1975). A comparison of four multi-attribute models in the prediction of consumer attitudes. *The Journal of Consumer Research*, *2*(1), 35–52. doi:10.1086/208614

McClelland, D. (1973). Testing for Competence Rather Than for Intelligence. *American Psychologist*. Available at https://www.therapiebreve.be/documents/mcclelland-1973.pdf

McCright, A. M., Marquart-Pyatt, S. T., Shwom, R. L., Brechin, S. R., & Allen, S. (2016). Ideology, capitalism, and climate: Explaining public views about climate change in the United States. *Energy Research & Social Science*, *21*, 180–189. doi:10.1016/j.erss.2016.08.003

Mcrobbie, A. (2005). *British Fashion Design-Rag trade or image industry?* New York: Routledge.

MCT – Ministério da Ciência e da Tecnologia. (2017). *Plano Inova Empresa*. Inovação e desenvolvimento econômico. Disponível em: http://www.mct.gov.br/upd_blob/0225/225828.pdf

MCT – Ministério da Ciência e da Tecnologia. Sistema Brasileiro de Tecnologia SIBRATEC. (1996). Disponível em: ftp://ftp.mct.gov.br/Unidades/SETEC/CGST/COTB/Apresentacoes/Apresentacao_SecretarioSETEC_ReuniaoSIBRATEC.pdf

Melnyk, S., Sroufe, R., & Calantone, R. (2003). Assessing the impact of environmental management systems on corporate and environmental performance. *Journal of Operations Management*, *21*(3), 329–351. doi:10.1016/S0272-6963(02)00109-2

Merino Moreno, C., Verde Cordero, A., & Villar Mártil, L. (2008). La función de transferencia tecnológica en las OTRIs. *Revista Madrid, 47*.

Metz, T. (2016). The nature of poverty as an inhuman condition. *Res Publica (Liverpool, England)*, *22*(3), 327–342. doi:10.100711158-016-9318-1

Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, *83*(2), 340–363. doi:10.1086/226550

Miles, I. (1999). Foresight and services: Closing the gap? *Service Industries Journal*, *19*(2), 1–27. doi:10.1080/02642069900000016

Miles, I. (2008). Patterns of innovation in service industries. *IBM Systems Journal*, *47*(1), 115–128. doi:10.1147j.471.0115

Mills, C. E. (2012). Navigating the interface between design education and fashion business start-up. *Education + Training*, *54*(8/9), 761–777. doi:10.1108/00400911211274873

Milovanovic, S. (2015). Balancing Differences and Similarities within The Global Economy: Towards A Collaborative Business Strategy. *Procedia Economics and Finance*, *23*, 185–190. doi:10.1016/S2212-5671(15)00369-X

Miozzo, M., & Soete, L. (2001). Internationalization of services: A technological perspective. *Technological Forecasting and Social Change*, *67*(2-3), 159–185. doi:10.1016/S0040-1625(00)00091-3

Miranda, F. J., Chamorro, A., Murillo, L. R., & Vega, J. (2010). Assessing primary health care services quality in Spain: Managers vs. Patients perceptions. *Service Industries Journal*, *30*(13), 2137–2149. doi:10.1080/02642060903215055

Moellendrof, D. (2016). Anti-poverty, development, and the limits of progress. *Res Publica (Liverpool, England)*, *22*(3), 317–325. doi:10.100711158-016-9329-y

Mol, M. J., & Birkinshaw, J. (2006). Against the flow: reaping the rewards of management innovation. *European Business Forum*, (27), 24–29.

Mollick, E. (2014). The dynamics of crowdfunding: An exploratory study. *Journal of Business Venturing*, *29*(1), 1–16. doi:10.1016/j.jbusvent.2013.06.005

Mol, M. J., & Birkinshaw, J. (2009). The sources of management innovation: When firms introduce new management practices. *Journal of Business Research*, *62*(12), 1269–1280. doi:10.1016/j.jbusres.2009.01.001

Monteiro, R., & Portugal, S. (2013). As políticas de conciliação nos planos nacionais para a igualdade: uma análise dos quadros interpretativos. *Ex-Aequo, 27*, 97–111. Available at http://www.scielo.mec.pt/pdf/aeq/n27/n27a07.pdf

Montiel Campos, H., del Palacio Aguirre, I., Solé Parellada, F., & Nuño de la Parra, J. P. (2009). Technology Strategy and New Technology Based Firms. *Journal of Technology Management & Innovation*, *4*(4), 42–52. doi:10.4067/S0718-27242009000400004

Moors, E. H. M., Mulder, K. F., & Vergragt, P. J. (2005). Towards cleaner production: Barriers and strategies in the base metals producing industry. *Journal of Cleaner Production*, *13*(7), 657–668. doi:10.1016/j.jclepro.2003.12.010

Morgan, D. L. (2007). Paradigms Lost and Pragmatism Regained: Methodological Implications of Combining Qualitative and Quantitative Methods. *Journal of Mixed Methods Research*, *1*(1), 48–76. doi:10.1177/2345678906292462

Morgan, J. (2014). *The future of work. Attract new talent, build better leaders, and create a competitive organization*. Hoboken, NJ: Wiley.

Mothe, C., & Nguyen Thi, T. U. (2012). Non-technological and technological innovations: Do services differ from manufacturing? An empirical analysis of Luxembourg firms. *International Journal of Technology Management*, *57*(4), 227–244. doi:10.1504/IJTM.2012.045544

Motohashi, K. (2005). University–industry collaborations in Japan: The role of new technology-based firms in transforming the National Innovation System. *Research Policy*, *34*(5), 583–594. doi:10.1016/j.respol.2005.03.001

Moulaert, F., MacCallum, D., Mehmood, A., & Hamdouch, A. (2013). *The international handbook on social innovation. Collective action, social learning and transdisciplinary research*. Cheltenham, UK: Edgar Elgar. doi:10.4337/9781849809993

Moulaert, F., Martinelli, F., & Swyngedouw, E. (2005). Social Innovation in the Governance of Urban Communities: A multidisciplinary perspective. *Urban Studies (Edinburgh, Scotland)*, *42*(11), 1969–1990. doi:10.1080/00420980500279893

Mulgan, G. (2006). *The process of social innovation. MIT Press*.

Murfield, M., Murfield, M., Boone, C. A., Boone, C. A., Rutner, P., Rutner, P., ... Thomas, R. (2017). Investigating logistics service quality in omni-channel retailing. *International Journal of Physical Distribution & Logistics Management*, *47*(4), 263–296. doi:10.1108/IJPDLM-06-2016-0161

Murillo-Zamorano, L. R., Vega-Cervera, J. A., Chamorro, A., Cordero, J. M., Crespo, E., de Miguel, F. J., . . . Sánchez, M. (2012). Eficiencia y Calidad de la atención primaria en Extremadura. Academic Press.

Mwasalwiba, E. (2012). Entrepreneurship education: a review of its objectives, teaching methods, and impact indicators. *Education + Training, 40*(2), 72–94. doi:10.1109/EMR.2012.6210519

Myriam, A., Ben Cheikh, A., & Abdellatif, T. (2014). *Crowdfunding: a model of collaboration and strategic alliance of the crowd for participatory funding*. Retrieved from http://ssrn.com/abstract=2553533

Nadeem, W., Andreini, D., Salo, J., & Laukkanen, T. (2015). Engaging consumers online through websites and social media: A gender study of Italian Generation Y clothing consumers. *International Journal of Information Management*, *35*(4), 432–442. doi:10.1016/j.ijinfomgt.2015.04.008

Nakao, Y., Amano, A., Matsumura, K., Genba, K., & Nakano, M. (2007). Relationship between environmental performance and financial performance: An empirical analysis of Japanese corporations. *Business Strategy and the Environment*, *16*(2), 106–118. doi:10.1002/bse.476

Narayana, O. L. (2018). *An Empirical Study on Effectiveness of Digital Marketing in the New Era*. Academic Press.

Narver, J. C., Slater, S. F., & Maclachlan, D. L. (2004). Responsive and proactive market orientation and new product success. *Journal of Product Innovation Management*, *21*(5), 334–347. doi:10.1111/j.0737-6782.2004.00086.x

Ndhleve, S., Obi, A., & Nakin, M. D. V. (2017). Public spending on agriculture and poverty in eastern Cape Province, South Africa. African Studies Quarterly, 17(2).

Negas, M. C., & Lobão, M. F. (2014). *Ética no empreendedorismo*. Available at https://repositorioaberto.uab.pt/handle/10400.2/3254

Neubeck, L., Coorey, G., Peiris, D., Mulley, J., Heeley, E., Hersch, F., & Redfern, J. (2016). Development of an integrated e-health tool for people with, or at high risk of, cardiovascular disease: The Consumer Navigation of Electronic Cardiovascular Tools (CONNECT) web application. *International Journal of Medical Informatics*, *96*, 24–37. doi:10.1016/j.ijmedinf.2016.01.009 PMID:26847070

Nielsen, S. L., & Stovang, P. (2013). DesUni: University entrepreneurship education through design thinking. *Education + Training*, *57*(8), 977–991.

Nieves, J. (2016). Outcomes of management innovation: An empirical analysis in the services industry. *European Management Review*, *13*(2), 125–136. doi:10.1111/emre.12071

Nijhof, W., De-Jong, M., & Beukhof, G. (1998). Employee commitment in changing organizations: An exploration. *Journal of European Industrial Training*, *22*(6), 243–248. doi:10.1108/03090599810224701

Nonaka, L., Takeuchi, H., & Umemoto, K. (1996). A theory of organizational knowledge creation. *International Journal of Technology Management, 11*(7-8), 833-845. doi:10.1504/ijtm.1996.025472

OCDE, ILO, IFM, WBG. (2014). *Achieving stronger growth by promoting a more-gender-balanced economy*. Available at https://www.oecd.org/g20/topics/employment-and-social-policy/ILO-IMF-OECD-WBG-Achieving-stronger-growth-by-promoting-a-more-gender-balanced-economy-G20.pdf

OCDE. (2017). *Relatórios Econômicos da OCDE Portugal*. Organização para a Cooperação e Desenvolvimento Económico. Available at http://www.oecd.org/eco/surveys/Portugal-2017-OECD-economic-survey-overview-portuguese.pdf

OECD. (2005). *The measurement of scientific and technological activities. Oslo Manual. Guidelines for collecting and interpreting innovation data* (3rd ed.). Paris: OECD EUROSTAT.

OECD. (2010) *Economic Policy Reforms: Going for Growth 2010*. Retrieved from https://read.oecd-ilibrary.org/economics/economic-policy-reforms-2010_growth-2010-en

OECD. (2018). *A Broken Social Elevator? How to Promote Social Mobility*. Retrieved from http://www.oecd.org/social/broken-elevator-how-to-promote-social-mobility-9789264301085-en.htm

OECD. (2018a). *A Broken Social Elevator? How to Promote Social Mobility. How does Portugal compare?* Retrieved from https://www.oecd.org/portugal/social-mobility-2018-PRT-EN.pdf

OECD/Eurostat. (2005). Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data, 3rd Edition. Paris: The Measurement of Scientific and Technological Activities, OECD Publishing.

Oliveira, C. R. (2016). *Diver-cidades empresariais em Portugal Estratégias de Imigrantes em mercados locais* (PhD). Lisboa: ISCTE- Instituto Universitário de Lisboa. Available at https://repositorio.iscte-iul.pt/bitstream/10071/13642/1/PhD Catarina Reis Oliveira 2016.pdf

Oliveira, T. M. V. de. (2001). Scales of Attitude Measurement: Thurstone, Osgood, Stapel, Likert, Guttman, Alpert. *Administration Online: Practice, Research and Teaching, 2*(2).

Onetti, A., Zucchella, A., Jones, M. V., & McDougall-Covin, P. P. (2012). Internationalization, innovation and entrepreneurship: Business models for new technology-based firms. *The Journal of Management and Governance*, *16*(3), 337–368. doi:10.100710997-010-9154-1

Orfila-Sintes, F., & Mattsson, J. (2009). Innovation behavior in the hotel industry. *Omega*, *37*(2), 380–394. doi:10.1016/j.omega.2007.04.002

Ortín-Ángel, P., & Vendrell-Herrero, F. (2014). University spin-offs vs. other NTBFs: Total factor productivity differences at outset and evolution. *Technovation*, *34*(2), 101–112. doi:10.1016/j.technovation.2013.09.006

Ostrom, A. L., Bitner, M. J., Brown, S. W., Burkhard, K. A., Goul, M., Smith-Daniels, V., ... Rabinovich, E. (2010). Moving forward and making a difference: Research priorities for the science of service. *Journal of Service Research*, *13*(1), 4–36. doi:10.1177/1094670509357611

Oswald, M., & Brettel, M. (2017). A Five-Country Study on the Curvilinear Performance Consequences of Responsive and Proactive Market Orientation. In The Customer is NOT Always Right? Marketing Orientationsin a Dynamic Business World (pp. 786-786). Academic Press. doi:10.1007/978-3-319-50008-9_210

Oxoby, R. (2009). Understanding social inclusion, social cohesion, and social capital. *International Journal of Social Economics*, *36*(12), 1133–1152. doi:10.1108/03068290910996963

Ozdemir, S., Kandemir, D., & Eng, T. Y. (2017). The role of horizontal and vertical new product alliances in responsive and proactive market orientations and performance of industrial manufacturing firms. *Industrial Marketing Management*.

Paawee, J., & Boselie, P. (2007). HRM and societal embeddedness. In P. Boxall, J. Purcell, & P. Wright (Eds.), *The Oxford Handbook of Human Resource Management* (pp. 166–184). Oxford, UK: Oxford University Press.

Page, M., & Solon, G. (2003). Correlations between brothers and neighboring boys in their adult earnings: The importance of being urban. *Journal of Labor Economics*, *21*(4), 831–855. doi:10.1086/377021

Panadero, S., Vázque, J. J., & Martín, R. M. (2017). Alcohol, poverty and social exclusion: Alcohol consumption among the homeless and those at risk of social exclusion in Madrid. *Adicciones*, *29*(1), 33–36. doi:10.20882/adicciones.830 PMID:27391851

Parasuraman, A., Zeithaml, V., & Berry, L. (1985). A Conceptual Model of Service Quality and its Implications for Future Research. *Journal of Marketing*, *49*(4), 35–48. doi:10.1177/002224298504900403

Parasuraman, A., Zeithaml, V., & Berry, L. (1988). SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality. *Journal of Retailing*, *64*(1), 12–40.

Pareto, V. (2007). *Considerations On The Fundamental Principles Of Pure Political Economy*. Taylor & Francis. doi:10.4324/9780203934111

Parlamento. (2017). *Quotas de Género nas Empresas do Psi20*. Lei 62/2017 de 01 de agosto de 2017.

Pasmore, W. A., & Khalsa, G. S. (1993). The contributions of Eric Trist to the social engagement of social science. *Academy of Management Review*, *18*(3), 546–569. doi:10.5465/amr.1993.9309035150

Passport to Trade 2.0. (2014). *Business etiquette in Portugal: punctuality, gift giving and Corporate Social Responsibility, Lifelong Learning Programme*. Available at http://businessculture.org/southern-europe/business-culture-in-portugal/business-etiquette-in-portugal/

Patten, D. M. (2002). The relation between environmental performance and environmental disclosure: A research note. *Accounting, Organizations and Society*, *27*(8), 763–773. doi:10.1016/S0361-3682(02)00028-4

Paul, D. P. III. (2003). An exploratory examination of SERVQUAL versus SERVPERF for Prosthectic Dental Specialists. *Clinical Research and Regulatory Affairs*, *20*(1), 89–100. doi:10.1081/CRP-120018745

Pavitt, K. (1984). Sectoral patterns of innovation: Towards a taxonomy and a theory. *Research Policy*, *13*(6), 343–374. doi:10.1016/0048-7333(84)90018-0

Pedro, F. F. de S. (2013). Paradigms and strategic perspectives for indigenous ecotourism in Rondônia. *Tourism Virtual Magazine, 13*(2).

Pedro, F. F. de S. (2016). Strategy workshop for inbound tourism and hospitality with a focus on innovation. (Handout). Master's postgraduate program in administration – PPGMAD. Federal University of Rondônia. Porto Velho: PPGA.

Pedrotti, C. A., & Behlau, M. (2017). Communication resources of managers and business professionals. *CoDAS*, *29*(3). PMID:28538820

Peleg, M., Shachak, A., Wang, D., & Karnieli, E. (2009). Using multi-perspective methodologies to study users' interactions with the prototype front end of a guideline-based decision support system for diabetic foot care. *International Journal of Medical Informatics*, *78*(7), 482–493. doi:10.1016/j.ijmedinf.2009.02.008 PMID:19328739

Pelham, A., & Wilson, D. (1996). A longitudinal study of the impact of market structure, firm structure, strategy, and market orientation culture on dimensions of business performance. *Journal of the Academy of Marketing Science*, *24*(1), 27–43. doi:10.1007/BF02893935

Perks, H., & Riihela, N. (2004). An exploration of inter-functional integration in the new service development process. *Service Industries Journal*, *24*(6), 37–63. doi:10.1080/0264206042000299176

Perrin, J.-C. (1988). New technologies, local synergies and regional policies in Europe. In High-Technology Industry and Innovative Environments: The European Experience. Academic Press.

Peteraf, M. A. (1993). The cornerstones of competitive advantage: A resource-based view. *Strategic Management Journal*, *14*(3), 179–191. doi:10.1002mj.4250140303

Peter, J. P., Churchil, G. A., & Brown, T. L. (1993). Caution in the use of difference scores in Consumer Research. *The Journal of Consumer Research*, *19*(4), 655–662. doi:10.1086/209329

Pezini, R., Manosso, F. C., Bizinelli, C., & Gândara, J. M. G. (2014). Inbound Tourism: an analysis of city tours in Curitiba. Tourism Vision and Action Electronic Magazine, 16(3).

Pfeiffer, T., Tran, L., Krumme, C., & Rand, D. G. (2012). The value of reputation. *Journal of the Royal Society, Interface*, *9*(76), 2791–2797. doi:10.1098/rsif.2012.0332 PMID:22718993

Phan, P. S., Siegel, D., & Wright, M. (2016). Science Parks and Incubators: Observations, Synthesis and Future Research. In W. Scientific (Ed.), Technology Entrepreneurship and Business Incubation (p. 312). Academic Press. doi:10.1142/9781783269778_0009

Pietzsch, J. B., Shluzas, L. A., Paté-Cornell, M. E., Yock, P. G., & Linehan, J. H. (2009). Stage-Gate Process for the Development of Medical Devices. *Journal of Medical Devices*, *3*(2), 21004. doi:10.1115/1.3148836

Piketty, T. (2014). *O Capital no século XXI*. Lisboa: Temas e Debates, Círculo de Leitores.

Pimentel, R. F. D. (2012). *Brazilian hospitality at international tourism market. Academic Magazine of the Tourism Innovation Centre*. Rio de Janeiro: COPPE.

Pinho, J. B. (2006). Communication in Organizations. Viçosa, Brasil: Ed. UFV.

Pino, C., Felzensztein, C., Zwerg-Villegas, A. M., & Arias-Bolzmann, L. (2016). Non-technological innovations: Market performance of exporting firms in South America. *Journal of Business Research*, *69*(10), 4385–4393. doi:10.1016/j.jbusres.2016.03.061

Pinto. (2012). *Transferência de Conhecimento em Portugal*. Mudança e Institucionalização das Relações Universidade-empresa, 2012. Tese (Doutorado em governação, conhecimento e inovação da Universidade de Coimbra) Coimbra, 2012, 460 p. Disponível em: https://estudogeral.sib.uc.pt/jspui/bitstream/10316/21366/3/Tese%20Doutoramento%20Hugo%20Pinto.pdf

Pinto, L. F. S. (2003). *Gestão-cidadã: ações estratégicas para a participação social no Brasil*. Rio de Janeiro: Editora FGV.

Piotrowicz, W., & Cuthbertson, R. (2014). Introduction to the special issue information technology in retail: Toward omnichannel retailing. *International Journal of Electronic Commerce*, *18*(4), 5–16. doi:10.2753/JEC1086-4415180400

Piva, M., & Vivarelli, M. (2017). *Technological Change and Employment: Were Ricardo and Marx Right?* IZA Discussion Paper No. 10471. Available at SSRN: https://ssrn.com/abstract=2903093

Plug, E., & Vijverberg, W. (2003). Schooling, family background, and adoption: Is it nature or is it nurture? *Journal of Political Economy*, *111*(3), 611–641. doi:10.1086/374185

Plug, E., & Vijverberg, W. (2005). Does family income matter for schooling outcomes? Using adoptees as a natural experiment. *Economic Journal (London)*, *115*(506), 879–906. doi:10.1111/j.1468-0297.2005.01023.x

POCTI – Programa Operacional Ciência. (2000). Tecnologia, Inovação 2000-2006. *Quadro comunitário de apoio III.* União Europeia. Disponível em: http://www.qca.pt/pos/download/2000/pocti.pdf

Poddar, A., Donthu, N., & Wei, Y. (2009). Web site customer orientations, Web site quality, and purchase intentions: The role of Web site personality. *Journal of Business Research*, *62*(4), 441–450. doi:10.1016/j.jbusres.2008.01.036

Pogutz, S., & Russo, A. (2009). Eco-efficiency vs Eco-effectiveness. Exploring the link between GHG emissions and firm performance. *Academy of Management Proceedings*, *1*, 1–6.

Pol, E., & Ville, S. (2009). Social innovation: Buzz word or enduring term? *Journal of Socio-Economics*, *38*(6), 878–885. doi:10.1016/j.socec.2009.02.011

Polistchuk, I., & Trinta, A. R. (2003). *Theories of Communication - the thought and practice of social communication*. São Paulo: Campus.

Polletta, F., Chen, P. C. B., Gardner, B. G., & Motes, A. (2011). The sociology of storytelling. *Annual Reviews*, *37*(1), 109–130. doi:10.1146/annurev-soc-081309-150106

PORDATA – Base de dados Portugal Contemporâneo. (2017). *Retrato de Portugal – Edição 2017*. Fundação Francisco Manuel dos Santos. Disponível em: https://www.pordata.pt/Municipios/Retratos/2017/2017-54

PORDATA. INE. (2016). *População estrangeira com estatuto legal de residente: total e por algumas nacionalidades*. Fundação Francisco Manuel dos Santos. Available at http://www.pordata.pt/DB/Municipios/Ambiente+de+Consulta/Tabela

Portela, J. (2009). A economia ou é solidária ou é fratricida. *Revista Crítica de Ciências Sociais*, (84), 115–152. Doi:10.4000/rccs.412

Portela, J. (Ed.). (2006). *Microempreendedorismo em Portugal experiências e perspectivas Equipa Técnica do Estudo*. Available at https://eusouempreendedor.files.wordpress.com/2009/02/microempreendedorismoportugal_ivro_completo1.pdf

Porter, M. E. (1995, September). Green and Competitive: Breaking the Stalemate. *Harvard Business Review*.

Porter, M. E. (1989). *Competitive advantage: creating and sustaining superior performance* (E. M. P. Braga, Trans.). Rio de Janeiro: Campus.

Porter, M. E. (1991). America's green strategy. *Scientific American*, *264*(4), 168–179. doi:10.1038cientificamerican0491-168

Porter, M. E. (1996, November). What is strategy? *Harvard Business Review*, 61–78. PMID:10158475

Porter, M. E., & Kramer, M. R. (2006). The link between competitive advantage and corporate social responsibility. *Harvard Business Review*, *84*(12), 78–92. PMID:17183795

Porter, M. E., & Van der Linde, C. (1995). Green and competitive: Ending the stalemate. *Harvard Business Review*, *73*(5), 120–134.

Powell, T. C. (2002). The philosophy of strategy. *Strategic Management Journal*, *23*(9), 873–880. doi:10.1002mj.254

Prange, C., & Schlegelmilch, B. B. (2016). Towards a balanced view of innovations. *Management Decision*, *54*(2), 441–454. doi:10.1108/MD-05-2015-0198

PT2020. (2017). *Plano Global de Avaliação 2014-2020*. Available at https://www.portugal2020.pt/Portal2020/Media/Default/Docs/AVALIACAO/11_20170111_PGA_Revisão2016_aprovada_CIC-1.pdf

QCA – Quadro Comunitário de Apoio II. (2002). *Relatório Final Vertente Feder.* Portugal, Ministério da Ciência e Ensino Superior. Disponível em: http://www.qca.pt/n_qca/pdf/praxis.pdf

QREN. (2007). *Quadro de Referência Estratégico Nacional 2007-2013*. Disponível em: http://www.qren.pt/np4/file/663/1_QREN_Quadro_de_Refer_ncia_Estrat_gico_.pdf

Quintanilla, J., & Ferner, A. (2003). Multinationals and human resource management: Between global convergence and national identity. *International Journal of Human Resource Management*, *14*(3), 363–368. doi:10.1080/0958519022000031799

Quivy, R., & Van Campenhoudt, L. (2008). *Manual de investigação em ciências sociais (5th ed.)*. Lisboa: Gradiva.

Raaum, O., Salvanes, K., & Sørensen, E. (2006). The neighbourhood is not what it used to be. *Economic Journal (London)*, *116*(508), 200–222. doi:10.1111/j.1468-0297.2006.01053.x

Ragin, C. C., & Becker, H. S. (1992). *What is a Case? Exploring the Foundations of Social Inquiry*. New York: Cambridge University.

Rahman, N. R. A., Rasid, S. Z. A., & Basiruddin, R. (2014). Exploring the Relationship between Carbon Performance, Carbon Reporting and Firm Performance: A Conceptual Paper. *Procedia: Social and Behavioral Sciences*, *164*(31), 118–125. doi:10.1016/j.sbspro.2014.11.059

Rajasekar, S., Philominathan, P., Chinnathambi, V., & Botha, A. (2006). Research Methodology. *Methods (San Diego, Calif.)*, *68*(1), 23. doi:10.1097/AAP.0b013e3182208cea PMID:16793281

Ramos, M. C. P. (2010). *Migrações e género - Trabalho, Empreendedorismo e Discriminações*. Florianopolis: Diáspora, Diversidades e Deslocamentos. Available at www.fazendogenero.ufsc.br/.../1278297633_ARQUIVO_ComunicacaoFlorianopolis

Rangaswamy, A., Giles, C. L., & Seres, S. (2009). A Strategic Perspective on Search Engines: Thought Candies for Practitioners and Researchers. *Journal of Interactive Marketing*, *23*(1), 49–60. doi:10.1016/j.intmar.2008.10.006

Rassier, D. G., & Earnhart, D. (2010). Does the Porter hypothesis explain expected future financial performance? The effect of clean water regulation on chemical manufacturing firms. *Environmental and Resource Economics*, *45*(3), 353–377. doi:10.100710640-009-9318-0

Ratti, R. (1991). Small and medium-size enterprises, local synergies and spatial cycles of innovation. In Innovation Networks: Spatial Perspectives. Belhaven Press.

Reed, R., Storrud-Barnes, S., & Jessup, L. (2012). How open innovation affects the drivers of competitive advantage: Trading the benefits of IP creation and ownership for free invention. *Management Decision*, *50*(1), 58–73. doi:10.1108/00251741211194877

Rego, C., Sá, C., Leite, C., Vieira, C., Rocha, C., Dias, D., … Oliveira, S. (2018). *ACESSO, SUCESSO E INSUCESSO, PERcursos estudantis no ensino superior público, Relatório (Versão provisória)*. Agência de Avaliação e Acreditação do Ensino Superior.

Revest, V., & Sapio, A. (2012). Financing technology-based small firms in Europe: What do we know? *Small Business Economics*, *39*(1), 179–205. doi:10.100711187-010-9291-6

Ribeiro, E. N. (2011). *Swot Analysis - Strategic Planning for Implementation Analysis and Training of a Maintenance Team in an Industrial Segment Company. São João Del Rei*. Postgraduate Center of the Pitágoras Faculties.

Rinkus, S., Walji, M., Johnson-Throop, K. A., Malin, J. T., Turley, J. P., Smith, J. W., & Zhang, J. (2005). Human-centered design of a distributed knowledge management system. *Journal of Biomedical Informatics*, *38*(1), 4–17. doi:10.1016/j.jbi.2004.11.014 PMID:15694881

Riordan, C. M., Gatewood, R. D., & Barnes, B. J. (1997). Corporate image: Employee reactions and implications for managing corporate social performance. *Journal of Business Ethics*, *16*(4), 401–412. doi:10.1023/A:1017989205184

RIS3 – Algarve 2014-2020.Estratégia Regional de Investigação e Inovação para a Especialização Inteligente. (2015). Disponível em: https://www.portugal2020.pt/Portal2020/Media/Default/Docs/EstrategiasEInteligente/EREI%20Algarve.pdf

Rivkin, J. W. (2000). Imitation of complex strategies. *Management Science*, *46*(6), 824–844. doi:10.1287/mnsc.46.6.824.11940

Rocha Trindade, M. B. (1993). Perspectivas sociológicas da interculturalidade. Lisboa: Universidade Aberta.

Rodeiro, C. (2007). *Uptake of GCSE subjects 2000–2006*. Statistics report series no. 4. Cambridge Assessment. Cambridge, UK: Assessment Research and Development Cambridge Assessment. Retrieved from http://www.cambridgeassessment.org.uk/images/111061-uptake-of-gcse-subjects-2000-2006.pdf

Rodrigues, A. D. (2000). *Para uma genealogia do discurso da globalização da experiência*. Lisboa: Universidade Nova de Lisboa. Available at www.bocc.ubi.pt/pag/rodrigues-adriano-globalizacao-experiencia.pdf

Rodrigues, E. (2009). *O lugar do género, dos homens e das mulheres na sociologia portuguesa: uma análise a partir da Associação Portuguesa de Sociologia*. Available at http://cies.iscte-iul.pt/destaques/documents/CIES-WP64_Rodrigues.pdf

Rokhmawati, A., Sathye, M., & Sathye, S. (2015). The Effect of GHG Emission, Environmental Performance, and Social Performance on Financial Performance of Listed Manufacturing Firms in Indonesia. *Procedia: Social and Behavioral Sciences*, *211*, 461–470. doi:10.1016/j.sbspro.2015.11.061

Roldão, C. (2008). *Testando Modelos de Operacionalização. uma análise exploratória de modelos de operacionalização da estrutura de classes no quadro do European Social Survey -Round 2 (2014)*. CIES e-Working Paper. n.55.

Roldão, C. (2015). *Fatores e Perfis de Sucesso Escolar "Inesperado": Trajetos de Contratendência de jovens das classes populares e de origem africana* (PhD). Lisboa: ISCTE-IUL.

Romero, E. J. (2004). Are the great places to work also great performers? *The Academy of Management Perspectives*, *18*(2), 150–152. doi:10.5465/ame.2004.13835923

Rose, C., & Thomsen, S. (2004). The impact of corporate reputation on performance. *European Management Journal*, *22*(2), 201–210. doi:10.1016/j.emj.2004.01.012

Rubalcaba, L., Gago, D., & Gallego, J. (2010). On the differences between goods and services innovation. *Journal of Innovation Economics*, *5*(1), 17–40. doi:10.3917/jie.005.0017

Rubalcaba, L., Gallego, J., & Den Hertog, P. (2010). The case of market and system failures in services innovation. *Service Industries Journal*, *30*(4), 549–566. doi:10.1080/02642060903067571

Rudd, J., Stern, K., & Isensee, S. (1996). Low vs. high-fidelity prototyping debate. *Interaction*, *3*(1), 76–85. doi:10.1145/223500.223514

Ruede, D., & Lurtz, K. (2012). *Mapping the various meanings of social innovation: Towards a differentiated understanding of an emerging concept* (Research Paper Series 12-03). EBS Business School, World Vision Stiftung.

Ruivo, M. (1998). Ciência – Introdução. In Portugal 45-95, nas artes, nas letras e nas ideias. Lisboa: Centro Nacional de Cultura.

Russell Sage Foundation. (2016). *What we know about economic inequality and social mobility in the United States*. Retrieved from https://www.russellsage.org/sites/default/files/RSFissuebriefs_0.pdf

Russo, M. V., & Fouts, P. A. (1997). A Resource Based Perspective on Corporate Environmental Performance and Profitability. *Academy of Management Journal*, *40*(3), 534–559.

Sacerdote, B. (2002). The nature and nurture of economic outcomes. *The American Economic Review*, *92*(2), 344–348. doi:10.1257/000282802320191589

Sales Oliveira, C. (2015). Sociologia, Problemas e Praticas. In *Sociologia, Problemas e Práticas* (pp. 137–151). Academic Press. Doi:10.7458/SPP2015776222

Sales Oliveira, C. (2011). *Mobilidade e classes médias em contexto metropolitano* (PhD). Lisboa: ISCTE - IUL.

Sánchez, A. A., & Lloret, N. N. E. (2010). La formación en la empresa española: ¿sólo se busca mejorar los resultados organizacionales? *Universia Business Review*, *2*(26).

Sandelowski, M. (1996). Oneistheliveliestnumber: The case orientationofqualitativeresearch. *Research in Nursing & Health*, *19*(6), 525–529. doi:10.1002/(SICI)1098-240X(199612)19:6<525::AID-NUR8>3.0.CO;2-Q PMID:8948406

Sanmartin, S. (2012). *Creativity and Innovation in Company: from the potential to creative action*. São Paulo: Trevisan.

Santos. (2015). *Estratégia Regional de Investigação e Inovação para a Especialização Inteligente do Algarve (RIS3 Regional)*. Faro: CCDR-Alg.

Santos, D. (2003). Política de inovação: Filiação histórica e relação com as políticas de desenvolvimento territorial. *Revista Portuguesa de Estudos Regionais*, *3*, 25–40.

Santos, S. P. (2012). As Teorias Feministas e a Evolução das Relações de Género na Sociedade. *Publication UEPG: Ciencias Sociais Aplicadas*, *20*(2), 213–223. doi:10.5212/PublicatioCi.Soc.v.20i2.0008

Sapprasert, K., & Clausen, T. H. (2012). Organizational innovation and its effects. *Industrial and Corporate Change*, *21*(5), 1283–1305. doi:10.1093/icc/dts023

Sarkar, S. (2010). *Empreendedorismo e Inovação* (2nd ed.). Lisboa: Escolar Editora.

Sbrana, R., & Gandolfo, A. (2007). *Contemporary retailing*. Torino: Giappichelli.

Schäfer, W. L., Boerma, W. G. W., Murante, A. M., Sixma, J. J. M., Schellevis, F. G., & Groenewegen, P. P. (2015). Assessing the potential for improvement in primary care in 34 countries: A cross-sectional survey. *Bulletin of the World Health Organization*, *93*(3), 161–168. doi:10.2471/BLT.14.140368 PMID:25883409

Scheeffer, F. (2013). *Teoria da Escolha Racional: a Evidenciação do Homo Economicus*. Academic Press. doi:10.5007/1806-5023.2013v10n1p28

Schiemann, M. (2006). *SMEs and entrepreneurship in the EU*. EUROSTAT report. Retrieved from: http://ec.europa.eu/eurostat/en/web/products-statistics-in-focus/-/KS-NP-06-024

Schleyer, T. K. L., Thyvalikakath, T. P., Malatack, P., Marotta, M., Shah, T. A., Phanichphant, P., ... Hong, J. (2007). The feasibility of a three-dimensional charting interface for general dentistry. *The Journal of the American Dental Association*, *138*(8), 1072–1080. doi:10.14219/jada.archive.2007.0318 PMID:17670873

Schmoch, U., & Gauch, S. (2009). Service marks as indicators for innovation in knowledge-based services. *Research Evaluation*, *18*(4), 323–335. doi:10.3152/095820209X451023

Schonfelder, W. (2011). *CAQDAS and qualitative syllogism logic – NVivo 8 and Maxqda 10 compared*. Forum: Qualitative Social Research.

Schouten, J. (2012). *Para uma Sociologia de Género*. Lisboa: Húmus.

Schumpeter, J. (1934). *Theory of Economy Development*. New York: Oxford University Press.

Schumpeter, J. (1947). The creative response in Economy History. *The Journal of Economic History*, *7*, 149–159.

Schwandt, T. A., & Gates, E. F. (2017). Official science methodology is the study of how a particular kind of investigation should. The SAGE Handbook of Qualitative Research, 341.

Segonds, F., Mantelet, F., Maranzana, N., & Gaillard, S. (2014, March). Early stages of apparel design: How to define collaborative needs for PLM and fashion? *International Journal of Fashion Design. Technology and Education*, *7*, 1–10. doi:10.1080/17543266.2014.893591

Shi, W., Shi, W., Tang, L., Tang, L., Zhang, X., Zhang, X., ... Zhu, Y. (2016). How does word of mouth affect customer satisfaction? *Journal of Business and Industrial Marketing*, *31*(3), 393–403. doi:10.1108/JBIM-07-2014-0139

Shobeiri, S., Mazaheri, E., & Laroche, M. (2015). How Would the E-Retailer's Website Personality Impact Customers' Attitudes toward the Site? *Journal of Marketing Theory and Practice*, *23*(4), 388–401. doi:10.1080/10696679.2015.1049682

Shrivastava, P. (1995). The Role of Corporations in Achieving Ecological Sustainability. *Academy of Management Review*, *20*(4), 936–960. doi:10.5465/amr.1995.9512280026

Siegel, D. S., Westhead, P., & Wright, M. (2003). Assessing the impact of university science parks on research productivity: Exploratory firm-level evidence from the United Kingdom. *International Journal of Industrial Organization*, *21*(9), 1357–1369. doi:10.1016/S0167-7187(03)00086-9

Siggelkow, N. (2001). Change in the presence of fit: The rise, the fall, and the renascence of Liz Claiborne. *Academy of Management Journal*, *44*(4), 838–857.

Silva, S. (2017, September 10). Há sete anos que não entravam tantos alunos no ensino superior. *Público*. Retrieved from https://www.publico.pt/2017/09/10/sociedade/noticia/ha-sete-anos-que-nao-entravam-tantos-alunos-no-ensino-superior-1784932

Silva, A. C. (1997). *Portugal e a moeda única*. Lisboa: Verbo.

Silveira, M. O., & Maia, M. L. A. (2015). Variables that influence the use of bicycles and the beliefs of planned behaviour theory. *Magazine Transportation, 23*(1).

Silverman, D. (2013). *Doing Qualitative Research: A Practical Handbook* (4th ed.). London: Sage.

Simon, D. H., & DeVaro, J. (2006). Do the best companies to work for provide better customer satisfaction? *Managerial and Decision Economics*, *27*(8), 667–683. doi:10.1002/mde.1303

Sinkin, C., Wright, C. J., & Burnett, R. D. (2008). Eco-efficiency and firm value. *Journal of Accounting and Public Policy*, *27*(2), 167–176. doi:10.1016/j.jaccpubpol.2008.01.003

Sirmon, D. G., Hitt, M. A., & Ireland, R. D. (2007). Managing Firm Resources in Dynamic Environments to Create Value: Looking Inside the Black Box. *Academy of Management Review*, *32*(1), 273–292. doi:10.5465/amr.2007.23466005

Slater, S. F., & Narver, J. C. (1994). Does competitive environment moderate the market orientation-performance relationship? *Journal of Marketing*, *58*(1), 46–55. doi:10.1177/002224299405800104

Slater, S. F., & Narver, J. C. (1995). Market orientation and the learning organization. *Journal of Marketing*, *59*(3), 63–74. doi:10.1177/002224299505900306

Song, & Noh, J. (2009). Best new product development and management practices in the Korean high-tech industry. *Industrial Marketing Management*, *35*(3), 262–278. doi:10.1016/j.indmarman.2005.04.007

Sotarauta, M. (2004). Strategy development in Learning Cities. From Classical Rhetoric towards Dynamic Capabilities. *Sente Working papers, 8*.

Souiden, N., Ladhari, R., & Chiadmi, N. E. (2018). *New trends in retailing and services*. Academic Press.

Sousa Santos, B. (1997). *Por uma concepção multicultural de direitos humanos*. Coimbra: Faculdade de Economia da Universidade de Coimbra e Centro de Estudos Sociais. Available at http://www.boaventuradesousasantos.pt/media/pdfs/Concepcao_multicultural_direitos_humanos_RCCS48.PDF

Sousa Santos, B. (2003). *Reconhecer para libertar: os caminhos do cosmopolitanismo multicultural. Introdução: para ampliar o cânone do reconhecimento, da diferença e da igualdade*. Rio de Janeiro: Civilização Brasileira. Available at http://www.do.ufgd.edu.br/mariojunior/arquivos/boaventura/reconhecerparalibertar.pdf

Sousa Santos, B. (2004). *Introdução: para ampliar o cânone do reconhecimento, da diferença e da igualdade*. Coimbra: CES -Centro de Estudos Sociais. Available at http://www.ces.uc.pt/publicacoes/res/pdfs/IntrodMultiPort.pdf

Sousa Santos, B. (2012). *A cor do tempo quando foge* (Vol. 2). Coimbra: Almedina.

Souza, L. K. (2010). *As Vivências dos Designers de Moda em Relação ao seu Trabalho: Uma Abordagem Psicodinâmica*. Brasil: Tese de Doutoramento em Psicologia. Universidade Goiânia.

Spector, P. E. (1997). *Job satisfaction: Application,assessment, causes and consequences*. Thousand Oaks, CA: Sage Publications.

Staw, B. M., & Epstein, L. D. (2000). What bandwagons bring: Effects of popular management techniques on corporate performance, reputation, and CEO pay. *Administrative Science Quarterly*, *45*(3), 523–556. doi:10.2307/2667108

Stefanelli, M. C. (1987). Teaching of nurse-patient therapeutic communication techniques: Theoretical framework - part II. Rev. Esc. Enf. *USP, São Paulo*, *21*(2), 107–115.

Stevenson, L., & Lundström, A. (2001). Patterns and Trends in Entrepreneurship/SME Policy and Practice in Ten Economies. In *Entrepreneurship Policy for the Future Series*. Swedish Foundation for Small Business Research.

Stevenson, L., & Lundström, A. (2002). Beyond the Rhetoric: Defining Entrepreneurship Policy and Its Best Practice Components. In *Entrepreneurship Policy for the Future Series*. Swedish Foundation for Small Business Research.

Storey, D. J., & Tether, B. S. (1998). New technology-based firms in the European union: An introduction. *Research Policy*, *26*(9), 933–946. doi:10.1016/S0048-7333(97)00052-8

Sturdy, A. (2004). The adoption of management ideas and practices: Theoretical perspectives and possibilities. *Management Learning*, *35*(2), 155–179. doi:10.1177/1350507604043023

Subramanian, A., & Nilakanta, S. (1996). Organisational innovativeness: Exploring the relationship between organisational determinants of innovation, types of innovations and measures of organisational performance. *Omega*. *International Journal of Management Sciences*, *24*(6), 631–647.

Sull, D., & Turconi, S. (2008). Fast Fashion lessons. *Business Strategy Review*, *19*(2), 4–11. doi:10.1111/j.1467-8616.2008.00527.x

Sundbo, J. (1997). Management of innovation in services. *Service Industries Journal*, *17*(3), 432–455. doi:10.1080/02642069700000028

Sundbo, J. (2009). Innovation in the experience economy: A taxonomy of innovation organizations. *Service Industries Journal*, *29*(4), 431–455. doi:10.1080/02642060802283139

Szeto, E. (2000). Innovation capacity: Working towards a mechanism for improving innovation within an interorganizational network. *The TQM Magazine*, *12*(02), 149–158. doi:10.1108/09544780010318415

Tedeschi, S. P., Sniker, T. G., Hoffman, W. A. M., & Ventura, A. (2015). Design, Empreendedorismo e Inovação: bases para um método de ensino orientado para uma formação empreendedora. In VI Simpósio Nacional de Ciência, tecnologia e Sociedade, Rio de Janeiro, Brasil.

Tenório, F. G. (2007). Cidadania e desenvolvimento local. Rio de Janeiro: FGV; Ijuí: Ed. Unijuí.

Terra, J. C. C. (2007). *Innovation: breaking paradigms to win*. São Paulo: Saraiva. [Org.]

Tether, B. S. (2005). Do services innovate (differently)? Insights from the European Innobarometer Survey. *Industry and Innovation*, *12*(2), 153–184. doi:10.1080/13662710500087891

The Economist. (2018). *Summer holidays, School's out*. Retrieved from https://www.economist.com/international/2018/08/09/long-summer-holidays-are-bad-for-children-especially-the-poor

Tidd, J. (2001). Innovation management in context: Environment, organization and performance. *International Journal of Management Reviews*, *3*(3), 169–183. doi:10.1111/1468-2370.00062

Tidd, J., & Thuriaux-Alemán, B. (2016). Innovation management practices: Cross-sectorial adoption, variation, and effectiveness. *R & D Management*, *46*(S3), 1024–1043. doi:10.1111/radm.12199

Toma, A. (2014). Marketing Strategies: Small Retailers against Big Retailers. *Valahian Journal of Economic Studies*, *5*(1), 89.

Touraine, A. (2005). *Um novo paradigma: para compreender o mundo de hoje*. Lisboa: Instituto Piaget.

Townsend, P. (2006). Measures and explanations of poverty in high income and low-income countries: the problems of operationalizing the concepts of development, class and poverty. In *The Concept of Poverty: Working Papers on Methods of Investigation and Life-styles of the Poor in Different Countries*. Academic Press.

Tracey, M. (2004). A holistic approach to new product development: New insights. *Journal of Supply Chain Management, Tempe, Arizona*, *40*(04), 37–55. doi:10.1111/j.1745-493X.2004.tb00177.x

Trist, E. L., & Bamforth, K. W. (1951). Some social and psychological consequences of the long wall method of coal-getting: An examination of the psychological situation and defences of a work group in relation to the social structure and technological content of the work system. *Human Relations*, *4*(1), 3–38. doi:10.1177/001872675100400101

Trompenaars, A. (2012). *Riding the waves of culture: understanding diversity in global business*. London: Hodder & Stoughton General Division.

Tsvetkova, A., Thill, J.-C., & Strumsky, D. (2014). Metropolitan innovation, firm size, and business survival in a high-tech industry. *Small Business Economics*, *43*(3), 661–676. doi:10.100711187-014-9550-z

Turismo de Portugal. (2017). *Demografia e Geografia - Portal de Turismo do Algarve*. Turismo de Portugal. Available at http://www.visitalgarve.pt/visitalgarve/vPT/DescubraARegiao/99/Demografia+e+Geografia/

UERJ. (2013). *As diferentes abordagens do conceito de poder*. VI CONECO Congresso de Estudantes de Pós-Graduação em Comunicação. Available at http://www.coneco.uff.br/sites/default/files/institucional/as_diferentes_abordagens_do_conceito_de_poder.pdf

Uma nova imagem para a ITV. (2016). Retrieved March 20, 2017, from https://www.portugaltextil.com/uma-nova-imagem-para-a-itv/

Ünay, F. G., & Zehir, C. (2012). Innovation intelligence and entrepreneurship in the fashion industry. *Procedia: Social and Behavioral Sciences*, *41*, 315–321. doi:10.1016/j.sbspro.2012.04.036

United Nations (UN). (2016). *Framework Convention on Climate Change*. Retrieved from http://unfccc.int/ paris_agreement/items/9485.php

Uzma, H., & Amjad, A. (2017). The role of working women in poverty reduction (a case study of district Peshawar). *The Dialogue.*, *12*(2).

Vaccaro, I. G., Jansen, J. J. P., Van Den Bosch, F. A. J., & Volberda, H. W. (2012). Management innovation and leadership: The moderating role of organizational size. *Journal of Management Studies*, *49*(1), 28–51. doi:10.1111/j.1467-6486.2010.00976.x

Van De Werfhorst, H., Sullivan, A., & Cheung, S. (2003). Social class, ability and choice of subject in secondary and tertiary education in Britain. *British Educational Research Journal*, *29*(1), 41–62. doi:10.1080/0141192032000057366

Van Der Aa, W., & Elfring, T. (2002). Realizing innovation in services. *Scandinavian Journal of Management*, *18*(2), 155–171. doi:10.1016/S0956-5221(00)00040-3

Van der Linden, P., Marchini, A., Dolbeth, M., Patrício, J., Veríssimo, H., & Marques, J. C. (2016). The performance of trait-based indices within an estuarine environment. *Ecological Indicators*, *61*, 378–398. doi:10.1016/j.ecolind.2015.09.039

Vartanian, T., & Gleason, P. (1999). Do neighborhood conditions affect high school dropout and college graduation rates? *Journal of Socio-Economics*, *28*(1), 21–41. doi:10.1016/S1053-5357(99)00011-6

Velho, M. (2016). *Os melhores países para negócios em 2017. Portugal no top 20 da Forbes*. Dinheiro Vivo. Available at https://www.dinheirovivo.pt/economia/galeria/os-melhores-paises-para-negocios-em-2017-portugal-no-top-20-da-forbes/

Venkataraman. (2000). *The Promise of Entrepreneurship as a Field of Research*. Academy of Management Review.

Verfaillie, H., & Bidwell, R. (2000). *Measuring eco-efficiency: A guide to reporting company performance*. London, UK: World Business Council of Sustainable Development.

Vergori, A. S. (2014). Measuring innovation in services: The role of surveys. *Service Industries Journal*, *34*(2), 145–161. doi:10.1080/02642069.2013.763343

Vieira, E. & Sales Oliveira, C. (2016). *Pensar Global, Empreender Local*. Atas do 24 th Workshop APDR.

Vieira, E. (2018). *O Empreendedorismo no Feminino na Região do Algarve* (PhD). Covilhã: Universidade da Beira Interior.

Vincent, C. (2004). *Design for Patient Safety* (2nd ed.). Patient Safety.

Vivarelli, M. (2013). Is entrepreneurship necessarily good? Microeconomic evidence from developed and developing countries. *Industrial and Corporate Change*, *22*(6), 1453–1495. doi:10.1093/icc/dtt005

Volberda, H. W., Van Den Bosch, F. A. J., & Heij, C. V. (2013). Management innovation: Management as fertile ground for innovation. *European Management Review*, *10*(1), 1–15. doi:10.1111/emre.12007

Volberda, H. W., Van Den Bosch, F. A. J., & Mihalache, O. R. (2014). Advancing management innovation: Synthesizing processes, levels of analysis, and change agents. *Organization Studies*, *35*(9), 1245–1264. doi:10.1177/0170840614546155

Vrgovic, P., Vidicki, P., Glassman, B., & Walton, A. (2012). Open innovation for SMEs in developing countries–An intermediated communication network model for collaboration beyond obstacles. *Innovation*, *14*(3), 290–302. doi:10.5172/impp.2012.14.3.290

Wada, E. K. (2012). Tourism: strategic planning and management capacity – regional development, production network and clusters. Manole.

Wagner, M. (2005). How to reconcile environmental and economic performance to improve corporate sustainability: Corporate environmental strategies in the European paper industry. *Journal of Environmental Management*, *76*(2), 105–118. doi:10.1016/j.jenvman.2004.11.021 PMID:15939122

Wagner, M., Van Phu, N., Azomahou, T., & Wehrmeyer, W. (2002). The relationship between the environmental and economic performance of firms: An empirical analysis of the European paper industry. *Corporate Social Responsibility and Environmental Management*, *9*(3), 133–146. doi:10.1002/csr.22

Walker, I., & Zhu, Y. (2011). Differences by degree: Evidence of the net financial rates of return to undergraduate study for England and Wales. *Economics of Education Review*, *30*(6), 1177–1186. doi:10.1016/j.econedurev.2011.01.002

Walker, R. M., Chen, J., & Aravind, D. (2015). Management innovation and firm performance: An integration of research findings. *European Management Journal*, *33*(5), 407–422. doi:10.1016/j.emj.2015.07.001

Walker, R. M., Damanpour, F., & Devece, C. A. (2011). Management innovation and organizational performance: The mediating effect of performance management. *Journal of Public Administration: Research and Theory*, *21*(2), 367–386. doi:10.1093/jopart/muq043

Walley, N., & Whitehead, B. (1994). It's Not Easy Being Green. *Harvard Business Review*, *72*(3), 46–52.

Wall, T. D., Michie, J., Patterson, M., Wood, S. J., Sheehan, M., Clegg, C. W., & West, M. (2004). On the validity of subjective measures of company performance. *Personnel Psychology*, *57*(1), 95–118. doi:10.1111/j.1744-6570.2004.tb02485.x

Wang, Y., Lo, H.-P., & Yang, Y. (2004). The constituents of core competencies and firm performance: Evidence from high-technology firms in china. *Journal of Engineering and Technology Management*, *21*(4), 249–280. doi:10.1016/j.jengtecman.2004.09.001

Ward, J. H. Jr. (1963). Hierarchical grouping to optimize an objective function. *Journal of the American Statistical Association*, *58*(301), 236–244. doi:10.1080/01621459.1963.10500845

Watzlawick, P., Beavin, J. H., & Jackson, D. D. (2001). Pragmatics of Human Communication: a study of patterns, pathologies and paradoxes of interaction [Tradução de Álvaro Cabral] (12th ed.). São Paulo: Pensamento-Cultrix.

Weber, M. (2010). *Conceitos Sociológicos Fundamentais*. Lisboa: Edições 70.

Wenting, R. (2008). Spinoff dynamics and the spatial formation of the fashion design industry. *Journal of Economic Geography*, *8*(5), 593–614. doi:10.1093/jeg/lbn030

WGI. (2015). *Worldwide Governance Indicators, Annual Update 1996-2015*. Worldwide Governance Indicators - knoema. Available at http://pt.knoema.com/WBWGI2014/worldwide-governance-indicators-annual-update?country=1001550-portugal

Wilkinson, R., & Pickett, K. (2009). *The Spirit Level: Why Greater Equality Makes Societies Stronger*. New York: Bloomsbury Press.

Willems, K., Smolders, A., Brengman, M., Luyten, K., & Schöning, J. (2017). The path-to-purchase is paved with digital opportunities: An inventory of shopper-oriented retail technologies. *Technological Forecasting and Social Change*, *124*, 228–242. doi:10.1016/j.techfore.2016.10.066

William, E. (2005). *Baker and James m. Sinkula*. Market Orientation and the New Product Paradox.

Wong, M. A. (1982). A hybrid clustering method for identifying high-density clusters. *Journal of the American Statistical Association*, *77*(380), 841–847. doi:10.1080/01621459.1982.10477896

Woodruff, R. B., Cadotte, E. R., & Jenkins, R. L. (1983). Modelling consumer satisfaction processes using experience-based norms. *JMR, Journal of Marketing Research*, *20*(3), 296–304. doi:10.1177/002224378302000308

World Business Council for Sustainable Development (WBCSD). (2000). *Eco-Efficiency: Creating more value with less impact*. WBCSD.

Wu, J. J., & Atkinson, R. D. (2017). *How Technology-Based Start-Ups Support US Economic Growth*. Retrieved from http://www2.itif.org/2017-technology-based-start-ups.pdf

Wu, L.-Y., & Wang, C.-J. (2007). Transforming resources to improve performance of technology-based firms: A Taiwanese Empirical Study. *Journal of Engineering and Technology Management*, *24*(3), 251–261. doi:10.1016/j.jengtecman.2007.05.002

Wu, W., Huang, V., Chen, X., Davison, R. M., & Hua, Z. (2018). Social value and online social shopping intention: The moderating role of experience. *Information Technology & People*, *31*(3), 688–711. doi:10.1108/ITP-10-2016-0236

Xifei, F., & Jin, Q. (2015). The Five Dimensions of E-tailing Service Reliability. *Journal of Marketing Development and Competitiveness*, *9*(1), 83.

Yang, C.-H., Motohashi, K., & Chen, J.-R. (2009). Are new technology-based firms located on science parks really more innovative? Evidence from Taiwan. *Research Policy*, *38*(1), 77–85. doi:10.1016/j.respol.2008.09.001

Yang, F., Sun, T., & Zhang, C. (2009). An efficient hybrid data clustering method based on K-harmonic means and particle swarm optimization. *Expert Systems with Applications*, *36*(6), 9847–9852. doi:10.1016/j.eswa.2009.02.003

Yang, Z., Jun, M., & Peterson, R. T. (2004). Measuring customer perceived online service quality: Scale development and managerial implications. *International Journal of Operations & Production Management*, *24*(11), 1149–1174. doi:10.1108/01443570410563278

Yannopoulos, P., Auh, S., & Menguc, B. (2012). Achieving fit between learning and market orientation: Implications for new product performance. *Journal of Product Innovation Management*, *29*(4), 531–545. doi:10.1111/j.1540-5885.2012.00923.x

Yeh, Y. P., & Yeh, Y. P. (2016). Market orientation and service innovation on customer perceived value: The case of supermarket retailers. *Management Research Review*, *39*(4), 449–467. doi:10.1108/MRR-08-2014-0205

Yeng, W. F., & Yazdanifard, R. (2015). Opportunities and Challenges in the World of Retailing and the Importance of Adaption to the New Markets. International Journal of Management. *Accounting and Economics*, *2*(9), 1110–1121.

Yin, R. (1994). *Case Study Research: Design and Methods*. Thousand Oaks, CA: Sage Publications.

Yin, R. K. (1989). *Case Study Research - Design And Methods*. Sage Publications Inc.

Zapf, W. (1987). *On social innovations*. Frankfurt am Main: Sonderforschungsbereich 3, Mikroanalytische Grundlagen der Gesellschaftspolitik, J.-W.-Goethe-Universität Frankfurt und Universität Mannheim.

Zapf, W. (1991). The role of innovations in modernization theory. In International. *Review of Sociology*, *1*(3), 83–94.

About the Contributors

Luísa Cagica Carvalho held a PhD in Management in University of Évora – Portugal. Professor of Management on Department of Economics and Management, Institute Polytechnic of Setubal– Portugal. Guest professor in international universities teaches in courses of master and PhDs programs. Researcher at CEFAGE (Center for Advanced Studies in Management and Economics) University of Evora – Portugal. Author of several publications in national and international journals, books and book chapters.

* * *

Jacopo Carfora is living in Pisa (Italy); he received a B.A. in Business Administration from Department of Economy and Management of University of Pisa in 2017 and is now attending a M.A. in Marketing and Market Research at University of Pisa. His dissertation and actual research interests are on Retailing, Large Grocery Retailing and Digital Marketing.

Joao Carvalho has a PhD in Business Administration and Sociology from the University of Extremadura (Spain), Master in Business Management from the Getulio Vargas Foundation (Brazil) and a degree in Accounting from the Unified Education Center of Maranhão (Brazil). Professor, researcher, auditor and business consultant.

Cidonea Deponti is an Economist. Doctor in Rural Development, professor of the Post-Graduation Program in Regional Development at the University of Santa Cruz do Sul, Brazil.

Clara Fernandes is a Professor of Fashion Design at the University of Beira Interior, Portugal. Her doctoral thesis approached Fashion Design Entrepreneurship. Other research interests include technological and innovative solutions for fashion design, fashion design software, as well as fashion design education.

Maria Giovanna Tongiani is a Researcher in the Economy and Management of Companies at Department of Economy and Management of University of Pisa. Her primary teaching areas are undergraduate Economy and management of retailing and wholesaling firms and graduate Economy management and strategy of retailing firms. Her research interests include small firms and distribution channel, retailing and wholesaling management and strategy, business process management and the business value and adoption of e-business, shopper marketing, and in store marketing.

Patricia Milanés-Montero has a PhD in Business Administration by the University of Extremadura. Lecturer of accounting at the Faculty of Economics (UEx). Researcher in accounting involved in various projects and author of several articles published in journals with a high impact factor.

Maria Madalena Pereira started her professional activity in 1989, working for over 10 years in the Clothing and Textile Industry, in product development and sourcing. In 2007 she presented the Textile Engineering Ph.D. thesis in Textile Engineering at University of Beira Interior (UBI), Covilhã, Portugal. She is a member of both UNIDCOM-IADE-UE and FibEnTech-UBI Research Units. She is author and co-author of several papers in: in textile and clothing industry and branding fashion design areas. Assistant Professor and Director of Fashion Design course (UBI) and Director of Master in Branding and Fashion Design (UBI/IADE-UE). Her areas of expertise are the textile and clothing industry, fashion design, sourcing and sustainability in the textile and clothing industry, technologies for clothing industry and fashion trends. Advisor in several Master Thesis in Fashion Design, Branding and Fashion Design, and advisor in Ph.D. Thesis in Fashion Design. Member of scientific committees in several international conferences in the field of Fashion Design, Marketing and management for Fashion Design with peer review of articles (Designa, Global Fashion Conference, CIMODE, CEPESE, CIRCLE, ICIEMC, D_TEX). Evaluator of the courses of Fashion Design by A3ES.

Maria da Conceição Rego studied at the Universidade de Évora (Portugal) and at Faculdade de Economia da Universidade Nova de Lisboa. She is a Professor of Economics at the Universidade de Évora and a researcher at CEFAGE. Her areas of interest are economic development, urban and regional development, namely the HEI's effects, and education policies.

Anastasiya Reut is living in Pistoia (Italy) she received a B.A. in Business Administration from Department of Economy and Management of University of Pisa in 2017. Her dissertation and actual research interests are on Retailing, Large grocery retailer and Digital Marketing.

José Santiago is a proactive, accomplished financial strategist with deep knowledge of FinTech (payment systems, mobile money and digital money), financial inclusion strategies and asset protection, sectors both in UK and abroad. Currently José is the Global Strategy Director of a Multinational FinTech company with responsibility for strategic development and growth, sales, partnership and global expansion. He also takes the function of assisting Group CEO role. Graduated in Public Administration and Modern Languages and have started his career as an auditor then developed to other forms of financial consultation, Wealth Management and then FinTech with professional qualifications from UK CII (Chartered Insurance Institute), CISI (Chartered Institute of Securities and Investment) and PFS (Personal Financial Society). In 1998 José founded LBWTA (Let's Bring Wealth to Africa) Foundation which helps people (specially the deprived ones) with unique wealth creation, financial planning and financial inclusion strategies. LBWTA has offices in London (head-office), Dubai, Luanda and São Tomé. José is Amazon #1 Best Selling Author with "50 Shades of Wealth, How to build your true wealth, master your Asset Protection and Ensure your Legacy" (2016) but he also wrote: "4 Simple Steps to Finan-

cial Freedom" and "7 Secrets of Asset Protection". Regular Contributions to online and printed media including (QUEST, SME Adviser, Femina, Zambia Online, Arab Business Review) & Radio: Host of "My Money" at 24 Horas Radio and contributor to SLR, PowerXtra and ChoiceFM Radios and few others. He is also a Speaker and Coach on: FinTech, Digital Money, Mobile Money, Financial Inclusion Strategies, Wealth protection.

Francisco J. Seoane is Professor of the Department of Applied Economics of the Faculty of Law of the University of Santiago de Compostela (USC). Bachelor's degree in Economic Sciences from USC-1988; Master's degree from the Instituto de Empresa. 1988-1989; Master's degree in Computer Science applied to business. Instituto Microsoft A Coruña. 1990-1991; 1st Course of Inspection of Saving Accounts and Private Bank. Bank of Spain. 1992-1993. Master's degree by IESE. 1993; Superior Technician in Local Development. Postgraduate Higher Education Center. 2011; Higher Technician in Project Management. Postgraduate Higher Education Center. 2011; Master's degree in Employment Agents. 2011. Planning, Financing and Project Management. University of Vigo. 2011. Doctor in Economics, from the University of A Coruña (UDC) -2014. II Practical specialization course in Bankruptcy Law 2015. He has experience in management, both in the private company and public management, in the Quorum Económico, consultant for economic studies and local development and he also was General Director of Economic Promotion of A Coruña City Counsil (Spain), Head of the Bic Galicia area -IGAPE-Xunta de Galicia (regional government in Spain) and director of multinationals. His line of research focuses mainly on the field of public administrations, public policies and entrepreneurship. Author of numerous articles, books, book chapters, main researcher of several projects and regular speaker in national and international congresses.

Lurdes Barroso Simao is a member of a Research Unit NECE - Research Center in Business Sciences at the University of Beira Interior (UBI). She does research in Organizational Studies. Their expertise is Management Innovation/Organizational Innovation in service industries. Author of publications in national and international journals and book chapters.

Adriana Viana is Associate Professor, Faculty of Economics, Administration and Accounting, University of São Paulo - FEA / USP. Graduated in Mathematics - Bachelor from the University of São Paulo (1991), Master in Computing and Mathematics from the University of São Paulo (1995) and PhD in Electrical Engineering from the State University of Campinas (1999). Main areas of activity: Quantitative Methods Applied to the Decisional Process in Administration and Active Teaching-Learning Methodologies. She coordinated the project Integrated Method of Teacher Education and Training, with resources from CAPES (Institution to support research in Brasil), along with other higher education institutions, from 2009 to 2014. She developed his postdoctoral degree at the Institute of Education of the University of Lisbon from September 2013 until July 2014.

Carlos Vieira studied at the Universidade de Évora (Portugal), ISEG (Portugal) and Loughborough University (UK). He is currently a professor of Economics at the Universidade de Évora and a member of the research centre CEFAGE. His main areas of interest are economic and financial integration, monetary and financial economics, education policies and regional development.

Elsa Vieira is a PhD student in Sociology, University of Beira Interior with the thesis of study in the fields of gender, Sociology of Work and Entrepreneurship. Coordinator of the Local Learning Center of the Open University. 2017 - Co-author with Sales Oliveira, Catarina, Abstract 'Entrepreneurship, the construction of a new science in the apprehension of Entrepreneurial Profiles', under the theme of entrepreneurship and education, with a view to participation in the 7th Iberian Entrepreneurship Conference organized by ICES. 2017 - Co-author with Sales Oliveira, Catarina, of the Paper 'Women Entrepreneurial from different Nationalities: the particular case of Algarve region' submitted to the International Conference 'Democracy and Participation in the 21st Century', organized by ISEG - Lisbon School of Economics & Management - University of Lisbon 2016 - Co-author with Sales Oliveira, Catarina, of the article 'Pensar Global Empreender Lugar', published in the APDR Minutes with ISBN 978-989-8780-03-4, pp. 74-83 2016 - Author of the article "Entrepreneurial women in the diaspora for the Algarve", published in the magazine Género & Direito, pp.102-120, with DOI: 10.18351 / 2179-7137 / ged.v5n2p102-120 2016 - Co-author with Sales Oliveira, Catarina, of the article 'Contours of a female entrepreneurship in Portugal: from the concept to the representations of gender', published in the Minutes of the Portuguese Association of Sociology. 2015 Author of the essay Book "Dantas e Severa: two Portuguese identities", edited by UMBRA. ISBN 978-989-99372-1-5.

Isabel Vieira studied at the Universidade de Évora (Portugal), ISEG (Portugal) and Loughborough University (UK). She is a Professor of Economics at the Universidade de Évora and a researcher at CEFAGE. Her areas of interest are economic and financial integration, education policies and regional development.

Index

M

N

O

P

Q

R

S

T

U

V

W