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Building an Entrepreneurial and Sustainable Society

Brizeida R. Hernández-Sánchez, José C. Sánchez-García, and Antonio Carrizo Moreira

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A volume in the Practice, Progress, and Proficiency in Sustainability (PPPS) Book Series

Published in the United States of America by
IGI Global
Business 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: Hernández-Sánchez, Brizeida R., 1970- editor. | Sánchez-García, José C., 1957- editor. | Moreira, António Carrizo, editor.
Title: Building an entrepreneurial and sustainable society / Brizeida R. Hernández-Sánchez, José C. Sánchez-García, and Antonio Carrizo Moreira, editors.
Description: Hershey : Business Science Reference, 2020. | Includes bibliographical references and index. | Summary: “”This book explores the field of entrepreneurship covering topics as sustainable entrepreneurial competences, exploration of new opportunities, sustainable intrapreneurship, and social and sustainable entrepreneurial ecosystems”--Provided by publisher”-- Provided by publisher.
Identifiers: LCCN 2019043455 (print) | LCCN 2019043456 (ebook) | ISBN 9781799827047 (hardcover) | ISBN 9781799827054 (paperback) | ISBN 9781799827061 (ebook)
Subjects: LCSH: Entrepreneurship--Social aspects. | Sustainable development--Social aspects.
Classification: LCC HB615 .B853 2020 (print) | LCC HB615 (ebook) | DDC 306.3/4--dc23
LC record available at https://lccn.loc.gov/2019043455
LC ebook record available at https://lccn.loc.gov/2019043456

This book is published in the IGI Global book series Practice, Progress, and Proficiency in Sustainability (PPPS) (ISSN: 2330-3271; eISSN: 2330-328X)

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

Practice, Progress, and Proficiency in Sustainability (PPPS) Book Series

Ayman Batisha
International Sustainability Institute, Egypt

ISSN:2330-3271
EISSN:2330-328X

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Engineering Science Reference • © 2020 • 293pp • H/C (ISBN: 9781799816140) • US $150.00

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Tel: 717-533-8845 x100 • Fax: 717-533-8661
E-Mail: cust@igi-global.com • www.igi-global.com

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Sustainable innovation is a tool that contributes not only to increased business competitiveness but can also play an important role in mitigating the negative impacts that such growth can generate. Recognizing the opportunity that this innovation can have in the tourism industry, this chapter analyzes the state of the art and systematizes the knowledge and evolution of the academic debate about this relationship between sustainable innovation and tourism from 1992 to 2018. This chapter indicates that sustainable tourism is focused on seven major areas of research and predominantly analyzed through quantitative methods. It is still an embryonic topic with scarce research done in several areas, such as the monitoring of its impacts, the effects felt by the communities of tourist destinations, and the impacts that sustainable innovation may have on other tourism subsectors.

Rural development implies both the economic betterment of the people living in rural areas as well as bringing out holistic development. Accordingly, government has made paradigm shift from individual-centric rural development support to creation of gainful self-employment as well as wage employment among rural masses. Entrepreneurship, in this direction, has become an important consideration. Economic growth of a region largely depends on the involvement of poor and marginal sections into the process of entrepreneurship development. Globally, a large number of unemployed youth and women are becoming self-employed through entrepreneurship and creating employment opportunities for others. Researchers have worked on women's empowerment, economic development, and their role on micro-credit movement. The work on role of women in sustainable development is very limited. This chapter has tried to analyse issues related to women entrepreneurships in light of sustainable rural development in India to meet the research gap in the current context of Indian rural economy.

This chapter discusses the wide range of created opportunities for stimulating, developing the business area and attracting investments in the region of ATU Gagauzia. The general idea of the chapter is the fact that only developing the economy at the expense of domestic and foreign investments can create jobs, increase budget revenues, and accordingly, develop social infrastructure and living standards in the ATU Gagauzia (Republic of Moldova). The analysis of indicators characterizing the development of entrepreneurial activity in the autonomy was conducted, the dynamics of indicators showing the improvement of the business and investment climate in the region was presented, and the creation of favorable conditions in terms of attracting investment in main sectors of the region's economy was presented. This chapter carries out the qualitative conclusions and presents information on the need to develop the important directions that will enable the achievement of the goals for improving investment clime and increasing of volume in the region ATU Gagauzia.

Foreword

There is much talk of entrepreneurship today, and this domain crosses many knowledge areas. Although this concept is ubiquitous, it is certainly not exhausted either in its operability or in thematic speculation, and why? Because its urgent sustainability is the creator key to a new kind of economy and its main critical developed actor (Brown & Thornton, 2013).

This useful concept means change in all organizations' development supported by lateral thinking minds (Mikulas, 2015) whose essential competencies bring excellence and influence to society (Bakir & Jarvis, 2017). How this can be a reality?

To be it, we must consider one thing first: "entrepreneurship is the change" (Snellman, 2016). Thus, we must be thinking about a culture, pointing bases to an objective and defining skills, beliefs, and predominant standard behaviors that characterize the organization, standing in agreement with these formal values of the reality, i.e. understanding and connecting with the true values and culture of the living environment that surround us.

This involves a commitment to generate new motivation and trust in new entrepreneurship behaviors requested by the change as follows (Jones, Klapper, Ratten & Fayole, 2018; Helpap & Bekmeier-Feuerhahn, 2016):

- Working together with others to make the change.
- Sharing and delimiting the information amount.
- Influencing and not imposing decisions.
- Removing concerns and allowing them to be resolved among the compromised.
- Increasing both trust and adherence.

Besides, we need to seek sponsorship to ensure change and its impact on the society or market that we wish to influence (Autio & Rannikko, 2016). As such, this undertaking will lead a particular prototype/project approval that will cause change. Talking to people and raising the expectation of using our creation will introduce more incentives for them and a strong incentive for the society/market where it will act.

Such responsibility and from various levels of technical or personal knowledge, can drive the product/service to add value and to create a better society willing to accept and drive change (De Mol, Kaphova & Elfring, 2015).

So, entrepreneurship develops a close relationship with change, where communication and rapprochement with all stakeholders is crucial (Haugh & Talwar, 2016). In a certain way, this useful entrepreneurship, i.e. to assert oneself, must allow change to survive in the creative context, giving the entrepreneur

a sense of urgency, full acceptance, and dissemination, making the entrepreneur more likely to succeed (Wiklund, Yu & Patzelt, 2018).

Incidentally, the sense of urgency makes entrepreneurs send clear and consistent messages about the need to undertake and what is expected of them. Moreover, supporting and integrating entrepreneurship transform crises into opportunities, which leads to the need to change the order of things broadly. Specializing, sharing and recalibrating activities, give a sense of long term vision to give meaning to everyday operations (Thorgren& Wincent, 2015).

This vision consists of questioning the reality attending to new tendencies and technologies, searching new ideas and opportunities, creating an inspiring future sustainable visions (Ott, Eisenhardt & Bingham, 2017).

To ensure the entrepreneurial strategy that is useful in the change process, a plan must be established to face future challenges, wondering how they can be integrated and what the expected result will be. Priorities need to be clearly defined along with a business plan, and defining infrastructure, performance, and incentive margins, tracking vision, sponsorship, and ensuring change occurs smoothly (Mansoori & Lackéus, 2019).

Therefore, the investors interested in financing the prototype/project are sought in roder to ensure that investors will profit from their investment (Ahrens & Ferry, 2018).

Entrepreneurs must assume the coach role, gathering and preparing their staff to change, ensuring team competencies and commitment, and aligning with sponsors to develop new competencies and commitments, and getting business plan approval.

Useful entrepreneurship means delegating, monitoring and evaluating its consequences in society, in markets and in organizations, but above all in people. This is the purpose of this book, which proposes precisely the building of an entrepreneurial and sustainable society, above all, seeking to improve people's lives and the environment of the places where they live. As a result, this book brings together fifteen excellent chapters that will enrich our knowledge.

Finally, as a reflection one can note the following:

- How many entrepreneurship aspects are favorable and unfavorable to make change happens?
- How entrepreneurs can embrace new opportunities?
- What kind of behavior should entrepreneurs have when involved in sponsoring activities?
- How will entrepreneurs be able to create and organize entrepreneurial teams and find their leaders, who should guide them to avoid creative conflicts?
- What tactics can entrepreneurs use to foster relationships among those who advocate the entrepreneurial process, and those who are undecided?
- What must be the true sense of urgency that an entrepreneurial process must have to make change possible?
- Can entrepreneurs describe their ancient entrepreneurial capacity and will it likely to improve?
- Can one consider the entrepreneurial plan effective and how can one improve it? What are the opportunities we have to meet?
- What critical means must entrepreneurs have in place for the business plan to be a success? Which areas will benefit the most?
- Do entrepreneurs remain committed to the entrepreneurial process?
- What creative ideas can come up to recognize entrepreneurs for their efforts, desired behaviors, revealed attitudes, and performance?

- How can I regularly evaluate the entrepreneurial process and its inherent risks?
- What capabilities and processes do entrepreneurs use when undertaking responsibly?

We believe that the entrepreneurial process will be helpful if people are encouraged to use their exceptional talents and integrate others into the initiation, implementation, and support the society and organizations change as continued success. We believe this book will be a good friend to help you get answers.

And so, good ventures!

Sílvio Manuel da Rocha Brito
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REFERENCES

Ahrens, T., & Ferry, L. (2018). Institutional entrepreneurship, practice memory, and cultural memory: Choice and creativity in the pursuit of an endogenous change of local authority budgeting. *Management Accounting Research*, *38*, 12–21. doi:10.1016/j.mar.2016.11.001

Autio, E., & Rannikko, H. (2016). Retaining winners: Can policy boost high-growth entrepreneurship? *Research Policy*, *45*(1), 42–55. doi:10.1016/j.respol.2015.06.002

Bakir, C., & Jarvis, D. (2017). Contextualizing the context in policy entrepreneurship and institutional change. *Policy and Society*, *36*(4), 465–478. doi:10.1080/14494035.2017.1393589

Brown, C., & Thornton, M. (2013). How entrepreneurship theory created economics. *Quarterly Journal of Austrian Economics*, *16*(4), 401–419.

De Mol, E., Khapova, S. N., & Elfring, T. (2015). Entrepreneurial team cognition: A review. *International Journal of Management Reviews*, *17*(2), 232–255. doi:10.1111/ijmr.12055

Dobrea, M., & Maiorescu, I. (2015). Entrepreneurial outcomes and organizational performance through business coaching. *Amfiteatru Economic Journal*, *17*(38), 247–260.

Haugh, H. M., & Talwar, A. (2016). Linking social entrepreneurship and social change: The mediating role of empowerment. *Journal of Business Ethics*, *133*(4), 643–658. doi:10.100710551-014-2449-4

Helpap, S., & Bekmeier-Feuerhahn, S. (2016). Employees' emotions in change: Advancing the sensemaking approach. *Journal of Organizational Change Management*, *29*(6), 903–916. doi:10.1108/JOCM-05-2016-0088

Hsieh, C., Parker, S. C., & van Praag, C. M. (2017). Risk, balanced skills and entrepreneurship. *Small Business Economics*, *48*(2), 287–302. doi:10.100711187-016-9785-y

Jones, P., Klapper, R., Ratten, V., & Fayolle, A. (2018). Emerging themes in entrepreneurial behaviors, identities, and contexts. *The International Journal of Entrepreneurship and Innovation*, *19*(4), 233–236. doi:10.1177/1465750318772811

Mansoori, Y., & Lackéus, M. (2019). Comparing effectuation to discovery-driven planning, prescriptive entrepreneurship, business planning, lean startup, and design thinking. *Small Business Economics*. doi:10.100711187-019-00153-w

Mikulas, W. L. (2015). Cultivating mindfulness: A comprehensive approach. *Mindfulness*, *6*(2), 398–401. doi:10.100712671-014-0339-6

Ott, T. E., Eisenhardt, K. M., & Bingham, C. B. (2017). Strategy formation in entrepreneurial settings: Past insights and future directions. *Strategic Entrepreneurship Journal*, *11*(3), 306–325. doi:10.1002ej.1257

Snellman, L. (2016). Social Entrepreneurship: Making a change in the world. *Journal of Logistics. Informatics and Service Science*, *3*(1), 1–25.

Thorgren, S., & Wincent, J. (2015). Passion and habitual entrepreneurship. *International Small Business Journal*, *33*(2), 216–227. doi:10.1177/0266242613487085

Wiklund, J., Yu, W., & Patzelt, H. (2018). Impulsivity and entrepreneurial action. *The Academy of Management Perspectives*, *32*(3), 379–403. doi:10.5465/amp.2016.0177

Preface

If we measured the attention given, for example during the last decade, to the theme of entrepreneurship we would be pleasantly surprised to realize the interest and effort, both public and private, that had being given to entrepreneurs. Undoubtedly behind this interest is the vision given to entrepreneurship as a source of innovation, economic growth and job creation, but also to our aspiration to become an entrepreneurial society.

Entrepreneurship has always been present in the history of mankind. Entrepreneurship is inherent in it (Sánchez-García, 2018). Moreover, the concept of entrepreneurship has undergone changes, has evolved and is part of a dynamic field in economics, management and other social sciences, such as psychology or sociology (Sánchez-García 2018; Wiklund, Davidsson, & Audretsch, 2011). In classical economics, entrepreneurship was considered as a critical element of the economic system (Cassis & Minoglou, 2005). For example, Schumpeter defended that the entrepreneurial spirit was the main engine of a country's economic development, considering innovation as the central element. The Austrian school identified entrepreneurship as the search for opportunities and regarded it as the force that balanced the market.

As entrepreneurship is a process-based activity, before someone can create a company s/he must have identified a business opportunity (França et al., 2017). As such, entrepreneurship can be considered as the process of realization of opportunities, with a creative approach, that generates changes and innovation, as demonstrated in the Global Entrepreneurship Monitor (GEM), which has studied entrepreneurial dynamics in different countries and revealed that early entrepreneurial activity is related to greater economic development. Although it should be noted that business activity does not always lead to economic growth, especially in contexts of extreme poverty (Alvarez & Barney, 2014; Dantas, Valente, & Moreira, 2015).

The role of the entrepreneur is to exploit an idea or a technological possibility that generates new products or services, new forms of production, sources of supply of raw materials, or forms of organization that revolutionize the established production pattern (Schumpeter, 1943). An entrepreneur is someone who identifies a need in the market, in society, makes decisions about human, financial, material resources, also takes risks, and all of this is rewarded for the economic and / or social benefits of putting into action her/his entrepreneurial idea (Ras & Vermeulen, 2009).

Nowadays we can claim that entrepreneurship is so common and necessary that there is already a culture of entrepreneurship as a way of thinking and acting, oriented towards the creation of wealth, through the use of opportunities, the development of a global vision and of a balanced leadership, of the calculated risk management, whose result is the creation of value that benefits entrepreneurs, the company, the economy and society (Sánchez-García, 2018).

In summary, the entrepreneurial activity represents one of the most important engines of economic growth, being behind the creation of any new company, the growth of existing ones and a large part of job creation. Entrepreneurship has come to be perceived as an engine of economic and social development throughout the world. As Lazear (2002) indicates, "the entrepreneur is the single most important player in a modern economy" (p.1).

It is undeniable that business action is a necessary human activity. However, it is also known that its existence generates negative consequences. The detrimental effects of business activities can take a variety of forms. For example, natural resources are exploited in order to maximize economic benefits for shareholders. This is how industrial activities are often seen as one of the main contributors to environmental degradation (Cohen & Winn, 2007), the degradation of the ozone layer, climate change, nuclear radiation, industrial toxins, water and air pollution, etc. (York & Venkataraman, 2010). And this deterioration is irreversible, at least partially.

All of this entails large social and environmental costs coupled with economic costs. For example, the increase in extreme weather events such as earthquakes, tides, excessive rains and floods, as a result of global warming, can destroy crops and increase prices due to insufficient supply, loss of material goods, which generate social and economic uncertainty. This unrest may lead to economic and social costs, such as reduced income and increased need for government support, which may have negative effects in this globalized world.

In summary, there is a serious concern with the environment, mainly as a result of climate change. As such, it is urgent to develop sustainable business models given the limited availability of natural resources, the exponential growth of the human population, and because both current and future generations have the right to meet their needs (Pascual, Van Klink, & Rozo, 2011). Not only do these forces claim the attention to sustainability issues, but the kind of changes needed to address them could disrupt the balance of business ecosystems. This is how entrepreneurship is emerging as a new forum in which sustainability issues are being addressed. Moreover, entrepreneurship has the potential to create value within each of the three dimensions of sustainability – people, planet and profits –, whilst driving innovation through new products, services and business models. We are witnessing the change from an entrepreneurial society to a sustainable entrepreneurial society in which "sustainable entrepreneurship" links sustainable development with entrepreneurship (Schaltegger & Wagner, 2011).

As sustainable development implies the best use of materials, recycling, reducing the use or consumption of limited natural resources, such as water (Prahalad, & Hart, 1999), entrepreneurs must integrate the concept of sustainability into their business models (Schlange, 2009). The business model describes the rationality of how an organization creates, delivers and captures value, which is generated from a unique combination of resources and capabilities (Osterwalder & Pigneur, 2010). This rationality cannot remain on financial grounds; social and environmental needs must also be addressed. Society demands a change in activities in almost all economic sectors (Woolthuis, 2010).

Although the concept of sustainable development emerges in the 1980s, it is not until a few decades ago that social and environmental problems are on the agenda of companies, governments and NGOs. For example, in 2011, the United Nations Environment Program (UNEP) produced a report entitled "Towards a green economy," which described an economy that translates into improved human well-being and social equity, while significantly reducing environmental risks and ecological shortages. Since then, important progress has been made in reducing environmental impact and improving people's quality of life. However, much remains to be done.

Sustainable development requires the integration of environmental, social and economic objectives (Schaltegger & Wagner, 2011). In addition, it considers transparency and business ethics a necessary for the proper functioning of the market (Woolthuis, 2010). Based on a "global pact", companies are asked to implement value-based policies incorporating values such as human rights, labor standards, environmental orientation and the fight against corruption. Human beings constitute the center of sustainable development because they have the right to a productive, healthy life in harmony with nature (UN, 1992). As such, States must reduce unsustainable production and consumption (UN, 1992).

As sustainability seeks to achieve a beneficial interaction between human and ecological systems, the concept of sustainability implies social and environmental well-being (Pacheco, Dean, & Payne, 2010). As sustainability is a concept that is suited to the present but also oriented towards long-term, it is in conflict with short-term, fast-consumption society and short-sighted policies (Crals & Vereeck, 2005). Entrepreneurs must have the ability to minimize the negative impact of their activities (Cohen & Winn, 2007), implementing different companies with new types of management (Crals & Vereeck, 2005).

When one merges entrepreneurship and sustainability, one observes that the academic literature on sustainable entrepreneurship is still in its infancy (Cohen & Winn, 2007). For example, if one searches the term "sustainable entrepreneurship" in the Web of Science, only 389 documents appear among articles (295), proceedings papers (63), book chapters (27), reviews (12) and early access (10). Although it was initially used to refer to environmental aspects, it was gradually incorporating business dynamism to promote development and reduce poverty. Sustainable entrepreneurship involves terms such as eco-entrepreneurship, social entrepreneurship and entrepreneurial entrepreneurship (Shepherd & Patzelt, 2011); though different they are quite related.

We can go back to the Austrian economist Joseph Schumpeter who popularized the term '*creative destruction*', to describe the innovation process in a market economy in which new products destroy old companies and business models, as a precedent for sustainable entrepreneurship. Therefore, the creative construction that follows now demands a more sustainable world, making it even more important to understand not only what we understand by 'sustainability', but also how to precipitate and facilitate a new creative action.

Sustainable entrepreneurship "is in essence the realization of sustainability innovations aimed at the mass market and providing benefit to the larger part of society. By realizing such (radical) sustainability innovations sustainable entrepreneurs often address the unmet demand of a larger group of stakeholders" (Schaltegger & Wagner, 2011, p. 225). Schaltegger and Wagner (2011) understand sustainable entrepreneurship as a progression of eco-entrepreneurship, social entrepreneurship and institutional entrepreneurship, each of which shows a different emphasis on solving ecological or social issues, the importance of financial success, and the need to change social norms. Theoretically speaking, sustainable entrepreneurs present sustainability innovations that turn market imperfections into business opportunities, replace unsustainable forms of production and consumption, and create value for a wide range of stakeholders (Hockerts & Wüstenhagen, 2010; Schaltegger, Lüdeke-Freund, & Hansen, 2016).

The sources of these business opportunities and the motivations of sustainable entrepreneurs are widely discussed in the literature (e.g. Amankwah-Amoah et al., 2018; Kiefer et al., 2019). For example, Cohen and Winn (2007) identified market imperfections in the form of inefficient companies, ecological and social externalities, defective pricing mechanisms and poorly distributed information as sources of business opportunities. In some cases, these opportunities are explored directly and exploited by entrepreneurs, while in other cases, additional motivation is required through laws and regulations (e.g., Ács, Autio, & Szerb, 2014; Simón-Moya, Revuelto-Taboada, & Guerrero, 2014).

In sum, sustainable entrepreneurship implies a process whose goal is to achieve sustainable development, through the discovery, evaluation and exploitation of opportunities and the creation of value that causes economic prosperity, social cohesion and environmental protection. As such, it involves the coexistence of social, environmental and economic entrepreneurship (Guzmán & Trujillo, 2008).

Sustainable entrepreneurship undoubtedly expands the prevailing business logic and broadens the traditional vision of entrepreneurial action, which understands action as behavior in response to a critical decision under uncertainty about a possible profit opportunity. It is not just about looking for opportunities to make a profit, but also about discovering or creating and looking for opportunities to protect and, in addition, improve natural and social environments. Although the understanding of the phenomenon has evolved through two separate currents, social and environmental entrepreneurship (Hockerts & Wüstenhagen 2010), sustainable entrepreneurship, as a conceptual category that brings together new triple bottom line companies, is the only category of entrepreneurship that focuses specifically in sustainable development. As Shepherd and Hockerts, 2011) claim, economic and social entrepreneurship are part of, and are not synonymous with, sustainable entrepreneurship.

Sustainable entrepreneurship links sustainable development with entrepreneurship (Schaltegger & Wagner, 2011). Over time, several researchers have used the term interchangeably with other terms such as "ecopreneurship" (Gerlach, 2003) and "environmental entrepreneur" (Dixon & Clifford, 2007; Krueger, 2005). One can start from the premise that entrepreneurship for sustainable development results in more than economic success, sustainable entrepreneurs try to manage the "triple bottom line" (Patzelt & Shepherd, 2011). In other words, they balance economic health, social equity and environmental resilience through their business behavior.

Sustainable entrepreneurship is not only associated with the promise of more traditional concepts of entrepreneurship, but also has additional potential for both society and the environment. Sustainable entrepreneurship can be broadly considered as a general concept that analyzes the contribution of entrepreneurs to social, environmental and economic aspects (Schaltegger & Wagner, 2011). In short, it is a combination of the creation of economic, social and environmental value, with a general concern for the welfare of future generations.

Sustainable entrepreneurship faces market barriers that prevent it from growing successfully, for example: information imperfections, government interventions, monopoly power and erroneous pricing mechanisms that reinforce the status quo of dominant technologies and the interests of traditional operators (Cohen & Winn, 2007 cited in Pinkse & Groot, 2013). The new venture implies a continuous effort. Normally, core resources such as financing, managerial capacity, public support are not available to the entrepreneur, which means that in the initial stage, entrepreneurs focus their attention on factors that directly influence the cash flow, such as partners and creditors, clients, staff, raw material and regulation (Schlange, 2009). That is why hardly an entrepreneur is committed to sustainability from the beginning of his business idea; however, with the relatively recent demands in corporate social responsibility, whose objective is the promotion of sustainability and transparency in business, entrepreneurs must be resourceful and even take advantage of what at first can be considered insurmountable barriers.

In sustainable entrepreneurship activities, the company's responsibility goes well beyond the classic vision of profit maximization for the so-called shareholders and involves other stakeholders (Crals & Vereeck, 2005). Entrepreneurs can use their creativity to find solutions to social and environmental problems and from the outset of their business activities they incorporate sustainable actions (Parra, 2013). Although the economic objectives are among the main aims of the company, the challenge is the integration of a better environmental and social performance in the business activity (Schaltegger &

Wagner, 2011). A sustainable entrepreneur achieves the "triple bottom line" through the balance between economic health, social equity and the capacity to recover the environment through her/his business behavior (Kuckertz & Marcus, 2010).

Although the creation of new companies is mandatory it is also imperative to make them compatible with conservation and even environmental regeneration and, in addition, to think about the ecosystem because happy people are required to be productive and that requires investment and responsibility (Dean & McMullen, 2007). In sustainable entrepreneurship, profit is widely interpreted to include economic and non-economic benefits for individuals, the economy and society (Shepherd & Patzelt, 2011). And in this sense the field of entrepreneurship can benefit from a more holistic view of value creation (Cohen, Smith, & Mitchell, 2008). The sustainable entrepreneur has a different organizational logic, more systemic than conventional entrepreneurs (Tilley & Parrish, 2006). Environmental improvement, social and economic well-being must support each other through new business strategies, which must not only meet the needs of consumers, but also respond to the pressures of sustainable development (Parrish & Foxon, 2009).

The idea that social and economic objectives are incompatible is an outdated perspective in an open, globalized world. In fact, the ability to compete depends on the conditions of the place where the company is located, on the sophistication of the local market, on labor productivity, capital and natural resources (Porter & Kramer, 2002). As such, the sustainable entrepreneurial spirit can generate competitive advantages by identifying new business opportunities, resulting in new products, production methods or ways of organizing business processes in a sustainable way, it is not just about satisfying national or international environmental regulations, it is about taking advantage of the growing need for products and services produced sustainably (Lans, Blok, & Wesselink, 2014).

Choi and Gray (2004) studied the entrepreneurship process in twenty – economic, socially and environmentally – sustainable companies, most of them in North America, and found that, in general: they obtained financing through unconventional means; carried out unorthodox management practices; had a solid organizational culture supporting their employees; they generated clean manufacturing processes with little waste and emission-free. In addition, they were sagacious in their marketing strategies, disciplined operatively and financially, and worked to create an exemplary organization that would make a difference in their environment and society. Choi and Gray (2004) conclude that the managers of these companies recognize opportunities, obtain resources generally through friends and family, few have access to investor capital, which gives them greater autonomy to exercise their unorthodox management styles. These sustainable companies have a different thought, do not make their decisions based solely on financial gains and always have money for social causes (Choi & Gray, 2004).

Despite the interest in the literature on the subject of entrepreneurial intentions, there is still limited evidence about them in different entrepreneurial contexts. Young adults today ("millennials" or "Generation Y") have been seen as more entrepreneurial and environmentally aware and also more socially aware than previous generations (Hewlett et al., 2009). Millennials are a high-impact generation, prepared to significantly shape the world economy, their influence is expected to grow in the next decade. The study of sustainable entrepreneurship is related to two important milestones of this generation: climate change and societal welfare contribution. As such, it is very important to study it.

Given this particular complexity and its relevance, this topic requires particular attention within entrepreneurial research. More research on sustainable entrepreneurship is needed to explore the role of entrepreneurial action as a mechanism to sustain nature and their ecosystems, while providing economic and non-economic gains for investors, entrepreneurs and society (Shepherd & Patzelt 2011).

The present book, Building an Entrepreneurial and Sustainable Society, goes along this line and seeks to contribute to filling the existing gap on sustainability, in general, and of sustainable entrepreneurship, in particular. It aims to understand the meaning and dimensions of sustainable entrepreneurship, as well as its importance as a field of research within entrepreneurship in general.

The book is structured in 15 chapters. Chapter 1, based on a literature review on the roles of innovation in sustainable entrepreneurship, argues that the variety of innovation types and the broad spectrum covered by sustainable entrepreneurship hinder a clear understanding of the roles played by innovation in sustainable entrepreneurship. The authors of this chapter – María del Pilar Casado-Belmonte, Eduardo Terán-Yépez, Gema Marín-Carrillo and María de las Mercedes Capobianco-Uriarte – claim that innovation adopts seven different roles in sustainable entrepreneurship and discuss and suggest an integrative and dynamic framework of how these roles influence each other.

In Chapter 2, Dolores Gallardo Vazquez, Maria Teresa da Costa and Luis Enrique Valdez-Juárez, based on structured and systematic search of the Web of Science, Scopus, Elsevier and Google Scholar between 2005 and 2017, reviewed 52 journal articles, published in 35 journals, and identified a set of entrepreneurship initiatives – voluntary integration of social, economic and environmental concerns in business strategies – connected with social responsibility, which allows to qualify the entrepreneur as a "socially responsible entrepreneur."

José Vargas-Hernández and Karina Pallagst, in Chapter 3, based on a critical analysis of the literature review analyze the relationships between environmental sustainability, urban ecosystems and green innovation. Based on the discussion of the formulation, generation, development, implementation and evaluation of new behaviors and ideas in green innovation, they conclude that green innovation is directly related with the environmental sustainability and urban ecosystems.

Chapter 4, authored by Cristina Raluca Popescu, deals with the importance of creativity, innovation and intellectual capital as the main drivers of an organization's performance. She claims that although sustainable and responsible entrepreneurship seems to represent one of the most important goals targeted by the economic and business environment worldwide, the maximization of profits still governs the economic rules of marketplaces. As such, she claims that a general concern for the future generations, as well as ecology and environmental well-being needs to be addressed. For that, there are huge expectations on the sustainable entrepreneurs' ability to act maturely, more liable, competently, proficiently, and efficiently, while managing at a higher and improved level of performance their business operations.

Based on a quantitative approach, Joana Costa and Mariana Pita address in Chapter 5 sustainability-oriented entrepreneurs through the lenses of gender. Based on a logistic regression, they use the Global Entrepreneurship Monitor database from 2015, encompassing information from 60 countries to analyze the role of culture and social norms on sustainability entrepreneurial orientation activity across several countries, along with gender heterogeneity. They conclude that although sustainability oriented entrepreneurs are still focused on profit maximization strategies combined with environmental respect and social inclusion, they rely on a firm-based entrepreneurship initiative to integrate the triple bottom line objectives.

Pinaki Pattnaik, based on a case study, offers an experiential documentation of a course titled Sustainable Entrepreneurship and Leadership taught at an Indian university covering its curriculum design, pedagogy and evaluation methods. Chapter 6 offers the experience of embarking in the introduction of the concept of sustainability in leadership and entrepreneurial ventures to the students. This experience also involved a meeting among students to develop an appreciation towards the Triple Bottom Line of profit, people and the planet.

Exploring internationalization in sustainable entrepreneurship, Chapter 7, authored by Gema Marín-Carrillo, María del Pilar Casado-Belmonte, Eduardo Terán-Yépez and María de las Mercedes Capobianco-Uriarte, examines the relationship between sustainable entrepreneurship and internationalization underpinned on the following questions: how and why firms involved in sustainable entrepreneurship enter international markets. They address the challenges and difficulties of the firms in their internationalization process and the different pathways that are explored when engaged in exploring international markets.

Luís Farinha and João Lopes authored Chapter 8 on regional advantage and smart specialization strategies, which are very prevalent in nowadays the political and economic agenda. Through a bibliometric review on smart specialization, regional innovation and entrepreneurship ecosystems they identified five clusters, whose content analysis allowed the development of the "SmartSpec – Stakeholders Assessment Score" conceptual model that can prioritize the use of resources and capacities in any region/territory.

Chapter 9, "Creating Hybrid Social Ventures through Effectuation and Bricolage: The Case of Rec.0," authored by Antoni Olive-Tomas and Lucinio González-Sabate, addresses the creation process of hybrid social ventures through a qualitative study using semi-structured interviews. Based on a process model explaining the creation of hybrid social ventures through effectuation and bricolage, they conclude that for a new venture to be created as a hybrid firm, a dual mission-goal with a social problem as the trigger and a financial goal to ensure sustainability is required.

Chapter 10, "Depth of Outreach and Financial Sustainability of Microfinance Institutions: An Empirical Revisit," authored by Masnun Mahi, Mohammad Zainuddin, Ida Yasin and Shabiha Akter, analyze the trade-off between microfinance outreach and sustainability based on data involving 1,232 microfinance firms from 43 countries. As microfinance institutions tend to rely on donations and subsidies to achieve their social objective to reach to the poor, they analyzed whether microfinance firms can operate and continue to serve the poor clients on cost-covering basis without resorting on ongoing subsidies. They confirm the existence of trade-off between the two bottom lines of microfinance.

Cristina Silva Araújo and António Carrizo Moreira claim that although the tourism industry is a generator of economic growth, it has significant negative environmental and social impacts. As such, the tourism industry faces major challenges related to sustainability. Based on a review of the state of the art, Chapter 11 systematizes the knowledge and evolution of the academic debate about the relationship between sustainable innovation and tourism from 1992 to 2018. The authors claim that sustainable tourism is focused on seven major areas of research. It is still an embryonic topic with scarce research done in several areas, such as the monitoring of environmental and social impacts, the effects felt by the communities of tourist destinations and the impacts that sustainable innovation may have on other tourism subsectors.

Sebak Jana and Badal Das support the idea that the development process of entrepreneurship in India has supported the economic growth of a region largely through the involvement of the poor and marginal segments of the society. Chapter 12, based on the context of Indian rural economy, defends that rural development supported on holistic development has been supported by self-employment among the young and women, who have been given the opportunity to creating their own employment, as well as employment for others.

Chapter 13, by Svetlana Ghenova, discusses a wide range of opportunities for stimulating and developing business activities and attracting investments in the region of ATU Gagauzia. The analysis of economic development indicators indicate an increase of entrepreneurial activity, which leads to the improvement of business and investment climate in the region, as well as the creation of favorable conditions that support the attraction of new investment in several economic areas in the ATU Gagauzia region.

Heli Koskinen and Rauno Rusko address the principal-agent relationship between industry actors, namely how stakeholder management might yield a chain of principal-agent relationships in the form of a principal-agent/principal-agent relationship, i.e., when one or more of the stakeholders simultaneously takes on the role of both agent and principal. The analysis takes place in Finland and focuses on horse entrepreneurs and the infectious diseases of this subset of the equine industry. As such, Chapter 14 focuses on emphasizing the instrumental role of stakeholder analysis and the concept of business ecosystem

Finally, authored by Tai Anh Kieu and Tri Le, Chapter 15 deals consumer ethics. They claim that evidence in practice raises serious doubts about validity of ethical judgments as a measure of consumer ethics. This chapter proposes a conceptual framework that supports a new approach to understanding and measuring ethical consumption seeking to complement the attitude-behavior gap still prevalent in the literature.

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REFERENCES

Ács, Z. J., Autio, E., & Szerb, L. (2014). National systems of entrepreneurship: Measurement issues and policy implications. *Research Policy*, *43*(3), 476–494. doi:10.1016/j.respol.2013.08.016

Alvarez, S., & Barney, J. (2014). Entrepreneurial opportunities and poverty alleviation. *Entrepreneurship Theory and Practice*, *38*(1), 1–26. doi:10.1111/etap.12078

Amankwah-Amoah, J., Danso, A., & Adomako, S. (2018). Entrepreneurial orientation, environmental sustainability and new venture performance: Does stakeholder integration matter? *Business Strategy and the Environment*, *28*(1), 79–87. doi:10.1002/bse.2191

Choi, D. Y., & Gray, E. R. (2004). Understanding the sustainable entrepreneur. *Engineering Management Conference*, 2, 147–164. doi:10.1109/IEMC.2004.1407471

Cohen, B., Smith, B., & Mitchell, R. (2008). Toward a sustainable conceptualization of dependent variables in entrepreneurship research. *Business Strategy and the Environment*, *17*(2), 107–119. doi:10.1002/bse.505

Cohen, B., & Winn, M. (2007). Market imperfections, opportunity and sustainable entrepreneurship. *Journal of Business Venturing*, *22*(1), 29–49. doi:10.1016/j.jbusvent.2004.12.001

Crals, E., & Vereeck, L. (2005). The affordability of sustainable entrepreneurship certification for SMEs. *International Journal of Sustainable Development and World Ecology*, *12*(2), 173–183. doi:10.1080/13504500509469628

Dantas, J. G., Moreira, A. C., & Valente, F. M. (2015). Entrepreneurship and national culture: How cultural differences among countries explain entrepreneurial activity. In L. C. Carvalho (Ed.), *Handbook of Research on Internationalization of Entrepreneurial Innovation in the Global Economy* (pp. 1–28). Hershey, PA: IGI Global. doi:10.4018/978-1-4666-8216-0.ch001

Dean, T., & McMullen, J. (2007). Toward a theory of sustainable entrepreneurship: Reducing environmental degradation through entrepreneurial action. *Journal of Business Venturing*, *22*(1), 50–76. doi:10.1016/j.jbusvent.2005.09.003

Dixon, S. E., & Clifford, A. (2007). Ecopreneurship – a new approach to managing the triple bottom line. *Journal of Organizational Change Management*, *20*(3), 326–345. doi:10.1108/09534810710740164

França, A., Vilares, A., Frankenbach, S., Vereb, V., & Moreira, A. C. (2017). The challenging dynamics of nascent entrepreneurship. In A. C. Moreira, J. G. Dantas, & F. Valente (Eds.), *Nascent Entrepreneurship and Successful New Venture Creation* (pp. 1–28). Hershey, PA: IGI Global. doi:10.4018/978-1-5225-2936-1.ch001

Gerlach, S. (2003). *The ECB's Two Pillars*. CEPR Discussion Paper No. 3689. Available at SSRN: https://ssrn.com/abstract=374421

Guzmán, A., & Trujillo, M. (2008). Emprendimiento social - revisión de literatura. *Estudios Gerenciales*, *24*(109), 105–125. doi:10.1016/S0123-5923(08)70055-X

Hewlett, S. A., Sherbin, L., & Sumberg, K. (2009). How gen Y & boomers will reshape your agenda. *Harvard Business Review*, *87*(7), 71–76. PMID:19630257

Hockerts, K., & Wüstenhagen, R. (2010). Greening Goliaths versus emerging Davids. Theorizing about the role of incumbents and new entrants in sustainable entrepreneurship. *Journal of Business Venturing*, *25*(5), 481–492. doi:10.1016/j.jbusvent.2009.07.005

Kiefer, C. P., Del Río González, P., & Carrillo-Hermosilla, J. (2019). Drivers and barriers of eco-innovation types for sustainable transitions: A quantitative perspective. *Business Strategy and the Environment*, *28*(1), 155–172. doi:10.1002/bse.2246

Krueger, T. (2005). An Analysis of Working Capital Management Results Across Industries. *American Journal of Business*, *20*(2), 11–20. doi:10.1108/19355181200500007

Kuckertz, A., & Marcus, W. (2010). The influence of sustainability orientation on entrepreneurial intentions — Investigating the role of business experience. *Journal of Business Venturing, 25*(5), 524–539. doi:.2009.09.001 doi:10.1016/j.jbusvent

Lans, T., Blok, V., & Wesselink, R. (2014). Learning apart and together: Towards an integrated competence framework for sustainable entrepreneurship in higher education. *Journal of Cleaner Production, 62*(0), 37–47. doi:.2013.03.036 doi:10.1016/j.jclepro

Lazear, E. P. (2002). *Entrepreneurship*. NBER Working Paper 9109. Available at SSRN: https://ssrn.com/abstract=324051

Osterwalder, A., & Pigneur, Y. (2010). *Business model generation: A handbook for visionaries, game changers, and challengers*. Hoboken, NJ: John Wiley & Sons.

Parra, S. (2013). Exploring the incorporation of values for sustainable entrepreneurship teaching / learning. *Journal of Technology Management & Innovation*, *8*(1), 11–20. doi:10.4067/S0718-27242013000100002

Parrish, B., & Foxon, T. (2009). Sustainability entrepreneurship and equitable transitions to a low-carbon economy. *Greener Management International*, (55), 47–63.

Pascual, O., van Klink, A., & Rozo Grisales, J. (2011). *Create Impact! Handbook for sustainable Entrepreneurship. Wuppertal Institute Collaborating Centre on Sustainable Consumption and Production*. CSCP.

Patzelt, H., & Shepherd, D. (2011). Recognizing opportunities for sustainable development. *Entrepreneurship Theory and Practice*, *35*(4), 631–652. doi:10.1111/j.1540-6520.2010.00386.x

Pinkse, J., & Groot, K. (2013). Sustainable entrepreneurship and corporate political activity: Overcoming market barriers in the clean energy sector. *Entrepreneurship Theory and Practice*, *39*(3), 633–654. doi:10.1111/etap.12055

Porter, M., & Kramer, M. (2002). The competitive advantage of corporate philanthropy. *Harvard Business Review*, *80*(12), 56–69. PMID:12510538

Prahalad, C. K., & Hart, S. (1999). *Strategies for the bottom of the pyramid: Creating sustainable development.* Unpublished Draft Paper, August 1999.

Ras, P. J., & Vermeulen, W. (2009). Sustainable production and the performance of South African entrepreneurs in a global supply chain. The Case of South African table grape producers. *Sustainable Development*, *17*(5), 325–340. doi:10.1002d.427

Sánchez-García, J. C. (2018). De los vericuetos y veleidades del emprendimiento. Una Introducción. In J. C. Sánchez-García & B. Hernández-Sánchez (Eds.), *Retos y oportunidades para una cultura emprendedora*. México: Códice Servicios Editoriales.

Schaltegger, S., Lüdeke-Freund, F., & Hansen, E. G. (2016). Business models for sustainability: A co-evolutionary analysis of sustainable entrepreneurship, innovation, and transformation. *Organization & Environment*, *29*(3), 264–289. doi:10.1177/1086026616633272

Schaltegger, S., & Wagner, M. (2011). Sustainable entrepreneurship and sustainability innovation: Categories and interactions. *Business Strategy and the Environment*, *20*(4), 222–237. doi:10.1002/bse.682

Schlange, L. (2009). Stakeholder identification in sustainability entrepreneurship: The role of managerial and organisational cognition. *Greener Management International*, 13–33.

Schumpeter, J. A. (1943). *Capitalism, Socialism and Democracy*. London: Routledge.

Shepherd, D., & Patzelt, H. (2011). The new field of sustainable entrepreneurship: Studying entrepreneurial action linking "what is to be sustained" with "what is to be developed.". *Entrepreneurship Theory and Practice*, *35*(1), 137–163. doi:10.1111/j.1540-6520.2010.00426.x

Simón-Moya, V., Revuelto-Taboada, L., & Guerrero, R. F. (2014). Institutional and economic drivers of entrepreneurship: An international perspective. *Journal of Business Research*, *67*(5), 715–721. doi:10.1016/j.jbusres.2013.11.033

Tilley, F., & Parrish, B. (2006). From poles to wholes: Facilitating an integrated approach to sustainable entrepreneurship. *World Review of Entrepreneurship, Management and Sustainable Development*, *2*(4), 281–294. doi:10.1504/WREMSD.2006.010214

Wiklund, J., Davidsson, P., Audretsch, D., & Karlsson, C. (2011). The future of entrepreneurship research. *Entrepreneurship Theory and Practice*, *35*(1), 1–9. doi:10.1111/j.1540-6520.2010.00420.x

Woolthuis, R. J. (2010). Sustainable entrepreneurship in the Dutch construction industry. *Sustainability*, *2*(2), 505–523. doi:10.3390u2020505

York, J., & Venkataraman, S. (2010). The entrepreneur–environment nexus: Uncertainty, innovation, and allocation. *Journal of Business Venturing*, *25*(5), 449–463. doi:10.1016/j.jbusvent.2009.07.007

Chapter 1
The Role of Innovation in Sustainable Entrepreneurship: A Holistic Framework

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ABSTRACT

Literature argues that innovation has an inherent and critical relevance in sustainable entrepreneurship (SE). However, due to the variety of innovation types and the broad spectrum covered by this concept, there is not a clear understanding of which roles innovation plays in SE. To address the limitations of current literature, the main objective of this chapter is to conduct a literature review on underlying the roles of innovation in SE. The literature analysis reveals seven different roles that innovation adopts in SE and that those have seldom been related to each other. This chapter closes this gap by discussing and suggesting an integrative and dynamic framework of how these roles possess parallel ways, superpose, and influence one another, suggesting that SE actually is about a multi-innovation implementation process.

DOI: 10.4018/978-1-7998-2704-7.ch001

INTRODUCTION

In recent years, a significant body of literature has developed around sustainable entrepreneurship (SE) as well as the importance of innovation as a driver to accomplish real sustainable firms (Aghelie, Sorooshian, & Azizan, 2016; Gerlach, 2003; Schaltegger & Wagner, 2011; Shepherd & Patzelt, 2011). Hockerts and Wüstenhagen (2010) establish that SE is a unique opportunity to guarantee the well-being of future generations, due to the conception of the triple bottom line (economic, social and environmental aspects) within the entrepreneurial process and businesses. For their part, innovation is seen as one of the most important issues to achieve SE (Fellnhofer, 2017; Gerlach, 2003). Sustainable businesses, both new and incumbents firms defined as companies that has minimal negative impact on the society, environment and economy (Cooney, 2009), can be benefited by product/service, process, organizational/managerial and marketing innovations (Gibbs, 2009; Hall & Wagner, 2012; Klewitz & Hansen, 2013; York & Venkataraman, 2010).

Due to the great importance that innovation plays in traditional firms (Gunday, Ulusoy, Kilic, & Alpkan, 2011; Varis & Littunen, 2010; Wolff & Pett, 2006), it is expected that in sustainable businesses, where innovation is seen as a key element to achieve, maintain and improve SE practices (Aghelie et al., 2016; Gerlach, 2003), this relevance will be even greater (Fellnhofer, 2017). That is why literature has bestowed different roles for innovation within SE (Hall & Wagner, 2012; Klewitz & Hansen, 2013; York & Venkataraman, 2010). Taking a step forward, Gerlach (2003) argue that to accomplish practices leading to achieve the triple bottom line goals, it is essential to carry out an innovations system.

The broad concept of innovation (Brockhoff, 1994; Hall, 2009; Kanter, 1983) and the rapidly increase of sustainable entrepreneurship research (Sarango-Lalangui, Santos, & Hormiga, 2018) have created widely dispersed knowledge about the role of innovation in SE (Gerlach, 2003). Despite this growing relevance of innovation within this field, little effort has been made to run an exhaustive review of existing literature, opening a research gap in literature that must be filled. These highlight the need to synthetize and analyze the existent research in order to present a well-established and comprehensive literature analysis of the diverse roles of innovation in SE field. So, to close this gap, this research aims to paint a more holistic framework of innovation roles on sustainable entrepreneurship. For this purpose, the following research questions were established as the guide for this study:

1. What are the roles of innovation in sustainable entrepreneurship?
2. Are there robust approaches to create a holistic framework of the roles of innovation in sustainable entrepreneurship?

The main objective of this chapter is to conduct a literature review focusing on the limitations of previous research of the different roles that innovation can have in the SE field. First, the constructs of SE, innovation and their connection are explained. Subsequently, a literature analysis addresses the state of research on the innovation roles in SE. Finally, a theoretical framework through a synthesis of the literature review results is presented, as well as some suggestions for future research, conclusions and limitations.

SUSTAINABLE ENTREPRENEURSHIP AND INNOVATION

Usually, entrepreneurship is thought to be a form to encourage economic growth (Kirzner, 1973), i.e. the traditional objective of entrepreneurial actors (entrepreneurs and entrepreneurial firms) had been to generate economic gains (Terán-Yépez & Guerrero-Mora, 2019). Entrepreneurship has been mainly deemed as a way to create a source of self-employment capable of generating economic and financial benefits (Segal, Borgia, & Schoenfeld, 2005) or as one of the most prosperous ways to create workplaces (Sarango-Lalangui et al., 2018). Therefore, the success of entrepreneurs and entrepreneurial firms have been commonly evaluated through economic-financial indicators (Schlange, 2006), leaving aside the social and environmental performance (Sarango-Lalangui et al., 2018).

In contrast, in recent years, mainly due to the rise of the sustainable development concept (Kerlin, 2006) and the developing relevance that different economic and non-economic actors have given to the environmental and social aspects (Aghelie et al., 2016), numerous researchers (Schaltegger & Wagner, 2011; Shepherd & Patzelt, 2011) assert that entrepreneurship ought not to be based exclusively on generating economic wealth. Moreover, researchers affirm that entrepreneurship could be a vehicle that may help to transform economic sectors towards sustainable development (Dean & McMullen, 2007; Shepherd & Patzelt, 2011).

Schaltegger and Wagner (2011) argue that in order to respond to today's economy desires and needs, entrepreneurial actors should incorporate on their commercial activities, social and environmental solutions; i.e. businesses that want to contribute to sustainable development should include sustainable practices in their business strategies (Shepherd & Patzelt, 2011). Because of this, entrepreneurs and firms began to pay greater attention to the impact that their businesses generate or could generate on the society and the environment (Aghelie et al., 2016; Sarango-Lalangui et al., 2018). This has caused that the traditional entrepreneurship approach, about the value creation related with economic outcomes (Amit & Zott, 2001) may encompass non-economic welfares as well (Shepherd & Patzelt, 2011; Urbaniec, 2018).

Several researchers (Cohen & Winn, 2007; Gibbs, 2009; O'Neill Jr., Hershauer, & Golden, 2006) began to study the relationship between entrepreneurship and sustainable development. This has driven to the emergence of the sustainable entrepreneurship concept (Muñoz & Cohen, 2018; Schaltegger & Wagner, 2011) or also baptized as sustainopreneurship by other researchers (Abrahamsson, 2007; Aghelie et al., 2016). Shepherd and Patzelt (2011) established that SE "*is focused on the preservation of nature, life support, and community in the pursuit of perceived opportunities to bring into existence future products, processes, and services for gain, where gain is broadly construed to include economic and non-economic gains to individuals, the economy, and society*". This means that SE is seen as unique opportunity to guarantee the well-being of future generations, due to the conception of environmental, social and economic values within the entrepreneurial process and businesses (Hockerts & Wüstenhagen, 2010).

Therefore, SE has to focused on the social (taking into account customers, partners, workers, other stakeholders and the wider community), environmental (paying greater attention to the reduction of negative effects and to the long-term protection of the environment) and economic (on the basis of economic and financial results) aspects of businesses (Aghelie et al., 2016; Hockerts & Wüstenhagen, 2010; Urbaniec, 2018). To achieve and manage the triple bottom line goals result in enormous complexity for the SE process, so according to Gerlach (2003), it is necessary to carry out an innovations system in order to establish practices that lead to SE. Furthermore, several researchers (Aghelie et al., 2016; Fellnhofer, 2017; Gerlach, 2003) argue that innovation is a key issue to achieve SE. So, the authors of

this chapter based on Gerlach (2003) assume that there is not a single role of innovation in the SE field but rather that SE could be about a multi-innovation implementation process.

The definitions of innovation in previous literature are very varied (Lee, Hallak, & Sardeshmukh, 2012). These range from very narrow perspectives, where the meaning is limited to (initial) commercial exploitation (Hauschildt, 2004), to very broad viewpoints covering also invention and dissemination of new products, practices and ideas, and not only first adoption (Brockhoff, 1994). In addition, the business innovation model has evolved towards the concept of open innovation, which implies that innovation processes may lie beyond the boundaries and control of the company. Open Innovation involves combining purposive inflows and outflows of knowledge across the boundary of a firm in order to leverage external sources of knowledge to accelerate internal innovation, and commercialization paths, respectively (Chesbrough, 2012; Chesbrough & Bogers, 2014). On the other hand, the concern for environmental issues has also led to new concepts such as eco-innovation defined according to Horbach, Rammer and Rennings (2012, p. 119) as "*product, process, marketing, and organizational innovations, leading to a noticeable reduction in environmental burdens. Positive environmental effects can be explicit goals or side-effects of innovations. They can occur within the respective companies or through customer use of products or services*."

For the purpose of this study the authors opt for focusing on broader and more traditional definitions of innovation. Kanter (1983, p. 20) for example defined innovation as "*the process of bringing any new problem-solving idea into use…Innovation is the generation, acceptance and implementation of new ideas, processes, products or services*". Moreover, scholars have typically categorized innovations into diverse kinds in arrange to differentiate and measure the innovation process (Lee et al., 2012). In this vein and in a more broad viewpoint, The Organization for Economic Co-operation and Development (OECD), define innovation as "*the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations*" (OECD & Statistical Office of the European Communities, 2005, p. 46; Hall, 2009).

This categorization is closely related to the typology proposed by Schumpeter and is widely used (Lee et al., 2012; Varis & Littunen, 2010) and developed (Camisón & Monfort-Mir, 2012; Hall, Lotti, & Mairesse, 2009; Hjalager, 2010; Sundbo, 1998) by other researchers of innovation (see Table 1 for a complete explanation of each innovation type).

Literature (Gunday et al., 2011; Varis & Littunen, 2010; Wolff & Pett, 2006) postulate that these different types of innovations have crucial roles on traditional organizations. According to Gunday et al. (2011) innovation can help businesses to access new markets, increase market share and could lead to obtain a competitive advantage. Cainelli, Evangelista and Savona (2006) also claim that firms that demonstrate product innovation enhance economic growth and productivity compared to companies that do not innovate. In this vein, Varis and Littunen (2010) argue that innovations that are related to the introduction of new product, service and market innovations drive to firm growth. Wolff and Pett (2006) in the same way postulate that product innovations entail firm's profitability. Gunday et al. (2011) also identify that organizational innovations are a key element in firm performance.

Since innovation plays a central role in SE, it is expected that innovation adopt multiple core tasks for sustainable businesses. Klewitz and Hansen (2013) for example, identify innovation as one of the five practices leading to sustainable entrepreneurship, i.e. innovation could have a causal effect on the identification of sustainable opportunities. In addition, Schaltegger and Wagner (2011) postulate that innovations that bring into existence the new sustainable ventures can introduce more environmental and

Table 1. Categorization of types of innovation based on Schumpeter's notion of innovation (1934)

Types of Innovation	Explanation
Product/service innovations	• New or significantly improved products and services (Hall et al., 2009). • These come in the form of the development or introduction of new materials, intermediate products, or new components or product features (Camisón & Monfort-Mir, 2012). • These types of innovations are directly observable by customers and are considered as new (Hjalager, 2010).
Process innovations	• New or significantly improved methods for production or delivery (operational processes) (Hall et al., 2009). • Processes which take place "behind the scenes" and aim to increase efficiency and productivity (Hjalager, 2010). • This may involve the use of new equipment or increased automation, new and more efficient methods of production or the use of new energy sources (Camisón & Monfort-Mir, 2012).
Organizational/managerial innovations	• Relate to new or improved methods in a firm's management structure or system, organization of work or external relations (Hall et al., 2009). • Introduction of new systems and management methods and new types of work organization and business models (Camisón & Monfort-Mir, 2012).
Marketing innovations	• Identified as the introduction of new marketing methods, which include changes in product design, promotional strategies and price (Camisón & Monfort-Mir, 2012). • It can also relate to a new type of marketing or behavior in the market, which includes relationships between other parties such as state and other regulatory systems, societal organizations or specific customers (Sundbo, 1998).

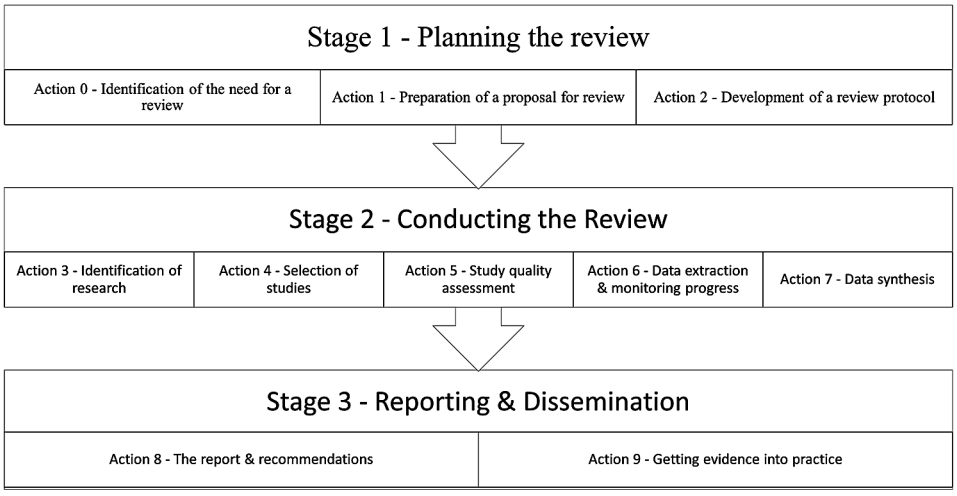
Source: own elaboration based on Lee et al. (2012)

social solutions. Moreover, York and Venkataraman (2010) see innovation as a driver for the transition towards sustainability of an industry, as innovations could help to revolutionize sectors by means of the exploitation of inventions or untested technologies. Furthermore, Fellnhofer (2017) based on Rennings and Rammer (2011) postulate that it is expected to hold particularly true for sustainable businesses that innovations positively impact on their performance.

Hockerts and Wüstenhagen (2010) pay special attention in the product and process innovation types within SE. They postulate that in some industries, such as hearing systems or cars, SE is mainly associated with product innovation, due to the emergence of social and environmental aspects in specific phases of the product life cycle; while in other industries, there is equal importance for process innovations. According to some researchers (Gibbs, 2009; Hall & Wagner, 2012), sustainable entrepreneurial organizations can provide sustainable products, services, transport, processes or organizational structures through innovation. In this vein, Hockerts and Wüstenhagen (2010) argue that innovations could emerge in both new and incumbent firms. New firms refer to rather new and small companies with environmental and social objectives at least as important as economic objectives, while incumbent firms are "old" and large companies with dominating economic objectives and complementary social/environmental aims.

As it can be seen, there is growing evidence that innovation is an important instrument in SE. Moreover, it can be argued that SE is about the implementation of innovations. However, until now there are only separate pieces of information about the multiple roles that innovation can have in SE. So, a complete overview of those is needed, since this would help to create a holistic framework of the innovation roles in SE.

Figure 1. Stages of the literature review
Source: own elaboration based on (Phillips, Lee, Ghobadian, O´Regan, & James, 2014; Tranfield, Denyer, & Smart, 2003)



THE ROLE OF INNOVATION IN SUSTAINABLE ENTREPRENEURSHIP

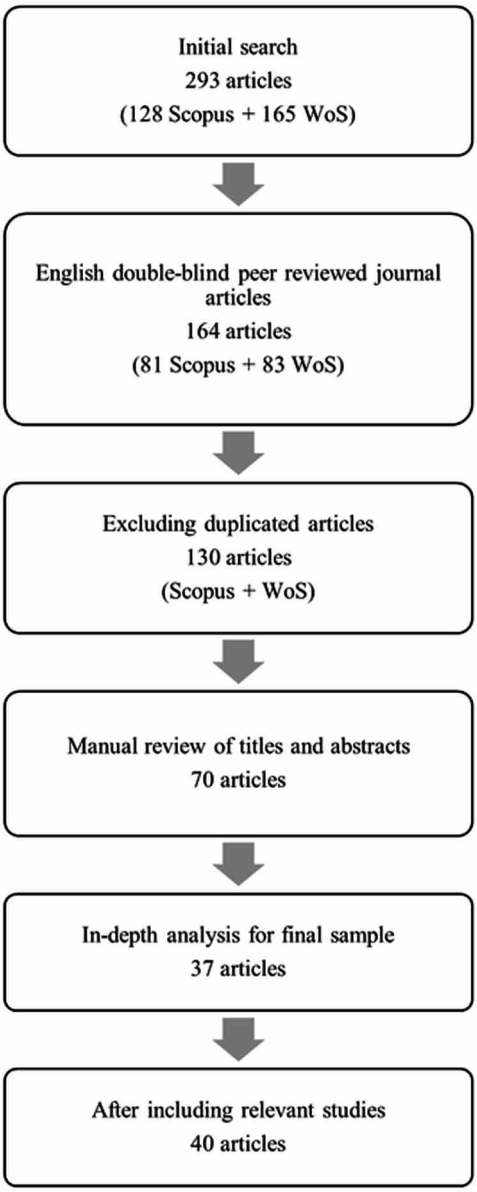
Literature Review Method

To provide a comprehensive overview of the diverse roles that innovation can have on SE, this study has undertaken a literature review as opposed to a traditional narrative review. Authors developed a transparent, reproducible and iterative review process (see Figure 1). For the literature analysis, this research uses the two most relevant scientific databases (Web of Science (WoS) and Scopus). The keyword search was "sustainab* entrepreneur*" AND "innovat*". An initial search returned 293 articles (128 from Scopus and 165 from WoS). However, for quality reasons the researchers filtered only for double-blind peer reviewed journal articles, leaving aside conference proceedings, conference articles, among other scientific resources. Also, the authors select only articles written in English. This resulted in a total of 164 articles (81 from Scopus and 83 from WoS). After excluding the duplicated manuscripts the researchers got a total of 125 documents.

From this point on, the authors established a researcher's panel (conformed by the four authors of this study) to carry out the next three steps.

1. Perform a manual review of titles and abstracts that help researchers to discard studies that are not in line with the approach of this study, i.e. those that not focus on innovation or sustainable entrepreneurship as a core topic. Of this filter remained 70 articles.
2. Conduct a subsequent manual review to carry out an in-depth analysis of the titles, abstracts, results and conclusions following the same criteria of point 1. Of this filter remained 37 articles.
3. Finally, the panel decided to add important studies that the authors had missed using the search criteria. So, the panel decided to add 3 articles to the sample (for a complete overview of the inclusion/exclusion protocol of articles see Figure 2). This allowed obtaining a final sample of 40 articles.

Figure 2. Overview of the inclusion/exclusion protocol of articles
Source: own elaboration



Although, no rigid specific criteria was established for the inclusion or not of each article (in steps 1 and 2), this process followed an inductive coding scheme; taking into account all the articles that have researched in some way the role of innovation (directly or indirectly, consciously or unconsciously) in the SE field. The establishment of the panel allowed the researchers to perform this process with clarity and reliability, since for the inclusion (or not) of each article, each of them had to have the approval of at least three of the four members of the panel. The final sample was divided in four groups of ten articles. Each group of articles was revised by two different panel members in order to collate and complete (if

it is the case) the results found by each and thus avoid losing relevant information during the review process. For a better understanding, the results of the literature presented hereunder are broken down in two parts, descriptive and thematic results.

Descriptive Results of the Literature Review

As presented above, at the initial stage of the review, 164 English double-blind peer review articles were found. These came from 76 journals. After the inclusion/exclusion criteria were applied the final sample (40 articles) came from 24 journals (for a complete overview of all the papers included in the study and the journal of origin of each one see Appendix A). The journal contributing the highest number of studies to this sample was the *Journal of Cleaner Production* with 8 studies followed by *Sustainability* with 5 studies and the *Journal of Business Venturing* and the *International Journal of Entrepreneurial Behaviour and Research* with 3 studies each. The journals that publish articles in the areas of sustainable entrepreneurship and include innovation as a keyword are a good indicator of the disciplines from which this connection draws its concepts and theories. The review has recognized a range of fields including sustainability, innovation, environment, entrepreneurship and small business research (see Table 2).

Furthermore, the studies were categorized by the origin country of the research articles´. The most productive country was Germany (11 studies) followed by United Kingdom and Netherlands (4 studies each) and Canada (3 studies). The other 22 identified countries have just one contribution. In terms of geographical regions, Europe is the leader with 30 studies (75%), followed by North America (4 studies) and Asia (3 studies). Regions such as South America, Oceania or Africa contribute with one article. Another relevant indicator to remark is that 10 articles (i.e. 25%) were performed by international collaboration teams, which suggest that there is an international interest in the intersection between SE and innovation. Articles were also categorized according to publication year. As showed in Figure 3 and Table 3 the first article identified for this review was found in 2003; however it is not until 2010 where the intersection between the SE and innovation began to grow in terms of number of articles. This trend is mainly increased in the last 5 years (2014-2018 and including up to April 2019). Only 9 articles were identified between 2003 and 2013, while post 2013 the review recognized 31 articles. Figure 3 also illustrates that the number of citations increased in parallel with the number of published articles. As it can be seen, 2018 is the most productive year with 11 contributions the year with most citations with 486.

Table 3 also shows other main characteristics of the articles selected for this review such as average citations per year, number of authors per year, average number of authors per article and number of journals that published at least 1 article in a specific year. It could be seen that the average citation per article (C/A) tends to have an increase since 2009. In the same way the number of authors (AU) publishing in innovation and SE has increased each year in the last years (2016-2018). Concerning the average number of authors per article (AUA), it could be said that in the last six years (2014-2019) it remains constant that articles have more than two authors. Moreover, there is an increasing trend in the number of journals publishing (JA) on this subject. In 2018 for example there were 7 different journals that publish at least one paper related to the intersection between innovation and SE research.

Thematic Results of the Literature Review

The literature review is based on the 40 selected articles that address innovation within SE. Those papers were subjected to a deeply analysis in order to identify all the roles that have been given to innovation

Table 2. Breakdown of the research field of the selected journal articles

Field of Research	Total of Journals	Total of Articles
Sustainability	4	15
Innovation & technology management	6	6
Environment	5	6
Entrepreneurship	3	5
Small business research	2	4
Business ethics	1	1
Energy	1	1
Economics	1	1
Interdisciplinary	1	1
Total	24	40

Source: own elaboration

within the SE. The categorization produced seven innovation roles. Table 4, divided in the seven identified roles, summarizes the authors, main highlights and type/s of innovation addressed by each article. As was expected, several articles concern more than one role to innovation, therefore the same study can be present in more than one role. Subsequently, the most relevant outcomes of the studies are presented in a thematic structure.

Innovation as an Antecedent that Leads the Initial Phases of SE Process

As stated above, Hockerts and Wüstenhagen (2010) argue that there are two different types of organizations that engage in SE. On the one hand, new companies, i.e. those created from the beginning on the basis of sustainable business models. On the other hand, incumbents, which at any point decide to orient their business model towards sustainability. In doing so, several researchers (Criado-Gomis, Cervera-Taulet, & Iniesta-Bonillo, 2017; Gerlach, 2003; Spence, Gherib, & Biwolé, 2011) have determined that innovation can lead both new and incumbent companies to achieve SE. Going even further, Larsson, Milestad, Hahn and von Oelreich (2016) and Urbaniec (2018) argue that Schaltegger and Wagner (2011) in an attempt to define SE, highlight the need of sustainable innovation in order to consider a firm as SE.

Figure 3. Graph illustrating number of publications from 2007 to 2019
Source: own elaboration based on WoS (2019) and Scopus (2019)

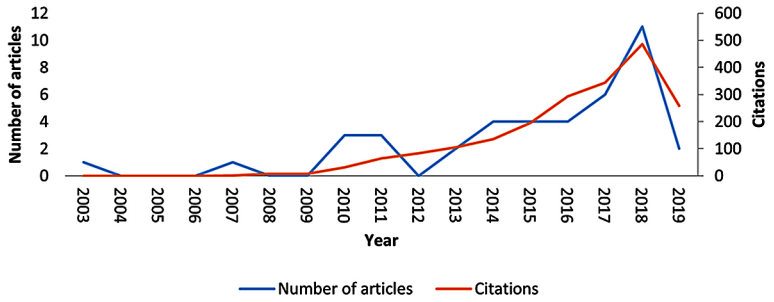


Table 3. The main characteristics of the articles from 2007 to 2019

Year	A	C	C/A	AU	AUA	JA
2003	1	0	0	1	1,00	1
2004	0	0	0	0	0,00	0
2005	0	0	0	0	0,00	0
2006	0	0	0	0	0,00	0
2007	1	2	2	2	2,00	1
2008	0	7	9	0	0,00	0
2009	0	7	16	0	0,00	0
2010	3	32	12	5	1,67	2
2011	3	64	16	7	2,33	3
2012	0	84	28	0	0,00	0
2013	1	106	38	2	2,00	1
2014	4	136	37	12	3,00	3
2015	4	196	40	8	2,00	4
2016	4	294	46	13	3,25	4
2017	6	344	49	14	2,33	5
2018	11	486	48	26	2,36	7
2019	2	258	52	5	2,50	2
Total period	40	2016	50	95	2,38	24*

A: Number of articles published per year; C: Number of citations per year; C/A: Average number of citations per article (citation total since 2007/total of articles since 2007); AU: Number of authors that published at least 1 article in a specific year; AUA: Average number of authors per article; JA: Number of journals that published at least 1 article in a specific year. * Although the total sum results in 33 journals, some have more than one article, so there are only 24 different journals in total. Source: own elaboration based on Scopus and WoS 2019

In the view of Klewitz and Hansen (2013) innovation is one of the five practices leading to SE. Innovation not only helps to find several sustainable solutions to existing problems, but also makes it possible to anticipate future problems, future developments and future solutions (Aghelie et al., 2016; Lans, Blok, & Wesselink, 2014). Cohen and Winn (2007) add that market imperfections offer opportunities to SE organizations and that innovation plays a central role for the conception and development of innovative business solutions.

Taking into consideration the first type of SE organization, i.e. new firms, Gerlach (2003) establishes that sustainable entrepreneurs are capable of identifying market opportunities for sustainability innovations. They successfully implement these innovations and create new products and services. According to Hockerts and Wüstenhagen (2010) new sustainable firms born from product innovations, i.e. sustainable entrepreneurs design new sustainable products and therefore decide to establish a sustainable business. In some industries, more precisely in those where innovations are likely to replace existing products, new firms will be prone to introduce these innovations than incumbents (Weber, 2008). Moreover, in some scenarios a new firm will be the only accessible method to bring innovations to market even if the innovations were developed in an existing firm (Dew, Sarasvathy, & Venkataraman, 2004).

On the other hand, taking into account the second type of SE organization, i.e. incumbent firms, Criado-Gomis et al. (2017) argue that if incumbent firms want to move to a more sustainable business

Table 4. The roles of innovation in SE

Author/s (Year)	Main Highlights	Innovation Category
Role: Antecedent That Leads the Initial Phases of SE Process		
Gerlach (2003)	Sustainable entrepreneurs identify market opportunities through innovations concerning sustainability, successfully implement these innovations and create new products or services.	P/S
Klewitz & Hansen (2013)	Innovation is one of the five practices leading to sustainable entrepreneurship.	P/S, PRO, ORG
Cohen & Winn (2007)	Innovation plays a key role for the creation and development of innovative business solutions.	PRO, ORG
Aghelie, Sorooshian & Azizan (2016)	Innovation is a key to find new solutions for sustainability.	GEN
Davies & Chambers (2018)	Innovations allow the integration of hybrid values propositions in the business model.	ORG
Criado-Gomis, Cervera-Taulet & Iniesta-Bonillo (2017)	Process or product innovations encourage firms to adopt and integrate sustainable-oriented practices, which in turn allow a company to undertake a transition to becoming a sustainable business.	P/S, PRO
Hockerts & Wüstenhagen (2010)	Corporate social innovation helps to identify unmet needs and for developing solutions that create new products, services and markets.	P/S, ORG
Spence, Gherib & Biwolé (2011)	Innovation is a driving force behind the adoption and integration of sustainable practices in SMEs.	ORG
Lans, Blok & Wesselink (2014)	Innovation can not only help looking for alternative and more sustainable solutions to existing problems, also anticipating new problems, new developments and new solutions.	GEN
Hapenciuc, Pînzaru, Vătămănescu, & Stanciu (2015)	Innovative marketing models are a vehicle to conduct their businesses to sustainability.	MKT
Larsson, Milestad, Hahn & von Oelreich (2016)	Schaltegger and Wagner (2011) in an attempt to define SE, highlight the need of sustainable innovation in order to consider a firm as sustainable entrepreneurship.	GEN
Urbaniec (2018)	The innovativeness level could be perceived as a sufficient basis for the implementation of SE.	GEN
Role: Competitive Advantage for Sustainable Businesses/Entrepreneurs		
Gerlach (2003)	Successful sustainable innovation is accomplished when entrepreneurial actors achieve competitive advantages, i.e. economic success by applying innovative environmental and/or social practices.	ORG
Lans, Blok & Wesselink (2014)	Sustainability can be identified as new business opportunities leading to new and sustainable products, production methods or ways of organizing business processes in a sustainable way.	P/S, PRO, ORG
Klewitz (2017)	Firms use sustainability-oriented innovations to adapt, avoid risks and achieve competitive advantages.	P/S, PRO, ORG
Klewitz & Hansen (2013)	SMEs could realize competitive advantages through sustainability-oriented innovations if they are capable to identify sustainable and market issues.	GEN
Djupdal & Westhead (2015)	The environmental certification (as innovation) should be considered an investment in sustainable development which can promote a competitive advantage.	PRO
York & Venkataraman (2010)	Innovations geared towards the environment could create a competitive advantage due to the cost reduction or through the increased revenue.	ORG
de Lange (2017)	Innovations through state environmental standards lead to an increase in international competitiveness and create a competitive advantage.	GEN
Ferdousi (2015)	Innovation principles help to achieve competitive advantage.	GEN
Hahn, Spieth & Ince (2018)	Innovative business model design is regarded as vehicle to create sustainable competitive advantages.	ORG
Kraus, Burtscher, Niemand, Roig-Tierno & Syrjä (2017)	Eco-innovations could lead to competitive advantages in terms of cost reduction, ecological efficiency and reputation.	GEN
Nikolaou, Tasopoulou & Tsagarakis (2018)	Innovation through the technological progress could lead to create competitive advantage in green entrepreneurs.	GEN
Urbaniec (2018)	Innovative actions are increasingly used in the field of sustainability to consolidate competitive position of firms.	GEN
Haldar (2019)	Success of sustainable innovation lies on obtaining competitive advantages from the application of innovative social and/or environmental production, service, and/or organizational practices.	P/S, PRO, ORG
Scott, Govender & van der Merwe (2016)	Sustainable entrepreneurial ventures achieve competitive advantages by introducing new innovative products in the market more quickly and effectively than its competitors.	P/S
Role: Instrument of Social and Environmental Change		
Schaltegger & Wagner (2011)	Sustainable ventures can introduce more environmental and social solutions through innovations, which attempt to contribute to sustainable development of the market and society as a whole.	GEN
York & Venkataraman (2010)	New and innovative methods help to provide innovation which leads to address environmental degradation.	ORG

continued on following page

Table 4. Continued

Author/s (Year)	Main Highlights	Innovation Category
Gerlach (2003)	Social entrepreneurs are driven by their social mission and they see innovation as a set of means to fulfil unmet social needs.	GEN
Kraus, Burtscher, Niemand, Roig-Tierno & Syrjä (2017)	Eco-innovations of SE firms may change the mindset of customers of firms and the surrounding environment.	GEN
Nikolaou, Tasopoulou & Tsagarakis (2018)	Using eco-design, green chemistry, life cycle analysis, eco-efficiency could raise awareness of the environmental sensitiveness in consumers.	PRO, MKT
Schaltegger, Beckmann & Hockerts (2018)	Innovation could create synergies by connecting social, environmental and economic challenges.	GEN
Urbaniec (2018)	Innovation activities undertook in SE could have different social, environmental, and economic benefits.	GEN
Schaltegger, Lüdeke-Freund, & Hansen (2016)	Business model innovations for SE are changing markets and society.	GEN
Haldar (2019)	Sustainable entrepreneurship is aimed at realizing large scale social transformation through environmental and/or social innovations.	P/S, PRO, ORG
Muñoz & Cohen (2017)	Innovation allows a balance between opposite interests of the TBL and an optimization of the aggregate results.	GEN
Vallaster, Kraus, Kailer & Baldwin (2019)	Innovations are a crucial factor to lead to the enhanced social performance in SMEs.	GEN
Role: Means to Respond to Stakeholders' Unmet Social and Environmental Needs		
Klewitz & Hansen (2013)	Increased innovation capacity geared to sustainability enhances interaction with stakeholders.	GEN
Schaltegger & Wagner (2011)	Innovations directed towards sustainability often address the unmet demand of a larger group of stakeholders.	GEN
Hockerts & Wüstenhagen (2010)	Innovations are used by market incumbents to react to pressure from stakeholders in an attempt to demonstrate them that they are sincere about their concerns.	P/S, PRO
Sarango-Lalangui, Santos & Hormiga (2018)	Greater sustainability-oriented innovation allows better interaction with stakeholders.	GEN
Spence, Gherib & Biwolé (2011)	Innovation in SMEs is evident in the use of less polluting packaging which responds to stakeholders' demands.	MKT
Gasbarro, Rizzi & Frey (2017)	Sustainable innovations have positive effects in terms of the recognition of institutional stakeholders.	ORG
Crnogaj, Rebernik, Hojnik & Gomezelj (2014)	Innovation in SE is deemed as a way to meet the needs of consumers regarding ecological and social responsibility, cultural appropriation, political justice and technological support.	GEN
Raudeliūnienė, Tvaronavičienė, & Dzemyda (2014)	Innovation is considered as a strategic response to the change in consumption behavior.	GEN
Wahga, Blundel & Schaefer (2018)	Production innovations may be due to coercive, normative and mimetic isomorphic pressures from customers' requirements, industry dynamics, regulations, proto-institutional sponsors and peers' effect.	PRO
Ruijs & Egmond (2017)	Innovations based on the use of natural capital or the ecosystem services available will depend on the common vision held by stakeholders about the value and need for urgency to change nature management practices.	PRO
Role: Means to Make Profit in Order to Pursue Social and Environmental Objectives		
Gerlach (2003)	Innovations concerning social issues can be a tool for making profit rather than the other way round - using profit as a tool to create social change.	GEN
Hahn, Spieth & Ince (2018)	Innovative solutions in SE businesses enable these firms to achieve nonfinancial objectives through financial ones.	GEN
Raudeliūnienė, Tvaronavičienė & Dzemyda (2014)	The innovation derived from the change in consumption behavior is considered as a means to balance the personal benefits with public benefits.	GEN
Role: Driver for a Positive Performance of Sustainable Businesses		
Fellnhofer (2017)	The author establishes that it is expected to hold particularly true that innovations positively impact sustainable businesses performance.	GEN
Aghelie, Sorooshian & Azizan (2016)	The success in implementing sustainable business practices relies on innovation.	GEN
Bocken (2015)	The innovation in the business model is an important enabler of the success of sustainable enterprises.	ORG
Cohen & Winn (2007)	Innovations have the potential to achieve entrepreneurial rents.	PRO, ORG

continued on following page

Table 4. Continued

Author/s (Year)	Main Highlights	Innovation Category
Djupdal & Westhead (2015)	Firms should consider environmental certification (as innovation) as an investment in sustainable development which can promote superior performance.	PRO
de Lange (2017)	Innovations aimed at sustainability should lead to higher CSR and profitability.	GEN
Dodd, Orlitzky & Nelson (2018)	Sustainability innovations increase the value creation and could lead to cost savings, regulatory compliance, brand building or a price premium for green products.	ORG
Ferdousi (2015)	Innovation has significant impact on income.	GEN
Nikolaou, Tasopoulou & Tsagarakis (2018)	Technology and managerial innovations processes help to diminish the use of resources with the subsequent decrease of operational and production costs, which in turn provoke an increase in profit.	ORG
Wahga, Blundel & Schaefer (2018)	Innovative sustainability practices respond to competitiveness logic i.e. to save resources, improve reputation and achieve eco-efficiency for cultivating financial benefits.	ORG
Rennings & Rammer (2011)	Environmental innovations have an ambiguous impact on firm performance.	P/S, PRO
Role: Enabler for the Transition Towards Sustainability of a Sector		
Schaltegger & Wagner (2011)	Sustainable ventures through innovation are key transformers towards a sustainable economy.	GEN
Hansen & Schaltegger (2013)	Corporate sustainability can be seen as an innovation in the sustainability direction which can lead towards an industry transformation process.	P/S, PRO, ORG
Klewitz (2017)	Innovation oriented to accomplish sustainability in SMEs not only has effects at the level of product, process and organization, but also at the level of industry transformation.	P/S, PRO, ORG
Woolthuis (2010)	Innovation through motivating cooperation and trust, supply chain integration and providing capital for those initiatives can help to process into new directions by shaping a new path towards transformation of the sector.	PRO
York & Venkataraman (2010)	An industry could be revolutionized or reformed through innovation, the exploitation of an invention or an untried technology that allows a production improvement or the creation of new products.	PRO
Hockerts & Wüstenhagen (2010)	The combination of the product innovations of new sustainable firms with the process innovations of incumbent firms are key elements in the early stages of an industry's sustainability transformation.	P/S, PRO
Fellnhofer (2017)	Innovation system could foster successful sustainability by accelerating the transition process from emerging technologies to new industries.	ORG
Urbaniec (2018)	Innovation could have an effect orientation in the sense that could help to transform sectors or economies toward sustainability.	GEN
Schaltegger, Lüdeke-Freund & Hansen (2016)	Innovations in business model are needed to create a sustainability transformation of the mass market.	ORG
Hörisch (2018)	Transformative innovations generated by emerging entrepreneurs and incremental innovation realized by large incumbent corporations on niche level enable the transition of an industry towards sustainability.	PRO

P/S: Product/Service innovation; PRO: Process innovation; ORG: Organizational/managerial innovation; MKT: marketing innovation; GEN: General view of innovation. Source: own elaboration

model they have to do it through the introduction of innovative processes or products in the organization. Spence et al. (2011) suggest that such kind of innovations can be converted in a driving force behind the adoption and integration of sustainable practices in SMEs. According to Hapenciuc, Pînzaru, Vătămănescu and Stanciu (2015) these firms employ also innovative marketing models as a vehicle to conduct their businesses to sustainability. Davies and Chambers (2018) considerate that innovation could lead to the design of sustainable business models capable of delivering environmental and social benefits. Innovation would help to a transformation process of an incumbent firm towards a hybrid and holistic business model through which firms are able to balance the triple bottom line.

Moreover, Hockerts and Wüstenhagen (2010) argue that incumbent firms transform their business model towards sustainability through process innovations, including the introduction of Corporate Social Responsibility (CSR) initiatives, sustainable management systems or ecology efficiency. To engage in SE, incumbent firms recognize unmet social needs to develop innovative solutions. Unilever, for example,

utilizes corporate social innovation in order to create new products and services to try satisfy the widest aspirations of its customers and not only the daily needs (cited in Hockerts & Wüstenhagen, 2010).

Innovation as a Competitive Advantage for Sustainable Actors

Literature (Ferdousi, 2015; Urbaniec, 2018) demonstrates that innovation in SE could lead to achieve diverse competitive advantages. Going even further, Haldar (2019) and Gerlach (2003) argue that success of sustainable innovation lies on obtaining competitive advantages from the application of innovative social and/or environmental production, service, and/or organizational practices. As a first competitive advantage, York and Venkataram (2010) and Kraus, Burtscher, Niemand, Roig-Tierno and Syrjä (2017) argue that innovation directed towards the environment could reduce costs or increased revenues, improve ecological efficiency and reputation. Second, sustainable-oriented innovations could lead companies to adapt to avoid risks (Klewitz, 2017).

Third, Klewitz and Hansen (2013) in a SMEs study establish that this type of companies could achieve competitive advantages if they are able to recognize sustainable problems and markets where they can introduce their sustainable innovations. Fourth, understanding environmental certification as an innovation, Djupdal and Westhead (2015) considered that it has to be seen as investments in sustainable development which can promote competitive advantages such as obtaining reliability and legitimacy over their competitors. Fifth, Lans et al. (2014) and Hahn, Spieth and Ince (2018) state that innovation is a way of generating competitive advantages, because it allows producing new and sustainable goods, production methods or business processes and models.

In another approach, de Lange (2017) based on Porter and van der Linde (1995) study, propose that innovation towards the environment is a source of competitive advantage since the international competitiveness of sustainable business depend on innovation and not on low costs or large scale. De Lange (2017) based on Lanoie and Rochon-Fabien (2012) research, present a real example. The researcher mentions that the Enviroclub program, which is developed in Canada since 2001, to analyze how in-plant pollution prevention projects might be prosperous for SMEs, evidence that environmental innovation increase competitiveness. Seventh, Nikolaou, Tasopoulou and Tsagarakis (2018) establish that innovation through the technological progress could lead to create competitive advantage in green entrepreneurs. Finally, Scott, Govender and van der Merwe (2016) claim that sustainable entrepreneurial ventures achieve competitive advantages by introducing new innovative products in the market more quickly and effectively than its competitors.

Innovation as an Instrument of Social and Environmental Change

Literature establishes that sustainable businesses through innovation could introduce social and environmental solutions (Schaltegger & Wagner, 2011) and that sustainable business model innovations are changing markets and society (Schaltegger, Lüdeke-Freund, & Hansen, 2016). Innovations directed to sustainability help society and the market as a whole to achieve sustainable development, i.e. innovation could create synergies by connecting social, environmental and economic challenges (Schaltegger, Beckmann & Hockerts, 2018; Urbaniec, 2018). Sustainable entrepreneurship is aimed at realizing large scale social transformation through environmental and social innovations (Haldar, 2019). Innovation restores environmental, social and economic systems. It allows a balance with opposite interests of the Triple Bottom Line and the optimization of the aggregate results (Muñoz & Cohen, 2017).

Focusing on the social goal of SE, Gerlach (2003) argue that sustainable entrepreneurs driven by a social mission view innovation as means to satisfy unmet social needs. Vallaster, Kraus, Kailer and Baldwin (2018) argue that innovations are a crucial factor to lead to the enhanced social performance in SMEs. While centering on the environmental goal of SE, York and Venkataram (2010) discuss that innovation is one of the three keys to combat environmental issues. By using eco-innovations, SE firms may change the mindset of customers of firms and the surrounding environment (Kraus et al., 2017). So, in order to address existing environmental degradation, current habits of life must be evolving by new, innovative methods of managing business. Nikolaou et al. (2018) highlight a strategy based on the use of alternative components in the composition of products. For instance, using eco-design, green chemistry, life cycle analysis, eco-efficiency could raise awareness of the environmental sensitiveness in consumers.

These innovative ways of managing business can lead sustainable entrepreneurs to create new businesses that care about sustainability as a whole rather than assisting incumbent firms just in specific social and environmental practices. This is an important aspect, as sustainable entrepreneurs through sustainable ventures must not only focus on technological innovation, but must also bring these innovative ideas to society and the environment. Innovation towards sustainability by helping the creation of new companies, markets, products, information sources and institutions, allows entrepreneurs to create new opportunities that generate social and environmental changes. So, the bigger the social and environmental challenges a company face, the bigger the opportunity for innovations to address them (York & Venkataraman, 2010).

Innovation as Means to Respond to Stakeholders Unmet Social and Environmental Needs

Several authors (Klewitz & Hansen, 2013; Sarango-Lalangui et al., 2018) have postulated that innovation could be a set of means to respond to stakeholders' unmet social and environmental needs. Gasbarro, Rizzi and Frey (2017) affirm that if the main objective of SE is to foster sustainable development, changing the business model via sustainable innovations has positive effects in terms of the recognition of institutional stakeholders of the social benefits and the reconsideration of common beliefs, norm and habits. Schaltegger and Wagner (2011) state the innovations directed towards sustainability benefit the society as a whole and firms that realize this type of innovations often accomplish some of the unmet demands of the majority of stakeholders.

Hockerts and Wüstenhagen (2010) introduced the idea that incumbent firms normally introduce incremental innovations process to react to unmet sustainability needs from stakeholders. Some companies for example adopt sustainability management systems and communication to mitigate and demonstrate sincerity about the stakeholders concern. Crnogaj, Rebernik, Hojnik and Gomezelj (2014) deem the innovation in SE as a way to meet the needs of consumers regarding ecological and social responsibility, cultural appropriation, political justice and technological support. In this vein, Raudeliūnienė, Tvaronavičienė and Dzemyda (2014) argue that innovation should be considered as a strategic response to the change in consumption behavior.

In a comparative analysis between Canada, Tunisia, and Cameroon, Spence et al. (2011) establish that innovation in SMEs of these countries is evident in the use of less polluting packaging and being responsive to stakeholders' demands. In an empirical analysis of Pakistan's leather industry, Wahga, Blundel and Schaefer (2018) found that the adoption of production innovations may be due to (or can be promote by) coercive, normative and mimetic isomorphic pressures from customers' requirements,

industry dynamics, regulations, proto-institutional sponsors and peers' effect. As a result, this allows for better interaction with stakeholders (Klewitz & Hansen, 2013). Finally, Ruijs and van Egmond (2017) argue that innovations based on the use of natural capital or the ecosystem services available will depend on the common vision held by stakeholders about the value and need for urgency to change nature management practices.

Innovation as Means to Make Profit in Order to Pursue Social and Environmental Objectives

Other role assigned to innovation in SE emanates that innovative solutions enable sustainable firms to achieve nonfinancial objectives through financial ones (Hahn et al., 2018). Gerlach (2003) for example, argue that innovations concerning social issues can be a tool for making profit rather than the other way round, i.e. firms use profit as a tool to create social change. Innovations could help to achieve financial performance and commercial stability that may lead to achieve its social/ecological goals because it is considered as a prerequisite. In such a vein, the revenues allow following the nonfinancial missions (Hahn et al., 2018). Raudeliūnienė et al. (2014) considered that innovations derived from the change in consumption behavior are means to balance the public benefits (of society) with the personal benefits (of the firm).

Innovation as a Driver for a Positive Performance of Sustainable Businesses

As in traditional firms, according to several authors (Dodd, Orlitzky & Nelson, 2018; Fellnhofer, 2017), it is expected to hold particularly true that innovations positively impact sustainable businesses performance. In this vein, Bocken (2015) establish that business model innovations could lead to success of sustainable firms, while Aghelie et al. (2016) also argue that innovation allows implementing successful sustainable business practices leading to a positive performance. Moreover, de Lange (2017) affirms that companies with higher CSR have higher profitability due to the innovations towards the environment and the society. Nikolaou, Tasopoulou and Tsagarakis, (2018) innovation through technology or managerial processes helps to diminish the use of resources with the subsequent decrease of operational and production costs, which in turn provoke an increase in profit. Wahga et al. (2018) claim that innovative sustainability practices respond to competitiveness logic i.e. to save resources, improve reputation and achieve eco-efficiency for cultivating financial benefits. Furthermore, sustainable innovations have not only the potential to accomplish traditional rents (financial performance), but rather it allows to achieve a social wealth firm performance due to the fact that this type of innovation benefits the triple bottom line goals of sustainable businesses (Cohen & Winn, 2007).

In an empirical analysis of the renewable energy industry, Dodd et al. (2018) find that some SMEs of the sector had to adapt their business model towards the promotion of existing aviation biofuels in many different contexts, i.e. for them the motto seems to have been innovating through product diversification or having died. They find that innovations branched out into other markets in which biofuels could be used; e.g. drinks, cosmetics, pharmaceutical or food sectors. This type of innovation will generate an improvement in firms' performance because these actions would lead to brand building, cost savings and to achieve a price premium for sustainable products. Taking into account only the environmental goal of SE, Djupdal and Westhead (2015) claim that the environmental certification viewed as a firm innovation could promote a greater performance, due to the higher levels of effectiveness.

Ferdousi (2015) also claims that innovation has significant impact on income, because it is argued that entrepreneurs in developing countries are prone to imitating well-recognized opportunities rather than searching innovative opportunities. Since the lack of innovation, these activities are likely to be followed by competitors and consequently, the returns may decrease. In a somewhat different light, Rennings and Rammer (2011) argue that environmental innovations have an ambiguous impact on firm performance. They claim that eco-innovations impose by regulations could increase costs and diminish profits. However, firms could also benefit from lower innovation uncertainty due to demand-generating effects of regulation. Finally, they affirm that product and process innovations towards the environment create analogous success in terms of sales and cost savings.

Innovation as an Enabler to the Transition towards Sustainability of a Sector

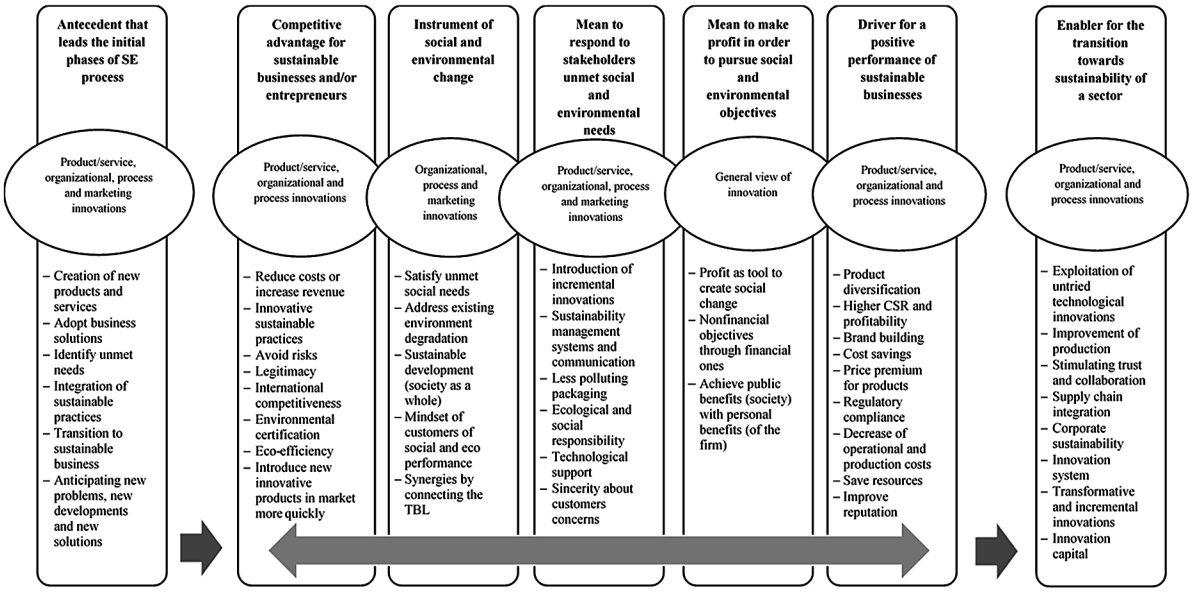
According to other literature approach, innovation not only impact on sustainable entrepreneurial actors, but through them can generate the transformation of a sector to industry towards sustainability (Hockerts & Wüstenhagen, 2010; Urbaniec, 2018; Woolthuis, 2010). Fellnhofer (2017) argue that an innovation system could foster successful sustainability by accelerating the process from emerging technologies to new industries.

Hockerts and Wüstenhagen (2010) argue that both new and incumbent firms are necessary for an early industry´s sustainability transformation, because they as a whole complete a perfect environment to achieve this change. New firms could mainly provide product innovations, while incumbent firms are naturally good providers of process innovations. Hörisch (2018) also establish that transformative innovations generated by emerging firms and incremental innovation realized by large incumbent corporations on niche level enable the transition of an industry towards sustainability. This is also evident on Klewitz (2017) and Schaltegger and Wagner (2011) since they argue that innovations from sustainable ventures directed towards sustainability not only affects product, process and organizational levels but also industry level.

Hansen and Schaltegger (2013) also reaffirm the equal relevance of both new and incumbent firms for an industry transformation even if both types of organizations react with diverse actions and strategies to sustainable challenges. Furthermore, those authors establish that corporate sustainability could be seen as a normative innovation in the firm's management. So, products, processes and business model innovations are improved or replaced by other more social and environmental versions than previous ones. This introduction of more sustainable offerings to the market carried out mainly by new firms in complement with the transformation of incumbent companies to turn out to be more sustainable "open the door" to a co-evolutionary process toward industry transformation (Hansen & Schaltegger, 2013; Hockerts & Wüstenhagen, 2010).

Sustainable-innovations have the power to renew or revolutionize sectors through the exploitation of untried technological innovations or inventions that help to improve the production of or the creation of novel products (York & Venkataraman, 2010). In this vein, Woolthuis (2010), in an empirical study of the Construction Industry of Netherlands, points out that the renewal of a sector towards a more competitive and healthy industry again needs sustainable innovation that stimulates trust and collaboration and helps to obtain a better supply chain integration. Schaltegger et al. (2016) explain that innovations in business model are needed to create a sustainability transformation of the mass market, illustrating examples such as Toyota's hybrid vehicle Prius, BMW's i-series, and SAP's sustainability performance

Figure 4. Integrative Framework: The multi-innovation implementation process in sustainable entrepreneurship
Source: own elaboration



management solutions as precursors of innovative solutions that small competitors may imitate with the consequent transaction of a sector to sustainability.

DISCUSSION AND THEORY DEVELOPMENT

As can be seen in the literature review, several authors directly or indirectly, consciously or unconsciously attribute two or more roles to innovation within SE. However, those roles have seldom been related to each other. What is clear from authors' results is that innovation roles should not be settle of separately; instead of that it is likely that successful implementation of sustainable strategies in practice combine some or all of them, because they possess parallel ways, superpose and influence on each other within SE (Gerlach, 2003). Each innovation role may act independently, but toward addressing social and environmental needs and concerns it should be viewed as a set of complementary and interrelated roles.

In doing so, authors frame that SE is about a multi-innovation implementation process (see Figure 4) where innovation (before the establishment of or the transformation of traditional to sustainable firms) is primarily aimed at recognizing opportunities through the identification of unmet social and environmental needs (Hockerts & Wüstenhagen, 2010; Klewitz & Hansen, 2013). Subsequently (once the businesses are running), it acquires other roles that are needed to improve sustainability policies, impact and performance of sustainable businesses (Gerlach, 2003;Schaltegger & Wagner, 2011; York & Venkataraman, 2010), and finally, it could lead to an industry transformation if new and incumbent firms collaborate together to this end (Hockerts & Wüstenhagen, 2010; Woolthuis, 2010). What is also evident is that different types of innovation are required in each role, what reaffirms that SE could be seen as a multi-innovation implementation process, because it requires diverse types and applications

of innovation to get truly sustainable businesses (Gerlach, 2003). Figure 4 illustrates a synthesis of the seven innovation roles and the types of innovations needed and principal benefits that innovation could provide in each of them.

Innovation in a first phase is a key element to anticipate new problems, new developments and new solutions (Lans et al., 2014); i.e. innovation lets to identify society unmet needs (Hockerts & Wüstenhagen, 2010) that allows the adoption of sustainable business solutions (Cohen & Winn, 2007), integration of sustainable practices (Spence et al., 2011) and creation of new, sustainable products and services (Gerlach, 2003) for the establishment of new sustainable firms or the transformation of incumbent firms towards sustainability (Hockerts & Wüstenhagen, 2010). For this, the implementation of product/service (Criado-Gomis, et al., 2017), organizational/managerial (Davies & Chambers, 2018), process (Cohen &Winn, 2007) and/or marketing (Hapenciuc et al., 2015) innovations are required. It is necessary to clarify that incumbent firms have a better ability in introducing process innovations (Criado-Gomis, et al., 2017), while for new firms it is easy to implement product innovations (Hockerts & Wüstenhagen, 2010).

In a second phase, once sustainable firms are running, innovation should serve as a policy that leads to the improvement of several sustainable practices and actions that enhance the impact and performance of sustainable businesses (Schaltegger & Wagner, 2011; York & Venkataraman, 2010). This phase is where innovation roles are even more related, inasmuch as it is feasible that effective development of sustainable businesses depends on the combination of all five of them. It is difficult to think that sustainable businesses can be developed in an adequate way if they are not able to take advantage of the different roles that innovation can provide (Gerlach, 2003). Moreover, sustainable companies have to be aware that in order to truly integrate the environmental, social and economic dimensions is not enough with exploiting one of the innovation roles, but rather a company should try to apply a multi-innovation implementation process (Hauschildt, 2004).

A company must realize that many times these roles of innovation are interconnected and overlap each other (Gerlach, 2003). By applying some type of innovation, it could indirectly be acquiring another innovation role that had not been taken into account previously. Likewise, a company could fail if it focuses only on one of the roles of innovation, since these go in a parallel way. It is not possible, for example, to introduce process innovations that generate competitive advantages without taking into account whether these respond to stakeholders' unmet social and environmental needs or if they could be a driver for a positive performance. As another example, if a company reduces costs or increase revenue (gain competitive advantage) through innovations, it is logical to think that it also will have an impact on the performance of the business or that this could increase profit to pursue social and environmental objectives of the firm.

It can be argued that a sustainable firm can exploit solely one innovation role, but it will be not benefit from a truly sustainability. SE is about the implementation of innovations and the exploitation of those to achieve competitive advantages, to reach a positive performance and to improve relations with stakeholders while guarantying a pursuit of social and environmental change. Further it is logical to think that a firm can improve its sustainable impact and performance, if it is capable to seize innovation in a holistic way; i.e. exploit their innovations as: a competitive advantage, an instrument of social and environmental change, as a set of means to respond to stakeholders' unmet social and environmental needs, a set of means to make profit in order to pursue social and environmental objectives and a driver for a positive performance. In essence, a sustainable business would not be getting the most out of innovation and would not be having a fully sustainable performance if it did not implement a multi-innovation process which involves different types of innovation and the harnessing of the diverse innovation roles.

Of course, at this stage, depending on the role or roles that sustainable businesses want to exploit, different types of innovations are needed.

Finally, in a third phase of the multi-innovation implementation process, all innovations carried out by new and incumbent firms in conjunction could allow attaining supply chain integration (Woolthius, 2010), exploitation of untried technological innovations (York & Venkataraman, 2010), increase trust and collaboration, improvement of production (Woolthius, 2010), establishment of corporate sustainability (Hansen & Schaltegger, 2011), increase innovation capital (Woolthius, 2010), application of innovation systems (Fellnhofer, 2017) and introduction of transformational and incremental innovations (Hörisch, 2018), what leads to the transformation of a whole sector or industry towards sustainability (Hockerts & Wüstenhagen, 2010).

Authors therefore hypothesize that a multi-innovation implementation process will allow sustainable businesses to really achieve sustainable development.

CONCLUSION AND FUTURE RESEARCH

The descriptive results of the literature analysis reveal that there is a growing interest in studying the relation between SE and innovation. This could be explained also by the content results of the literature analysis, as it shows that there is not only one innovation role in SE, but rather the exploitation of various roles is required to achieve a better adoption of sustainability within businesses. Results allow arguing that SE is a complex process which requires a multi-innovation implementation process due to the fact that these innovation roles possess parallel ways, superpose and influence each other. The literature review addresses seven functions that innovation acquires in SE which, however, they have rarely been related to each other previously. This book chapter closes this gap by discussing and suggesting a holistic and dynamic framework of how these roles are related. Results allow arguing that sustainable businesses should not focus on taking advantage only of one innovation role, but rather the authors propose that if a company wants to achieve a real insertion in sustainable entrepreneurship should carry out a multi-innovation implementation process. That encompasses applying simultaneously different types of innovation (product/service, process, organizational/managerial and marketing) and covering various spotlights aimed at making better harnessing the benefits that innovation provides.

Future studies may contribute toward researching other issues that have been uncovered during this literature analysis. Even if, it has been identified that SE is about a multi-innovation implementation process, further study of the influence of each innovation role on sustainable businesses is recommended. It is logical to think that although the different roles of innovation must be carried out simultaneously some role can help sustainable businesses in a greater proportion, however it remains unclear. This is particularly relevant since it is not known once innovation allows the initial phases of SE process, which should be the next innovation role to be exploited by companies to continue with the multi-innovation implementation process. In addition, some of the theoretical statements of this research need to be clarify and amplified through an empirical lens, for example through conducting surveys and interviews with sustainable business leaders/entrepreneurs. This is an urgent investigation need because it is necessary to study the management and view of entrepreneurial actors of innovation in all sectors.

LIMITATIONS

The main limitation of this literature review comes from the database selection, since articles not included in Web of Science (WoS) or Scopus databases are excluded. Furthermore, the search was limited to English double-blind peer review journal studies, leaving side articles in other languages as well as conference articles, among other scientific resources. Another limitation of any literature analysis as the one carried out lies on the keywords selection. As an example, contributions that deal with sustainable entrepreneurship and innovation but do not use a familiar combination of terms were not included. In addition, related to the content analysis, a limitation of this type of research emerges from the interpretative nature of the literature analysis and the identification of the diverse innovation roles. Finally, this research is limited to a theoretical analysis, which in turn opens the door to future empirical research on this field.

REFERENCES

Abrahamsson, A. (2007). *Researching Sustainopreneurship-conditions, concepts, approaches, arenas and questions An invitation to authentic sustainability business forces. In 13th International Sustainable Development Research Conference* (pp. 10–12). Västerås: Mälardalens Högskola. Retrieved from https://andersabrahamsson.typepad.com/blog/files/researchingsustainopreneurship-abrahamsson.pdf

Aghelie, A., Sorooshian, S., & Azizan, N. A. (2016). Research gap in sustainopreneurship. *Indian Journal of Science and Technology*, *9*(12). doi:10.17485/ijst/2016/v9i12/77648

Amit, R., & Zott, C. (2001). Value creation in e-business. *Strategic Management Journal*, *22*(6-7), 493–520. doi:10.1002mj.187

Bocken, N. M. P. (2015). Sustainable venture capital - Catalyst for sustainable start-up success? *Journal of Cleaner Production*, *108*, 647–658. doi:10.1016/j.jclepro.2015.05.079

Brockhoff, K. (1994). *Forschung und Entwicklung: Planung und Kontrolle*. München: De Gruyter Oldenbourg.

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., & Monfort-Mir, V. M. (2012). Measuring innovation in tourism from the Schumpeterian and the dynamic-capabilities perspectives. *Tourism Management*, *33*(4), 776–789. doi:10.1016/j.tourman.2011.08.012

Chesbrough, H. (2012). Open innovation: Where we've been and where we're going. *Research Technology Management*, *55*(4), 20–27. doi:10.5437/08956308X5504085

Chesbrough, H., & Bogers, M. (2014). *Explicating open innovation: Clarifying an emerging paradigm for understanding innovation. In New Frontiers in Open Innovation* (pp. 3–28). Oxford, UK: Oxford University Press. doi:10.1093/acprof:oso/9780199682461.003.0001

Cohen, B., & Winn, M. I. (2007). Market imperfections, opportunity and sustainable entrepreneurship. *Journal of Business Venturing*, *22*(1), 29–49. doi:10.1016/j.jbusvent.2004.12.001

Cooney, S. (2009). *Build a green small business : profitable ways to become an ecopreneur*. New York: McGraw-Hill.

Criado-Gomis, A., Cervera-Taulet, A., & Iniesta-Bonillo, M.-A. (2017). Sustainable entrepreneurial orientation: A business strategic approach for sustainable development. *Sustainability*, *9*(9), 1667. doi:10.3390u9091667

Crnogaj, K., Rebernik, M., Hojnik, B. B., & Gomezelj, D. O. (2014). Building a model of researching the sustainable entrepreneurship in the tourism sector. *Kybernetes*, *43*(3), 377–393. doi:10.1108/K-07-2013-0155

Davies, I. A., & Chambers, L. (2018). Integrating hybridity and business model theory in sustainable entrepreneurship. *Journal of Cleaner Production*, *177*, 378–386. doi:10.1016/j.jclepro.2017.12.196

de Lange, D. E. (2016). A social capital paradox: Entrepreneurial dynamism in a small world clean technology cluster. *Journal of Cleaner Production*, *139*, 576–585. doi:10.1016/j.jclepro.2016.08.080

Dean, T. J., & McMullen, J. S. (2007). Toward a theory of sustainable entrepreneurship: Reducing environmental degradation through entrepreneurial action. *Journal of Business Venturing*, *22*(1), 50–76. doi:10.1016/j.jbusvent.2005.09.003

Dew, N., Sarasvathy, S. D., & Venkataraman, S. (2004). The economic implications of exaptation. *Journal of Evolutionary Economics*, *14*(1), 69–84. doi:10.100700191-003-0180-x

Djupdal, K., & Westhead, P. (2015). Environmental certification as a buffer against the liabilities of newness and smallness: Firm performance benefits. *International Small Business Journal: Researching Entrepreneurship*, *33*(2), 148–168. doi:10.1177/0266242613486688

Dodd, T., Orlitzky, M., & Nelson, T. (2018). What stalls a renewable energy industry? Industry outlook of the aviation biofuels industry in Australia, Germany, and the USA. *Energy Policy*, *123*, 92–103. doi:10.1016/j.enpol.2018.08.048

Fellnhofer, K. (2017). Drivers of innovation success in sustainable businesses. *Journal of Cleaner Production*, *167*, 1534–1545. doi:10.1016/j.jclepro.2017.08.197

Ferdousi, F. (2015). Impact of microfinance on sustainable entrepreneurship development. *Development Studies Research*, *2*(1), 51–63. doi:10.1080/21665095.2015.1058718

Gasbarro, F., Rizzi, F., & Frey, M. (2017). Sustainable institutional entrepreneurship in practice Insights from SMEs in the clean energy sector energy sector. *International Journal of Entrepreneurial Behaviour & Research*, *24*(2), 476–498. doi:10.1108/IJEBR-11-2015-0259

Gerlach, A. (2003). Sustainable entrepreneurship and innovation. *Conference Proceedings of Corporate Social Responsibility and Environmental Management Conference*.

Gibbs, D. (2009). Sustainability Entrepreneurs, Ecopreneurs and the Development of a Sustainable Economy. *Greener Management International*, *55*, 63–78. doi:10.9774/gleaf.3062.2006.au.00007

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

Hahn, R., Spieth, P., & Ince, I. (2018). Business model design in sustainable entrepreneurship: Illuminating the commercial logic of hybrid businesses. *Journal of Cleaner Production*, *176*, 439–451. doi:10.1016/j.jclepro.2017.12.167

Haldar, S. (2019). Towards a conceptual understanding of sustainability driven entrepreneurship. *Corporate Social Responsibility and Envorinmental Management,* 1–14. doi:10.1002/csr.1763

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, C. M. (2009). Innovation and tourism policy in Australia and New Zealand: Never the twain shall meet? *Journal of Policy Research in Tourism, Leisure & Events*, *1*(1), 2–18. doi:10.1080/19407960802703466

Hall, J., & Wagner, M. (2012). Integrating sustainability into firms' processes: Performance effects and the moderating role of business models and innovation. *Business Strategy and the Environment*, *21*(3), 183–196. doi:10.1002/bse.728

Hansen, E. G., & Schaltegger, S. (2013). 100 per cent organic? A sustainable entrepreneurship perspective on the diffusion of organic clothing. *Corporate Governance*, *13*(5), 583–598. doi:10.1108/CG-06-2013-0074

Hapenciuc, C. V., Pînzaru, F., Vătămănescu, E.-M., & Stanciu, P. (2015). Converging sustainable entrepreneurship and the contemporary marketing practices. An insight into Romanian start-ups. *Amfiteatru Economic*, *17*(40), 938–954. Retrieved from https://www.scopus.com/inward/record.uri?eid=2-s2.0-84937692888&partnerID=40&md5=bee1b4e11d5849db056e7c8dbe356035

Hauschildt, J. (2004). *Innovationsmanagement*. München-Schwabing: Verlag Vahlen.

Hjalager, A.-M. (2010). A review of innovation research in tourism. *Tourism Management*, *31*(1), 1–12. doi:10.1016/j.tourman.2009.08.012

Hockerts, K., & Wüstenhagen, R. (2010). Greening Goliaths versus emerging Davids - Theorizing about the role of incumbents and new entrants in sustainable entrepreneurship. *Journal of Business Venturing*, *25*(5), 481–492. doi:10.1016/j.jbusvent.2009.07.005

Horbach, J., Rammer, C., & Rennings, K. (2012). Determinants of eco-innovations by type of environmental impact—The role of regulatory push/pull, technology push and market pull. *Ecological Economics*, *78*, 112–122. doi:10.1016/j.ecolecon.2012.04.005

Hörisch, J. (2018). How business actors can contribute to sustainability transitions: A case study on the ongoing animal welfare transition in the German egg industry. *Journal of Cleaner Production*, *201*, 1155–1165. doi:10.1016/j.jclepro.2018.08.031

Kanter, R. M. (1983). *The Change Masters: Innovation and Entrepreneurship in the American Corporation*. New York: Simon and Shuster.

Kerlin, J. A. (2006). Social enterprise in the United States and Europe: Understanding and learning from the differences. *Voluntas*, *17*(3), 246–263. doi:10.100711266-006-9016-2

Kirzner, I. M. (1973). *Competition and entrepreneurship*. Chicago, IL: University of Chicago Press.

Klewitz, J. (2017). Grazing, exploring and networking for sustainability-oriented innovations in learning-action networks: An SME perspective. *Innovation*, *30*(4), 476–503. doi:10.1080/13511610.2015.1070090

Klewitz, J., & Hansen, E. G. (2013). Sustainability-oriented innovation of SMEs : A systematic review. *Journal of Cleaner Production*, *65*, 57–75. doi:10.1016/j.jclepro.2013.07.017

Kraus, S., Burtscher, J., Niemand, T., Roig-Tierno, N., & Syrjä, P. (2017). Configurational paths to social performance in SMEs: The interplay of innovation, sustainability, resources and achievement motivation. *Sustainability*, *9*(10), 1828. doi:10.3390u9101828

Kraus, S., Burtscher, J., Vallaster, C., & Angerer, M. (2018). Sustainable entrepreneurship orientation: A reflection on status-quo research on factors facilitating responsible managerial practices. *Sustainability*, *10*(2), 444. doi:10.3390u10020444

Lanoie, P., & Rochon-Fabien, A. (2012). Promoting pollution prevention in small businesses: Costs and benefits of the "enviroclub" initiative. *Canadian Public Policy*, *38*(2), 217–232. doi:10.3138/cpp.38.2.217

Lans, T., Blok, V., & Wesselink, R. (2014). Learning apart and together: Towards an integrated competence framework for sustainable entrepreneurship in higher education. *Journal of Cleaner Production*, *62*, 37–47. doi:10.1016/j.jclepro.2013.03.036

Larsson, M., Milestad, R., Hahn, T., & von Oelreich, J. (2016). The Resilience of a Sustainability Entrepreneur in the Swedish Food System. *Sustainability*, *8*(6), 550. doi:10.3390u8060550

Lee, C., Hallak, R., & Sardeshmukh, S. (2012). Antecedents of business performance in small tourism firms : A conceptual framework and research propositions. *Proceedings of World Business and Economics Research Conference 2012*. 10.2139srn.2184136

Muñoz, P., & Cohen, B. (2017). Towards a social-ecological understanding of sustainable venturing. *Journal of Business Venturing Insights*, *7*, 1–8. doi:10.1016/j.jbvi.2016.12.001

Muñoz, P., & Cohen, B. (2018). Sustainable entrepreneurship research: Taking stock and looking ahead. *Business Strategy and the Environment*, *27*(3), 300–322. doi:10.1002/bse.2000

Nikolaou, I. E., Tasopoulou, K., & Tsagarakis, K. (2018). A Typology of Green Entrepreneurs Based on Institutional and Resource-based Views. *The Journal of Entrepreneurship*, *27*(1), 111–132. doi:10.1177/0971355717738601

O'Neill, G. D. Jr, Hershauer, J. C., & Golden, J. S. (2006). The cultural context of sustainability entrepreneurship. *Greener Management International*, *55*(55), 33–46. doi:10.9774/GLEAF.3062.2006.au.00005

OECD & Statistical Office of the European Communities. (2005). *OECD Glossary of Statistical Terms - Innovation Definition*. Retrieved from https://stats.oecd.org/glossary/detail.asp?ID=6865

Phillips, W., Lee, H., Ghobadian, A., O'Regan, N., & James, P. (2014). Social innovation and social entrepreneurship : A systematic review. *Organization Management*, *40*(3), 428–461. doi:10.1177/1059601114560063

Porter, M. E., & van der Linde, C. (1995). Toward a new conception of the environment-competitiveness relationship. *The Journal of Economic Perspectives*, *9*(4), 97–118. doi:10.1257/jep.9.4.97

Raudeliuniene, J., Tvaronavičiene, M., & Dzemyda, I. (2014). Towards economic security and sustainability: Key success factors of sustainable entrepreneurship in conditions of global economy. *Journal of Security and Sustainability Issues*, *3*(4), 71–79. doi:10.9770/jssi.2014.3.4(7)

Rennings, K., & Rammer, C. (2011). The impact of regulation-driven environmental innovation on innovation success and firm performance. *Industry and Innovation*, *18*(03), 255–283. doi:10.1080/13662716.2011.561027

Ruijs, A., & van Egmond, P. (2017). Natural capital in practice: How to include its value in Dutch decision-making processes. *Ecosystem Services*, *25*, 106–116. doi:10.1016/j.ecoser.2017.03.025

Sarango-Lalangui, P., Santos, J. L. S., & Hormiga, E. (2018). The development of sustainable entrepreneurship research field. *Sustainability*, *10*(6), 2005. doi:10.3390u10062005

Schaltegger, S., Beckmann, M., & Hockerts, K. (2018). Collaborative entrepreneurship for sustainability. Creating solutions in light of the UN sustainable development goals. *International Journal of Entrepreneurial Venturing*, *10*(2), 131–152. doi:10.1504/IJEV.2018.092709

Schaltegger, S., Lüdeke-Freund, F., & Hansen, E. G. (2016). Business models for sustainability: A co-evolutionary analysis of sustainable entrepreneurship, innovation, and transformation. *Organization & Environment*, *29*(3), 264–289. doi:10.1177/1086026616633272

Schaltegger, S., & Wagner, M. (2011). Sustainable entrepreneurship and sustainability innovation: Categories and interactions. *Business Strategy and the Environment*, *20*(4), 222–237. doi:10.1002/bse.682

Schlange, L. E. (2006). Stakeholder identification in sustainability entrepreneurship: The role of managerial and organisational cognition. *Greener Management International*, *55*(55), 13–32. doi:10.9774/GLEAF.3062.2006.au.00004

Scott, E., Govender, T., & van der Merwe, N. (2016). The X-factor of cultivating successful entrepreneurial technology-enabled start-ups. *Informing Science*, *19*(1), 303–324. doi:10.28945/3580

Segal, G., Borgia, D., & Schoenfeld, J. (2005). The motivation to become an entrepreneur. *International Journal of Entrepreneurial Behaviour & Research*, *11*(1), 42–57. doi:10.1108/13552550510580834

Shepherd, D. A., & Patzelt, H. (2011). The new field of sustainable entrepreneurship: Studying entrepreneurial action linking "what is to be sustained" with "what is to be developed". *Entrepreneurship Theory and Practice*, *35*(1), 137–163. doi:10.1111/j.1540-6520.2010.00426.x

Spence, M., Gherib, J. B. B., & Biwolé, V. O. (2011). Sustainable entrepreneurship: Is entrepreneurial will enough? A north–south comparison. *Journal of Business Ethics*, *99*(3), 335–367. doi:10.100710551-010-0656-1

Sundbo, J. (1998). *The theory of innovation: enterpreneurs, technology and strategy*. Northampton, MA: Edward Elgar Publishing.

Terán-Yépez, E., & Guerrero-Mora, A. (2019). Factores determinantes de la motivación emprendedora. *Mikarimin. Revista Científica Multidisciplinaria*, *5*(1), 49–58.

Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British Journal of Management*, *14*(3), 207–222. doi:10.1111/1467-8551.00375

Urbaniec, M. (2018). Sustainable entrepreneurship: Innovation-related activities in European enterprises. *Polish Journal of Environmental Studies*, *27*(4), 1773–1779. doi:10.15244/pjoes/78155

Vallaster, C., Kraus, S., Kailer, N., & Baldwin, B. (2019). Responsible entrepreneurship: Outlining the contingencies. *International Journal of Entrepreneurial Behaviour & Research*, *25*(3), 538–553. doi:10.1108/IJEBR-04-2018-0206

Varis, M., & Littunen, H. (2010). Types of innovation, sources of information and performance in entrepreneurial SMEs. *European Journal of Innovation Management*, *13*(2), 128–154. doi:10.1108/14601061011040221

Wahga, A. I., Blundel, R., & Schaefer, A. (2018). Understanding the drivers of sustainable entrepreneurial practices in Pakistan's leather industry: A multi-level approach. *International Journal of Entrepreneurial Behaviour & Research*, *24*(2), 382–407. doi:10.1108/IJEBR-11-2015-0263

Weber, M. (2008). The business case for corporate social responsibility: A company-level measurement approach for CSR. *European Management Journal*, *26*(4), 247–261. doi:10.1016/j.emj.2008.01.006

Wolff, J. A., & Pett, T. L. (2006). Small-firm performance: Modeling the role of product and process improvements. *Journal of Small Business Management*, *44*(2), 268–284. doi:10.1111/j.1540-627X.2006.00167.x

Woolthuis, R. J. K. (2010). Sustainable entrepreneurship in the Dutch construction industry. *Sustainability*, *2*(2), 505–523. doi:10.3390u2020505

York, J. G., & Venkataraman, S. (2010). The entrepreneur-environment nexus: Uncertainty, innovation, and allocation. *Journal of Business Venturing*, *25*(5), 449–463. doi:10.1016/j.jbusvent.2009.07.007

APPENDIX

Table 5. List of all the papers included in the study

Authors	Year	Journal
Gerlach A.	2003	*Centre for Sustainability Management (CSM)*
Cohen, B., & Winn, M.I.	2007	*Journal of Business Venturing*
Woolthuis R.J.K.	2010	*Sustainability*
York, J.G,. & Venkataraman, S.	2010	*Journal of Business Venturing*
Hockerts, K., & Wustenhagen, R.	2010	*Journal of Business Venturing*
Schaltegger, S., &Wagner, M.	2011	*Business Strategy and the Environment*
Spence, M., Gherib, J.B., & Biwole, V.O.	2011	*Journal of Business Ethics*
Rennigs, K., & Rammer, C.	2011	*Industry and Innovation*
Hansen, E.G. & Schaltegger, S.	2013	*Corporate Governance*
Klewitz J., & Hansen, E.G.	2014	*Journal of Cleaner Production*
Crnogaj, K., Rebernik, M., Hojnik, B.B., & Gomezelj D.O.	2014	*Kybernetes*
Raudeliuniene, J., Tvaronavičiene, M., & Dzemyda I.	2014	*Journal of Security and Sustainability Issues*
Lans, T, Blok, V., & Wesselink, R.	2014	*Journal of Cleaner Production*
Bocken, N.M.P.	2015	*Journal of Cleaner Production*
Djupdal, K., & Westhead, P.	2015	*International Small Business Journal*
Ferdousi F.	2015	*Development Studies Research*
Hapenciuc, C.V., Pînzaru, F., Vătămănescu, E.M., & Stanciu, P.	2015	*Amfiteatru Economic*
Aghelie, A., Sorooshian, S., & Azizan, N.A.	2016	*Indian Journal of Science and Technology*
Larsson, M., Milestad, R., Hahn, T., & von Oelreich, J.	2016	*Sustainability*
Schaltegger, S., Lüdeke-Freund, F. & Hansen, E.G.	2016	*Organization and Environment*
Scott, E., Govender, T. & van der Merwe, N.	2016	*Informing Science*
Klewitz, J.	2017	*Innovation*
Kraus, S., Burtscher, J., Niemand, T., Roig-Tierno, N., & Syrjä, P.	2017	*Sustainability*
Munoz, P., & Cohen, B.	2017	*Business Strategy and The Environment*
Ruijs A., & van Egmond P.	2017	*Ecosystem Services*
Criado-Gomis, A., Cervera-Taulet, A., & Iniesta-Bonillo, M.A.	2017	*Sustainability*
de Lange, D.E.	2017	*Journal of Cleaner Production*
Davie,s I.A., & Chambers, L.	2018	*Journal of Cleaner Production*
Fellnhofer, K.	2018	*Journal of Cleaner Production*
Gasbarro, F., Rizzi, F., & Frey, M.	2018	*International Journal of Entrepreneurial Behaviour and Research*
Hahn, R., Spieth, P. & Ince, I.	2018	*Journal of Cleaner Production*
Nikolaou, I.E., Tasopoulou, K. & Tsagarakis, K.	2018	*Journal of Entrepreneurship*
Schaltegger, S., Beckmann, M. & Hockerts, K.	2018	*International Journal of Entrepreneurial Venturing*
Urbaniec, M.	2018	*Polish Journal of Environmental Studies*
Wahga, A.I., Blundel, R., & Schaefer, A.	2018	*International Journal of Entrepreneurial Behaviour and Research*

Chapter 2
A Bibliometric Study on Socially Responsible Entrepreneurs

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ABSTRACT

Entrepreneurship is a necessary strategy that entails the emergence of a business idea and the creation of a company, constituting a true entrepreneurial capital. At present, the European Commission (EC) urges entrepreneurship given the potential for sustainable and inclusive growth. Also, the EC, since 2001, pronounced itself the need for a voluntary integration of social, economic, and environmental concerns in business strategies. The objective of this chapter is to achieve a confluence of ideas that link the initiative of an entrepreneur with the need to carry out a socially responsible strategy today in business. A bibliometric study was undertaken by means of a structured and systematized search of the Web of Science, Scopus, Elsevier, and Google Scholar during the 2005-2017 period, limiting the search to articles published in journals. Fifty-two works were located, which were published in 35 journals. The study has identified a set of entrepreneurship initiatives partially connected with social responsibility, which allows us to qualify him as a "socially responsible entrepreneur."

INTRODUCTION

We conceive entrepreneurship as a necessary vehicle in the countries to grow, giving rise to the emergence of business ideas and the creation of companies that come to constitute an engine for the economy. The sum of the factors that contribute and collaborate in the beginning of all activity is known as "venture capital or risk capital", being the reflection of several factors of legal, institutional and social type. Ac-

DOI: 10.4018/978-1-7998-2704-7.ch002

cording to several authors, the unit of measurement of risk capital is the region or city (Audretsch, 2009; Audretsch & Stephan, 1996). This venture capital will have a positive impact on regional economic growth, so the promotion of entrepreneurship would be a cornerstone of regional, national and European policy, as well as the key to achieving economic growth and increases in productivity, thereby improving the business capacity of an economy (Audretsch, 2009).

The European Commission (EC) (2010), in the *Europe 2020 Strategy*, recognizes the importance of entrepreneurship and self-employment, in order to achieve sustainable and inclusive growth. To support these initiatives, the EC focuses its efforts in numerous directions, seeking not only the promotion of entrepreneurship and self-employment, but also fostering mutual learning and capacity-building in the countries and regions of the European Union (EU), encourage the adoption of voluntary standards and protection measures for entrepreneurship and support it financially.

Today there are many options to enjoy well-adapted spaces, both individual and shared, with a low cost and even at zero cost, allowing you to develop a job easily and without having to face the property of a local or the payment of high rents; also, the ability to have the initial Business Plan is important, since it is not easy and staff with adequate knowledge are not always available to do this task; moreover, entrepreneurship is associated with the ability to innovate in business, action that must be carried out not only at the beginning but continuously, and must be alert to the market and competitors and design actions to overcome competitors; finally, the existence of groups, associations or clusters of companies in the same industry helps to advance, supporting each other to progress, which is a source of progress and competitiveness.

On the other hand, since the year 2001, when the European Commission issued the so-called *Green Paper, Fostering a European Framework for Corporate Social Responsibility*, the issue of Corporate Social Responsibility (CSR) began to be dealt with extensively. This strategy refers to the integration, voluntarily, by companies, of social and environmental concerns, beyond the classic concerns of an economic nature. It is also important to highlight the need to meet the needs of the so-called *stakeholders* (EC, 2001, 2011), given that stakeholders play a fundamental role, motivating companies to carry out socially responsible practices. By carrying out the integration of social, economic, ethical, environmental and human rights issues, the maximization of the creation of shared value for owners/shareholders, as well as for other *stakeholders* and society as a whole is pursued.

Under these initial premises, abundant literature has come to support the exercise of CSR in organizations as a whole. Although the strategy was initially worked on in large companies, subsequently, SMEs have also begun to carry out practices of this nature (Gallardo-Vázquez, Sánchez-Hernández & Corchuelo, 2013; Sánchez & Gallardo, 2012).

Our perspective is based on the need to combine both strategies, linking the entrepreneurial attitude with the socially responsible aptitude that every entrepreneur must adopt, under the idea that today any new business that is established must be socially responsible, and in turn, that in a socially responsible society, entrepreneurship should be encouraged and promoted, as a more responsible action for the community. When analyzing the existing literature, we have observed that there are very few jobs that link entrepreneurship with social responsibility. In addition, this linkage is very partial. We do not observe that the entrepreneurial activity is carried out in a socially responsible context, in which a CSR action implementation policy has been established. On the other hand, the mentions that the entrepreneur makes towards CSR are quite collateral, focusing only on partial aspects, such as the environment, social entrepreneurship or innovation. In addition, many of them present the objective of creating a theoretical framework, which demonstrates the lack of practical reality of the link that gives rise to the socially

responsible entrepreneur. Given the existence of this research gap, we are sure that are combining two major lines of research that are receiving great attention in recent years, which gives great potential to this work approach that had not been completely addressed before.

To cover this gap in the literature and in response to the great relevance of the topic, the objective of this research is to: a) systematize existing studies in socially responsible entrepreneurship; b) analyze theoretically the characteristic factors of an entrepreneur that determine a responsible attitude; and c) develop a future path of research that allows to guide a line of research of its own.

The first objective of this work is oriented to achieve a confluence of ideas that link the attributes of an entrepreneur with the need to carry out a socially responsible strategy today in business. To do this, a bibliometric study was undertaken by means of a structured and systematized search of the Web of Science, Scopus and Elsevier databases, as well as Google Scholar during the 2005-2017 period, limiting the search to articles published in journals. 52 works were located, which were published in 35 journals. The second objective of the research has been theoretically addressed and has allowed us to identify a set of attributes common to an entrepreneur in a context of social responsibility, which allows us to qualify him as a "socially responsible entrepreneur". With respect to the third objective set, we observe that some lines of work are still open as a result of some identified gaps and open work opportunities for future research.

The work presents the following structure. After the introduction, the review of the literature and conceptualization, both of entrepreneurship and of Corporate Social Responsibility, is carried out. In section three, the factors that delimitate the capacity of the socially responsible entrepreneur are addressed. Next, in the fourth section, the methodological procedure followed is indicated, giving way to the results of the analysis in section five, to finally present the future research directions in section six and conclusions in section seven.

REVIEW OF LITERATURE AND CONCEPTUALIZATION

Entrepreneurship

Entrepreneurship is a line of growing interest in literature (Barucic & Umihanic, 2016). At the same time, it is a valuable source of performance for communities. In this sense, Kirchhoff (1991) and Audretsch (2009) pointed out that it is an important mechanism that generates economic growth. On the other hand, we know that starting any activity is not an easy task, although this has numerous positive consequences, such as: i) the potential to contribute to economic development (Audretsch, 2009; Kirchhoff, 1991; Mani, 2015), ii) the possibility of improving the business, iii) improvements in employment and iv) the scope of certain competitiveness.

Welter (2011) analyzed the role of various types of contexts in determining when, how and why entrepreneurship is carried out and who is involved in an activity of this nature. Other authors conclude that gender and culture are variables that determine the intentions to undertake (Shinnar, Giacomin & Janssen, 2012).

Several studies on entrepreneurial social networks show their role in the mobilization of resources. Birley and Cromie (1988) consider that the theory of the social network is based on two principles: 1) The entrepreneurial process implies a set of scarce resources of the environment; 2) Resources are often obtained through the personal network of entrepreneurs. Some studies even show the importance of the

cognitive capacities and the strategy capacity of the entrepreneurs and their management teams for the forecast of alternative configurations of internal and external resources that allow companies to continue creating and exploring opportunities (Pandza & Thorpe, 2009).

Corporate Social Responsibility

Bolton, Chung-hee Kim and O'Gorman (2011) say that CSR is a dynamic and developing process that falls on the involvement of the stakeholders that it places at the center of the organizational process. Freeman (1984) defined the stakeholders as any group or individual that can affect or is affected by the achievement of the objectives of an organization. However, after numerous contributions in this line, it has been said that the company is composed of a complex network of stakeholders and each has a mission to play to ensure the legitimacy of the organization (Porter & Kramer, 2002, 2006).

Carroll (1979) suggested that CSR comprises the economic, legal, ethical and philanthropic expectations that society has of organizations. Later, Carroll and Bucholtz (2003) pointed out that businesses have to generate a benefit, obey the law, be ethical and be good members of citizenship. In this sense, Barnett (2007, p. 801) defined CSR as the "discretionary allocation of corporate resources towards the improvement of social welfare that serves as a means to strengthen relations with stakeholders".

The importance of CSR in improving the competitiveness of the organization through the reduction of costs is well known (Jenkins, 2006), creating new value by entering new markets (Porter & Kramer, 2006) and attracting new talent (Montgomery & Ramus, 2011), building better relationships with employees, customers, suppliers and communities (Sen & Bhattacharya, 2001). At the same time, CSR can improve financial and social performance (McWilliams & Siegel 2000, 2001; Siegel & Vitaliano 2007).

FACTORS THAT DELIMITATE THE CAPACITY OF THE SOCIALLY RESPONSIBLE ENTREPRENEUR

In relation to the factors that delimit an entrepreneur and his ability to carry out the action of creating a new activity, we will highlight some related to the period before the start of the business (passion, environmental dynamism, uncertainty and competitiveness), others related to the initial state of the activity (role of innovation, creativity, differentiation, self-sufficiency, personal initiative, assumption of risks, proactivity, autonomy, aggressive competitiveness), others related to the state of development of the activities (position in the market, competitiveness, relationship with stakeholders, relationship with competitors), we will refer to them below.

Barucic and Umihanic (2016), Cardon, Zietsma, Saparito, Matherne, and Davis (2005) point out passion as an important factor found in the heart of the entrepreneur. It is an important issue that entrepreneurs should keep in mind. In a context where uncertainty, the desire to launch new products and services is evident, organizations have to work with limited resources, and the personal aspect is necessary to face these challenges. On the other hand, passion can encourage motivation, improve mental activity and give meaning to everyday work (Barucic & Umihanic, 2016; Cardon et al., 2013).

The factors external to the company, such as environmental dynamism, uncertainty and competitiveness (Bhardwaj, Camillus & Hounshell, 2006; Kuratko, Ireland & Hornsby, 2001) influence entrepreneurial action. Hansen, Deitz, Tokman, Marino, and Weaver (2011) and Lumpkin and Dess (1996a) state that

risk behaviors derive from the willingness and predisposition to invest in projects that have uncertain results or unusually high profits and losses.

The Report in the *Global Education Initiative of the World Economic Forum* (2009) points to the strong evidence that entrepreneurship can boost economic growth. For this, the role of innovation must be taken into account, so that entrepreneurship and innovation must go hand in hand in any new business strategy, which can provide excellent results in the development of regions and countries (Sine & Lee, 2009). Innovation leads to different values, such as creativity and differentiation in order to be a pioneer in the context. In this sense, Fernández and Sánchez (2014), based on the GEM Spain Report, make reference to the stimulation of creativity, self-sufficiency and personal initiative.

Along with innovation, the willingness to take risks is another dimension associated with entrepreneurial orientation (Blesa, Ripollés & Monferrer, 2009). As other authors have expressed (Lumpkin & Dess, 1996b), taking risks in business decision-making is inevitable in innovative and proactive behaviors.

In this issue of entrepreneurship and business creation so important is the initiative taken by people or their proactivity as the support received to carry out the business project. Thus, the existence of local or regional organizations that support and encourage entrepreneurs is completely necessary for a good definition of the company. There is abundant literature that indicates that the promotion of entrepreneurship is a central issue in the economic strategies of governments around the world (Arshed, Carter & Mason, 2014).

On the other hand, we must also highlight the role that autonomy plays in the development of the activity. Based on some authors (Arzubiaga, Iturralde & Maseda, 2012), autonomy is understood as an independent action of an individual or a team to launch an idea and develop it. They point out that it is the ability and desire to freely decide for themselves the search for market opportunities. Other authors observe the importance of autonomy both in the internal and external dimension (Nordqvist, Habbershon & Melin, 2008) and other types of companies (Martin & Lumpkin, 2003; Short, Broberg, Cogliser & Brigham, 2009; Zellweger & Sieger, 2012).

We must also consider the tendency of all companies to directly and intensely challenge their competitors to overcome their rivals in the sector, what the literature calls aggressive competitiveness (Arzubiaga et al., 2012; Lumpkin & Dess, 1996a). Dimitratos, Plakoyiannaki, Pitsoulaki, and Tüselmann (2010) refer to the reasons for discrepancies between companies. Some companies may compete in different market niches or segments, depending on the size of the company. This can determine a reactive posture and this leads to a competitive aggressiveness.

According to Porter (2006), and in relation to the position in the market, companies must be flexible to respond quickly to market changes. They must benchmark continuously to achieve best practices and obtain efficiency. Positioning is rejected as too static for the current dynamic markets. Rivals can quickly copy and position themselves in the market, and the competitive advantage is, at best, temporary.

In relation to competitiveness, the need to be competitive is a general topic over the years. Companies have to obtain competitive advantages in order to differentiate themselves in the market. Hult, Snow and Kandemir (2003) examine the role of entrepreneurship in building a culture of competitiveness in organizations. It is defined as the degree to which organizations are predisposed to detect and cover gaps between what the market wants and what is generally offered.

With regard to the relationship with stakeholders, Voss, Voss and Moorman (2005) seek to integrate the theory of stakeholders into entrepreneurial guidance literature to explore the relationships between different entrepreneurial behaviors and the support of stakeholders with divergent interests. In this sense, Kuratko, Hornsby and Goldsby (2007) point out that relations between stakeholders affect the entrepre-

neurial intensity within organizations. In this way, the latter authors use the framework of stakeholder theory as a guide to explore the relationship between the relevance of the stakeholders, the organizational position and the entrepreneurial intensity.

When talking about the relationship with competitors, the literature says that competitive intensity is often associated with relative parity between companies competing in an industry (Porter, 1980). Companies must create and exploit some basis for the search for competitive advantage. That is, companies must pursue technological innovation, product, market, strategy or innovation of the business model, taking advantage of opportunities to compete on different and valuable bases (Ireland, Covin & Kuratko, 2009).

So far we have talked about the delimiting factors of the traditional entrepreneur, predominantly focused on profit.

Reinforcing the idea that entrepreneurial factors are formulated by identifying opportunities and exploiting those opportunities, the entrepreneur needs financial resources and human resources, to generate value in a corporate / business environment. In the company, the entrepreneur must assume the entrepreneurial vision, seeking new ways to sell a product or service, as well as solutions to the problems that arise, observing the need of the client and the growth of his brand. But the enterprising entrepreneur, to ensure the sustainability of this value creation, must focus not only on the benefits, but also on the expansion of the sustainability of his company, on the development of social capital and on actions that promote activities that prioritize the strengthening of the community, enabling social and human growth and environmental preservation.

Thus, sustainable entrepreneurship emerges from studies related to entrepreneurship and at the same time implying economic, social and environmental principles (Shepherd & Patzelt, 2011). O'Neill, Hershauer and Golden (2009) and Schlange (2009) also understood sustainable entrepreneurship as one that concomitantly integrates the economic, social and environmental aspects of their strategies. These authors considered in their studies the acumen of the stakeholders, considering the creation of values between the companies and the interested parties, involved and affected by their businesses (Hörisch, Freeman & Schaltegger, 2014).

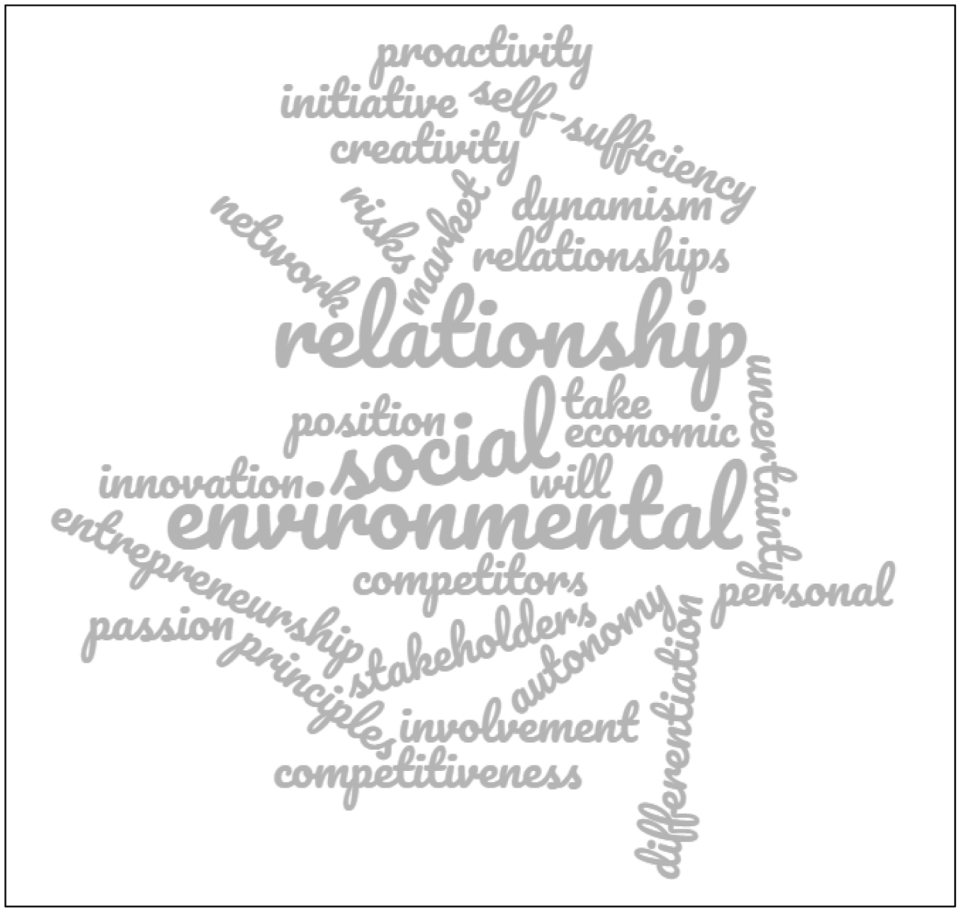
The entrepreneurs that participate in the entrepreneurial activity, which respects these three dimensions, have their performance highly addressed by characteristic values of sustainability. These values must be created and shared based on the interrelation between the company and its stakeholders (Parmar et al., 2010; Starik & Kanashiro, 2013).

Schlange (2009) points out that this relationship and respect for stakeholders in an entrepreneurial perspective implies the intentional establishment of their network of social relationships. Thus, the stakeholders involved must be focused on that specific context, since generating social, environmental and economic value for that group is one of the factors that will contribute to the consolidation of the company (Freeman et al., 2010).

To conclude, Parmar et al. (2010) recall that companies that start in a socially responsible entrepreneurial activity seek to disseminate sustainable values from the interaction between their various stakeholders, as they allow the confluence and the creation of mutual values guided by principles of sustainability. Hörisch et al. (2014) point out that these companies focus on their relationships in the mutual interests for the rooting and propagation of sustainable values along the chain of their stakeholders to other interested parties.

Therefore, as a summary, in terms of values that an entrepreneur qualified as socially responsible should have, we must emphasize passion, environmental dynamism, uncertainty, competitiveness, innovation, creativity and differentiation, self-sufficiency and personal initiative, will take risks, proac-

Figure 1. Theoretically defined attributes for the socially responsible entrepreneur
Source: Authors



tivity, autonomy, position in the market, relationship with stakeholders, relationship with competitors, entrepreneurship, involvement of economic, social and environmental principles and network of social relationships.

Now, we are going to show the importance of the attributes. According to Figure 1, the most prominent are the relationship, social and environmental aspects, followed by the others.

METHODOLOGICAL PROCEDURE

The procedure followed in this paper has been similar to that carried out by De Oliveira, Santos, Becker, and Hansen (2016), who relied on other bibliometric studies, such as those of Crossan and Apaydin (2010), Kurtz, Santos, and Steil (2013) and Santos, Maldonado, and Santos (2011). In this sense, two stages are distinguished: a) systematic search and b) systematic analysis of the literature.

Stage 1: Systematic Search

First, several databases of the University of Extremadura, such as Web of Science, Scopus, Elsevier, as well as Google Scholar, have been considered as sources of information to constitute the starting point of this work. For the selection of works, "Social Responsibility", "Sustainability" and "Entrepreneurship" have been used as key words, as fundamental terms of our search, both in title, abstract and key words of the paper. The language in which the search was carried out was English. Regarding the chronological period, given that we are facing very new issues, we chose to cover the period 2005-2017, considering that a period of 13 years would yield a lot of information on socially responsible entrepreneurship. On the other hand, regarding the type of document to study, the study has been limited exclusively to articles in journals considering that they are works that enjoy a certain level of diffusion, not including other sources such as communications to congresses and books. It has also been restricted to the Business and Management categories. In this way, 52 works were located.

Stage 2: Systematic Analysis

Once the different searches were refined, those works that were duplicated in several databases were eliminated, proceeding to the construction of our own database, which included all the works that, from our point of view, included the parameters of interest. In this database, the following variables were included: a) Author / s: name and surname; b) Complete title of the article; c) Year of publication; d) Name of the journal; e) Keywords; f) Paper objective; g) Sample; h) Methodology used; i) Most relevant results. On this structure, the particular database was made in order to be analyzed with the use of some statistical program and to make a more exhaustive treatment of the bibliographic references. This phase has been carried out completely manually by the authors.

We analyzed the keywords of the 52 articles found in order to see if there were similarities in them. Likewise, the objectives of the papers were analyzed, observing if in them the confluence between the corporate social responsibility and the entrepreneurship that the authors pretend to find was observed.

Once we have obtained the references of the 52 articles, we proceeded to read the abstracts of all of them in order to analyze if the content really fit the search we were doing. After this global reading of all the abstracts, 3 were discarded since they did not observe joint references to the subjects under study, entrepreneurship and social responsibility, so they were discarded, with which our final sample was made up of 49 papers complete.

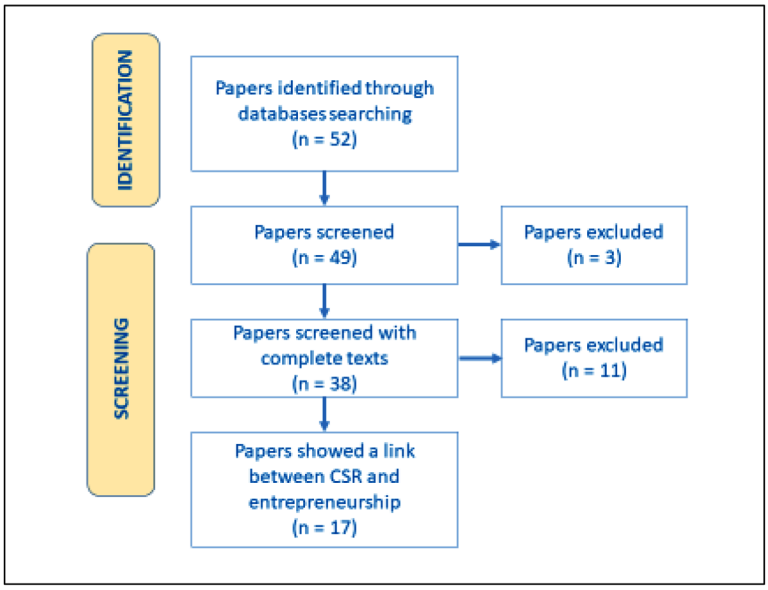
On the other hand, we proceeded to locate the complete texts of the articles, having obtained a total of 38 papers. This number of articles are those that have been finally read in depth to be able to make the corresponding content analysis. Nevertheless, we will observe that when evaluating the objectives of the papers, only 17 clearly show a defined link between CSR and entrepreneurship.

These steps are represented in Figure 2.

ANALYSIS RESULTS

As we have mentioned, 52 papers have been finally worked on in the study of abstracts and 49 for the analysis of full-text works. These papers have been published in 35 different journals, corresponding authorship to 118 authors, from 27 different countries and 89 academic institutions. Further analysis

Figure 2. Flow diagram for socially responsible entrepreneur database sourcing and screening
Source: Authors



will be observed below (Table 1). More information about the complete selection could be observed in Appendix 1.

Number of Publications Per Year

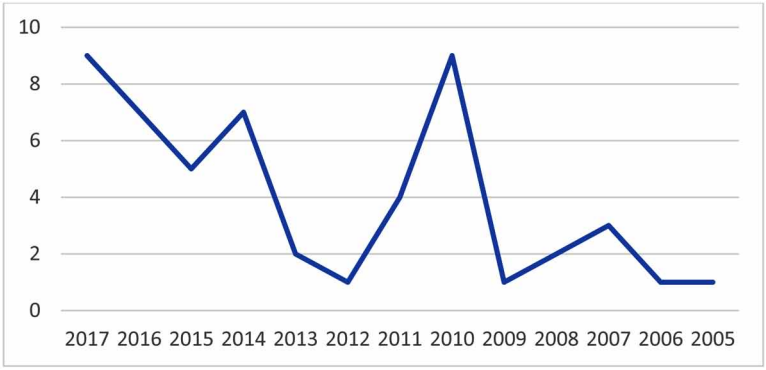
First place, the number of publications per year has been analyzed, in order to observe the interest that the issue has caused in the time horizon proposed. In Figure 3 we see how the number of papers published in the period 2005-2017 under study has evolved in a somewhat surprising way. Our idea was to obtain an ascending number in the number of publications, however, periods of increases and decreases are observed. Between 2005 and 2006 there is scarcely a published paper; the situation increases to 3 jobs in 2007, although it drops sharply to 1 in 2009; again, and very suddenly, the published papers increase to 9 in 2010; they fall again to 4 in 2011 and to 1 in 2012; a slight increase to 2 papers in 2013, an increase

Table 1. General Results of publications

Bibliographic Data	Quantity
Papers	52
Journals	35
Authors	118
Institutions (affiliation of the author)*	89
Countries	27

* It has not been possible to locate the affiliation of an author of a paper
Source: Authors

Figure 3. Number of publications per year
Source: Authors



to 7 papers in 2014, again a decrease to 5 papers in 2015 and a new increase to 7 and 9 papers in 2016 and 2017 respectively. As it is observed, the period of study is marked by constant ups and downs in the number of publications, not being able to affirm the existence of a constant in the publication of papers in this so new line of research.

Aims of the Papers

When evaluating the objectives of the papers, those that clearly show a defined link between CSR and entrepreneurship have been extracted. From the 52 works initially analyzed, only 17 consider that they show this connection (Table 2). As we can see in this Table 2, the objectives of the works are very diverse. Some of them are oriented to the creation of a framework to evaluate entrepreneurship (Arogyaswamy, 2017; Hockerts & Wüstenhagen, 2010; Schaltegger, Lüdeke-Freund & Hansen, 2016; Schaltegger & Wagner, 2011); others are oriented to expose general aspects of entrepreneurship (Baka Banki & Nizam Isamil, 2015; Kuckertz & Wagner, 2010; Morrish, Miles & Polonsky, 2011; Pérez-Pérez & Avilés-Hernández, 2016; Ratten, 2010; Schimmenti, Migliore, Di Franco & Borsellino, 2016); the others focus on very varied topics, such as the incidence of contextual factors of the original countries (Azmat, 2010); CSR implementation (Baron, 2007); the ability of entrepreneur in the acquisition of resources (Calic & Mosakowski, 2016); the orientation to the resolution of environmental problems (Dean & McMullen, 2007); the entrepreneurship and its incidence in decision making (Divito & Bohnsack, 2017); the view of the entrepreneurship as a socioeconomic transformation process (Schaefer, Corner & Kearins, 2015); and finally, the link between sustainability and innovation (Foley & Wiek, 2014).

We can affirm that this line of research, which links entrepreneurship with CSR, does not present a defined approach at this time of study. The authors rely on both strategies to set very different objectives, so we understand that it suffers from a much more concrete and direct approach.

Presence of the Objective "Responsible Entrepreneurship" or "Sustainable Entrepreneurship" in the Papers Consulted

At this moment we have carried out the analysis based on the complete papers available to us, a total of 38. In them, we have been locating the presence of the terms object of the investigation, in order

Table 2. Objectives of the analyzed works that link CSR with entrepreneurship

Authors	Target Orientation	Objectives
Arogyaswamy (2017)	Creation of a framework	* To create a framework to evaluate the performance of social entrepreneurship, built on the type of metrics used by companies
Azmat (2010)	Incidence of contextual factors	* To explore whether the perceptions of social responsibility of immigrant entrepreneurs from less developed countries are influenced by the contextual factors of their original countries
Baka Banki & Nizam Isamil (2015)	General aspects in Nigeria	* To contribute to the understanding of small family-owned tourism businesses in Obudu Mountain, a resort destination in Nigeria
Baron (2007)	CSR implementation	* To analyze that a social entrepreneur carries out CSR actions beyond profit maximization
Calic & Mosakowski (2016)	Acquisition of resources	* To analyze how the orientation toward sustainability affects the ability of the entrepreneur to acquire financial resources through crowdfunding
Dean & McMullen (2007)	Resolution of environmental problems	* To observe how entrepreneurship can help solve the environmental problems of global socio-economic systems
Divito & Bohnsack (2017)	Incidence in decision making	* To examine the entrepreneurial and sustainable orientation, a persistent and conflicting duality of sustainable entrepreneurs and their evaluation of the priorities in sustainability decision making
Foley & Wiek (2014)	Linking sustainability with innovation	* To observe how current models of innovation could work in the future and how they could mitigate changes in sustainability and improve the quality of life
Hockerts & Wüstenhagen (2010)	Creation of a framework	* To propose a model on how headlines and new entrepreneurs are involved in sustainable entrepreneurship
Kuckertz & Wagner (2010)	General aspects	* To question whether individuals who care about sustainability issues show more entrepreneurial intentions
Morrish et al. (2011)	General aspects in New Zealand	* To examine sustainability as an emerging stimulus for corporate entrepreneurship in listed companies in New Zealand, using a process focused on sustainable corporate entrepreneurship
Pérez-Pérez & Avilés-Hernández (2016)	General aspects	* To know the aspects that determine the entrepreneurship of women and identify the factors that determine or hinder the creation and development of the businesses that they launch
Ratten (2010)	General aspects in the sporting context	* This work is oriented to the management of sport as a new field of business management with an accessible audience towards social responsibility. Sports management offers rationality to promote social responsibility and philanthropy for organizations and business leaders who have an opportunity to model socially responsible practices in the sporting context
Schaefer et al. (2015)	Socioeconomic transformation process	* To propose entrepreneurship as a process of socioeconomic transformation that could move humanity towards the flowering of sustainability, offering an ideal vision of sustainability where life flourishes indefinitely on earth
Schaltegger et al. (2016)	Creation of a framework	* A theoretical framework was developed to analyze the development of coevolutionary business models for the pioneers of sustainable niches and conventional actors that aim at the sustainable transformation of the markets
Schaltegger & Wagner (2011)	Creation of a framework	* To propose a framework to position the sustainable entrepreneur in relation to sustainable innovation
Schimmenti et al. (2016)	General aspects in wine industry	* To illustrate the adaptation of the wine industry to the new scenario of sustainable entrepreneurship

Source: Authors

to observe in how many papers, it is clearly revealed. The analysis has allowed us to locate a series of definitions and key aspects that characterize the terms under study (Table 3). Table 3 collects a sample of the definitions and key aspects extracted from the 8 papers that the authors have considered most relevant for expressing more clearly the pursued relationship, because they most clearly shown the link between responsible and sustainable entrepreneurship.

As we can see, some contributions indicate the maintenance of nature and vital systems in general as an objective of sustainable entrepreneurship (Calic & Mosakowski, 2016). Previously, Cohen & Winn (2007) and Dean & McMullen (2007) had pointed out the capacity of sustainable entrepreneurship to reduce degradation and improve ecosystems. Similarly, in the economic field, Hockerts & Wüstenhagen (2010) point to sustainable entrepreneurship as the exploitation of economic opportunities in search of a social and environmental transformation. The same potential of sustainable entrepreneurship for society and the environment is highlighted by Kuckertz & Wagner (2010). It is also important to consider the generation of greater value and lower costs, ideas presented by Morrish et al. (2011), considering that greater value can be obtained by being a responsible company. Schaltegger & Wagner (2011) link entrepreneurship with the scope of sustainable development, also highlighting the importance of innovation for sustainability. Finally, it is important to consider the adaptation of business models to the community in which they are developed instead of imposing entrepreneurial models that can generate changes in conditions within a community (Swanson & Devereaux, 2017).

Main Results and Conclusions About Responsible or Sustainable Entrepreneurship

Next, we have analyzed the same 8 papers that have most clearly shown their orientation towards responsible or sustainable entrepreneurship, obtaining the details on the type of study, context, results and conclusions derived from table 4. We observe that most of the papers offer theoretical perspectives (5 papers), compared to 2 quantitative empirical papers and one exploratory and qualitative one. In relation to the context in which these investigations are proposed, we can highlight the papers that analyze a review of the literature (6 papers), together with another that analyzes a significant number of projects and another that focuses on offering the perspective of engineering students.

Among the main results and conclusions, the idea of the effect on the creativity of the project derived from the entrepreneurial orientation stands out (Calic & Mosakowski, 2016). Within the theoretical perspectives, it concludes with a definition of this emerging field (Cohen & Winn, 2007); in another case the barriers to entrepreneurship are concluded (Dean & McMullen, 2007); the definition of a conceptual model is also obtained (Hockerts & Wüstenhagen, 2010); Schaltegger & Wagner (2011) design a sustainable entrepreneurship framework analyzing their link with sustainable innovation; Swanson & Devereaux (2017) conclude with a framework in sustainable entrepreneurship within the framework of culture; on the other hand, another paper concludes with the evaluation for the creation of value for the consumer as well as the reduction of the environmental impact (Morrish et al., 2011); finally, Kuckertz & Wagner (2010) conclude that the orientation towards sustainability does influence the business intention, but not in a similar way for all individuals.

Table 3. Objective of responsible or sustainable entrepreneurship

Definitions and Key Aspects in Responsible or Sustainable Entrepreneurship	Authors (Year)
The objective of sustainable entrepreneurship is to maintain the nature, the life support systems (i.e., environmental) and the community (that is, social)	Calic & Mosakowski (2016)
Sustainable entrepreneurship has the potential to slow down degradation and even gradually improve the ecosystems of the earth. Sustainable business initiative is defined as the examination of how opportunities to create future goods and services are discovered and exploited, by whom and with what economic, psychological, social and environmental aspects	Cohen & Winn (2007)
They argue that the growing desire of many people in the market for the cessation of environmentally degrading activities, combined with the willingness to pay for the reduction of these activities, represents an opportunity for entrepreneurial action that can lead to an improvement in the ecological sustainability	Dean & McMullen (2007)
Sustainable entrepreneurship is defined as the discovery and exploitation of economic opportunities through the generation of market imbalances that initiate the transformation of a sector towards an environmentally and socially more sustainable state	Hockerts & Wüstenhagen (2010)
Sustainable entrepreneurship is clearly associated with the promise of more traditional concepts of entrepreneurship, but also provides additional potential for society and the environment	Kuckertz & Wagner (2010)
Sustainable entrepreneurship should result in greater value, as well as lower costs. The fact that this does not happen in a general way may mean that companies do not link costs to sustainability. The integration of price problems with sustainability is essential, as consumers must perceive a growing value through being more responsible	Morrish et al. (2011)
The notion of sustainable entrepreneurship has been raised more recently to address the contribution of business activities to sustainable development more fully. Such an ambitious approach to entrepreneurship that seeks not only to contribute to the sustainable development of the organization itself, but also to create a growing contribution of the organization for the sustainable development of the market and society in general, requires substantial innovations of sustainability	Schaltegger & Wagner (2011)
Sustainable entrepreneurship fosters the adaptation of business models that sustain and enhance the values and traditions of a community for their benefit, instead of imposing entrepreneurial models that change the conditions within a community	Swanson & Devereaux (2017)

Source: Authors

Main Gaps and Opportunities for Future Research in Responsible or Sustainable Entrepreneurship

The search for gaps and opportunities for future research has focused on the 8 papers that have most clearly manifested their orientation towards responsible entrepreneurship, but among them we have collected those 6 papers that express clear lines of research in the link between the subjects of study. In this sense, the following contributions have been obtained (table 5).

As we can see, the link between sustainable entrepreneurship and ideology and capital markets stands out (Calic & Mosakowski, 2016); in another case it is considered to adopt the investor's perspective trying to achieve economic, social and environmental performance (Hockerts & Wüstenhagen, 2010); Kuckertz & Wagner (2010) consider the inclusion of environmental factors; in addition, the consideration of intercultural implications (Morrish et al., 2011); it is also noteworthy to consider the situation variables, external influence factors or characteristics of the business objectives (Schaltegger & Wagner, 2011); and finally, culture, society, must be considered as variables in decision making (Swanson & Devereaux, 2017).

Table 4. Results and conclusions of the analyzed papers

Authors (Year)	Type of Study	Context	Main Results and Conclusions
Calic & Mosakowski (2016)	Empirical (quantitative)	707 proyects	A sustainable social orientation has positive effects on the creativity of the project. The ability of entrepreneurs to acquire resources influences the success of commercial and social enterprises. When a project adopts a social orientation, it is more likely to be creative, and the funders seem to support both the social orientation and the creativity of a project
Cohen & Winn (2007)	Theoretical	Review of the literature	Sustainable entrepreneurship is a very recent phenomenon, both in practice and as a subject of academic research, and this work offers a theoretical definition for this emerging field. In this sense, the authors define sustainable entrepreneurship as the examination of "how opportunities to bring into existence "future" goods and services are discovered, created, and exploited, by whom, and with what economic, psychological, social, and environmental consequences" (2007, p. 35).
Dean & McMullen (2007)	Theoretical	Review of the literature	The analysis of the various categories of market failures suggests that barriers to be overcome include the lack of sufficient property rights regimes, the existence of prohibitive transaction costs, government support for monopolies and imperfect information. Environmental entrepreneurs who establish more effective property rights regimes for environmental resources can benefit from the transformation of a public good into a private one or from the elimination of externalities
Hockerts & Wüstenhagen (2010)	Theoretical	Review of the literature	This paper has defined a conceptual model around sustainable entrepreneurship. Its objective has been to advance the academic discussion on sustainable entrepreneurship by (i) highlighting the differential roles of "Davids" and "Goliaths" in the sustainable transformation of industries, (ii) discussing the specific opportunities and challenges of "emerging Davids" and "Greening Goliaths" as paths to sustainable development, and (iii) explore the interaction of entrepreneurial initiatives in small and large companies to achieve this development
Kuckertz & Wagner (2010)	Empirical (quantitative)	357 students and graduates of science and engineering of Munich	Engineering students with a stronger sustainability orientation are more likely to be self-employed. However, this effect disappears completely when inspecting the business student and the graduates. That is, the orientation towards sustainability does influence the business intention, but not in a similar way for all individuals
Morrish et al. (2011)	Exploratory theorist	Review of the literature and cases	Companies are reevaluating how they create value for the consumer and redesign products to maintain or increase it while reducing its environmental impact. Business activities associated with creating a more sustainable value to the consumer appear to be emerging, although 43.6% of the companies did not participate in sustainability initiatives based on products
Schaltegger & Wagner (2011)	Theoretical	Review of the literature	This work designs a framework of sustainable entrepreneurship and explores its links with sustainable innovation. The commercial implications of the analysis relate especially to important conditions that social and institutional entrepreneurs and other start-up companies and incumbents must take into account when deciding on sustainability innovation
Swanson & Devereaux (2017)	Theoretical	Review of the literature	The paper presents a framework in sustainable entrepreneurship within the framework of culture. The authors point out that while conventional entrepreneurial practices privilege characteristics such as profit and innovation, culturally sustainable entrepreneurship seeks that living cultures begin with their values, traditions and beliefs.

Source: Authors

Importance of the Keywords Considered in the Study

Once a comprehensive analysis of the literature on socially responsible entrepreneurship is carried out, we want to know the importance of the keywords considered in the paper. According to Figure 4, the most prominent is Entrepreneurship, followed by innovation and competitiveness. Later, we can observe Corporate Social Responsibility, sustainable entrepreneurship and uncertainty with the same degree of importance. Finally, the least important term is innovation.

Table 5. Future research

Authors (Year)	Main Gaps and Opportunities for Future Research
Calic & Mosakowski (2016)	In general, the questions that lie at the intersection of sustainable entrepreneurship, ideology, and capital markets can provide research opportunities for a wide range of scholars. Not only these questions are relevant to students of entrepreneurship, social enterprise and crowdfunding, but they can shed more light on the role of emotion versus information in financial decisions, the influence of ideology on creativity, and the changing nature of business and entrepreneurship in democratized financial markets
Hockerts & Wüstenhagen (2010)	Future research could take the investor's perspective and request the optimal portfolio allocation between Davids and Goliaths to simultaneously achieve high economic, social and environmental performance. Finally, a fundamental research question is whether there really are successful examples of the sustainable transformation of industries
Kuckertz & Wagner (2010)	Including environmental factors or different educational stimuli in the design of the research would be an interesting way for future research
Morrish et al. (2011)	There are opportunities for additional research on the background and results of the stimulus to corporate entrepreneurship, intercultural implications and unique industry studies
Schaltegger & Wagner (2011)	A future stream of research may be related to the question of shaping different entrepreneurial modes or approaches depending on the situation variables, external factors of influence or characteristics of the business objectives. Future research should also inform us more about the transformation process from traditional social entrepreneurship, ecological entrepreneurship and possibly also sustainable innovation in a niche towards sustainable entrepreneurship
Swanson & Devereaux (2017)	Mainly in future research efforts are to operationalize the framework. This can be formed by new field studies in a variety of living culture, environments where the knowledge base and the value systems of society are used as the main variables in decision-making, as business tourism activities are considered. Fundamental to the concept of culturally sustainable entrepreneurship is to determine how living cultures can achieve an equitable balance between the dimensions of social / cultural, environmental, and economic sustainability. Future directions of research should focus on ways to achieve this balance in scholarships and practice

Source: Authors

FUTURE RESEARCH DIRECTIONS

Entrepreneurship and corporate social responsibility (sustainable entrepreneurship) are issues that are increasingly taking a heavy weight and that open the door to future lines in different fields of scientific research. In our case, qualitative research through bibliometric studies is increasingly gaining strength because this type of research demonstrates the importance, impact and relevance of a particular topic (Patra, Bhattacharya & Verma, 2006). In addition, these studies are the preamble to the development of empirical studies with greater sustenance (Hassan, Haddawy & Zhu, 2014). More exactly, we suggest to develop a questionnaire, deliver it to a sample of entrepreneurs, and apply an exploratory and confirmatory factor analysis in order to empirically extract the factors that gather common characteristics and define the groups of attributes for entrepreneurs.

However, sustainable entrepreneurship or sustainopreneurship is a new field of entrepreneurship. Few researchers have studied this subject and consequently there is a need of research in order to provide conceptual basis for stimulating academics thought and improving the understanding of sustainable entrepreneurship as an important field of research. It is also important to considerer in future research motivations for innovation and sustainable entrepreneurship model considering a proper adjustment to the corporate environment. Future research on the perception and measure of social and environmental impact differences would be interesting, establishing correlations with economic impacts.

Figure 4. Importance of keywords
Source: Authors

Therefore, it is advisable to continue with the analysis of sustainable entrepreneurship (theoretical-empirical) from different directions both in the individual field and in the business, such as: Entrepreneurship in the university, social entrepreneurship, innovative entrepreneurship, intrapreneurship and the immigrant entrepreneurship. With this, business practices can be improved, generate new implications and strengthen public policies for different regions of the world.

CONCLUSION

The work has developed a very current line of research, as evidenced by some of the results obtained. We already indicated from the beginning that it was the conjunction of two lines of research sufficiently developed, entrepreneurship and corporate social responsibility or sustainability. Our interest was in observing whether the literature showed indications of the need to undertake under a socially responsible perspective.

First, entering into the empirical analysis, the results of the works found in the time horizon analyzed, 2005-2017 (13 years), show that this is a very incipient line of research; 52 works have been located; very dispersed, published in 35 journals, which indicates that there is no usual line of publication of these works that has defined some specific journals in the field.

The journals that host the largest number of articles are *Journal of Business Venturing* with 9 published works; *Business Horizons* with 4 published works; *Technological Forecasting & Social Change* with 3 published works; *Futures, Journal of Business Research, Research Policy and Organization & Environment* with 2 papers published each; the others contain only one published work. Of these works initially located, only 38 have been the final object of study to be those that have been found in full text.

When analyzing the keywords of all the articles, out of a total of 190 located in the works, for the key terms of the research, sustainability and entrepreneurship, there are a total of 49 and 54 key words

respectively, which represents a 25.79% and 28.42% of the total. Regarding the objectives of the works, those that clearly show a clear link between CSR and entrepreneurship have been extracted, having risen to 17 within the 52 analyzed works.

In the 38 works analyzed, only in 8 of them we have found a clear and direct reference to responsible or sustainable entrepreneurship, which has allowed us to extract a definition and identify some key aspects. These same 8 studies have allowed us to extract results and conclusions, while at the same time we have been able to identify certain gaps and opportunities for future research in some of them. In this sense, we can affirm that have achieved the first objective of the chapter, in order to systematize existing studies in socially responsible entrepreneurship.

Secondly, we have to say that the theoretical review has provided a series of determining characteristics that every responsible entrepreneur must possess, such as passion, environmental dynamism, uncertainty, competitiveness, innovation, creativity and differentiation, self-sufficiency and personal initiative, willingness to assume risks, proactivity, autonomy, position in the market, relationship with stakeholders, relationship with competitors, entrepreneurship, involvement of economic, social and environmental principles and network of social relations. Also, we can affirm that have achieved the second objective of the chapter, by analyzing the characteristics factors of an entrepreneur that determine a responsible attitude.

As a general conclusion, we must point out that there are few empirical investigations that are being carried out so far. We have found most of the theoretical works that have tried to identify or create a framework for study and work in the research object. We therefore consider that it is clear that this is a very new line of work, without established models on which to build a theory and be able to advance in practical empirical models. For this reason, from our point of view, there is a long way to go in this investigation because more literature is thus needed from sustainable entrepreneurship. In addition to expanding the bibliometric study that is presented, doors are opened to initiate other works, theoretical and empirical, in which the lines of entrepreneurship and sustainability converge and allow obtaining satisfactory results for today's society. Consequently, we consider that we have covered the third objective of the research, developing a future path of research.

With regard to the contributions of the study, this chapter was conceived with the objective of documenting the bibliographic relationship existing in the socially responsible entrepreneur topic. As we have observed, it is possible to link sustainability with the initiative of entrepreneurship, providing the state of situation at the end of 2017. The literature on social responsibility and entrepreneurship grows with this work, but the existence of an emerging field is evident and not yet completely addressed.

Regarding the limitations of the study, we can point out, first of all, those derived from the nature of the databases of analyzed articles. We believe that these ones, although they are comprehensive and exhaustive, may not represent all existing research on the subject. Secondly, these types of bibliometric reviews do not deepen the findings of the studies.

REFERENCES

Arshed, N., Carter, S., & Mason, C. (2014). The ineffectiveness of entrepreneurship policy: Is policy formulation to blame? *Small Business Economics*, *43*(3), 639–659. doi:10.100711187-014-9554-8

Arzubiaga Orueta, U., Iturralde Jainaga, T., & Maseda García, A. (2012). The measurement of the entrepreneurial orientation in family firms: A critical review of the literature. [in Spanish]. *Revista de Empresa Familiar*, *2*(2), 57–71.

Audretsch, D. B. (2009). Capital emprendedor y crecimiento económico. *Investigaciones Regionales*, *15*, 27–45.

Audretsch, D. B., & Stephan, P. (1996). Company-scientist Locational Links: The Case of Biotechnology. *The American Economic Review*, *86*(3), 641–652.

Barnett, M. (2007). Stakeholder Influence Capacity and the Variability of Financial Returns to Corporate Social Responsibility. *Academy of Management Review*, *32*(3), 794–816. doi:10.5465/amr.2007.25275520

Barucic, A., & Umihanic, B. (2016). Entrepreneurship education as a factor of entrepreneurial opportunity recognition for starting a new business. *Management*, *2*(2), 27–44.

Bhardwaj, G., Camillus, J. C., & Hounshell, D. A. (2006). Continual corporate entrepreneurial search for long-term growth. *Management Science*, *52*(2), 248–261. doi:10.1287/mnsc.1050.0477

Birley, S., & Cromie, S. (1988). Social networks and entrepreneurial in Northern Ireland. *Proceedings of Action Conference*.

Blesa, A., Ripollés, M., & Monferrer, D. (2009). The influence of entrepreneurial and market orientations in the performance of Belgian and Spanish international new ventures. [in Spanish]. *Revista Española de Investigación de Marketing ESIC*, *13*(2), 7–29.

Bolton, S. C., Kim, R. C., & O'Gorman, K. D. (2011). Corporate Social Responsibility as a Dynamic Internal Organizational Process: A Case Study. *Journal of Business Ethics*, *101*(1), 61–74. doi:10.100710551-010-0709-5

Calic, G., & Mosakowki, E. (2016). Kicking off Social Entrepreneurship: How a Sustainability Orientation influences Crowddunding success. *Journal of Management Studies*, *53*(5), 738–767. doi:10.1111/joms.12201

Cardon, M. S., Gregoire, D. A., Stevens, C. E., & Patel, P. C. (2013). Measuring entrepreneurial passion: Conceptual foundations and scale validation. *Journal of Business Venturing*, *28*(3), 373–396. doi:10.1016/j.jbusvent.2012.03.003

Cardon, M. S., Zietsma, C., Saparito, P., Matherne, B., & Davis, C. (2005). A tale of passion: New insights into entrepreneurship from a parenthood metaphor. *Journal of Business Venturing*, *20*(1), 23–45. doi:10.1016/j.jbusvent.2004.01.002

Carroll, A. B. (1979). A Three-Dimensional Conceptual Model of Corporate Social Performance. *Academy of Management Review*, *4*(4), 497–505. doi:10.5465/amr.1979.4498296

Carroll, A. N., & Bucholtz, A. K. (2003). *Business and Society: Ethics and Stakeholder Management*. Mason, OH: South-Western Thomson Learning.

Cohen, B., & Winn, M. I. (2007). Market imperfections, opportunity and sustainable entrepreneurship. *Journal of Business Venturing*, *22*(1), 29–49. doi:10.1016/j.jbusvent.2004.12.001

Crossan, M. M., & Apaydin, M. (2010). A multi-dimensional framework of organizational innovation: A systematic review of the literature. *Journal of Management Studies*, *47*(6), 1154–1191. doi:10.1111/j.1467-6486.2009.00880.x

De Oliveira, M. L., Santos, J. L. S., Becker, G. V., & Hansen, P. B. (2016). A bibliometric analysis of International literatura on collaboration in supply chain. *Revista Base (Administraçao e Contabilidade) de UNISINOS, 13*(1), 32-52.

Dean, T. J., & McMullen, J. S. (2007). Toward a theory of sustainable entrepreneurhsip: Reducing environmental degradation through entrepreneurial action. *Journal of Business Venturing*, *22*(1), 50–76. doi:10.1016/j.jbusvent.2005.09.003

Dimitratos, P., Plakoyiannaki, E., Pitsoulaki, A., & Tüselmann, H. J. (2010). The global smaller firm in international entrepreneurship. *International Business Review*, *19*(6), 589–606. doi:10.1016/j.ibusrev.2010.03.005

European Commission (EC). (2001). *Green Book. Promote a European Framework for Corporate Social Responsibility. Document COM (2001) 366 Final*. Luxembourg: Publications Office of the European Communities.

European Commission (EC). (2010). *Europa 2020 Strategy. A strategy for smart, sustainable and inclusive growth*. Retrieved from http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:2020:FIN:ES:PDF

European Commission (EC). (2011). *Renewed Strategy of the European Union 2011-2014 for the Social Responsibility of Companies*. Available at: http://eur-lex.europa.eu

Fernández Laviada, A., & Sánchez Ruiz, L. (2014). The current state of entrepreneurship education and training in GEM countries and Spanish regions. [in Spanish]. *Revista de Estudios Empresariales*, *2*, 41–62.

Freeman, R. E. (1984). *Strategic Management: A Stakeholder Approach*. Boston: Pitman Publishing.

Freeman, R. E., Harrison, J. S., Wicks, A. C., Parmar, B. L., & De Colle, S. (2010). *Stakeholder theory: the state of the art*. New York, NY: Cambridge University Press. doi:10.1017/CBO9780511815768

Gallardo-Vázquez, D., Sánchez-Hernández, M. I., & Corchuelo Martínez-Azúa, M. B. (2013). Validación de un instrumento de medida para la relación entre la orientación a la responsabilidad social corporativa y otras variables estratégicas de la empresa. *Revista de Contabilidad*, *16*(1), 11–23. doi:10.1016/S1138-4891(13)70002-5

Hansen, J. D., Deitz, G. D., Tokman, M., Marino, L. D., & Weaver, K. M. (2011). Cross-national invariance of the entrepreneurial orientation scale. *Journal of Business Venturing*, *26*(1), 61–78. doi:10.1016/j.jbusvent.2009.05.003

Hassan, S. U., Haddawy, P., & Zhu, J. (2014). A bibliometric study of the world's research activity in sustainable development and its sub-areas using scientific literature. *Scientometrics*, *99*(2), 549–579. doi:10.100711192-013-1193-3

Hockerts, K., & Wüstenhagen, R. (2010). Greening Goliaths versus emerging Davids – Theorizing about the role of incumbents and new entrants in sustainable entrepreneurship. *Journal of Business Venturing*, *25*(5), 481–492. doi:10.1016/j.jbusvent.2009.07.005

Hörisch, J., Freeman, R. E., & Schaltegger, S. (2014). Applying stakeholder theory in sustainability management links, similarities, dissimilarities, and a conceptual framework. *Organization & Environment*, *27*(4), 328–346. doi:10.1177/1086026614535786

Hult, G. T. M., Snow, C. C., & Kandemir, D. (2003). The role of entrepreneurship in building cultural competitiveness in different organizational types. *Journal of Management*, *29*(3), 401–442. doi:10.1016/S0149-2063(03)00017-5

Ireland, R. D., Covin, J. G., & Kuratko, D. F. (2009). *Conceptualizing Corporate Entrepreneurship Strategy. E, T & P*. Baylor University.

Jenkins, H. (2006). Small business champions for corporate social responsibility. *Journal of Business Ethics*, *67*(3), 241–256. doi:10.100710551-006-9182-6

Kirchhoff, B. A. (1991). Entrepreneurship's contribution to economics. *Entrepreneurship Theory and Practice*, *16*(2), 93–112. doi:10.1177/104225879201600207

Kuckertz, A., & Wagner, M. (2010). The influence of sustainability orientattion on entrepreneurial intentions. Investigating the role of business experience. *Journal of Business Venturing*, *25*(5), 524–539. doi:10.1016/j.jbusvent.2009.09.001

Kuratko, D. F., Hornsby, J. S., & Goldsby, M. G. (2007). The relationship of stakeholder salience, organizational posture, and entrepreneurial intensity to Corporate Entrepreneurship. *Journal of Leadership & Organizational Studies*, *13*(4), 56–72. doi:10.1177/10717919070130040801

Kuratko, D. F., Ireland, R. D., & Hornsby, J. (2001). Improving firm performance through entrepreneurial actions: Acordia's corporate entrepreneurship strategy. *The Academy of Management Executive*, *15*(4), 60–67. doi:10.5465/ame.2001.5897658

Kurtz, D. J., Santos, J. L. S., & Steil, A. V. (2013). Capacidade de absorção do conhecimento e capacidades dinâmicas no contexto de ambientes turbulentos: uma análise da literatura. In *Encontro de Administração da Informação (EnADI), IV, Bento Gonçalves, 2013* (Vol. 4, pp. 1–16). Bento Gonçalves: Anais.

Lumpkin, G. R., & Dess, G. G. (1996b). Enriching the entrepreneurial orientation construct – a reply to entrepreneurial orientation or pioneer advantage. *Academy of Management Journal*, *21*(3), 605–607.

Lumpkin, G. T., & Dess, G. G. (1996a). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review*, *21*(1), 135–172. doi:10.5465/amr.1996.9602161568

Mani, M. (2015). Entrepreneurship education: A student's perspective. *International Journal of E-Entrepreneurship and Innovation*, *5*(1), 1–14. doi:10.4018/ijeei.2015010101

Martin, W., & Lumpkin, G. T. (2003). *From entrepreneurial orientation to family orientation: generational differences in the management of family businesses*. Paper presented at the Babson College Entrepreneurship Research Conference, Babson Collegue, Wellesley, MA.

McWilliams, A., & Siegel, D. (2000). Corporate social responsibility and financial performance: Correlation or misspecification? *Strategic Management Journal*, *21*(5), 603–609. doi:10.1002/(SICI)1097-0266(200005)21:5<603::AID-SMJ101>3.0.CO;2-3

McWilliams, A., & Siegel, D. (2001). Corporate social responsibility: A theory of the firm perspective. *Academy of Management Review*, *26*(1), 117–127. doi:10.5465/amr.2001.4011987

Montgomery, D. B., & Ramus, C. A. (2011). Calibrating MBA Job Preferences for the 21st Century. *Academy of Management Learning & Education*, *10*(1), 9–26.

Morrish, S. C., Miles, M. P., & Polonsky, M. J. (2011). An exploratory study of Sustainability as a stimulus for Corporate Entrepreneurship. *Corporate Social Responsibility and Environmental Management*, *18*(3), 162–171. doi:10.1002/csr.271

Nordqvist, M., Habbershon, T. G., & Melin, L. (2008). Trangenerational entrepreneurship: Exploring entrepreneurial orientation in family firms. In H. Landstrom, D. Smallbone, H. Crijns, & E. Laveren (Eds.), *Entrepreneurship, sustainable growth and performance: Frontiers in European entrepreneurship research*. London: Edward Elgar. doi:10.4337/9781848443952.00014

O'Neill, G. D., Hershauer, J. C., & Golden, J. S. (2009). The cultural context of sustainability entrepreneurship. *Greener Management International*, *55*, 33–46. doi:10.9774/GLEAF.3062.2006.au.00005

Pandza K, Thorpe R. (2009). Creative search and strategic sense-making: missing dimensions in the concept of dynamic capabilities. *British Journal of Management, 20*(SI), S118-S131.

Parmar, B. L., Freeman, R. E., Harrison, J. S., Wicks, A. C., Purnell, L., & De Colle, S. (2010). Stakeholder theory: The state of the art. *The Academy of Management Annals*, *4*(1), 403–445. doi:10.5465/19416520.2010.495581

Patra, S. K., Bhattacharya, P., & Verma, N. (2006). Bibliometric study of literature on bibliometrics. *DESIDOC Journal of Library and Information Technology*, *26*(1), 27–32. doi:10.14429/dbit.26.1.3672

Porter, M., & Kramer, M. R. (2002). The Competitive Advantage of Corporate Philanthropy. *Harvard Business Review*, *80*(12), 57–68. PMID:12510538

Porter, M., & Kramer, M. R. (2006). Strategy & Society: The Link Between Competitive Advantage and Corporate Social Responsibility. *Harvard Business Review*, *84*(12), 78–92. PMID:17183795

Porter, M. E. (1980). *Competitive strategy*. New York: The Free Press.

Porter, M. E. (2006). What is strategy? In M. Mazzucato (Ed.), *Strategy for Business* (pp. 10–31). London: SAGE Publications Ltd.

Sánchez-Hernández, M. I., & Gallardo-Vázquez, D. (2012). Market information on corporate social responsibility issues as antecedent of the orientation to environmental responsibility in SMEs: An empirical Study. In J. Janicki & R. Barcik (Eds.), *Marketing Management. Selected Issues* (pp. 29–46). University of Bielsko-Biala.

Santos, J. L. S., Maldonado, M. U., & Santos, R. N. M. (2011). Inovação e conhecimento organizacional: Um mapeamento bibliométrico das publicações científicas até 2009. *Organizações em Contexto*, *7*(13), 31–58. doi:10.15603/1982-8756/roc.v7n13p31-58

Schaltegger, S., & Wagner, M. (2011). Sustainable entrepreneurship and Sustainability innovation: Categories and interactions. *Business Strategy and the Environment*, *20*(4), 222–237. doi:10.1002/bse.682

Schlange, L. E. (2009). Stakeholder identification in sustainability entrepreneurship. *Greener Management International*, *55*, 13–32.

Sen, S., & Bhattacharya, C. B. (2001). Does doing good always lead to doing better? Consumer reactions to corporate social responsibility. *JMR, Journal of Marketing Research*, *38*(2), 225–244. doi:10.1509/jmkr.38.2.225.18838

Shepherd, D. A., & Patzelt, H. (2011). The new field of sustainable entrepreneurship: Studying entrepreneurial action linking "what is to be sustained" with "what is to be developed". *Entrepreneurship Theory and Practice*, *35*(1), 137–163. doi:10.1111/j.1540-6520.2010.00426.x

Shinnar, R. S., Giacomin, O., & Janssen, F. (2012). Entrepreneurial perceptions and intentions: The role of gender and culture. *Entrepreneurship Theory and Practice*, *36*(3), 465–493. doi:10.1111/j.1540-6520.2012.00509.x

Short, J. C., Broberg, J. C., Cogliser, C. C., & Brigham, K. H. (2009). Construct validation using computer-aided text analysis (CATA): An illustration using entrepreneurial orientation. *Organizational Research Methods*, *12*, 1–28.

Siegel, D., & Vitaliano, D. (2007). An empirical analysis of the strategic use of corporate social responsibility. *Journal of Economics & Management Strategy*, *17*(3), 773–792. doi:10.1111/j.1530-9134.2007.00157.x

Sine, W. D., & Lee, B. H. (2009). Tilting at Windmills? The Environmental Movement and the Emergence of the U.S. Wind Energy Sector. *Administrative Science Quarterly*, *54*(1), 123–155. doi:10.2189/asqu.2009.54.1.123

Starik, M., & Kanashiro, P. (2013). Toward a theory of sustainability management: Uncovering and integrating the nearly obvious. *Organization & Environment*, *26*(1), 7–30. doi:10.1177/1086026612474958

Swanson, K. K., & DeVereaux, C. (2017). A theoretical framework for sustaining culture: Culturally sustainable entrepreneurship. *Annals of Tourism Research*, *62*, 78–88. doi:10.1016/j.annals.2016.12.003

Voss, Z. G., Voss, G. B., & Moorman, C. (2005). An empirical examination of the complex relationships between entrepreneurial orientation and stakeholder support. *European Journal of Marketing*, *39*(9/10), 1132–1222. doi:10.1108/03090560510610761

Welter, F. (2011). Contextualizing Entrepreneurship. Conceptual Challenges and Ways Forward. *Entrepreneurship Theory and Practice*, *35*(1), 165–184. doi:10.1111/j.1540-6520.2010.00427.x

World Economic Forum. (2009). *Educating the Next Wave of Entrepreneurs: Unlocking Entrepreneurial Capabilities to Meet the Global Challenges of the 21st Century: A Report of the Global Education Initiative.* Author.

Zellweger, T. W., & Sieger, P. (2012). Entrepreneurial orientation in long-lived family firms. *Small Business Economics*, *38*(1), 67–84. doi:10.100711187-010-9267-6

ADDITIONAL READING

Argento, D., Culasso, F., & Truant, E. (2019). From Sustainability to integrated reporting: The legitimizing role of the CSR manager. *Organization & Environment*, *32*(4), 484–507. doi:10.1177/1086026618769487

Deslatte, A. (2020). Revisiting bureaucratic entrepreneurialism in the age of urban austerity: Framing issues, taking risks, and building collaborative capacity. *Urban Studies and Entrepreneurship*, 143–159. doi:10.1007/978-3-030-15164-5_8

Geradts, T. H. J., & Bocken, N. M. P. (2019). Driving Sustainability-oriented innovation. Organizations can innovate to address environmental and social problems but they need to build the right culture. *MIT Sloan Management Review*, *60*(2), 78–83.

Horne, J., Recker, M., Michelfelder, I., Jay, J., & Kratzer, J. (2020). Exploring entrepreneurship related to the sustainable development goals – mapping new venture activities with semi-automated content analysis. *Journal of Cleaner Production*, *242*, 118052. doi:10.1016/j.jclepro.2019.118052

Luedeke-Freund, F. (2019). Sustainable entrepreneurship, innovation, and business models: Integrative framework and propositions for future research. *Business Strategy and the Environment*, bse.2396. doi:10.1002/bse.2396

KEY TERMS AND DEFINITIONS

Entrepreneurial Innovation: Entrepreneurship must be linked to the need to innovate, collaborating with partners, improving products, processes, introducing models, always seeking the improvement of productivity and the achievement of competitive advantages.

Entrepreneurship: Action to initiate a new activity that demands effort and work and concludes in a business result. The entrepreneur must be willing to take risks related to time, money and hard work.

Environmental Dynamism: Characteristic of the entrepreneur by which he must reflect the evolution on consumers´ preferences and organizational products over time.

Global Entrepreneurship Monitor (GEM) Spain Report: Is the world's foremost study of entrepreneurship. GEM is able to provide high quality information, comprehensive reports and interesting stories, which greatly enhance the understanding of the entrepreneurial phenomenon.

Relationships With Stakeholders: Linkages with all the interested parties in the organizations, both internal and external, partners, workers, customers, suppliers, public administrations, companies, who collaborate looking for the joint interest for the organization.

Responsible/Sustainable Entrepreneurship: Type of entrepreneurship that incorporates economic, social and environmental characteristics, in such a way that a link between CSR and entrepreneurship is achieved.

APPENDIX

Table 6. Complete selection of papers after bibliographic search

Authors	Title	Year	Journal
Arogyaswamy, B.	Social entrepreneurship performance measurement: A time-based organizing framework	2017	*Business Horizons*
Artis, A.	Social and solidarity finance: A conceptual approach	2017	*Research in International Business and Finance*
Azmat, F.	Exploring social responsibility of immigrant entrepreneurs: Do home country contextual factors play a role?	2010	*European Management Journal*
Baka Banki, M. & Nizam Ismail, H.	Understanding the characteristics of family owned tourism micro businesses in mountain destinations in developing countries: evidence from Nigeria	2015	*Tourism Management Perspectives*
Baron, D.P.	Corporate Social Responsibility and Social Entrepreneurship	2007	*Journal of Economics & Management Strategy*
Blanck, M. & Janissek-Muniz, R.	Inteligéncia estratégica antecipativa coletiva e crowdfunding: aplicaçao do método L.E.SCAnning em empresa social de economía peer-to-peer (P2P)	2014	*Revista Administraçao, Sao Paulo*
Boonyachut, S.	Sustainability of community´s entrepreneurship: case of floating market at Ladmayom	2016	*Entrepreneurship and Sustainability Issues*
Calic, G. & Mosakowski, E.	Kicking Off Social Entrepreneurship: How A Sustainability Orientation Influences Crowdfundign Success	2016	*Journal of Management Studies*
Casson, M.C. & Pavelin, S.	The Social Performance and Responsibilities of Entrepreneurship	2015	*Business & Society*
Choi, D.Y. & Gray, E.R.	Socially responsible entrepreneurs: What do they do to create and build their companies?	2008	*Business Horizons*
Cohen, B. & Winn, M.I.	Market imperfections, opportunity and sustainable entrepreneurship	2007	*Journal of Business Venturing*
Cuadrado-Ballesteros, B., Rodríguez-Ariza, L. & García-Sánchez, I.M.	The role of independent directors at family firms in relation to corporate social responsibility disclosures	2015	*International Business Review*
De Clercq, D. & Voronov, M.	Sustainability in entrepreneurship: A tale of two logics	2011	*International Small Business Journal*
Dean, T.J. & McMullen, J.S.	Toward a theory of sustainable entrepreneurship: Reducing environmental degradaton through entrepreneurial action	2007	*Journal of Business Venturing*
Despeisse, M., Baumers, M., Brown, P., Charnley, F., Ford, S.J., Garmulewicz, A., Knowles, S., Minshall, T.H.W., Mortar, L., Reed-Tochas, F.P. & Rowley, J.	Unlocking value for a circular economy through 3D printing: A research agenda	2017	*Technological Forecasting & Social Change*
Divito, L. & Bohnsack, R.	Entrepreneurial orientation and its effect on sustainability decision tradeoffs: The case of sustainable fashion firms	2017	*Journal of Business Venturing*
Foley, R.W. & Wiek, A.	Scenarios of nanotechnology innovation vis-a-vis sustainability challenges	2014	*Futures*
Gummesson, E.	Commentary on "The role of innovation in driving the economy: Lessons from the global financial crisis"	2014	*Journal of Business Research*

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Table 6. Continued

Authors	Title	Year	Journal
Gupta, J.K.	Social Responsibility, Sustainability and the Role of Entrepreneurship	2017	*Journal of Business Management & Quality Assurance*
Hockerts, K. & Wüstenhagen, R.	Greening Goliaths versus emerging Davids – Theorizing about the role of incumbents and new entrants in sustainable entrepreneurship	2010	*Journal of Business Venturing*
Huang, S.C.	Capital outflow and R&D investment in the parent firm	2013	*Research Policy*
Hung, S.C. & Chu, Y.Y.	Stimulating new industries from emerging technologies: challenges for the public sector	2006	*Technovation*
Kim, Y., Kim, W. & Yang, T.	The effect of the triple hélix system and hábitat on regional entrepreneurship: Empirical evidence form the U.S.	2012	*Research Policy*
Klapper, R.G. & Farber, V.A.	In Alain Gibb´s footsteps: Evaluating alternative approaches to sustainable enterprise education (SEE)	2016	*The International Journal of Management Education*
Kuckertz, A. & Wagner, M.	The influence of sustainability orientation on entrepreneurial intentions – Investigating the role of business experience	2010	*Journal of Business Venturing*
London, M.	Leadership and Advocacy: Dual Roles for Corporate Social Responsibility and Social Entrepreneurship	2008	*Organizational Dynamics*
Madhok, A. & Marques, R.	Towards an action-based perspective on firm competitiveness	2014	*BRQ Business Research Quarterly*
Martínez Fernández, V.A., Juanatey Boga, O. & Da Silva Faria, M.J.	Impacto da responsabilidad social sob a óptica empresarial do norte litoral de Portugal	2014	*Contaduría y Administración*
Meek, W.R., Pachecho, D.F. & York, J.G.	The impact of social norms on entrepreneurial actions: Evidence from the environmental entrepreneurship context	2010	*Journal of Business Venturing*
Morris, M.H., Van Vuuren, J., Cornwall, J.R. & Scheepers, R.	Properties of balance: A pendulum effect in corporate entrepreneurship	2009	*Business Horizons*
Morrish, S.C., Miles, M.P. & Polonsky, M.J.	An Exploratory Study of Sustainability as a Stimulus for Corporate Entrepreneurship	2011	*Corporate Social Responsibility and Environmental Management*
Muñoz, P. & Cohen, B.	Mapping out the sharing economy: A configurational approach to sharing business modeling	2017	*Technological Forecasting & Social Change*
Pacheco, D.F., Dean, T.J. & Payne, D.S.	Escaping the green prison: Entrepreneurship and the creation of opportunities for sustainable development	2010	*Journal of Business Venturing*
Parrish, B.D.	Sustainability–driven entrepreneurship: Principles of organization design	2010	*Journal of Business Venturing*
Pérez-Pérez, C. & Avilés-Hernández, M.	Explanatory factors of female entrepreneurship and limiting elements	2016	*Suma de Negocios*
Ramani, S.V., Sadreghazi, S. & Gupta, S.	Catalysing innovation for social impact: The role of social enterprises in the Indian sanitation sector	2017	*Technological Forecasting & Social Change*
Ratten, V.	The future of sports management: A social responsibility, philanthropy and entrepreneurship pespective	2010	*Journal of Management & Organization*
Sandeep, M.S. & Ravishankar, M.N.	Social innovations in outsourcing: An empirical investigation of impact sourcing companies in India	2015	*Journal of Strategic Information Systems*
Schaefer, K., Corner, P.D. & Kearins, K.	Social, Environmental and Sustainable Entrepreneurship Research: What Is Needed for Sustainability-as-Flourishing?	2015	*Organization & Environment*

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Table 6. Continued

Authors	Title	Year	Journal
Schaltegger, S., Lüdeke-Freund, F. & Hansen, E.G.	Business Models for Sustainability: A Co-Evolutionary Analysis of Sustainable Entrepreneurship, Innovation, and Transformation	2016	*Organization & Environment*
Schaltegger, S. & Wagner, M.	Sustainable Entrepreneurship and Sustainability Innovation: Categories and Interactions	2011	*Business Strategy and the Environment*
Schimmenti, E., Migliore, G., Di Franco, C.P. & Borsellino, V.	Is There sustainable entrepreneurship in the wine industry? Exploring Sicilian wineries participating in the SOStain program	2016	*Wine Economics and Policy*
Seelos, C. & Mair, J.	Social entrepreneurship: Creating new business models to serve the poor	2005	*Business Horizons*
Sessa, C. & Ricci, A.	The world in 2050 and the New Welfare scenario	2014	*Futures*
Sodhi, M.S. & Tang, C.S.	Social enterprises as supply-chain enablers for the poor	2011	*Socio-Economic Planning Sciences*
Strielkowski, W.	Entrepreneurship, sustainability, and solar distributed generation	2016	*The International Journal Entrepreneurship and Sustainability Issues*
Swanson, K.K. & Deveraux, C.	A theoretical framework for sustaining culture: Culturally sustainable entrepreneurship	2017	*Annals of Tourism Research*
Vardeman-Winter, J. & Place, K.R.	Still a lily-white field of women: Th estate of workforce diversity in public relations practice and research	2017	*Public Relations Review*
Wang, C.T. & Chiu, C.S.	Competitive strategies for Taiwan´s semiconductor industry in a new world economy	2014	*Technology in Society*
Weerawardena, J., McDonald, R.E. & Mort, G.S.	Sustainability of nonprofit organizations: An empirical investigation	2010	*Journal of World Business*
York, J.G. & Venkataraman, S.	The entrepreneur-environment nexus: Uncertainty, innovation, and allocation	2010	*Journal of Business Venturing*
Yu, Y., Dong, X.Y., Shen, K.N., Khalifa, M. & Hao, J.X.	Strategies, technologies, and organizational learning for developing organizational innovativeness in emerging economies	2013	*Journal of Business Research*

Source: The authors

Chapter 3
Green Innovation and Sustainable Urban Ecosystems

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ABSTRACT

This chapter is aimed to analyze the relationships between environmental sustainability, urban ecosystems, and green innovation. The method employed is the critical analytical review of literature and further discussion on the issues focusing the city´s experience on managing the formulation, generation, development, implementation, and evaluation of new behaviors and ideas in green innovation. It is concluded that the green innovation is directly related with the environmental sustainability and urban ecosystems. The interest of this analysis lies in providing support to urban settlements in managing the risks inherent in green area innovation, incremental or radical as a community's management would experience in relation to the environmental sustainability in urban ecosystems.

INTRODUCTION

Cities and urban ecosystems are facing important global challenges at local scale for a sustainable development. Academic research on green area innovation is a new shift in the environmental debate in public and private city spaces towards social good and environmental value fostered by innovation and new technologies (Berger, Cunningham, & Drumwright, 2007).

In the last decades, several contradictions have been generated in terms of urban socio-spatial relations, and the authoritarian urban space and democratic urban space. The logic of the management of the dominant urban space is to create a space that, being public, is authoritatively constructed, that is, it is a restrictive and selective public. The urban space itself makes any articulation of the social movement difficult. The social movements in Latin America developed a very strong presence during the 1990s in

DOI: 10.4018/978-1-7998-2704-7.ch003

such a way that they forced a reconfiguration of the political spectrum dominated by leftist governments. They arise in a context of a democratic opening that takes place after military dictatorships, within a tradition that is an oligarchic tradition and of much social inequality.

This social inequality meant that in the beginning any social struggle had to be very organized, it had to be very strong, because the social inequality was so great that the oligarchic classes were going to defend themselves by all means, they had defended themselves with the dictatorship and they were going to defend themselves with democracy. Authoritarian spatial conceptions develop in large part at a time when social polarization and social inequality began to endanger governance. Authoritarian urban spaces are the dominant urban spaces that try to defend themselves from a popular reaction, private urbanizations are exactly a good example, among others.

ENVIRONMENTAL SUSTAINABILITY

The urban economic growth and development perspective considers the city as the location where production, distribution, consumption contributing to the process of urban innovation taking place. Sustainable urban planning policies must adopt innovative approaches to consider the anticipation of risks and rationalization of investments. The process of urban innovation is inherent to the practice of sustainable development. Environmental sustainable urban planning and development as a theoretical framework supported by transitional theory can be adapted to specific issues of urban land use and infrastructure. Environmental sustainability transitions may contribute to improve economic growth and development.

A sustainable city is supported by an urban planning and designing paradigm. Urban design and planning supported by local governments are urged to spur technical innovations, innovative practices and contribute to develop new business models and marketing strategies aimed to find green resource-efficient solutions for climate change adaptation and mitigation while restructuring and reinventing local economies.

Integrating environmental sustainability issues into green areas innovation strategy and greening the innovation process are becoming a strategic opportunity for organizations, communities, local governments, neighborhoods (Porter & Reinhardt, 2007). Research and green innovation resources are available and accessible in a network, which can be used adaptable to some specific demands, such as technologies, tools, data, experimentation and testing facilities, and user groups.

Environmental sustainability is an integral part of green area innovation requiring greater demands of ecological performance out of eco-efficient green technologies with reduction and mitigation of green negative environmental impacts. An innovation environment creates new business opportunities. Leon (2006) identifies the need to transform efficiency and quality of public infrastructures and services and the creation of a business environment as the necessary factors for a city to become an innovation hub (Komninos & Sefertzi, 2009).

The process of urban planning is aimed to create and develop an inclusive economy centered on innovative improvements at local level (Smart city Edinburgh, 2011). The green urban planning has three priorities: the economic growth and development, social equity and the environmental sustainability. Local governments at the same time that other levels of federal and state authorities and agencies can take different approaches based on environmental economics and technologies innovations and political commitment to incentive and motivate involvement of actors and stakeholders to find specific innovative

solutions to urban planning. Transforming green infrastructure models into action require new approaches of innovative planning and policymaking of programs.

The question of urban space is measured exactly with the question of time. Urban public space is the space of long times, of coexistence, of trust, which is not created from one day to the next. It is created in several years, because urban spaces are often created and then it is said that people do not use it. It has to take some time for people to get used to and enjoy other conceptions of urban space. It's a long time, and if politicians ruled for a few years what is a short time that totally plays against any idea of urban public space.

The democratization of public spaces for citizens and for citizens includes domestic urban spaces, production and consumption spaces, the community, and the world space. Public property is state property, especially in terms of urban built spaces, there is no urban public non-state built space. Private property is the anchor of all modern law and all bourgeois democracy. In the movements of occupation of urban spaces, of reuse for community purposes, and of democratization of urban space as a vehicle, people speak of a "doing" of the community and a renewed sense of the collective. The democratization of urban space tries to reinvindicate privatization through various forms, such as real estate projects and as repressive responses to communities.

In the Western model only the urban space of the citizenship has been relatively democratized. Democracy works only at the level of the urban public space of citizenship, it is not in the family, it is not in the factory, it is not in consumption, it is not in the community, nor in world relations. Representative democracy that is what you have. In the end, it is an island of democracy today very fragile, in an archipelago of despotisms, in the family, in the factory, in the street, in the community and in consumption. Therefore, to democratize democracy is to democratize those urban spaces and all of them have an urban public space dimension. That is, the family today cannot be understood as a private space, because it is publicly regulated.

The democracy that emerges in Latin America in the last thirty years arises together with neoliberalism, does not have a democratic social content. It is democracy plus the opening to the markets. Unlike European democracy, Latin American democracy is a democracy that does not have a concept of social democracy of inclusion nor the rights achieved for a long time. Democracy in Latin American countries was almost instantaneous and it was not necessary to organize movements in these areas because the State was somehow responding. In Europe, after the 70s, the great movements have been feminist movements and environmental movements. Obviously, after the worker's movements where that growth was organic, not a revolution, organized since the beginning of the 20th century and between two wars and after the student movements.

The democratic model of urban spaces has collapsed, not by decision of the countries, but by external decision. Organizational energies, collective consciousness, the culture of contestation and mobilization are not built from one day to the next. The reinvindicative tradition resides in the different cultures or democratic models that have been created, considering that there is a crisis of social movements that comes from the social-democratic policies and political cultures that were created over time.

All social relationships are urban social-spatial, but they are in different ways. Santos (2007) distinguishes six modes of production of power, knowledge and law: they are the domestic space, the space of production, the space of citizenship, the space of the community, the space of consumption and the world space. It is all these geo-spaces that must be democratized. A city where public space is very difficult because the physical spaces between the built-up parts are so vast, that far from favoring the

creation of public spaces, create deserts of citizenship, socially and politically neutralizing zones that hinder organized social protesting mobilization.

The neo-liberal model went through the private space and left the public space. However, when the public space is abandoned, financial crises and ecological crises come into the home. That is to say, one does not earn much by taking refuge in the private space, because now there are many people without employment and then they eat poisoned products. The idea that private property is not touched has been created, which also forces us to rethink all other concepts of real estate property and even ownership of the land.

There is a great transposition of the conceptions of democracy. The solutions that they recommended as just for the people to develop, have made the advanced countries fall in their own trap, locked in their own ideology and has no solution to the problem. It is therefore a failed model, at the level of civilization, from the point of view of social inequality and from the point of view of social discrimination. Eurocentric critical theory, social and philosophical theory, has trained very well for critical denunciation, but not so well to formulate alternative proposals.

To address urban development challenges, innovative urban planning and design must have a green innovation orientation, interconnected and innovative development stages and processes (Adams 2006; Blewitt, 2008). The conceptual reference model of innovative green areas creates city identity of the urban planning and design by describing the interrelationships between smart urban environmental sustainability with innovative structural components and processes.

Innovation and design of urban green spaces must be linked to the city`s ecological, environmental and sustainable development transformed in high quality of life, safety and sharing of the space of local residents, economic growth and social development, fluidity of interactions between networks. The ecology of productivity implies having another concept of land productivity that is not merely based on the production cycle that promotes the negligent use of pesticides, herbicides and fungicides. It is a great transformation where the conquest of diversity and biodiversity are in the focus of a neoliberal development. New urban farming spaces used for agricultural production and recreational purposes may be based on new business models implementing shared knowledge on site-specific planning and organizing processes, new financial and marketing strategies supported by interdisciplinary networks.

Innovative data collection initiatives and management programs based on vacant properties can be used for purposes of innovative urban greening and vacant property. In the city there are many empty spaces, built buildings that have never been occupied. The urban occupation movements are not movements of the same dimension as the others, they are smaller movements, they are smaller organizations, they are sometimes what people today call spontaneous movements, where there has to be an aggregation, or that is to through social networks, but it is clear that there is another type of mobilization here whose political connotation is very difficult to identify, and which are even totally hostile to politics.

The urban greening as an established innovative programs based on vacant properties can lead to develop stable neighborhood environments by providing fresh food, training and jobs for residents. Democratic urban planning participation and managing green infrastructure can result in environmental changes benefiting all the social groups involved, including unrepresented and disadvantaged populations sectors.

Urban social innovation identifies urban resources for sustainable development, economic growth and social development. This created identity as an ability of the city blends social innovation in urban planning change and regeneration projects to develop a city socially inclusive among citizens and communities (Cozens, 2008; Belisent, 2010). A transition from niche innovations toward a more environmental sustainable development should be directed to change the composition of multi-segmented land

and infrastructure uses and urban mobility and transportation modes. Niche innovations redefine the limits to environmental and ecological development goals in terms that decoupling economic growth from environmental degradation can be achieved (Smith et al., 2010).

URBAN ECOSYSTEMS

The city as an ecosystem is a concept that considers the political and cultural role of a living city which includes plants, animals, food production, etc. The cities have a potential role to become urban innovation environments. Innovative practices are prevalent in the environmental improvement in urban areas to create ecosystems services and ecological functions of urban land, which are in high demand. Land-use planning and urban development challenged the technological innovation, research, assessment, policy and strategy development and adaptation to the urban ecosystem.

The urban innovation ecosystems aim towards design and implementation of innovative environmental and sustainable development process in cities. Green urban innovation ecosystems management has the aim and the task to manage the resources, facilities and innovation assets portfolio embedded in regional and even national research and innovation projects and fostering fruitful interlinkages from the perspective of smart cities.

Urban innovation ecosystems are characterized according their social orientation towards environmental and sustainable development. This innovative green urban planning and design policies is the result of an interrelated concepts and issues of urban growth based on innovation ecosystems and environmental social sustainability built on green city.

The proxies related to innovation and economic wealth creation scale with urban size indicating that urban growth is driven by innovation and scale economies of energy consumption. This contributes to the attractiveness of the city in terms of location for investments and collaboration driving the emergence and development of social networks. Social networks and other forms of participation that facilitate the electronic means available, allow forms of electronic democracy, the result of a new reality that is there, of a virtual public space, which is a space with enormous potential.

The urban natural and environmental green resources and infrastructures involved in the innovation ecosystems may be capitalized and developed into new business models. Business models turning technological capabilities into innovations to offer useful green products and services require continuous flows of data and information. The outcome of this innovative urban planning is the generation of a business model based on public-private cooperation in urban innovation for smart growth opportunities (Barcelona, 2011; Downs & Mohr, 1976).

Urban site design needs innovative planning approaches to integrate all the urban green areas in an urban green ecosystem overcoming several restrictions and constraints (Kuhn, Colberg, Schnoor, Wanner, Zehnder, & Schwarzenbach, 1985; Evans et al., 1990). Urban sites could be developed when available aimed to give green products and services to the population by creating new urban woodlands with innovative afforestation of native species (Harmer, 1999; Baines & Smart, 1991). A dense innovation ecosystem with knowledge interactions creates economic value and more rapid growth through the acquisition, processing, and use of information (Komninos, 2008a, 2008b; Shapiro, 2003).

The fundamental transformations of these ecosystems build their own resilience based on diversity of urban systems driven by green innovation. Scale-crossing practices create unique pathways for a diversity of experiences breaking up closed group thinking (Oh et al., 2004, Scheffer & Westley, 2007),

fostering collective actions while nurturing innovation capabilities. To achieve this end, it is necessary to develop a comprehensive structural framework of urban innovation ecosystem as an approach to resolving ecological, environmental and sustainable issues.

Urban innovation ecosystem management aims to manage the portfolio of innovation assets, resources, facilities, information flows, knowledge, etc., through mechanisms such as the partnerships among economic agents and actors governing the access to users and developers. Urban innovation ecosystems should promote participation of citizens and organizations, firms, local governments in the planning and development of urban economic activities and utilities. Urban innovation can be harnessed in a highly politicized urban environment making urban governance more sensitive to urban green ecosystem dynamics facing social, ecological, environmental and sustainable uncertainties.

Social innovation of urban green areas improves the quality of life and attractiveness of the city and develops the ability to sustain human-dominated local ecosystem services. Community greening innovation is a community-based tool to promote social learning, adaptive management and resilience of the green ecosystems (Tidball & Krasny, 2009). Theoretical analytical transitions are the result of interactions and learning processes between the levels of niche-innovations, sociotechnical regimes and sociotechnical landscapes aimed to improve performance and support from groups.

Niche-innovation challenges develop processes to provoke changes at the sociotechnical landscape level creating pressure on the regime. Niche innovations in growth agenda may shift to current growth dynamics operating at the sociotechnical landscape level considered as merely exogenous to improve the mobility, infrastructure and building stock. The sociotechnical regimes and landscapes can become destabilized due to inner pressures and tensions originated from outside that may result in niche-innovations.

The ecosystem services approach is defined as the benefits that humans derive directly or indirectly, from the functioning of healthy ecosystems (Costanza et al., 1998). This concept is acknowledged in urban green space research 2 (Bolund & Hunhammar, 1999; Elmqvist et al., 2004; Ernstson et al., 2008; Niemelä et al., 2010). The assumption behind this concept is that physical and mental health and wellbeing are reliant upon functional natural environments (Millenium Ecosystem Assessment, 2005). Wellbeing and health services must be inter connected.

An adaptive method of urban planning and design using the concept of ecosystem services is a framework for promoting and supporting innovation in urban green areas. Adaptive systems are suited to "safe-to fail"- innovative design to be implemented and monitored, despite that the adaptive urban design framework "safe to fail" inhibits innovation decision making by tending to favor existing knowledge and performance of the specific intended ecosystems services (Holling, 1978; Kato & Ahern, 2008). Adaptive urban planning is open to innovative design and creativity, learning and gaining knowledge to be applied in future projects (Ahern, 2012; Lister, 2007; Rottle & Yocom, 2010).

Urban social innovation drives urban growth and structures local ecosystems services among the stakeholders through a process of recursive communication. The media play a relevant role in communicating the green innovations advancements although new methods have to be explored (Otto, 1998). Stakeholder's engagement in urban planning processes and encouragement of communities to initiate green infrastructure projects ensure more democratic outcomes. Wealthier and more democratic cities invest more on innovative capabilities to foster development than less democratic and poor cities in a context of the path dependency effect.

Emphasis on the assessment of urban ecosystem services does not motivate and support the innovations of specific ecosystem services in urban and infrastructure development activities (Aherna, Cilliers,

& Niemeläc, 2014). In this urban ecosystem of innovation, innovative companies coexist with research institutes, training and tech transfer centers, urban green areas, infrastructure and facilities, etc.

Relationships of cooperation and partnership strategies are required among the stakeholders and user communities to share research and innovation resources and capabilities, technological and administrative know-how, methodologies, etc. Strategic cooperation and sustainable partnerships among the main stakeholders are required to share common resources and to establish urban and regional innovation ecosystems.

Urban areas are considered the object of innovation ecosystems able to empower citizens with capabilities to design, co-create and develop best urban working and living spaces. Innovation in urban green areas can provide solutions by defining quality of service and operational standards and results. An innovation approach based on environmental integration of urban areas combining housing, urban green areas and business activities in a kind of eco-neighborhoods could be supported by a public-private partnership. Urban innovation ecosystems may constitute Public-Private-People-Partnership ecosystems aimed to co-create, experiment and validate scenarios supported technology platforms user-driven involving and providing opportunities citizens, small, medium and large businesses, corporations, local governments, and any other stakeholder.

The smart city innovation ecosystem successfully implemented fosters innovation, cooperation and development into green innovative urban planning and design. An innovative urban policy interrelates issues of green ecosystems innovation, intelligent communities and environmental and sustainable development with urban growth. Waste management and sustainable public transportation using environmental-friendly fuels are only two areas where can be applied smart city innovations supported by proactive citizenship behavior and advanced technologies.

ICT-based applications in urban innovation deploying broadband infrastructure plays an important role to enhancing citizens' quality of life. Technology applications in urban innovation ecosystems in federated platforms but dependent on contexts and user locations can provide support for new urban e-services. ICT has a limited role at processing and integrating real-time information where processes are not based to any great extent on handling transactions in such areas as local public e- government communication between authorities and citizens, innovation, entrepreneurship and social inclusion, education, etc. (Gonzáles & Rossi, 2011).

E-democracy, E-government and digitizing the public administration are using ICT systems and tools aimed to improve the quality of services to citizens. These functions of the model Peripheries are identified in five archetypal smart urban settings: neighborhood, street, square, museum and park and City Hall (Schaffers, Garcia Guzmán, Navarro & Merz, 2010). Website created to support public awareness campaigns, local and regional government councils, city green planning and environmental organizations, business managers and leaders applying innovative and cost-effective solutions to harnessing the benefits of the green economy, can be conceptualized in general terms as green regions.

Technological innovations can create an efficient urban layout as a human dominate ecosystems in terms of consumption of natural resources, energy, land, water, etc., with the ability to sustain ecosystems services and the structure of social dynamics. There is a race for natural resources that press the earth and create a new conflict between those who want the land to extract natural resources, such as wood, and those who want to conserve them for the sustainability of the environment.

Innovation ecosystems can be fostered and developed through collaboration frameworks by future Internet testbeds integrated with elements of Living Lab environments. Cooperation frameworks include some elements of sharing access to experimentation facilities and technological knowledge resources.

The method of Living Lab concept is used as a model for organizing and conducting innovation projects, programs and experiments. Living labs are organized around experimental research projects driven by internet integrated in smart city programs with common resources for research in green innovation ecosystems and environments. Living labs provide product and services of real social innovation and improvements and lower the risks for future use based on public data of the city.

The social dynamics in the context of an open Living Lab ecosystem should have the purpose of involving citizens and stakeholders to ensure innovative solutions. Living Lab is an ecosystem supported by Public, Private and People Partnership (4 Ps) aiming to co-create innovative scenarios and provide opportunities to users/citizens based on technology platforms. Local urban growth and development partnerships and coalitions have the critical role of building bridges in planning structures of public-public adjacent areas for concerted urbanism, framing renewal and urban green innovation activities.

Development of green area innovations face several challenges although the empirical studies on this subject are very scant (Berchicci & Bodewes, 2005; Hall & Vredenburg, 2003; Ottman et al., 2006). Green innovation is one of the key factors of community development, government management and city governance to achieve economic growth, social development, environmental sustainability, and a better quality of life. Community initiatives are independent of government but can influence government actions to benefits for low-income groups under a framework of governance. Local governments supporting community and non-governmental organizations in a wide range of urban community programs contribute to improve basic services, housing, environmental sustainability management, infrastructure, micro-finance for enterprise development (Boonyabancha 2003; Stein 2001).

GREEN INNOVATION

The unit of analysis in this study is green areas innovation projects. Theory and practice of green innovation has become a strategic priority for urban settlements and local communities. Multidisciplinary theoretical approaches combined may be used to analyze niche innovations, regimes and landscapes (Geels & Schot, 2007). Measuring green areas innovation environmental impact and performance is a complex process. To identify key elements and dimensions such as the design strategy, process and performance integrated to green areas innovation involving micro and macro environmental issues, provides the multi-faceted nature of the phenomenon.

Innovation is regarded as more relevant in urban settings than in rural areas due to the concentration of population, availability of cognitive resources, greater accumulation of knowledge and experiences, etc. Innovation knowledge and practices is concentrated in urban undertakings have the property of transformability of uncertainties into opportunities by realignment of resources and organizational structures. Innovation knowledge can contribute to the resilience of a system by opportunities to realign organizational structures and resources at local urban undertakings.

Some of the issues relating to innovativeness of green areas related to cities developed are the motivations to engage in urban green areas innovation, community-level environmental projects, tools that local governments and communities have used to address sustainability issues, measurement of environmental performances, challenges and risks they face. Some available innovative tools for the analysis of spatiotemporal urban planning and growth patterns are the spatial metrics, remote sensing, urban growth models, etc.

Sources and spatial data of urban geography and urban modeling research and innovative technologies improve the analysis, representation and modeling of urban dynamics (Batty,1989; Knox, 1994). Green area innovation is related to its physical life cycle (Gauthier, 2005) from the environmental impact perspective it has to population of the community and neighborhoods it is serving. Innovation and wealth creation tends to scale with city population size.

Other examples of green innovation programs are the participatory urban planning projects integrating technology applications for the design and development of an environmental sustainability, bio economy growth and social development by implementing viable programs to reduce urban carbon footprint. Large-scale participatory urban innovation processes are required to create and implement applications aimed to improve urban infrastructure linking cluster of business and organizations with their own activities.

Innovation among local NGOs are working on programs with other community organizations with and in absence of government and small private business entrepreneurs to benefit the urban poor (Hasan, 1997; UN-Habitat, 2003; Burra & Patel, 2002). Combining the approaches for urban innovation not necessarily has altered the state's urban sprawl but may achieve substantive political progress to overcome the environmental-economic crisis.

Dynamic management systems can support the creation and development of natural green innovation for urban green spaces and the most efficient use of natural resources to provide the best practices to the urban green project. The empirical literature report the challenges of innovative urban green spaces are very scant (Berchicci & Bodewes, 2005; Hall & Vredenburg, 2003; Ottman et al., 2006). Any green project seeking and encouraging innovative solutions by landowners and governments must be coupled with high mitigation and remediation costs of most dysfunctionalities.

Innovation strategies of cooperation supported by a network and strategic alliances ensure long-term viability of urban projects (Belisent, 2010). Farming as a green innovation requires interdisciplinary cooperative exchanges among networks of actors. Green areas innovation offers other relevant opportunities for environmental sustainability, improvement of living conditions, waste reduction, new business creation, etc., and to achieve these goals, it is required to set strategies, policies and targets to move forward and implement the projects. Green areas innovation should be supported by tools to measure environmental impact such as life cycle analysis at each stage of development.

The conceptual framework for green urban area innovation is based on a multi-faceted process wherein key types of environmental development are in interaction, natural resources, materials, energy, and pollution, etc. which have an impact on the environment at different stages: Analysis, formulation, implementation, disposal and evaluation. Green urban areas innovation is becoming mainstream among the local governments and communities used to protect, strive and enhance the natural environment by conserving natural resources and energy and by reducing or eliminating pollution, waste and toxic agents (Roy et al., 1996).

Innovative forms of funding urban green areas innovation are the financial sources for support coming from the business sector, private donors, agencies promoting development, social organizations, non-governmental organizations, etc. To implement these innovative urban green space strategies, it is necessary to develop management strategies for financing maintenance and developing multifunctional urban green spaces, including technological and cultural innovations.

Green areas innovation is relevant to generate knowledge in transdisciplinary and adaptive innovation in urban planning and design processes such as the framework for "safe-to-fail" adaptive urban planning and design using innovative knowledge (Ahern, 2011; Lister, 2007). A relevant variable to assess the

smart cities trends is the demographic density to facilitate contacts and social interactions through the innovative knowledge and ideas flows (Glaeser & Gottlieb, 2006).

A recent approach to this characterization considers the multiple dimensions of innovation as a continuous variable. Incremental green area innovations are more related to the increasing use of existing key green dimensions such as eco-efficiency, the use of materials and processes with a lower environmental impact (Hellström, 2007). Incremental green area innovations are characterized by small and incremental improvements of previous green area versions and their reliance on small changes on existing technologies, process, etc. Green areas research projects originating from business sources expected to respond to the market forces maybe more oriented by incremental innovation.

Radical green areas innovation contributes to achieve environmental sustainability objectives. Introducing urban radical green innovation in any stage of development to addressing urban environmental sustainability challenges across different dimensions such as natural and environmental resources, material selection, energy use, waste usage and pollution prevention can bring substantial benefits to the urban communities and neighborhoods. Green process innovation correlates positively to competitive advantage (Chen et al., 2006).

Open innovation can be user-driven to serve as a mediating, exploratory and democractic participative ITC platform to support urban innovation policies in demand-driven cycles of experimentation. An open innovation in smart cities should be governed by cooperation frameworks within an environment of diverse resources and assets accessible for users. Current projects on smart cities, future internet research and Living Labs have common technological challenges on the use of resources, methods, technologies, facilities and user communities for research and innovation. For example: open innovation models in procurement policies can be developed in order to create sustainable cooperation frameworks aligning technology to societal challenges.

Green innovations in urban farming development exhibit the characteristics of social innovations contributing to a sustainable urban environment and urban food movements. Urban farming is using diverse technologies such as hydroponics or aquaponics to promote green and environmental innovation programs. Urban farming production serves to offer processing, cooking and selling fresh food produce to the local market and enhancing the food business with high quality, sustainable and innovative approaches. Urban farming as an innovation is an incubator using special forms for promoting new concepts of organizing urban life and consumption around sustainable food production. These special forms can be diverse integrated designs to reproduce built environments such as modular containers and components, greenhouses, etc.

Urban farming can bring some ecological and environmental benefits besides the revenues. The innovative farming start-ups are supported by interdisciplinary academic knowledge, business experiences, urban developers, city and local government agencies and financial investors. Large scale high-tech commercial farming initiated by start-ups is facing specific urban land-use challenges regarding urban permitting, zoning, designing and constructing. Tacit knowledge is necessary for projects and contributes to the innovation (Nonaka & Takeuchi, 1995) and creativity to negotiate transition towards integrated risk management where the participants are less likely to negotiate from entrenched positions (Pahl-Wostl et al., 2007).

Integration of community gardens through an innovative approach facilitates opportunities for residents to participate more actively in urban green space planning processes to provide ecosystems services, environmental and sustainable education, alternative and accessible forms for physical activities, bridges interactions between different social groups, enhance local ecological and environmental outcomes.

The concept of smart cities is related to environments of open and user driven innovation respond to challenges. Some European Commission programs are aimed to mobilize urban areas as agents of change to experiment in the smart city concept in open and democratic innovation environments. The smart city concept involves an environment of open and user driven innovation enabled by ICT infrastructure supported by future internet enabled services for experimenting and validating research and innovation.

Future Internet technologies integrate augmented reality services in cultural heritage, safety and security with networks of video-cameras to monitor urban spaces. Future Internet technologies can give support to a platform for monitoring and governance processes of social interactions, development of mobility behaviors, participatory civic decisions, learning natural and cultural heritage and delivery of e-government services.

Urban planning and designing can use the Smart City reference model as an analytical tool to identify innovativeness of policies and processes not only in urban green areas innovation but also in tourism culture, finance, etc. The innovation urban plan must operate under and innovative green plan to include alternative energies, for CO2reduction, green building policies, green logistics and urban transport. Logistic services are connected with product development facilities with professional users.

Urban innovation ICT programs can stimulate citizens, communities, social organizations, business and other societal applications, scaling-up real-life deployment projects to large-scale levels. Innovative ICT-based services with user-driven innovation link smart cities with experimental infrastructure and facilities to design new applications and green services. The co-creation of green services in different areas requires the employment of innovative devices and customized sensors used by citizens.

Smart city solutions are currently more citizen oriented than local city government based solutions, but the best are the combination of both orientations. The real impact of smart city solutions, the funding mechanisms and business models already developed and implemented for their sustainability has not been demonstrated.

The smart city reference model is used by urban planners to describe the smart innovation elements and characteristics, leading by the conception of greening as urban infrastructure used for environment protection (Atkinson & Castro, 2008; Belisent, 2010) “interconnected” among the different economic agents (Bell, Jung, & Zacharilla, 2009; Bizer, Heath, & Berners-Lee, 2009; Gillett, Lehr, & Osorio, 2004; Ergen, 2009) and “intelligent” as the capacity to produce added value based on the creative human capital (Chee-Yee & Kumar 2003; Leon, 2006; Florida, 2003). Urban planners engage stakeholders through the formulation and implementation of innovation strategies ensuring democratic participation and outcomes (Oshun et al., 2011).

The trend based on the emergence of civic Internet information systems is an innovative tool socially constructed which can provide benefits for the design and implementation of green urban innovation projects towards facilitating the regeneration and economic development. On the one hand, it is beneficial to facilitating the structural environmental growth by contributing to have up-dated workforce and on the other, proving support to speed the communication marketing process.

The Future Internet Technology is an overlapping implementation of a mixture of technologies, paradigms and time-frames. It is important to consider the assumption that projects and tasks are supported by technical innovation with the latest release of short-lived software. Participation is a bottom-up approach to Future Internet technology integration. Future Internet technology is a complex technological and societal domain using driven processes of innovation, shaping and application for achieving socioeconomic and business benefits.

Radical green innovations include the use of new technologies, components, processes, etc., aimed to reduce and mitigate the overall environmental impact. Green areas innovations are radical if they are new and offer new features based on radical new technologies to the population of communities and neighborhoods. Local communities and governments can find and deal with local demands of citizens by responding with innovative projects in green areas in some specific local urban spaces, managing risks attached and providing greater benefits. More innovative projects are found to be associated with longer waiting times before having some results (Roberts & Hauptman, 1987). In this sense, the radicalness of innovation in urban green areas needs to be conceptualized and operationalized in the varying degrees of dimensional urban innovation spaces (Roberts & Berry, 1985).

Increasing the environmentally shares has an impact on housing and transportation green innovations in terms of green technological solutions aimed to improve land and energy efficiency, climate change adaption, etc., which contributes to the development of niches and replacing sociotechnical regimes. A radical innovative undertaking relies on technology innovation where the organization, community or local government has technical experience. Using technology in innovation process is related to develop or bring new technological knowledge available in the scientific community. Creation of technological knowledge is more than a technology problem and engaging in new practices to capitalize on the new technology´s advantages (Tyre & Hauptman, 1992).

Innovative undertakings require working where the organization, community or local government has more experience to be regarded as radical innovation. Green area projects are more or less radical innovative undertakings on some differentiated dimensions such as the development degree of technology employed, technology costs, technological uncertainty, technical inexperience, business inexperience. Radical innovations in green areas taking less time to be terminated and less tied to market meds represent t risks and therefore less supported by communities and local governments (Souder, 1987).

Consistent theory on radical green areas innovation with empirical research experienced by practitioners is relevant for urban societies, economies and firms. Research on green innovation projects originated exclusively within R&D is more likely to be radical innovations. Green area projects originating from R & D in areas where there is less experience and practice greater uncertainty is considered more radical innovation. Radical innovation has implications for community, organizations, local governments and business development strategies pursued by firms opening new markets (Knight, 1967; Roberts & Berry, 1985).

There is not commonly accepted definition of radical innovation and also its validity and reliability of operationalization and measure is difficult to test by a manager, single-item judgment or a panel of experts. Radical innovation is defined in terms of the degree of innovations and newness (Abernathy, 1978; Hage, 1980). Radical innovation has multiple dimensions and factors as the technological uncertainty, technical experience, business knowledge and experience and technology costs. Radical innovation technologies in innovative undertakings of urban green areas and incur in high technology costs.

The situation that there is not commonly accepted definition of radical innovation makes difficult to compare results of innovation and accumulate knowledge (Downs & Mohr, 1976). According to the degree of change, Damanpour (1991) classifies innovations in different dimensions of radicalness, which in fact are difficult to operationalize. Radical innovation has greater amount of change and impact on the organizations and community (Daft & Becker, 1978). The different dimensions of green radical innovation make contributions to explaining the effects upon local community and government.

Radical innovation of green areas through multinational representation of the construct influences other aspects such as innovation management. However, measurement of innovation radicalness is

complex and differentiated considering the multiple dimensions which may be more radical some of them and other less radical.

Radical innovation is best represented as a continuous variable. Description of innovation as radical or incremental is ambiguous and depends of the judgment. The continuo of radical-incremental innovation can be measured as a continuous variable more than restrict the range of the construct to dichotomize innovations only as radical or incremental. Technological innovation has implications on R&D in green areas taking into account that the reliable measures of different dimensions' radicalness provide diagnostic value to formulate and implement planning strategies of projects with the consequent benefits for the local communities and governments. Users of green areas are able to appreciate the benefits, evaluate the risks and face the challenges derived of engaging on innovation process.

Research on radical innovation has focused on technological innovation in contexts where radical and incremental innovation is a challenge (Ettlie, Bridges, & O'Keefe, 1984). Technological innovation may be disruptive change because it is experiencing rapid development and have a greater impact on existing practices and experiences on organizational, community, local governments and societal systems (Tyre & Hauptman 1992). Technological innovation as part of the innovation process required to create new knowledge represents a challenge (Schoonhaven, Eisenhardt, & Lyman, 1990). This innovation program creates long-term economic growth centered on entrepreneurship, high-tech networked collaboration (Barcelona, 2011, Downs & Mohr, 1976).

Organizations promoting radical innovation require new strategies and structures (Ettlie, Bridges, & O'Keefe, 1984). Radical innovation demands knowledge and promotes greater changes upon the organization operation (Dewar & Dutton, 1986). A radical innovation green area project is more likely to fail than an incremental project (Souder, 1987). An innovative radical project's construct in technology management is a fundamental to understand innovation management; however, radical innovation efforts to increase product development are more likely to fail (Schoonhaven, Eisenhardt, & Lyman, 1990).

Radical technological innovation creates new knowledge and practices similar to administrative innovations. Radical innovations are usually more expensive and require more resources to successfully commercialize (Ettlie & Rubenstein, 1987). Innovation in green areas has more impact when the technology is more expensive and requires more technical experience. Radical innovation has a greater demand for resources and knowledge generation. However, radical innovations well financed are more likely to survive (Roberts & Hauptman, 1987).

Communities pursuing incremental and radical innovation have effects on performance (Damanpour, 1991; Meyer & Roberts, 1986) and for innovation management. Radical innovation relies in rapid developing technology knowledge making the innovative undertaking riskier if the agent and actor lack experience. The more they have inexperience, the more they are regarded as a radical innovation (McGeough & Newman, 2004).

Radical innovation in green areas creates more change and has more impact on the community and neighborhoods. The amount of change attached to the green innovation projects where there is not extensive technological knowledge and experience make them very costly. Radical innovation in green areas brings significant changes such as making old such as emerging, transforming and disappearing the old and conventional forms and processes (Kaplan, 1999; Van de Ven et al., 1999).

Radical innovations create greater knowledge demands for the organizations, communities, local governments and the society in general. Radical innovations on green areas demand greater change in the existing practices are a source of change and have bigger impact on society (Damanpour, 1991).

Radical innovation incorporates technology that is a risky departure from existing practice of green areas where the magnitude or cost of change required may be sufficient (Ettlie, Bridges, & O'Keefe, 1984).

Technology costs of radical innovative undertakings could be so high. The degree of radical innovation is related to the embryonic technology that is new and rapidly developing that represents a departure from existing practices with the corresponding financial risk. In radical innovation the green areas undertaking is costly and venturing into uncertainty because the lack or underdevelopment of knowledge. Radical innovation is riskier that incremental innovation.

Innovation environments should be open to develop collaboration models for sharing actual common resources used in research and innovation processes of living lab facilities and experimenting methods on future internet technologies for implementing urban innovation policies and ecosystems. Collaboration framework structures are developed for sharing research and innovation resources considering ownership and governance, access, transferability and interoperability of urban innovation projects.

Living Lab integrates services in urban contexts where users and citizens define and prioritize elements of urban cultural heritage and explore security and private issues for the safety of urban environments. The Living Lab-convergent service platforms are developing in a discovery-driven arena settings. Projects requiring radical technological innovation are associated with longer waiting times to complete and before there is a desired product (Roberts & Hauptman, 1987; Schoonhaven et al., 1990).

Living Labs Interfaces projects engage users in co-creation innovation processes whereas Future Internet Experimentation (FIRE) projects involve end users and communities in assessing the socio-economic impacts of technological changes and controlled innovation technologies. FIRE and Living Lab projects use some models for resources sharing in experimentation and innovation opportunities in user's communities.

Living Labs innovation projects share the use of some methodologies with the interface with FIRE experimentation approaches. The application of some technologies in the context of a Living Lab is leading to the adaptation of innovative solutions enabled by the emergence of breakthrough concepts, ideas, and scenarios. Living Labs Innovation and Future Internet Experiments requires infrastructure to create opportunities for urban green innovative services, wellbeing and mobility services in the context of urban space based on real-time digital data.

Collaboration between researchers, practitioners and policymakers to design and implement innovative urban planning can be sustained by a policy network to share information, solve problems and find policies. Adaptive design explores creative and innovative practices through design experiments. Adaptive design can be used as a framework for process to selected urban projects and open to design innovations and creativity, to gain innovative ecological knowledge, research design, practices and methods. An adaptive model in innovative urban green spaces strategies follows a systemic approach with inputs, processing and outputs to the local urban context. From the perspective of innovation, Batchelor and Butterworth (2008) used the term learning alliance to define a group of individuals or organizations with a shared interest in innovation and the scaling-up of innovation.

The national systems of innovation approach sustain that the urban value creation system is shaped by physical and immaterial infrastructure, networks and collaboration, entrepreneurial climate and business networks, demand for services and availability of advanced end-users. Networks can influence policy processes and change the regime (Van Herk et al., 2011). The value creation system is affected by policy implemented to stimulate the networks, public-private partnerships, and the enhancement of innovative conditions (Porter, 1990).

Innovation is fostered through the collaborative innovation processes between the interaction of clusters and networks. It is important to develop collaboration in green areas innovation with the actors and agents of local social and ecological systems. Collaboration within the innovation is an ongoing interaction process between technology, research and applications development, validation and practical utilization. Cooperation relationships frameworks and synergy linkages should be developed between urban innovation policies, local government ICT and future internet research and open users. Future Internet research is a competitive offer proving its added value to citizens/users. Future Internet enables co-creation of innovative scenarios by users and citizens who may contribute a build new applications and public data to the open city.

CONCLUSION

The analysis sheds light on environmental sustainability and urban ecosystems as dimensions of green innovation, which includes the management and use of natural resources, energy minimization, materials reduction, and pollution prevention. The interest of this analysis lies in providing support to urban settlements in managing the risks inherent in green area innovation, incremental or radical as a community's management would experience. Citizens and public managers must understand the risks inherent in pursuing either radical or incremental innovations.

Competitiveness based on research and innovation skills to promote knowledge bio economy, is one of the urban development challenges. Transition toward sustainable urban development innovations should be aimed to changing the composition of land use, infrastructure and transportation regimes. Cooperation strategic models aimed to provide access to shared research and innovation resources in urban areas ecosystems and environments are needed to create and develop more suitable working and living urban spaces.

Returning to the urban public space that needs to be reconquered. The urban public space must be reconstructed with a sense of collectivity, as an urban space of coexistence, of emotion, of trust, of looking, and it is the space of embracing. They are all urban spaces that must be built and, therefore, that urban space is a great achievement at this time.

Local communities and governments should initiate selectively some green area projects with different degrees of radicalness dimensions following a profile according to a strategic urban planning. Development of sustainable communities in smart cities can be supported by design, transfer and implementation through collaborative urban planning of innovative urban policies.

Future priorities for research in urban innovation should identify and develop principles of sustainable urban green planning and development to provide support to policy makers in local governments to design and implement mechanisms for more resilient communities and neighborhoods in cities. Green resilience innovation of urban life in contemporary cities can be supported in digital cities with the implementation of cyberspace to cities.

REFERENCES

Abernathy, W. J. (1978). *The Productivih Dilemma*. Baltimore, MD: Johns Hopkins Univ. Press.

Adams, W. (2006). *The future of sustainability, re-thinking environment and development in the twentyfirst century*. The World Conservation Union.

Ahern, J. (2011). From fail-safe to safe-to-fail: Sustainability and resilience in the new urban world. *Landscape and Urban Planning*, *100*(4), 341–343. doi:10.1016/j.landurbplan.2011.02.021

Ahern, J. (2013). Urban landscape sustainability and resilience: The promise and challenges of integrating ecology with urban planning and design. *Landscape Ecology*, *28*(6), 1203–1212. doi:10.100710980-012-9799-z

Aherna, J., Cilliers, S., & Niemeläc, J. (2014). The concept of ecosystem services in adaptive urban planning and design: A framework for supporting innovation. *Landscape and Urban Planning*, *125*, 254–259. doi:10.1016/j.landurbplan.2014.01.020

Atkinson, R., & Castro, D. (2008). *Digital quality of life*. The Information Technology and Innovation Foundation. Retrieved from https://www.itif.org/files/DQOL.pdf

Baines, C., & Smart, J. (1991). *A Guide to Habitat Creation*. London Ecology Unit.

Barcelona. (2011). *Smart city 22*. Retrieved from http://www.22barcelona.com

Batchelor, C., & Butterworth, J. (2008). *Learning Alliance Briefing Note 9: Visioning* (draft). Retrieved from http://www.switchurbanwater.eu/la_guidance.php

Batty, M. (2008). The size, scale, and shape of cities. *Science*, *319*(5864), 769–771. doi:10.1126cience.1151419 PMID:18258906

Belisent, J. (2010). *Getting clever about smart cities: new opportunities require new business models*. Forester for Ventor Strategy Professionals.

Bell, R., Jung, J., & Zacharilla, L. (2009). *Broadband economies: creating the community of the 21st century.* Intelligent Community Forum.

Berchicci, L., & Bodewes, W. (2005). Bridging environmental issues with new product development. *Business Strategy and the Environment*, *14*(5), 272–285. doi:10.1002/bse.488

Berger, I. E., Cunningham, P. H., & Drumwright, M. E. (2007). Mainstreaming corporate social responsibility: Developing markets for virtue. *California Management Review*, *49*(4), 132–157. doi:10.2307/41166409

Bizer, C., Heath, T., & Berners-Lee, T. (2009). Linked data – the story so far. Special Issue on Linked Data. *International Journal on Semantic Web and Information Systems*. Retrieved from http://linked-data.org/docs/ijswis-special-issue

Blewitt, J. (2008). *Understanding sustainable development*. London: Earthscan.

Bolund, P., & Hunhammar, S. (1999). Ecosystem services in urban areas. *Ecological Economics*, *29*(2), 293–301. doi:10.1016/S0921-8009(99)00013-0

Boonyabancha, S. (2003). A decade of change: From the Urban Community Development Office (UCDO) to the Community Organizations Development Institute (CODI) in Thailand. Poverty Reduction in Urban Areas working paper 12. International Institute for Environment and Development.

Burra, S., & Patel, S. (2002). Community toilets in Pune and other Indian Cities. *PLA Notes, 44*, 43-45.

Chee-Yee, C., & Kumar, S. (2003). Sensor networks: Evolution, opportunities, and challenges. *Proceedings of the IEEE*, *91*(8), 1247–1256. doi:10.1109/JPROC.2003.814918

Chen, Y. S., Lai, S. B., & Wen, C. T. (2006). The influence of green innovation performance on corporate advantage in Taiwan. *Journal of Business Ethics*, *67*(4), 331–339. doi:10.100710551-006-9025-5

Costanza, R., d'Arge, R., De Groot, R., Farber, S., Grasso, M., Hannon, B., ... Paruelo, J. (1998). The value of the world's ecosystem services and natural capital. *Ecological Economics*, *25*(1), 3–15. doi:10.1016/S0921-8009(98)00020-2

Cozens, M. (2008). New urbanism, crime and the suburbs: A review of the evidence. *Urban Policy and Research*, *26*(4), 429–444. doi:10.1080/08111140802084759

Daft, R. L., & Becker, S. W. (1978). *The Innovative Organization*. New York: Elsevier.

Damanpour, F. (1991). Organizational innovation: A meta-analysis of effects of determinants and moderators. *Academy of Management Journal*, *34*(3), 555–590.

Dewar, R. D., & Dutton, J. E. (1986). The adoption of radical and incremental innovations: An empirical analysis. *Management Science*, *32*(11), 1422–1433. doi:10.1287/mnsc.32.11.1422

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

Elmqvist, T., Colding, J., Barthel, S., Borgström, S., Duit, A., Lundberg, J., ... Bengtsson, J. (2004). The dynamics of social–ecological systems in urban landscapes: Stockholm and the National Urban Park, Sweden. *Annals of the New York Academy of Sciences*, *1023*(1), 308–322. doi:10.1196/annals.1319.017 PMID:15253913

Ergen, M. (2009). *Mobile broadband—including WiMAX and LTE*. Springer.

Ernstson, H., Sörlin, S., & Elmqvist, T. (2008). Social movements and ecosystem services–the role of social network structure in protecting and managing urban green areas in Stockholm. *Ecology and Society*, *13*(2), 39. doi:10.5751/ES-02589-130239

Ettlie, J., Bridges, W., & O'Keefe, E. (1984). Organization strategy and structural differences for radical versus incremental innovation. *Management Science*, *30*(6), 682–695. doi:10.1287/mnsc.30.6.682

Ettlie, J., & Rubenstein, A. (1987). Firm size and product innovation. *Journal of Product Innovation Management*, *4*(2), 89–108. doi:10.1111/1540-5885.420089

Evans, R. G., & Stoddart, G. L. (1990). Producing health, consuming health care. *Social Science & Medicine*, *31*(12), 1347–1363. doi:10.1016/0277-9536(90)90074-3 PMID:2126895

Florida, R. (2003). *The rise of the creative class and how it's transforming work, leisure, community and everyday life*. Perseus Books Group.

Gauthier, C. (2005). Measuring corporate social and environmental performance: The extended life-cycle assessment. *Journal of Business Ethics*, *59*(1/2), 199–206. doi:10.100710551-005-3416-x

Geels, F. W., & Schot, J. (2007). Typology of sociotechnical transition pathways. *Research Policy*, *36*(3), 399–417. doi:10.1016/j.respol.2007.01.003

Gillett, E., Lehr, H., & Osorio, C. (2004). Local government broadband initiatives. *Telecommunications Policy*, *28*(7/8), 537–558. doi:10.1016/j.telpol.2004.05.001

Glaeser, E., & Gottlieb, J. D. (2006). Urban resurgence and the consumer city. *Urban Studies (Edinburgh, Scotland)*, *43*(8), 1275–1299. doi:10.1080/00420980600775683

González, J. A., & Rossi, A. (2011). *New Trends for Smart Cities. Open Innovation Mechanism in Smart Cities*. Retrieved from https://cordis.europa.eu/docs/projects/cnect/6/270896/080/deliverables/001-D2221NewtrendsforSmartCities.pdf

Hage, J. (1980). *Theories of Organization: Form, Process and Transformation*. New York: Wiley.

Hall, J., & Vredenburg, H. (2003). The challenges of innovating for sustainable development. *Sloan Management Review*, *45*(1), 61–68.

Harmer, R. (1999). *Creating New Native Woodlands: Turning Ideas into Reality*. Edinburgh, UK: Forestry Commission Information.

Hasan, A. (1997). *Working with Government: The Story of OPP's Collaboration with State Agencies for Replicating its Low Cost Sanitation Programme*. Karachi, Pakistan: City Press.

Hellström, T. (2007). Dimensions of environmentally sustainable innovation: The structure of eco-innovation concepts. *Sustainable Development*, *15*(3), 148–159. doi:10.1002d.309

Holling, C. S. (1978). *Adaptive Environmental Assessment and Management*. New York: John Wiley.

Kaplan, S. (1999). Discontinuous innovation and the growth paradox. *Strategy and Leadership*, *27*(2), 16–21. doi:10.1108/eb054631

Kato, S., & Ahern, J. (2008). Learning by doing: Adaptive planning as a strategy to address uncertainty in planning. *Environment & Planning*, *51*(4), 543–559.

Knight, K. E. (1967). A descriptive model of the intra-firm innovation process. *The Journal of Business*, *40*(4), 478–496. doi:10.1086/295013

Knox, P. L. (1994). *Urbanization: Introduction to Urban Geography*. Prentice Hall.

Komninos, N. (2008). *Intelligent Cities and Globalisation of Innovation Networks*. London: Routledge. doi:10.4324/9780203894491

Komninos, N., & Sefertzi, E. (2009). *Intelligent cities: R&D offshoring, web 2.0 product development and globalization of innovation systems*. Shenzhen, China: Second Knowledge Cities.

Kuhn, E. P., Colberg, P. J., Schnoor, J. L., Wanner, O., Zehnder, A., & Schwarzenbach, R. P. (1985). Microbial transformation of substitute benzenes during infiltration of river water to groundwater: Laboratory column studies. *Environmental Science & Technology*, *19*(10), 961–967. doi:10.1021/es00140a013

Leon, N. (2006). *The well connected city. A report on municipal networks Supported by The Cloud*. Imperial College London.

Lister, N. M. (2007). Sustainable large parks: Ecological design or designer ecology? In G. Hargreaves & J. Czerniak (Eds.), *Large parks* (pp. 35–54). New York: Architectural Press.

McGeough, U., & Newman, D. (2004). *Model for sustainable urban design with expanded sections on distributed energy resources.* Sustainable Energy Planning Office Gas Technology Institute and Oak Ridge National Laboratory GTI Project # 30803-23/88018/65952.

Meyer, M. H., & Roberts, E. B. (1986). New product strategy in small technology-based firms A pilot study. *Management Science*, *32*(7), 773–907. doi:10.1287/mnsc.32.7.806

Millenium Ecosystem Assessment. (2005). Ecosystems and human well-being: synthesis; Mukul A. Lack of funds hampers social science research. *Times of India*. Retrieved from http://timesofindia.indiatimes.com/india/Lack-of-funds-hamperssocial-science-research/articleshow/10237494.cms

Niemelä, J., Saarela, S.-R., Söderman, T., Kopperoinen, L., Yli-Pelkonen, V., Väre, S., & Kotze, D. (2010). Using the ecosystem services approach for better planning and conservation of urban green spaces: A Finland case study. *Biodiversity and Conservation*, *19*(11), 3225–3243. doi:10.100710531-010-9888-8

Nonaka, I., & Takeuchi, H. (1995). *The Knowledge-Creating Company*. Oxford, UK: Oxford University Press.

Oh, H., Chung, M. H., & Labianca, G. (2004). Group social capital and group effectiveness: The role of informal socializing ties. *Academy of Management Journal*, *47*(6), 860–875. doi:10.5465/20159627

Oshun, M., Ardoin, N., & Ryan, S. (2011). Use of the planning outreach liaison model in the neighborhood planning process: A case study in Seattle's Rainier Valley neighborhood. *Urban Studies Research. Article ID*, *687834*. doi:10.1155/2011/687834

Ottman, J. A., Stafford, E. R., & Hartman, C. L. (2006). Green marketing myopia. *Environment*, *48*(5), 22–36. doi:10.3200/ENVT.48.5.22-36

Otto, U. (1998). Innovative Qualität statt neues Etikett: Erste Erfahrungen mit einer konsequenten Programmatik Bürgerschaftlichen Engagements. In J. Braun & O. Klemmert (Eds.). ISAB-Schriftenreihe: Vol. 54. Selbsthilfeförderung und bürgerschaftliches Engagement in Städten und Kreisen. Fachtagung des Bundesministeriums für Familie, Senioren, Frauen und Jugend am 16./17. Februar 1998 in Bonn (pp. 215–235). Academic Press.

Pahl-Wostl, C., Craps, M., Dewulf, A., Mostert, E., Tabara, D., & Taillieu, T. (2007). Social learning and water resources management. *Ecology and Society, 12*(2), 5. Retrieved from http://www.ecologyandsociety.org/vol12/iss2/art5/

Porter, M. (1990). *The Competitive Advantage of Nations*. New York: Free Press. doi:10.1007/978-1-349-11336-1

Porter, M., & Reinhardt, F. L. (2007). A strategic approach to climate. *Harvard Business Review*, *85*(10), 22–26.

Roberts, E. B., & Berry, C. A. (1985). Entering new businesses: Selecting strategies for success. *Sloan Management Review*, *26*, 3–17.

Roberts, E. B., & Hauptman, O. (1987). The financing threshold effect on success and failure of biomedical and pharmaceutical star-ups. *Management Science*, *33*(3), 381–394. doi:10.1287/mnsc.33.3.381

Rottle, N., & Yocom, K. (2010). *Ecological design*. Lausanne: AVA Publishing.

Roy, R., Wield, D., Gardiner, J. P., & Potter, S. (1996). *Innovative Product Development*. Milton Keynes, UK: The Open University.

Santos, B. (2007). *Crítica da razão indolente: contra o desperdício da experiência*. São Paulo: Cortez.

Schaffers, H., Garcia-Guzmán, J., Navarro, M., & Merz, C. (2010). *Living Labs for Rural Development*. Madrid: TRAGSA.

Scheffer, M., & Westley, F. (2007). The evolutionary basis of rigidity: Locks in cells, minds, and society. *Ecology and Society*, *12*(2), 36. doi:10.5751/ES-02275-120236

Schoonhaven, C. B., Eisenhardt, K. M., & Lyman, K. (1990). Speeding degrees in organizational studies from the Univerproducts to market waiting time to first product introductions in new sity of San Francisco firms. *Admininstration Science Quarterly*, *35*, 177–207. doi:10.2307/2393555

Shapiro, J. (2003). *Smart Cities: Explaining the Relationship between City growth and Human Capital*. Harvard University. doi:10.2139srn.480172

Smart city Edinburgh. (2011). Retrieved from http://www.edinburgh.gov.uk

Smith, A., Voss, J. P., & Grin, J. (2010). Innovation studies and sustainability transitions: The allure of the multi-level perspective and its challenges. *Research Policy*, *39*(4), 435–448. doi:10.1016/j.respol.2010.01.023

Souder, W. (1987). *Managing New Product Innovation*. Lexington, MA: Lex.

Stein, A. (2001). *Participation and sustainability in social projects: The experience of the Local Development Programme (PRODEL) in Nicaragua*. IIED working paper 3 on poverty reduction in urban areas. International Institute for Environment and Development.

Tidball, K. G., & Krasny, M. E. (2009). *From risk to resilience: What role for community greening and civic ecology in cities?* Wageningen: Wageningen Academic Publishers.

Tyre, M. J., & Hauptman, O. (1992). Effectiveness of organizational responses to technological change in the production process. *Organization Science*, *3*(3), 301–320. doi:10.1287/orsc.3.3.301

UN-Habitat. (2003). *Water and Sanitation in the World's Cities: Local Action for Global Goals*. London: Earthscan.

Van de Ven, A. H., Polley, D. E., Garud, R., & Venkataraman, S. (1999). *The Innovation Journey*. New York: Oxford University Press.

Van Herk, S., Zevenbergen, C., Rijke, J., & Ashley, R. (2011). Collaborative research to support transition towards integrating flood risk management in urban development. *Journal of Flood Risk Management*, *4*(4), 306–317. doi:10.1111/j.1753-318X.2011.01113.x

KEY WORDS AND TERM DEFINITIONS

Ecosystem: Biological system constituted by a community of living beings and the natural environment in which they live.

Environmental: Of the environment or related to it.

Green Innovation: The creation and diffusion of technological means to remedy climate change.

Sustainability: It refers to biological systems that can preserve diversity and productivity over time.

Sustainable City: That city where there is adequate mobility, saving energy and water resources, reducing auditory pollution and creating pleasant public spaces where there are green areas with great functionality.

Urban: Of the city or related to it.

Urban Space: It is the proper space of a city, that is, of a population grouping of high density. It is characterized by having an infrastructure so that this large number of people can cope harmoniously in their daily lives.

Chapter 4
Approaches to Sustainable and Responsible Entrepreneurship: Creativity, Innovation, and Intellectual Capital as Drivers for Organization Performance

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ABSTRACT

Nowadays, sustainable and responsible entrepreneurship seem to represent the most important goals targeted by the economic business environment at a worldwide scale. In addition, creativity, innovation, and intellectual capital are seen as drivers for organizational performance, particularly in the context of ensuring the right balance in terms of market competition, in the quest for retaining different forms of competitive advantages. Nonetheless, although the general vision of maximizing profit, in the case of producers, and of enhancing satisfaction, in the case of consumers, still governs the economic rules specific to any marketplace, there is a general concern for the future generations, as well as ecology and environmental wellbeing. Under these circumstances, at least for now, all the answers seem to lie in the entrepreneurs' ability to act much more mature, liable, competent, proficient, and efficient, while managing at a higher and improved level of performance their business operations.

INTRODUCTION

Investigating sustainable and responsible entrepreneurial strategies are a continuing concern in a business environment dominated by ecological features and "green performance". The changes experienced by the economic business environment over the past decade remain unprecedented due to the abundance

DOI: 10.4018/978-1-7998-2704-7.ch004

of innovative and creative sources, among which human and intellectual capital seem to distinguish themselves throughout new and improved qualities.

However, these rapid changes are having a serious effect on the entrepreneurs' managerial choices concerning the types of "green" entrepreneurial strategies to be used, starting from the idea that the most recent tendencies lead towards superiority, market domination and excellence on the marketplace. There is increasing concern that some entrepreneurs are being disadvantaged by the new strategies derived from more responsible and sustainable business activities, since being creative, innovative and "going green", means always relying on the least predictable as well as the most risky change management strategies in order to properly serve, on the one hand, the ecological and environmental goals, and, on the other hand, the well-being of the next generations. Thus, despite the safety and efficiency of the new sustainable business strategies, it should be pointed out that some of the business activities willing to "go green" might suffer from several major drawbacks, such as: insufficiently tested technologies that may still harm the environment and people – maybe even more than past technologies; lack of funds for investments in business development and activity redesign; and inadequately prepared human resources capable to implement the new technologies and to make use of the new entrepreneurial strategies. Questions have been raised about the potential business and environmental risks that can occur in the event of making some managerial mistakes in addressing and adapting to change, since there are already far too many examples of entrepreneurs failing on the marketplace – case in which no second chance was offered for them. But, at the same time, success seems to have brought great rewards to the brave entrepreneurs relying on creativity, innovation, and human and intellectual capital, which chose to invest in sustainable and environmental responsible businesses.

To date there has been little agreement on what entrepreneurs should focus on in their businesses in order to succeed on the long-run on the marketplace, since it looks more and more a matter of opportunity seeking, luck, pure intuition and risk affinity rather than well-structured strategies.

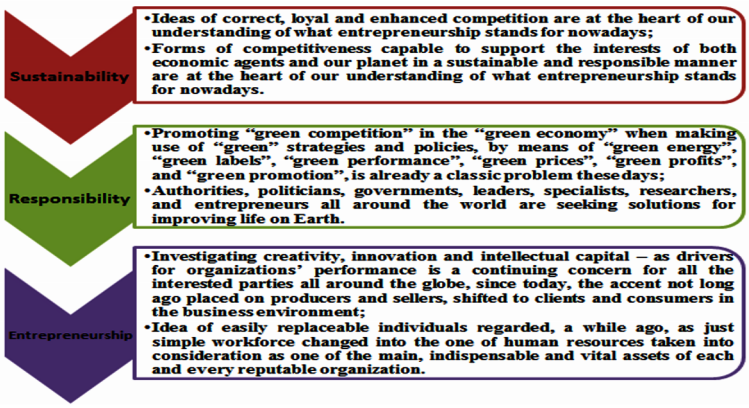
This paper focuses mainly on the authors' perspectives concerning the approaches to sustainable and responsible entrepreneurship, with a deep interest in creativity, innovation and intellectual capital as drivers for organizations' performance, in the attempt to offer answers to several key questions:

- What does sustainable and responsible entrepreneurship mean today and which are the connections with the "green movement"?
- What roles do creativity, innovation, and human and intellectual capital play in the organizations' performance and can specialists consider the idea of "green performance"?
- Can an inclusive model of excellence and "green performance" be proposed in the case of Romania?

BACKGROUND

This section is dedicated to presenting the general background of the main issued stressed in the scientific work entitled "Approaches to sustainable and responsible entrepreneurship: creativity, innovation and intellectual capital as drivers for organizations' performance", namely: firstly, the ideas of correct, loyal and enhanced competition and the forms of competitiveness capable to support the interests of both economic agents and our planet in a sustainable and responsible manner, are at the heart of our understanding of what entrepreneurship stands for nowadays; secondly, promoting "green competition" in

Figure 1. Approaches to sustainable and responsible entrepreneurship. What do creativity, innovation and intellectual capital stand for while addressing organizations' performance?
Source: the authors



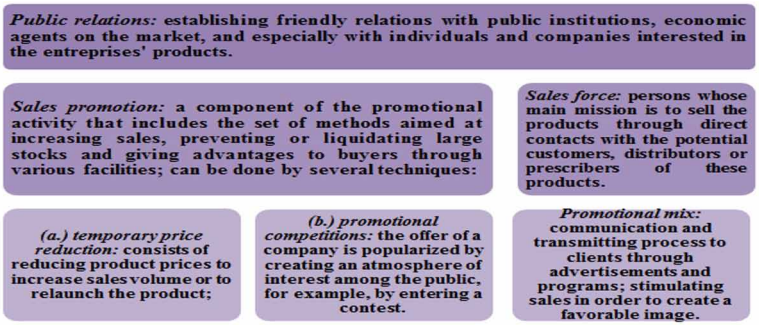
the "green economy" when making use of "green" strategies and policies, by means of "green energy", "green labels", "green performance", "green prices", "green profits", and "green promotion", is already a classic problem these days, since authorities, politicians, governments, leaders, specialists, researchers, and entrepreneurs all around the world are seeking solutions for improving life on planet Earth; and thirdly, investigating creativity, innovation and intellectual capital – as drivers for organizations' performance, is a continuing concern for all the interested parties all around the globe, since today, the accent not long ago placed on producers and sellers, shifted to clients and consumers in the business environment, while the idea of easily replaceable individuals regarded, a while ago, as just simple workforce changed into the one of human resources taken into consideration as one of the main, indispensable and vital assets of each and every reputable organization.

While analyzing the specific approaches to a sustainable and responsible entrepreneurship, creativity, innovation and intellectual capital are regarded as drivers for organizations' performance. In addition, in the same context, competition becomes an essential component of any contemporary market economy as well as a defining attribute of the new global economy (Popescu et al., 2015; Sebestova et al., 2018b; Ward et al., 2019; Hernández-Sánchez et al, 2019; Batista et al., 2019). Besides, it should be remarked that competition is the result of the specific behavior of the economic agents, which is based on their interests on the marketplace and which needs to be materialized in the cooperation and the confrontation with other forces specific to the business environment taken under analysis (Popescu, 2016a; Popescu, 2016b; Popescu et al. 2017a; Florido et al., 2019).

These days, competition is becoming more and more complex, as a result of the manifestations of the market economy, in which the existence of a single producer from the same field of activity becomes almost impossible, while the objective of maximizing the profit on the use of the invested capital needs to be addressed only together with sustained and responsible entrepreneurial actions that come to support both the individuals and the environment's health, well-being and long term preservation (Porter, 1990; Verma & Chowdhry, 2018; Rajnoha et al., 2019).

In this new context that aroused together with the growing interest in the new economy as well as in eco-economy, ecology, and sustainable economic growth, the economic agents are becoming more and more interested in considering new trends, such as "green competition", "green prices", "green profits"

Figure 2. Forces of competition and specific influences: the role of creativity, innovation and intellectual capital in entrepreneurial performance
Source: the authors



and "green performance" – which are, in fact, actions specific to the "green movement" that not too long ago entered in our society and become an increasing part as well as a powerful concern of our economic, social and political culture. However, knowing how the "green competition" on the new economy's market works, today the economic agents are not only concerned with running their businesses so that their companies become more and more profitable and competitive, but they are also focused on creativity, innovation, human resources and intellectual capital as drivers for organizations' "green performance" (Popescu, 2011a; Popescu, 2011b; Bailey, 2013):

Nonetheless, even though competition discourages, in most cases, the economic agents that are less willing to adapt at a fast pace to the new market trends, the absence of competition can even be considered dangerous in some cases: for example, any company that might be alone on the market, would have the opportunity to freely set its price, on the one hand, without confronting itself with other producers and, on the other hand, without taking into account the options of the customers. Nevertheless, there is an encouraging situation here, namely the fact that several regional, national and international organisms today are in charge with competition regulation (Sebestova et al., 2018c). Hence, competition is regulated by regional, national and international authorities through cooperation with both the economic agents and our civil society and with the aid of bilateral, multilateral or global conventions that are extremely necessary when willing to ensure individuals' safety, health and well-being, our the safety of a sustainable and unpolluted environment, capable to support life on planet Earth not only today, but also for the future generations to come (Popescu & Banța, 2019):

APPROACHES TO SUSTAINABLE AND RESPONSIBLE ENTREPRENEURSHIP: PROMOTING "GREEN COMPETITION" STRATEGIES AND POLICIES

The section suggestively entitled "Approaches to sustainable and responsible entrepreneurship: promoting green competition strategies and policies" follows a complex structure, namely: firstly, in this part of the paper, the concept of "competition" is carefully analyzed, starting from the definitions of this notion, continuing with its characteristics, role and importance, and ending with a description of what "green competition" might bring new, innovative and positive in our society, in terms of strategies and policies; secondly, in this part of the work, the popular concept of "entrepreneurship" is thoroughly presented and

Table 1. "Green movement" coming to support "green competition", "green prices", "green profits" and "green performance" for a sustainable and responsible entrepreneurship

Key Concepts	Main Characteristics
"Circular economy"	■ This concept represents a tremendous concern for the European Union, which lead to a set of actions that need to be respected step by step, according to the European Commission, in order to ensure a better life for all (individuals, habitat, biodiversity, and so on and so forth) (European Commission, 2015; Popescu et al., 2015; Verma & Chowdhry, 2019). ■ The action plan concerning the circular economy was adopted by the European Commission in 2015 and focuses on "54 measures to "close the loop" of product lifecycles", identifying five priority sectors capable to speed up the process of enhancing a strong foundation for innovation, creativity and investment capable to thrive in the context of sustainable consumption and production, as well as of responsible waste management governed by the creation of new markets for secondary raw materials (Burkart, 2009; European Commission, 2015; Tociu et al., 2017; Sebestova & Krejčí, 2018). ■ On the 4th of March 2019 the European Commission published the "Circular Economy Action Plan" report, in a constructive effort to reshape the world's economy, by "paving the way towards a climate-neutral, circular economy", where ideally there will exist no more pressure "on natural and freshwater resources", since new and improved solutions will be found in due time in order to preserve the ecosystems (Korhonen et al., 2018; European Commission, 2019).
"Green competition"	■ In the green competition the components of the promotional mix take into consideration the following issues: the position of the company in the market hierarchy; the people involved – namely, the clients and the human resources in the organizations; the budget; the time period during which the campaign will take place; the type of product or market the companies are addressing to; the strategy intended to be used; the stage of consumers' openness to the products soon to be sold as well as their preparation – namely, their degree of understanding, their studies, their knowledge, their particular needs; and the stage in the product life cycle (Bhatti et al., 2011; Ortega-Reyes et al., 2018). ■ In the green competition the components of the promotional mix are similar to other forms of competition, but they are also strongly connected to sustainability and responsibility towards the environment: the first step takes into account identifying the target audience; the second step takes into consideration setting the objectives of the promotion campaign; the third step stresses the necessity of designing a suitable message, usually with reference to sustainable innovation, capable to emphasize the creative nature of the goods and services, and, in the same time, the equilibrium brought into the individuals' lives by deciding to purchase those particular goods and services; the fourth step shows the importance of selecting the means used to transmit the message, which needs to be corroborated with the fifth step which addresses the idea of establishing the budget, especially since promotion is indeed one of the most expensive stages that enterprises are bound to consider; the sixth step implies choosing the promotional mix, which in nowadays society also considers aspects such as the companies' different forms of capital, among which the most well-known and important ones are human and intellectual capital; the seventh step arises from the need of checking how well designed were the companies' interventions on the marketplace, fact that automatically implicates the evaluation of the effectiveness of the promotion (Chen, 2013; Clement, 2013; Biological Diversity, 2018; Ferreira et al., 2019).
"Green consumer"	■ Nowadays, the market has imposed the appearance of a new type of consumer: the green consumer. Under these circumstances, the green consumers are those economic agents operating on the same market as the rest of the economic agents, each aiming to achieve their objectives by taking into consideration not solely their own interests but also those that reside from the interaction with our planet or the less privileged people/countries on the planet (Ajzen, 1991; Ajzen & Fishbein, 1980; Popescu, 2017; Popescu & Popescu, 2018a). ■ Moreover, the approaches to sustainable and responsible entrepreneurship, with references to creativity, innovation and intellectual capital – as drivers for organizations' performance, emphasize the fact that competitive relations should drive manufacturers towards elements such as: technical progress, lower costs and prices, increase the quantity, quality and diversity of economic goods. In this manner, green consumers have the power to encourage producers worldwide to improve their distribution systems and put their selling and promoting strategies to a better use (Popescu & Popescu, 2002; Rajiani & Kot, 2018; Sebestova et al., 2018a).
"Green movement"	■ The green movement is a powerful concept in today's society, which focuses on the complex relationships that are specific to both the market and the competition between all the economic agents, in the context in which all these relationships are carried out in a complex social environment that affects our planet directly and indirectly and to a greater or lesser extent (Bergset, 2015). ■ The green movement has already become a defining part nowadays' competitive environment, having numerous elements that are being dynamic and interdependent, and which are seeking the most appropriate ways of functioning of the market as well as the welfare of consumers (Chie & Chen, 2014). ■ In the same time, the green movement has seriously influenced the competitive nature of individuals and the manner in which the relationships between the economic agents and the environment are evolving. Under these circumstances, it can be easily noticed that the green movement strives for correct and normal forms of competition, which favors economic progress and fights for eliminating discrimination and abuse between market agents. Hence, the correct competition aims to ensure the good performance of the market functions, creating a place in which consumers are protected and their well-being is taken into consideration. In opposition, the incorrect competition tends to be seriously criticized by authorities and punished with the aid of strict laws and regulations, because it acts as an inhibitor for the economic progress, when, for instance, the overall economic performances of the producers or sellers are leading to abuses, discriminations and certain forms of favoritisms, being somewhat independent of the quality and efficiency of the goods and services offered to the consumers (Albors-Garrigos et al., 2014).

continued on following page

Table 1. Continued

Key Concepts	Main Characteristics
"Green economy" "Green labels" "Green labels" "Green performance" "Green prices" "Green profits" "Green promotion"	■ Green performance, green prices, green profits as well as green promotion, should be analyzed alongside with the demand and supply on the market economy, since they all represent essential features in the competition process, which is reflected both in the case of price formation and in the behavior of all the participants in market exchanges (Mfune et al., 2016). ■ Green performance, green prices, green profits and green promotion have the power to create and encourage green and sustainable competition, which will lead to responsible actions on the marketplace. Thus, green completion will become the new regulator of the market, satisfying in this manner the needs of production or consumption, on the one hand, and the necessity of obtaining profit and long-term satisfaction, on the other hand (El Bilali, 2019). ■ Therefore, the market is considered primarily the economic space in which the demand and supply of goods meet, whose actors are the buyers and sellers of goods and services (Maximova et al., 2019; Shanmugam et al., 2018).
"New smart community movement" "Smart and resilient cities"	■ It is difficult to provide a definition for smart cities, since this concept is associated with specific improvements brought to urban areas by means of technology, which, in turn, finds itself in continuous motion: o Coe et al. (2001) place the existence of smart cities in the context of the new smart community movement which appeared as a result of the severe economic, social and political transformations specific to the new economy and new governance structures, explaining the emergence of smart communities due to "the rise of city-regions and the new prominence of citizen engagement", which implicates that the "community-based models of governance must be built on what we call "collective intelligence" (CI)". o Giffinger et al. (2007) defines smart cities the ones that are characterized by regional competitiveness, possessing transport and Information and Communication Technologies economics, having access to natural resources, being focused on human, intellectual and social capital, where the citizens are actively involved in the governance process of their cities and where the quality of life occupies a top priority for authorities. o Caragliu et al. (2009) describes smart cities in the context of "urban performance", stressing that creativity, innovation and intellectual capital are potential main triggers for "the quality of and dedicated attention to the urban environment, the level of education, multimodal accessibility, and the use of Information and Communication Technologies for public administration", especially when "are all positively correlated with urban wealth". o Smart Cities Council (2019) – organism that operates under the motto "Livability, Workability and Sustainability", outlines that smart cities are those cities that have "digital technology embedded" across all their functions. ■ In our opinion, the creation and evolution of the competitive environment involves also the existence of smart communities and cities, characterized by clear, transparent, supervised and operative rules, in the general context of public-private sectors collaboration, on the principles of permanent cooperation and collaboration between all economic agents and which targets a healthy life and a clean environment for all, also by the aid of all the benefits brought by the use of Information and Communication Technologies. In addition, the authors believe that in the smart cities as well as in the smart communities, private property is still the determining vector of the competitive environment, especially if supported by the benefits brought by the use of Information and Communication Technologies for public administration: o Moreover, private property represents the general support of competition based on free initiative, wealth, and a set of opportunities available to families, firms, governments and society as a whole. o Furthermore, nowadays competitive business environment is influenced not only by the structure of the private property, but also by the new trends belonging to the economy based on information, creativity and knowledge. o All in all, nowadays competitive business environment must focus on the following objectives: implementing correct and rigorous regulation, being particularly attentive to intellectual property and the protection of all its particular forms, namely software, patents, trademarks – such as production and trade, brands, copyright, industrial secrets, and know-how and so on and so forth.

Source: the authors

attentively connected to economic and social sustainability as well as to responsibility and concern for both our society and the future of our planet. Under these circumstances, this section is twofold, focusing, on the one matter, on ""Green competition" and the challenges of circular economy" and also, on the other matter, on "Sustainable and responsible entrepreneurship in the Green Era".

"Green Competition" and the Challenges of Circular Economy

At a first glance, individuals, companies, administrations or countries have numerous categories of interests – besides those of possessing goods, money, or wealth in abundance, such as, for example, the purpose of doing good in society, the scope of protecting the people in need or the disadvantaged categories of population, the target of preserving nature and biodiversity, or of preserving the future

Table 2. Regulating competition: supporting sustainable and responsible entrepreneurship, and encouraging creativity, innovation and intellectual capital for organizations' performance

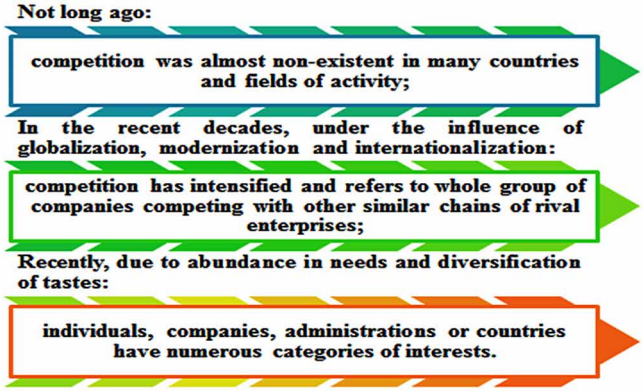
Key Concepts	Main Characteristics
In the new economy, regulations able to support sustainable and responsible entrepreneurship, and encourage creativity, innovation and intellectual capital for organizations' "green performance" are based on:	• A set of measures called to enforce correctness, fairness in creating and promoting specific products as well as sustainable competition (Holban et al., 2017; Naidoo & Verma, 2019); • A set of measures called to make sure that the buyer will not be deceive on the price and quality of the goods and services by means of false advertising or labeling (Popescu, 2019e; Popescu, 2019f); • A set of measures called to prevent buyers not to act according to the laws of the economic market, while considering the supply, the demand and the price (Popescu & Popescu, 2000); • A set of measures called to prevent buyers not to refuse the sale of the available goods and to avoid, in this manner, the possibility that they might come to abuse their position (Acosta et al., 2016); • A set of measures called to show under which circumstances the goods and services might be sold at a loss only under certain conditions, in order to avowing illegal and illicit forms of competition, such as the ones based, for example, on dumping prices (Arru et al., 2019).
In the new economy, regulations able to support sustainable and responsible entrepreneurship, and encourage creativity, innovation and intellectual capital for organizations' "green performance" are highly needed in order to:	• To ensure the competition's correctness and fairness traits, and, in the same time, to encourage the correlation between the force exerted by entrepreneurs and social responsibility / corporate social responsibility (Popescu & Popescu, 2019). • To prevent situations when the producers / sellers are extremely powerful economic agents, thus being capable to realize their interests to the detriment and on the account of other economic agents – especially of the consumers (Popescu, 1997). • To completely avoid the cases in which anti-competitive agreements are made / signed (for example, cartels – a specific form of illegal and illicit form of competition), due to the fact that the economic agents participating on the marketplace seek to gain advantages to the detriment of other competitors (usually less powerful and smaller ones), ultimately affecting the equilibrium of the market economy and the consumers of goods and services (Chowdhry et al., 2019).
Competition, as a system of relations of cooperation and competition between economic agents, capable to sustain "green performance" is based on:	• Common and formal and informal rules (Popescu et al., 2017b); • Freedom of actions carried out within limits imposed by specific regional, national and international regulations (Pilotti, 2018).

Source: the authors

generations' rights to a good life quality. However, it seems that, one way or another, individuals, companies, administrations or countries are ultimately predisposed to their personal interest, especially the ones of maximizing the amount of money and goods possessed or managed. In this context, the idea of becoming more and more competitive arises from the natural tendency of people to own as much power, goods and money as possible, which leads automatically to the state in which individuals, companies, administrations or countries find themselves in situations in which they are, in fact, in fierce competition.

It is important to bear in mind that competition does not have a generally accepted definition, given the fact that its meaning differs depending on the context. However, for instance, from an economic point of view, competition is closely related to the marketplace, the supply and demand, as well as a set of economic exchanges, and it is due to occur when the laws promote, on the one hand, freedom in entering a market and, at the same time, there are more alternative producers and sellers on that market. By drawing on the concept of competition, specialists have been able to show that it represents a specific behavior belonging to different subjects or property agents – independent of each other in terms of assets, management autonomy and decision-making mechanisms, which enter into different types of

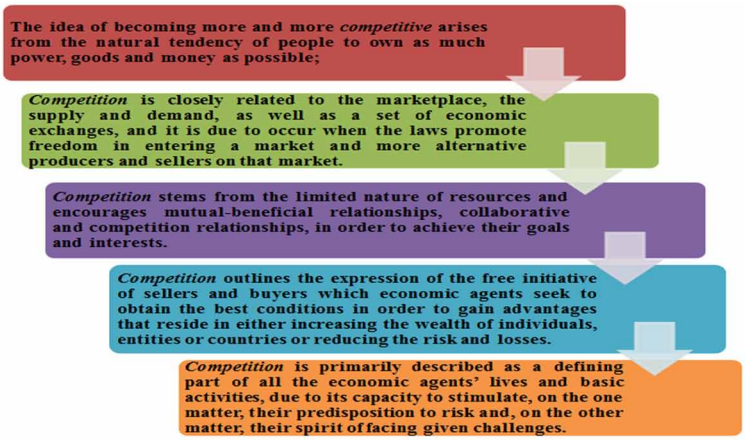
Figure 3. Stages and strategies in competition – understanding the marketplace
Source: the authors



relationships with other agents – such as, for example, mutual-beneficial relationships, collaborative and competition relationships, in order to achieve their goals and interests.

This vision is supported by the view according to which, first of all, competition stems from the limited nature of resources – when referring, for example, to producers, buyers, administrations and national economies, and second of all, competition outlines the expression of the free initiative of sellers and buyers, in the cases in which these economic agents seek to obtain the best conditions (namely, production, sale, purchase) in order to gain advantages that ultimately reside in either increasing the wealth of individuals, entities or even countries or reducing, at least, the risk and losses when these are inevitable in limit situations. In economics, competition is primarily described as a defining part of all the economic agents' lives and basic activities, due to its capacity to stimulate, on the one matter, their predisposition to risk and, on the other matter, their spirit of facing given challenges. Also, it should be added that competition is a strong driver when it comes to enhancing economic agents' initiative, creativity, and responsibility, through which each pursues his own interest. In addition, competition is a

Figure 4. Green competition and the challenges of circular economy
Source: the authors



form of free choice initiative which proves to be an essential feature of the market economy especially in the context in which it exists when there are more alternatives on the marketplace.

It has become common place to consider competition a natural and objective phenomenon that can be acknowledged as always present in the surrounding world since it represents the rivalry symbol between the economic agents that interrelate in the market economy. Generally, until recently competition was almost non-existent in many countries and fields of activity, but in the recent decades it has not only intensified due to globalization, modernization and internationalization, but it is also no longer limited between companies, but rather to whole group of companies competing with other similar chains of rival enterprises.

With the aid of the factors specific to competition, the producers obtain both the prices and the desired profits, while the consumers have the possibility to satisfy their needs, constantly having access to a wide range of goods and services. For example, in a specific region or country competition can be considered as being strong as prices fall, while the demand for these products increases (Islam, 2017; Kluczek, 2017).

In consequence, some economic agents succeed on the marketplace, becoming winners at one moment in time and role models for the rest of the economic actors, while others lose, becoming examples of what the rest of the economic actors should not do.

Nonetheless, even if the economic agents are able to obtain positive results or not during their competitive activities and actions, it should be noticed that, overall, the economic efficiency is stimulated in our society, mainly by encouraging the entrepreneurial spirit as well as by augmenting other types of human behavior, such as innovation, creativity, responsibility and sustainability, in all forms and at all levels, thus managing the saving of limited resources and the increase in the level of economic progress and growth. Moreover, it seems that under the competition conditions, the economic efficiency of both the producers – which target the maximization of the profit, and the consumers – which target the maximization of the satisfaction, increases. Furthermore, there seems to be a common ground between the laws of physics – that tells us that matter is not created and not destroyed, but only transformed, and the laws of economics – that show us that competition is being neither created, nor destroyed, it only has the capacity to transform, since competition and competitiveness facilitate the appearance of goods

Figure 5. Competition – specific characteristics in the new economy
Source: the authors

and services from one area, in another area (Śmigielska & Oczkowska, 2017; Tilloy et al., 2012; Foschi & Bonoli, 2019).

Thus, even though competition gives consumers the freedom to choose the best goods and services their money can buy and, in the same time, to meet their needs at a higher level, nonetheless, it also has negative consequences, attracting some unwanted side effects, such as: (a) trying to reduce costs by reducing wages, (b) reducing expenditures needed to protect the environment, or (c) creating poor quality goods (Grundmann, 1989; Hao et al., 2019). Moreover, competition has certain formal and / or informal rules, being socially regulated and supervised by both the authorities and civil society, in order to prevent border situations in specific cases among can be mentioned the following ones, namely: (a) the sum of free and perfectly rational individual behaviors can lead to irrational social situations; (b) unsupervised and unregulated competition can self-destruct if some of its agents have the power to distort the competition mechanism; and (c) there is no connection between the power of an organization and its social responsibility (Li et al. 2018; Januškaitė & Užienė, 2018; Jianzhong et al., 2018).

It seems that at a global level, the specialists' main concerns revolve around economic growth supported by sustainable development and responsible entrepreneurship as well as economic power and maximized profit obtained by way of "green competition" – the new and essential factor of competitiveness in the Green Era. Under these circumstances, management becomes one of the strategic instruments of the "green competition", in the context in which it must perform simultaneously various new and / or improved functions, namely:

Sustainable and Responsible Entrepreneurship in the Green Era

The authors believe that innovative and creative strategies represent the key to sustainable and responsible entrepreneurship in the Green Era. Under these circumstances, innovation within the entrepreneurial system is focused on the strategic belief that the entrepreneur is the one seeking change, managing opportunities, engaging in creative and groundbreaking actions that will change the low productivity areas of the organizations into high efficiency and high productivity ones (Januškaitė & Užienė, 2018; Jianzhong et al., 2018).

However, innovation is associated with risks, since failures may occur while taking certain decisions or while transferring from the less advanced technological systems to more advanced ones – namely, the ones based on intelligent capital, artificial intelligence, robotics, and so on and so forth (Bhatti & Zaheer, 2014).

Even though sustainable and responsible entrepreneurship in the Green Era implicates taking and assuming specific risks that are, in fact, considered to be part of the way to progress, specialists consider that even the moderate success of an innovation might generate sufficient profits in order to encompass the risks or the potential losses that could have occurred without taking steps forward rather than standing still. That is the reason why the sustainable and responsible entrepreneurship in the green era seeks to create a balance between the typical characteristics of any innovation, which might be successfully attributed also to "green innovation", as follows (Popescu & Popescu, 2018b; Popescu, 2018a; Li et al. 2018):

- Firstly, excellence in innovation addresses the case of sustainable and responsible entrepreneurship in the Green Era, which revolves around the concepts green performance and green innovation.

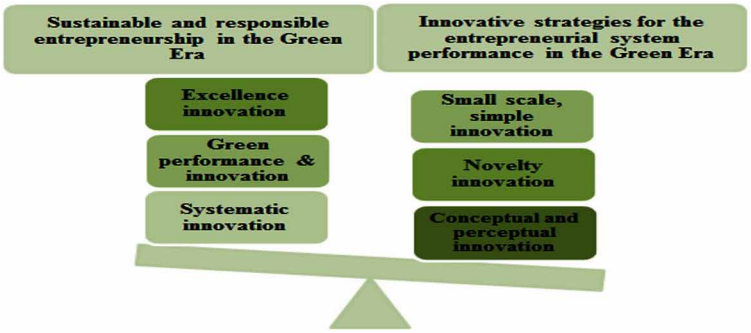
Table 3. Management – one strategic instruments of "green competition": main characteristics in the circular economy

Key Concepts	Main Characteristics
Opened leadership	In "green competition" it occurs in the cases of opened competition, expressing a form of direct contest with the environment and indirect contest with the competitors (Aldieri & Vinci, 2018; Torfing & Sørensen, 2019).
Closed leadership	In "green competition" it occurs in the cases of closed competition, expressing a form of contest in which competitors are directly committed to become better than their fellow rivals, which means that while some competitors win, the others loose (Choi & Qi, 2019; Blanc et al., 2019).
General remarks: In "green competition", the opened or closed character of the competition is given by the degree of restrictions and constraints that characterizes the competitive environment, which leads us to the idea that an environment with a high degree of constraints, the economic agents will automatically experience great difficulties in reaching their desired goal, while the number of competitors will be small, and overcoming the environmental restrictions will no longer be a burden, since "green competition" is keen, in fact, on protecting the environment and its sustainable features (Eurostat, 2018a; Ferreira Gregorio et al., 2018).	
Tactical leadership	In "green competition" is carried out on a relatively stable economic background, unlike in other forms of classical competition, influencing key components of the economic business environment, such as: consumption needs; general economic, political, social and demographical conditions; human resources – with an accent on human capital and intellectual capital; information and technologies resources; legislation; and so on and so forth (Xie et al., 2017; Eurostat, 2018b; Eurostat, 2019a; Eurostat, 2019b).
Strategic leadership	In "green competition" is carried out on a relatively stable economic background, unlike in other forms of classical competition, influencing key components of the economic business environment, such as: the implementation of major legislative changes with a positive impact on the entrepreneurial activities as well as on the life on our planet; the discovery of new techniques and technologies with a positive impact on the entrepreneurial activities; the implementation of strategic steps capable to avoid crises and wars at a global level, since all individuals have common goals such as the well-being of others, biodiversity, safety, abundance, preservation of resources for the future generations to come; the implementation of strategic steps capable to enhance discoveries of new resources, such as, for example, new mineral deposits large enough to influence the demand-supply balance in a certain branch and improve our life quality, life expectancy and account for the scarce resources in some regions or countries; and so on and so forth (Rauf et al., 2018; Salas Herrero et al., 2018).
General remarks: In "green competition", ensuring success in terms of tactical and strategic leadership requires different approaches as well as strong managerial qualities, due to the fact that, on the one matter, tactical "green competition" implies accumulation of positive experiences, strong-will, tenacity and prudence, stability in the application of proven correct and reliable methods, while, on the other matter, strategic "green competition" involves creativity, innovation, initiative, courage, risk, desire to empower the human resources and the intellectual capital of the organizations, courage to live behind the patterns that are no longer adequate, showing critical behavior as well as visionary desire (Science Communication Unit & Directorate-General for Environment (European Commission), 2017; Wang et al., 2019).	

Source: the authors

- Secondly, systematic innovation focuses on the thorough analysis of the organizations' the opportunities that might arise when taking the changes and risks specific to managing new, creative and innovative projects.
- Thirdly, excellence in innovation should automatically aim at the organization's supremacy on the marketplace, which will empower the entrepreneur to strive in becoming more successful than the fellow competitors.
- Fourthly, innovation initiated on a small scale is rather simple and concentrated yet implicating novelty, which means that the entrepreneurs need little money, less effort and fewer people for their projects, since they seek to address to a smaller market.
- Fifthly, innovation is conceptual and perceptual, which might also be an attribute of excellent innovation, since it implicates the entrepreneurs' capacity to foresee the future, to envision the objectives and listen to the marketplace critical signals.

Figure 6. Sustainable and responsible entrepreneurship in the Green Era with the help of innovation strategies
Source: the authors



- Sixthly, innovation takes also into consideration the need as well as the necessary determination to get engaged in changing patterns as well as values, while focusing on: (a) the economic characteristics of a product, market, sector, region or country; (b) the innovation strategies belonging to the past entrepreneurial behaviors that were good but in different occasion; (c) the willpower to transform the obsolete products or services into new, modern, better and improved ones by transforming their purposes, utility, value and economic characteristics.

CASE STUDY: FOCUS ON ROMANIA AND THE INESTIMABLE POWER OF CREATIVITY, INNOVATION AND INTELLECTUAL CAPITAL AS DRIVERS FOR ORGANIZATIONS' PERFORMANCE

In this section, the focus shifts to the case of Romania – a member state of the European Union, due to the authors' strong belief that creativity, innovation and intellectual capital have an inestimable power in the New Economy, thus representing strong drivers for the Romanian organizations' performance.

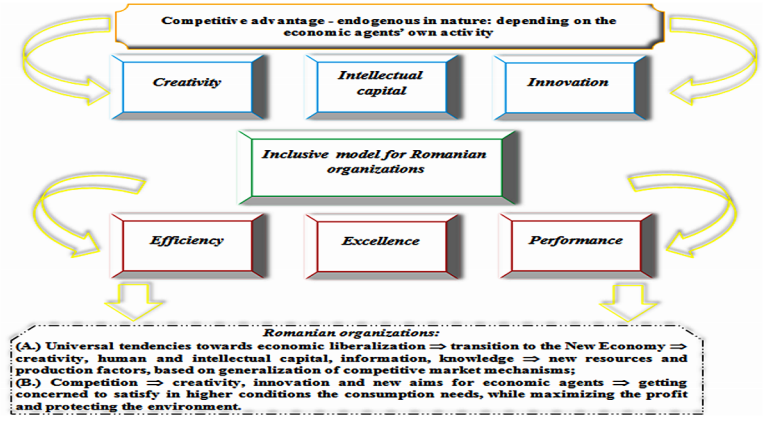
Additionally, it is considered that competition in the New Economy becomes an economic, social and political instrument that promises, targets, but also ensures comfort, well-being and success for individuals, managers, society, and environment (Bhatti & Zaheer, 2014; Popescu & Popescu, 2018b).

Moreover, in the case of Romanian organizations, the economic agent seeking competitive advantages depending on their own activity and striving for success and economic growth opportunities will act permanently concerned about satisfying in higher conditions the consumption needs of their clients, while maximizing the profit and minimizing the environmental risks (Popescu, 2018a; Li et al. 2018).

Furthermore, in order to cope with the competition, the Romanian organizations should focus on specific competitiveness instruments, such as quality improvement, cost reduction, supply renewal, consumer benefits, advertising – with an emphasis on informing customers as well as giving transparency to the goods and services sold on the market, and alliances between companies – with a particular interest in foreign competitors, yet having in mind to protect the internal market (Januškaitė & Užienė, 2018; Popescu, 2019a ; Popescu, 2019b).

Nevertheless, an inclusive model for Romanian organizations should take into account the inestimable power of creativity, innovation and intellectual capital as drivers for efficiency, performance and

Figure 7. Inclusive model for Romanian organizations and the inestimable power of creativity, innovation and intellectual capital as drivers for efficiency, performance and excellence
Source: the authors



excellence, and should take into consideration some of the most important factors that contribute to the competitiveness of an organization, namely: (a) value for money; (b) natural and/or economic resources; (c) price of the products or services; and (d) quality of the product or service (Jianzhong et al., 2018; Popescu, 2019c; Popescu, 2019d).

SOLUTIONS AND RECOMMENDATIONS

The idea of finding solutions and recommendations for the approaches to sustainable and responsible entrepreneurship discussed in this research paper, while also addressing the business opportunities offered by creativity, innovation and intellectual capital as drivers for organizations' performance, indicates a need to understand the various perceptions of sustainable environment and ecological actions that exist among specialist.

This paper seeks to offer some remedies to the problems faced by entrepreneurs while being challenged in their daily business routine by the ideas of sustainable environment and ecological actions, in the attempt to present some viable strategies capable to improve both their businesses and individuals lives:

Step 1: By changing the function previously performed by certain products or services in order to meet the new environmental requirements, entrepreneurs should create in their businesses new and better products that have utility for the customer, giving the customer the opportunity to meet their needs.

Step 2: By changing the function previously performed by certain products or services in order to meet the new environmental requirements, entrepreneurs should make use of the pricing system in order to show the consumer that by acquiring the products they are not only investing in their well-being, but also in the future of their planet, which gives the customer the opportunity to pay exactly what is value for him and the environment, and not what reflects the costs of the suppliers.

Step 3: By changing the function previously performed by certain products or services in order to meet the new environmental requirements, entrepreneurs should bring strength to the reality of the cus-

tomer, which is most often different from that of the manufacturer, meaning that the values of the customer are represented by the products themselves.

Step 4: By changing the function previously performed by certain products or services in order to meet the new environmental requirements, entrepreneurs should avoid market failures and show concern for competition regulation, since the market is the best mechanism for allocating resources, minimizing costs.

FUTURE RESEARCH DIRECTIONS

The future analysis of the impact of the approaches to sustainable and responsible entrepreneurship should be focused on different forms of market failure, starting from the following major ideas: market failure is not an interdependent result that might occur in an economy, but a correlated outcome that was generated by the interaction of all economic agents; market failure ultimately lead to erosion of consumer welfare.

Also, starting from the idea that competition represents a condition and a guarantee of progress, future analysis of the impact of the approaches to sustainable and responsible entrepreneurship should take into consideration the benefits as well as the opportunities brought by modern market economy, based on maintaining the principle of freedom of competition between those who practice the same activities and pursue common or similar purposes.

CONCLUSION

Under the conditions of globalization and economic integration, competition becomes much stronger, yet offering the economic agents the opportunity to have access to mutual benefits if dealt with properly. In addition, in the case of sustainable and responsible entrepreneurship, economic integration facilitated the development of economic interdependencies between states, through forms and methods that are capable ensure: businesses growth and continuity; and deep economic exchanges.

All in all, it should be stated that freedom of competition has its limits in honest and sustainable commercial practices, which automatically implies that all economic agents are obliged to respect a minimum of morality in order to enforce the loyalty characteristic to competitiveness. Moreover, the increasing frequency of abuses and anticompetitive commercial forms in the daily struggle for economic power, market domination and performance supremacy, has made the issue of respecting and defending real competition subject to numerous legal, sustainable, and environmental-friendly regulations and procedures. Furthermore, competition regulations have the power of reducing business risks, on the one matter, and of facilitating entrepreneurs the possibility to make clean profits and be part of "green performance" processes, on the other matter.

REFERENCES

Acosta, L., Magcale-Macandog, D., Kumar, K., Cui, X., Eugenio, E., Macandog, P., & Salvacion, A. (2016). The Role of Bioenergy in Enhancing Energy, Food and Ecosystem Sustainability Based on Societal Perceptions and Preferences in Asia. *Agriculture, 6*(2), 19. doi:10.3390/agriculture6020019

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179–211. doi:10.1016/0749-5978(91)90020-T

Ajzen, I., & Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behavior*. Pearson.

Albors-Garrigos, J., de Miguel Molina, B., & de Miguel Molina, M. (2014). Positioning in the Global Value Chain as a Sustainable Strategy: A Case Study in a Mature Industry. *Administrative Sciences, 4*(2), 155–172. doi:10.3390/admsci4020155

Aldieri, L., & Vinci, C. (2018). Green Economy and Sustainable Development: The Economic Impact of Innovation on Employment. *Sustainability, 10*(10), 3541. doi:10.3390u10103541

Arru, B., Furesi, R., Madau, F., & Pulina, P. (2019). Recreational Services Provision and Farm Diversification: A Technical Efficiency Analysis on Italian Agritourism. *Agriculture, 9*(2), 42. doi:10.3390/agriculture9020042

Bailey, R. (2013). *Ecoregions*. New York: Springer.

Batista, N., Pereira, J., Moreira Carrizo, A., & Matos, N. (2019). Exploring the meaning of social innovation: A categorisation scheme based on the level of policy intervention, profit orientation and geographical scale. *Innovation*, 1–19. doi:10.1080/14479338.2019.1585188

Bergset, L. (2015). The Rationality and Irrationality of Financing Green Start-Ups. *Administrative Sciences, 5*(4), 260–285. doi:10.3390/admsci5040260

Bhatti, W. A., Khan, M. N., Ahmad, A., Hussain, N., & Rehman, K. (2011). Sustaining Competitive Advantage through effective knowledge management. *African Journal of Business Management*, *5*(8), 3297–3301.

Bhatti, W. A., & Zaheer, A. (2014). The Role of Intellectual Capital in Creating and Adding Value to Organizational Performance: A Conceptual Analysis. *Electronic Journal of Knowledge Management*, *12*(3), 187–194. Retrieved from https://www.researchgate.net/publication/270505923_The_Role_of_Intellectual_Capital_in_Creating_and_Adding_Value_to_Organizational_Performance_A_conceptual_study

Blanc, S., Massaglia, S., Brun, F., Peano, C., Mosso, A., & Giuggioli, N. R. (2019). Use of Bio-Based Plastics in the Fruit Supply Chain: An Integrated Approach to Assess Environmental, Economic, and Social Sustainability. *Sustainability, 11*(9), 2475. doi:10.3390u11092475

Burkart, K. (2009). *How do you define the 'green' economy*. Mother Nature Network, Research & Innovation Section, Economics Subsection. Retrieved from https://www.mnn.com/green-tech/research-innovations/blogs/how-do-you-definethe-green-economy

Caragliu, A., Del Bo, C., & Nijkamp, P. (2009). Smart cities in Europe. *3rd Central European Conference in Regional Science*. Retrieved from https://inta-aivn.org/images/cc/Urbanism/background%20documents/01_03_Nijkamp.pdf

Chen, L. (2013). A Study of Green Purchase Intention Comparing with Collectivistic (Chinese) and Individualistic (American) Consumers in Shanghai, China. *Information Management and Business Review*, *5*(7), 342–346.

Chie, B.-T., & Chen, S.-H. (2014). Competition in a New Industrial Economy: Toward an Agent-Based Economic Model of Modularity. *Administrative Sciences, 4*(3), 192–218. doi:10.3390/admsci4030192

Choi & Qi. (2019). Is South Korea's Emission Trading Scheme Effective? An Analysis Based on the Marginal Abatement Cost of Coal-Fueled Power Plants. *Sustainability, 11*(9), 2504. doi:10.3390u11092504

Chowdhry, D. G., Verma, R., & Mathur, M. (2019). *The Evolution of Business in the Cyber - Age: Digital Transformation, Threats, and Security. Apple Academic Press*.

Clement, C. (2013). *Rudolf Steiner: Schriftenüber Mystik, Mysterienwesen und Religionsgeschichte. Frommann - holzboog Verlag*. Stuttgart: Bad Cannstatt.

Coe, A., Paquet, G., & Roy, J. (2001). *E-Governance and Smart Communities: A Social Learning Challenge*. Retrieved from http://www.gouvernance.ca/publications/00-53.pdf

Convention on Biological Diversity. (2018). Retrieved from https://www.cbd.int/history

El Bilali, H. (2019). The Multi-Level Perspective in Research on Sustainability Transitions in Agriculture and Food Systems: A Systematic Review. *Agriculture, 9*(4), 74. doi:10.3390/agriculture9040074

European Commission. (2015). *Towards a circular economy*. Retrieved from https://ec.europa.eu/commission/priorities/jobs-growth-and-investment/towards-circular-economy_en

European Commission. (2019). *Circular Economy: Implementation of the Circular Economy Action Plan – Final Circular Economy Package*. Retrieved from https://ec.europa.eu/environment/circular-economy/

Eurostat. (2018a). *EURONA - Eurostat Review on National Accounts and Macroeconomic Indicators - Issue No 2*. Retrieved from https://ec.europa.eu/eurostat/web/products-statistical-books/-/KS-GP-18002?inheritRedirect=true&redirect=%2Feurostat%2Fpublications%2Fstatistical-books

Eurostat. (2018b). *The EU in the world*. doi:10.2785/990579

Eurostat. (2019a). *Sustainable development in the European Union — Monitoring report on progress towards the SDGs in an EU context*. doi:10.2785/44964

Eurostat. (2019b). *The European Union and the African Union — A statistical portrait*. doi:10.2785/396145

Ferreira, L., Moreira Carrizo, A., & Zimmermann, R. (2019). Strategic fit between innovation strategies and supply chain strategies: A conceptual study. *International Journal of Value Chain Management.*, *10*(258). doi:10.1504/IJVCM.2019.10022071

Ferreira Gregorio, V., Pié, L., & Terceño, A. (2018). A Systematic Literature Review of Bio, Green and Circular Economy Trends in Publications in the Field of Economics and Business Management. *Sustainability, 10*(11), 4232. doi:10.3390u10114232

Florido, C., Jacob, M., & Payeras, M. (2019). How to Carry out the Transition towards a More Circular Tourist Activity in the Hotel Sector. The Role of Innovation. *Administrative Sciences, 9*(2), 47. doi:10.3390/admsci9020047

Foschi, E., & Bonoli, A. (2019). The Commitment of Packaging Industry in the Framework of the European Strategy for Plastics in a Circular Economy. *Administrative Sciences, 9*(1), 18. doi:10.3390/admsci9010018

Giffinger, R., Fertner, C., Kramar, H., Kalasek, R., Pichler-Milanović, N., & Meijers, E. (2007). *Smart cities Ranking of European medium-sized cities*. Vienna: Centre of Regional Science. Retrieved from http://www.smart-cities.eu/download/smart_cities_final_report.pdf

Grundmann, R. (1989). *Marxism and ecology: a study of the relationship between nature, society and technology*. Florence: European University Institute. doi:10.2870/564570

Hao, Y., Yang, D., Yin, J., Chen, X., Bao, A., Wu, M., & Zhang, X. (2019). The Effects of Ecological Policy of Kyrgyzstan Based on Data Envelope Analysis. *Sustainability, 11*(7), 1922. doi:10.3390u11071922

Hernández-Sánchez, B. R., Sánchez-García, J. C., & Mayens, A. W. (2019). Impact of Entrepreneurial Education Programs on Total Entrepreneurial Activity: The Case of Spain. *Administrative Sciences, 9*(1), 25. doi:10.3390/admsci9010025

Holban, E., Diacu, E., Matei, M., Ghita, G., Raischi, M., Fronescu, S., ... Gh. Popescu, C. R. (2017). Assessment of atmospheric pollution in a cement factory area situated in the eastern part of Romania. *Journal of Environmental Protection and Ecology*, *18*(3), 819–830.

Islam, M. (2017). Sustainability through the Lens of Environmental Sociology: An Introduction. *Sustainability, 9*(3), 474. doi:10.3390u9030474

Januškaitė, V., & Užienė, L. (2018). Intellectual Capital as a Factor of Sustainable Regional Competitiveness. *Sustainability, 10*(12), 4848. doi:10.3390u10124848

Jianzhong, X., Assenova, A., & Erokhin, V. (2018). Renewable Energy and Sustainable Development in a Resource-Abundant Country: Challenges of Wind Power Generation in Kazakhstan. *Sustainability, 10*(9), 3315. doi:10.3390u10093315

Kluczek, A. (2017). Quick Green Scan: A Methodology for Improving Green Performance in Terms of Manufacturing Processes. *Sustainability, 9*(1), 88. doi:10.3390u9010088

Korhonen, J., Honkasalo, A., & Seppälä, J. (2018). Circular Economy: The Concept and its Limitations. *Ecological Economics*, *143*, 37–46. doi:10.1016/j.ecolecon.2017.06.041

Li, X., Du, J., & Long, H. (2018). A Comparative Study of Chinese and Foreign Green Development from the Perspective of Mapping Knowledge Domains. *Sustainability, 10*(12), 4357. doi:10.3390u10124357

Maximova, N., Kantamaneni, K., Morkovkin, G., Arnaut, D., & Rice, L. (2019). The Transformation of Agro-Climatic Resources of the Altai Region under Changing Climate Conditions. *Agriculture, 9*(4), 68. doi:10.3390/agriculture9040068

Mfune, O., Chisola, M., & Ziba, I. (2016). How Can Multifunctional Agriculture Support a Transition to a Green Economy in Africa? Lessons from the COMACO Model in Zambia. *Agriculture, 6*(3), 48. doi:10.3390/agriculture6030048

Naidoo, V., & Verma, R. (2019). *Green Marketing as a Positive Driver toward Business Sustainability*. Hershey, PA: IGI Global. doi:10.4018/978-1-5225-9558-8

Ortega-Reyes, A., Hernández Gress, E., & Robles-Acosta, C. (2018). Case Study Based Model to Propose the Integration of Suppliers in a Central State in Mexico. *Administrative Sciences, 8*(2), 10. doi:10.3390/admsci8020010

Pilotti, L. (2018). Cultural Economy for the Environmental Preservation of the Landscape as a Key Resource in Historic Territories. *Agriculture, 8*(10), 161. doi:10.3390/agriculture8100161

Popescu, C. R. (2011a). *Competitivitate în complexitatea noii economii: studiu de caz pe situaţia economică la nivel naţional şi global*. Bucureşti: Editura Mustang.

Popescu, C. R. (2011b). *Competitivitatea în noua economie globală: să învăţăm din criza actuală*. Bucureşti: Editura Mustang.

Popescu, C. R. (2016a). *Teaching and learning the discipline "European business environment": proposal for an interactive approach*. Bucureşti: Editura C.H. Beck.

Popescu, C. R. (2016b). *Contributions Regarding the Study and Evaluation of Interdependencies Between Key Factors in Increasing the Competitiveness*. Bucureşti: Editura Mustang.

Popescu, C. R. (2017). The Role of Total Quality Management in Developing the Concept of Social Responsibility to Protect Public Interest in Associations of Liberal Professions. *Amfiteatru Economic, 19*(Special No. 11), 1091-1106, Retrieved from http://www.amfiteatrueconomic.ro/temp/Article_2685.pdf

Popescu, C. R. (2018a). "Intellectual Capital" – Role, Importance, Components and Influences on the Performance of Organizations – A Theoretical Approach. *Proceedings of the 32nd International Business Information Management Association Conference*.

Popescu, C. R. (2019a). Evaluating intellectual capital and its influence on companies' performance – a Case Study on Romania's Experience. *INTED2019 Proceedings*. doi: 10.21125/inted.2019

Popescu, C. R. (2019b). Intellectual capital evaluation and measuring effectiveness – A Case Study on Romania's Experience in terms of performance and excellence. *INTED2019 Proceedings*. doi: 10.21125/inted.2019

Popescu, C. R. (2019c). "Intellectual Capital": Major Role, Key Importance and Decisive Influences on Organizations' Performance. *Journal of Human Resources Management Research*, *2019*. doi:10.5171/2019.509857

Popescu, C. R. (2019d). Addressing Intellectual Capital in the Context of Integrated Strategy and Performance: Emphasizing the Role of Companies' Unique Value Creation Mechanism, While Targeting Better Organizational Reporting In Romania: The Case of Green Marketing and Green Marketing Strategies. *Journal of Marketing Research & Case Studies*, *2019*. doi:10.5171/2019.672821

Popescu, C. R. (2019e). Business development opportunities: Demonstrating present and future performance, auditing intellectual capital – a case study on Romanian organizations. *Proceedings of the 33nd International Business Information Management Association Conference*.

Popescu, C. R. (2019f). Intellectual capital, integrated strategy and performance: focusing on companies' unique value creation mechanism and promoting better organizational reporting in Romania – a framework dominated by the impact of green marketing and green marketing strategies. *Proceedings of the 33nd International Business Information Management Association Conference*.

Popescu, C. R., & Banța, V. C. (2019). Performance Evaluation of the Implementation of the 2013/34/EU Directive in Romania on the Basis of Corporate Social Responsibility Reports. *Sustainability*, *11*(9), 2531. Retrieved from https://www.mdpi.com/2071-1050/11/9/2531

Popescu, C.R. & Popescu, G.N. (2018a). Risks of cyber attacks on financial audit activity. *Audit Financiar*, *16*(149), 140-147. Doi:10.20869/AUDITF/2018/149/006

Popescu, C. R., & Popescu, G. N. (2018b). Methods of Evaluating "Intellectual capital" of an Organization and Ways of Enhancing Performance in the Knowledge-based Economy – A Synthetically Approach. *Proceedings of the 32nd International Business Information Management Association Conference*.

Popescu, C. R., & Popescu, G. N. (2019). The Social, Economic, and Environmental Impact of Ecological Beekeeping in Romania. In G. Popescu (Ed.), *Agrifood Economics and Sustainable Development in Contemporary Society* (pp. 75–96). Hershey, PA: IGI Global. doi:10.4018/978-1-5225-5739-5.ch004

Popescu, C. R., Popescu, G. N., & Popescu, V. A. (2017a). Assessment of the State of Implementation of Excellence Model Common Assessment Framework (CAF) 2013 by the National Institutes of Research – Development – Innovation in Romania. *Amfiteatru Economic*, *19*(44), 41-60. Retrieved from http://www.amfiteatrueconomic.ro/temp/Articol_2593.pdf

Popescu, C. R., Popescu, G. N., & Popescu, V. A. (2017b). Sustainability Leadership, the Key to a Better World – A Case Study on Romania's Situation. *Proceedings of the 29th International Business Information Management Association Conference*.

Popescu, C. R., Popescu, V. A., & Popescu, G. N. (2015). The entrepreneur's role in the performance growth of the financial audit activity in Romania. *Amfiteatru Economic*, *17*(38), 232-251. Retrieved from http://www.amfiteatrueconomic.ro/temp/Article_2382.pdf

Popescu, G. N. (1997). *Procedurile controlului intern şi auditul financiar*. Bucureşti: Editura Gestiunea.

Popescu, G. N., & Popescu, V. A. (2000). *Impozitul pe venit şi contabilitatea în partidă simplă*. Bucureşti: Editura Gestiunea.

Popescu, G. N., Popescu, V. A., & Popescu, C. R. (2015). Chapter title: Corporate Governance in Romania: Theories, Practices and Future Perspectives. In Sabri Corporate Governance and Corporate Social Responsibility. Emerging Markets Focus (pp. 375 – 401). World Scientific Publishing House.

Popescu, V. A., & Popescu, G.N. (2002). Manualul inspectorului de salarii. Bucureşti: Editura Gestiunea.

Porter, M. E. (1990). *The Competitive Advantage of Nations. Harvard Business Review*. doi:10.1007/978-1-349-11336-1

Rajiani, I., & Kot, S. (2018). The Prospective Consumers of the Indonesian Green Aviation Initiative for Sustainable Development in Air Transportation. *Sustainability*, *10*(6), 1772. doi:10.3390u10061772

Rajnoha, R., Lesnikova, P., Stefko, R., Schmidtova, J., & Formanek, I. (2019). Transformations in Strategic Business Planning in the Context of Sustainability and Business Goals Setting. *Transformations in Business & Economics*, *18*(2), 44-66.

Rauf, A., Liu, X., Amin, W., Ozturk, I., Rehman, O., & Sarwar, S. (2018). Energy and Ecological Sustainability: Challenges and Panoramas in Belt and Road Initiative Countries. *Sustainability, 10*(8), 2743. doi:10.3390u10082743

Salas Herrero, F., Rossi, N., Best, M., Kolbe, K., Wilkes, R., & Scanlan, C. (2018). *Coastal and transitional waters North East Atlantic geographic intercalibration group: Opportunistic macroalgae ecological assessment methods - Study*. Joint Research Centre (European Commission). Retrieved from https://publications.europa.eu/en/publication-detail/-/publication/34aea23a-0fe8-11e9-81b4-01aa75ed71a1/language-en/format-PDF/source-102340421

Science Communication Unit & Directorate-General for Environment (European Commission). (2017). *Persistent organic pollutants: Towards a POPs-free future*. doi:10.2779/170269

Sebestova, J., & Krejčí, P. (2018). Social innovation ties: A dilemma of product and employee orientation. *Polish Journal of Management Studies*, *17*(2), 123–133. doi:10.17512/pjms.2018.17.2.11

Sebestova, J., Krejčí, P., & Šiška, P. (2018c). "Be or Not To Be": A Dilemma of Business Policy Support on a Regional Level. *Central European Business Review*, *7*, 3–13. doi:10.18267/j.cebr.192

Sebestova, J., Rylková, Ž., Krejčí, P., & Lejková, M. (2018b). *Different strategic goals in the same business environment: Competent entrepreneurs or just luck? In New Trends in Management: Regional and Cross-border Perspectives*. London Scientific.

Sebestova, J., Rylková, Ž., & Lejková, M. (2018a). Satisfied or Competent: Business Environment Quality and Entrepreneurial Reaction. *Proceedings of 18th International Conference Economic Policy in the European Union Member Countries*.

Shanmugam, S., Dalal, R., Joosten, H., Raison, R., & Joo, G. (2018). SOC Stock Changes and Greenhouse Gas Emissions Following Tropical Land Use Conversions to Plantation Crops on Mineral Soils, with a Special Focus on Oil Palm and Rubber Plantations. *Agriculture, 8*(9), 133. doi:10.3390/agriculture8090133

Smart Cities Council. (2019). Retrieved from https://smartcitiescouncil.com/smart-cities-information-center/definitions-and-overviews

Śmigielska, G., & Oczkowska, R. (2017). Retailers' Responsibility towards Consumers and Key Drivers of Their Development in Poland. *Administrative Sciences, 7*(1), 3. doi:10.3390/admsci7010003

Tilloy, S., Binkowski-Machut, C., Menuel, S., Bricout, H., & Monflier, E. (2012). Phosphane-Based Cyclodextrins as Mass Transfer Agents and Ligands for Aqueous Organometallic Catalysis. *Molecules, 17*(11), 13062–13072. doi:10.3390/molecules171113062

Tociu, C., Szep, R., Anghel, A. M., Marinescu, F., Ilie, M., Holban, E., ... Gh. Popescu, C. R. (2017). Possibilities For Efficient Use Of Valuable Materials From Aluminium Slag To Remove Specific Pollutants In Wastewater. *Journal of Environmental Protection and Ecology*, *18*(3), 842–852.

Torfing, J. & Sørensen, E. (2019). Interactive Political Leadership in Theory and Practice: How Elected Politicians May Benefit from Co-Creating Public Value Outcomes. *Administrative Sciences, 9*(3), 51. doi:10.3390/admsci9030051

Verma, R., & Chowdhry, D. G. (2018). *The Green Era: Indians have Increased Knowledge, Decreased Confusion and a Tempering of Individual Expectations*. *VSRD International Journal Of Technical And Non - Technical Research*.

Verma, R., & Chowdhry, D. G. (2019). *The Green Era: Influencing Positive Behavior Change Is Possible*. *VSRD International Journal Of Technical And Non - Technical Research*.

Wang, M., Zhao, X., Gong, Q., & Ji, Z. (2019). Measurement of Regional Green Economy Sustainable Development Ability Based on Entropy Weight-Topsis-Coupling Coordination Degree—A Case Study in Shandong Province, China. *Sustainability, 11*(1), 280. doi:10.3390u11010280

Ward, A., Hernández-Sánchez, B., & Sánchez-García, J. C. (2019). Entrepreneurial Intentions in Students from a Trans-National Perspective. *Administrative Sciences, 9*(2), 37. doi:10.3390/admsci9020037

Xie, X., Lu, Y., & Gou, Z. (2017). Green Building Pro-Environment Behaviors: Are Green Users Also Green Buyers? *Sustainability, 9*(10), 1703. doi:10.3390u9101703

KEY TERMS AND DEFINITIONS

Green Competition: A specific form of competition that is focused on the ecological side of the companies' strategies and that refers to a green promotion strategy of the companies' goods and services, which is focused on achieving precise entrepreneurial objectives, based on the organizations' promotional mix.

Green Consumer: Focuses on the competitive market economic laws that state that the limited resources to meet individual and social needs must be efficiently used, while the market should be regulated by authorities in order to stimulate production so that the behavior of producers becomes less oriented towards maximizing profit and more dedicated to optimizing consumption and maximizing the satisfaction of consumer needs, in accordance with the environment restrictions and regulations.

Freedom of Competition: Has its limits in honest and sustainable commercial practices, which automatically implies that all economic agents are obliged to respect a minimum of morality in order to enforce the loyalty characteristic to competitiveness; the increasing frequency of abuses and anticompetitive commercial forms in the daily struggle for economic power, market domination and performance supremacy, has made the issue of respecting and defending real competition subject to numerous legal, sustainable, and environmental-friendly regulations and procedures; competition regulations have the power of reducing business risks, on the one matter, and of facilitating entrepreneurs the possibility to make clean profits and be part of "green performance" processes, on the other matter.

Chapter 5
The Context Facets of Sustainability Entrepreneurial Orientation (SEO) Through the Lense of Gender:
A Quantitative Measurement Approach

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ABSTRACT

Addressing sustainable development and societal challenges have been placed at the heart of all government priorities, detachedly of country stage of development, as a mean to achieve prosperity through social cohesion and equality. In this setting, entrepreneurship appears to be a powerful tool to encompass economic, social, and environmental goals, particularly when sustainability oriented. Sustainability oriented entrepreneurs (henceforth SEO) are still focused in profit maximization strategies combined with environmental respect and social inclusion and rely on a firm-based entrepreneurship initiative integrating the triple bottom line. The chapter aims to understand the role of culture (culture and social norms) on SEO activity among several countries, along with gender heterogeneity. Specifically, the study determines the moderating effect of (national) culture on SEO. The study uses a logistic regression and the Global Entrepreneurship Monitor (GEM) database from 2015, with information of 60 countries.

DOI: 10.4018/978-1-7998-2704-7.ch005

1. INTRODUCTION

Innovation is a priority for companies and countries and both of them pursue strategies to stimulate innovative and entrepreneurial activity, since its impact on economic development and sustainable growth is widely recognized. However, being innovative is a challenge that requires the adoption of innovation practices and change of mind-set. A part from industry and business fields, innovation and entrepreneurship are also keen at country level since it contributes to achieve competitive advantage (Porter, 1990). But countries reveal diversity concerning context and practices, which could indicate that innovation is pursued differently since several factors influence the propensity to innovate and act more entrepreneurially.

Along with sustainability orientation, also gender equality is being taken at the core of private and public strategies aiming to cultivate more inclusive and innovative societies and ensure gender diversity as a mean to foster innovation and competitiveness in business (Adema et al., 2014; p.9). At least, in some developing economies, despite the attainment of opportunities parity, as showed by Parker (2009), business opportunities and entrepreneurial initiative are not wet equalized among men and women underlining the gender gap among labour market (Kelley et al., 2017). The global economic pressures are pushing countries to be strongly committed to entrepreneurship strategies to endorse employment and innovation (Ennis, 2018) but the empowerment of women is not partaking equally when compared to male counterparts. Consequently, gender challenges need to be addressed, along with other constrains towards entrepreneurial activity, as the role of context and social environment.

Although entrepreneurs starting sustainable practices have emerged some decades ago, most contributions are just conceptual and theoretical. To the best of our knowledge, the role context on entrepreneurial activity through the lens of gender hasn't been addressed yet in prior studies.

Hence, exploring the role of context on gender and sustainability entrepreneurial orientation activity constitutes a very attractive case for three key reasons: (i) women's entrepreneurial activity is a recent research stream, under-discussed in the academic literature moreover the specific case of SEO, (ii) the role of context towards entrepreneurial activity, especially on women's self-employment pathways needs to be clarified along with sustainability orientation, (iii) regional policies among women entrepreneurship could be an open floor for future policy development.

In this line, Global Entrepreneurship Monitor (GEM) recently launched the Global Entrepreneurship Monitor on Women's Entrepreneurship 2016/2017 Report were female Total Entrepreneurial Activity (TEA) was accessed through several factors. The last results surprisingly shows that among 63 economies (out of 74), the overall female Total Entrepreneurial Activity (TEA) rates have increased by 10% and the gender gap (ratio of women to men participating in entrepreneurship) has narrowed by 5% (Kelley et al., 2017). This comes in line with previous reports, which showed an average increase in female TEA rates of 7% and a narrowing of the gender gap by 6% over the prior two-year period, revelling a positive trend on women's entrepreneurship.

On the other hand, the GEM report of 2015, focused on entrepreneurial initiative with social and environmental purposes, due to the leading importance of this new topic, connected to the Sustainability and Cohesive Growth promoted by the OECD, the World Bank and the European Commission, offers a global perspective entrepreneurship to cohesive growth.

The study uses a logistic regression and the Global Entrepreneurship Monitor – GEM – database from the year 2015, with information of 60 countries (described in the appendix – Table 1). GEM is the largest survey-based study on entrepreneurship around the world and allows an annual assessment of

entrepreneurial activity phenomenon worldwide, particularly on a longitudinal perspective. The report Creating an Innovative Europe suggests "need for Europe to provide an innovation friendly market for its businesses" (Aho, Cornu, Georghiou, and Subirá, 2006) shedding the light on context's role.

The chapter objective is to appraise the influence of context on SEO activity among several countries, along with gender heterogeneity. Several implications from both theoretical perspective (new studies devoted to understanding the role of context on entrepreneurship) and practical (providing insights for governmental policies and positive discrimination towards desirable initiatives) are expected with the present study.

The article is structured as follows. After the introduction, sections 2 and 3 are devoted to conceptual framework and methodology used in the empirical part is detailed. Section 4 provides the results and discussion. Finally, section 5 presents the main conclusions of the study along with limitations and future research lines.

2. RESEARCH FRAMEWORK AND HYPOTHESES

2.1. Literature Review

2.1.1. Entrepreneurship and Gender

The emergence of different visions of entrepreneurship research field is justified mostly by its recognition as a relevant contributor to employment, innovation and economic growth (Kelley et al., 2017). As a consequence, different research streams are emerging, as those devoted to women's entrepreneurship (Gupta and Bhawe, 2007).

According to United Nations' Sustainable Development Goals (SDGs) empowering women in central, implying a strong normative dimension, particularly when it is possible to recognise cultural patterns around the world related to employment. Additionally, other socio and political circumstances could be taken as explanatory dimensions for entrepreneurial activity.

The last Report of GEM, highlights that in 49 economies, there are 7 women entrepreneurs for every 10 men, and, only in 6 countries there are equal rates of entrepreneurial activity (starting a business) between women and men (Bosma and Kelley, 2019; p.11). Therefore, boosting entrepreneurial activity needs to be addressed differently when it comes to gender.

Heilman (2001) considerers gender stereotypes can impact deeply on individuals' career intentions. Recent reports evidence that the number of women involved in business activities has been rising, contributing to change the vision about a 'underutilized' working force. Prior studies consider males more entrepreneurial when compared to women when it comes to entrepreneurial initiatives (Fellnhofer and Puumalainen, 2017) but the gender issue can considered as the only influencer of entrepreneurial behaviour. As mentioned before, entrepreneurship is a tool that contributes to balance opportunities and provide options on employment landscape, particularly on those regions with low-income struggling from lack of equal opportunities and social exclusion (Pines, 2010). In such cases, self-employment is particularly relevant for women who struggle to find employment because of limitations imposed by education, age or social marginality. The authors also found in low-income countries the prevalence of ''necessity'' entrepreneurship and ''push'' factors in women's entrepreneurship grounded by inequality and exclusion in women's entrepreneurial inferiority. For Klyver et al. (2013) perspective, self-employment can

be assumed to represent an act of disintegration for both men and women but for when women's choose to follow this career option it is seen as particularly disintegrated. The work of Hossain et al. (2009) supports this vision by considering that women's face barriers along their employment or developing self-enterprises. Additionally, more educated and skilled women might be successful in self-business, but in other hand, they find it difficult to obtain jobs because of gender discrimination and stereotyping (Hossain et al., 2009). For this reason, we propose the following hypothesis:

H1: Women are less prone to start up a business.

This goes in line with Liñán (2008) who advocates that for entrepreneurs to be successful, they must develop certain skills and abilities such as leadership and communication, innovation and networking. This perspective suggests that education can be an enabler of entrepreneurial initiative, being therefore a potential mean to overcome gender gaps. In this vein, Raghuvanshi, Agrawal and Ghosh (2017) mention that lack of education, experience and training opportunities among the women entrepreneurs is the strongest barrier among all.

Therefore, we expect that positive effect education influences entrepreneurial activity in general and may work as a vehicle to erode gender gaps.

H2: Education raises the probability to become entrepreneur.

2.1.2. Entrepreneurship and Context

As defended by Toutain, Fayolle, Pittaway, and Politis (2017) the context plays a role of positive influence on the development of learning initiatives in entrepreneurship meaning that entrepreneurs more engaged in their environment tend to develop critical analysis skills which lead them to develop pioneering and innovative activities. To overcome education and experience limitations, early socialization, role modelling and familiar context revealed to act as motivation source to start a business. For those women that have less experience and training than male entrepreneurs, their family may necessarily serve as a training ground, preparing these women to act in a business environment (Gundry & Welsch, 2001). Therefore, we posit the following hypothesis:

H3: Knowing other entrepreneurs will raise the probability to become another.

Entrepreneurs are enterprise builders, therefore risk talkers. Several studies show that those who are less risk-takers and feel more fear to fail are less involved in entrepreneurial activity. In this setting, Minniti and Nardone (2007) argues that women's barrier to start a business are the fear of failure and the inability to identify opportunities.

H4: Fearing failure will deter entrepreneurial endeavours

2.1.3. Entrepreneurship and Country Stage of Development

In general, opportunities arise from changes in the context in which individuals operate. According to Gast, Gundolf and Cesinger (2017) sustainable entrepreneurship has become an important associate field

of research in academia, and has been placed centrally in global societal discourses. Although environmental and sustainable concerns are not new, only recently the concept of "sustainable entrepreneurship" has been discussed, therefore the concept itself is still evolving. Following the authors conceptualization about sustainable entrepreneurship as the process of recognizing and pursuing opportunities that reduce a business's impact on the environment with benefits for society, Meek, Pacheco and York (2010) advocates that context has an influence on the founding rate of environmentally responsible new ventures. In addition, Kuckertz and Wagner (2010) interconnected entrepreneurship to sustainable development and posit that more innovative and environmentally friendly countries will positively influence sustainable entrepreneurial orientation of individuals. Therefore, we posit the following:

H5: SEO intensity promotes entrepreneurial initiative
H6: Higher standards of development enhance entrepreneurial orientation, and in particular with sustainability purposes.

3. METHODOLOGY

3.1. Data and Methods

In order to discuss the role of context in entrepreneurship and the existence of gender gap, the study contemplated one dataset from GEM 2015 (APS population survey), which contained individual detailed data about entrepreneurial activity covering aspects such as the characteristics, motivations and ambitions of individuals starting businesses, as well as social attitudes towards entrepreneurship (Bosma and Kelley, 2019). In order to understand the effect of the context and gender in entrepreneurship and sustainable entrepreneurship, it was performed a statistical and econometric analysis based on a sample of 181281 individuals from 60 countries, namely, United States, Egypt, South Africa, Greece, Netherlands, Belgium, Spain, Hungary, Italy, Romania, Switzerland, United Kingdom, Sweden, Norway, Poland, Germany, Peru, Mexico, Argentina, Brazil, Chile, Colombia, Malaysia, Australia, Indonesia, Philippines, Thailand, South Korea, Vietnam, China, India, Iran, Morocco, Tunisia, Senegal, Burkina Faso, Cameroon, Barbados, Botswana, Portugal, Luxembourg, Ireland, Finland, Bulgaria, Latvia, Estonia, Croatia, Slovenia, Macedonia, Slovakia, Guatemala, Panama, Ecuador, Uruguay, Kazakhstan, Puerto Rico, Taiwan, Lebanon, Israel and Canada.

In addition, as GEM is implemented worldwide, the present study kept its comprehensiveness as it includes countries in different stages of development: factor-driven (stage 1), efficiency-driven (stage 2) and innovation-driven (stage 3), providing reliability and validity to the study and generalization of comparisons (Table 1).

The present study aims to appraise the influence of context on SEO activity among several countries, along with gender heterogeneity and explore the differences between entrepreneurs with sustainable orientation and those who do not have social concerns. Therefore, grounded on the literature review, it was possible to identify 6 hypotheses to test, as presented in Table 2.

Table 1. Countries per stage of development

Stage 1	Stage 2	Stage 3
Philippines	Egypt	United States
Kazakhstan	South Africa	South Korea
Cameroon	Hungary	Australia
Vietnam	Romania	Greece
Botswana	Poland	Netherlands
India	Indonesia	Belgium
Iran	Peru	Spain
Senegal	Mexico	Canada
Burkina Faso	Argentina	Italy
	Brazil	Germany
	Chile	Switzerland
	Colombia	United Kingdom
	Malaysia	Sweden
	Thailand	Norway
	China	Portugal
	Morocco	Luxembourg
	Tunisia	Ireland
	Barbados	Finland
	Bulgaria	Puerto Rico
	Latvia	Taiwan
	Lebanon	Estonia
	Croatia	Israel
	Guatemala	Slovenia
	Macedonia	Slovakia
	Panama	
	Ecuador	
	Uruguay	

Table 2. Hypotheses in test

Hypotheses	Hypotheses Description
H1	Women are less prone to start up a business.
H2	Education raises the probability to become entrepreneur.
H3	Knowing other entrepreneurs will raise the probability to become another.
H4	Fearing failure will deter entrepreneurial endeavours.
H5	SEO intensity promotes entrepreneurial initiative
H6	Higher development standards enhance sustainable entrepreneurial initiative and, in particular, with sustainability purposes.

Table 3. Dependent, Independent, and Control Variables

Variable	Coding	Proxy
Dependent variable		
Bstart	Binary variable; coded as 1 if the individual currently intends to start a business, 0 otherwise.	Measurement of entrepreneurial initiative
Sestart	Binary variable; coded as 1 if the individual currently intends to start a business, 0 otherwise.	Measurement of sustainable entrepreneurial initiative
Independent variables		
Gender	Binary variable; coded as 1 if the individual in the sample is a female, 0 otherwise (used as interaction with other variables).	Dimension of the Entrepreneurial Gender Gap
Control Variables		
Age	Continuous variable measuring the age of individual	Self-assessment of age
Skill/knowledge perception	Binary variable coded as 1 if the individual mentions. having the skills and knowledge to start a business, 0 otherwise.	Self-assessment of competences
Education	Multinomial variable describing Education level: 1 for secondary, 2 for post-secondary, 3 for graduate, 0 otherwise.	Formal skills
Social context	Binary variable coded as 1 if the individual does know someone which is already an entrepreneur, 0 otherwise.	Entrepreneurial activity in the close environment
Fear to Fail	Binary variable coded as 1 if the individual fears failing in its entrepreneurial activity, 0 otherwise	Risk aversion
Work	Multinomial Variable describing the work status: coded with the value 1 if the individual is inactive, 2 is unemployed, 3 is employed, 0 otherwise	Positioning towards the labour market
Income	Multinomial variable describing the income level coded as 1 the lowest, 2 the middle and 3 the upper.	Income
Sub-sampling criterion		
Country Group (Development Stage in year 2015)	A single variable with a three-point scale associated with stage of national economic development: (1) factor-driven; (2) efficiency-driven; (3) innovation driven.	Macroeconomic Context

3.2. Analytical Strategy: Description of Variables and Model

Considering the Global Entrepreneurship Monitor Report of 2015, a country section was performed based on country stage of development (Table 1).

For the estimation, entrepreneurial activity (Bstart) and sustainable entrepreneurial activity (Sestart) were considered as dependent variables, both binary, considering whether or not the individual does mention the intention/action to start or not a business. The empirical analysis is fourfold: the first part presents descriptive results, the second correlations among variables, the third the econometric estimations run for the entire set to discuss the determinants of entrepreneurial activity and sustainable entrepreneurial activity followed by a secondary estimation of country stage of development and gender to assess the context effect and differences in male and female propensity to enterprise.

Therefore, we intend to discuss the relevance of context in entrepreneurial activity and sustainable entrepreneurial activity along with the existence of eventual gender dissimilarities.

Table 4. Descriptive statistics

Dependent, Independent and Control Variables	N	Minimum	Maximum	Mean	SD
Bstart	180529	0	1	0.15	0.361
Sestart	176460	0	1	0.06	0.231
Country Group	181281	1	3	2.35	0.688
Work status	178002	0	2	1.44	0.838
Income	151427	1	3	1.95	0.821
Educational attainment	179186	0	3	1.29	0.730
Social context	179048	0	1	0.38	0.486
Skill Perception	175005	0	1	0.50	0.500
Fear to fail	174283	0	1	0.41	0.491
Perception of SEO (country)	130034	0	1	0.33	0.469
Gender	181276	0	1	0.51	0.500
Age	110298	1	7	4.18	1.420

The data combines information collected from the APS (GEM, 2015), at individual level, and the dimensions extracted were 'gender', 'age', 'social context' 'knowledge perception', 'fear to fail', 'education', 'occupation', 'income' and 'SEO intensity'. The variables considered, their coding, analytical level and description are presented in Table 3.

In addition, Table 4 presents the descriptive statistics of the variables used in the study. Although the study focuses the role of context on (sustainable) entrepreneurship through the lens of gender, additionally the study also aims to investigate other determinants of starting a business. As previously mentioned, the empirical analysis will start with descriptive statistics, followed by correlations and sub-sample testing and finishes with econometric estimations.

The analytical strategy followed starts by describing the sample, secondly the data will be analysed under the perspective of the descriptive statistics and correlations, followed by more sophisticated analytical techniques as regression for the entire dataset and country level of development and gender segmentations.

Most respondents are between 18 and 44 years, but the proportions between male and female are similar (Table 5). This homogeneity is particularly important as the robustness of the future findings could be attacked by eventual biasedness in one gender. In terms of occupation, most individuals are employed, and only 10.7% are self-employed. The sample also report a significant number of inactive people (22.8%) (Table 6). Concerning the income of the sample, there is a balance between lower, middle and upper terciles (Table 7), however, the last one is somewhat higher when compared to the others.

In terms of education (Table 8), most individuals detain secondary education attainment (53.6%) and a short percentage of respondents (11.4%) do not have any level of education. Also, graduate individuals only represent 5% of the sample and just 30% has post-secondary education.

Around 50.3% of the respondents consider not having the skills and knowledge to enterprise (Table 9). Only 49.7% of the sample are confident about its individual skills to pursue entrepreneurial endeavours.

In terms of social context and role model effect, only 38.1% report that know someone who started a business and most of respondents do not directly interact with entrepreneurs (Table 10). In terms of

Table 5. Individuals per age interval

Age	N	%
Below 18	6	0,01
18-24	15447	14,00
25-34	23868	21,64
35-44	24833	22,51
45-54	22859	20,72
55-64	18436	16,71
65-99	4849	4,40
Total	110298	100,00

Table 6. Individuals per occupation

Occupation	N	%
Inactive	40668	22,8
Unemployed	19015	10,7
Employed	118319	66,5
Total	178002	100,0

Table 7. Individuals per income level

Income	N	%
Lower tercile	54915	36,3
Middle tercile	48983	32,3
Upper tercile	47529	31,4
Total	151427	100,0

Table 8. Individuals per educational attainment

Education	N	%
None	20428	11,4
Secondary	96065	53,6
Post-Secondary	53725	30,0
Graduate	8968	5,0
Total	179186	100,0

Table 9. Individuals per skill perception

Skill Perception	N	%
No	87963	50,3
Yes	87042	49,7
Total	175005	100,0

Table 10. Individuals who know someone that has already initiative a business

Social Context	N	%
No	110760	61,9
Yes	68288	38,1

sustainability entrepreneurial orientation, only one third of the individuals perceived the business environment committed towards sustainable goals (Table 11).

4. RESULTS AND DISCUSSION

4.1. Descriptive Findings

The descriptive statistics of all individuals in the study, considering the sub sample criterion, country stage of development, shows a higher number of respondents in stage 3, and less frequency of response in stage 1 (Table 12).

Entrepreneurial activity per stage of development is higher among countries factor-driven. In the opposite, countries innovation driven presents the lowest percentage of entrepreneurial activity. Considering sustainable entrepreneurial activity, results shows that factor driven countries are more engaged with

Table 11. Individuals perception about SE

SEO	N	%
No	87385	67,2
Yes	42649	32,8
Total	130034	100,0

Table 12. Individuals Per Stage of Development

	Factor Driven (G1)	Efficiency-Driven (G2)	Innovation-Driven (G3)	Total
N	22189	72859	86233	181281
%	12,2	40,2	47,6	100,0

sustainable business activities, which is surprising considering that higher expectations about sustainable behaviour among more educated countries, as those innovation driven. In terms of gender segmentation per stage of development, in its detected a similar percentage of male and female respondents (Table 13). Males are more engaged in entrepreneurial activity when compared to females, during the same period. However, females are more prone to pursue businesses with sustainable orientation which suggest that females are more committed with sustainable challenges (Table 14 and Table 15).

The results presented in Table 16 illustrate the correlation among the variables in use. Concerning the two dependent variables in analysis: entrepreneurial intention (BSTART) and sustainable entrepreneurial intention (SESTART), the correlation with the stage of development is stronger in the first, evidencing the direct association with entrepreneurial propensity and favourable environments. Surprisingly, in the case of SESTART, the correlation is inverse; meaning that factor driven economies are more associated with businesses with SEO concerns.

Another remarkable finding is the negative association of the education degree with the entrepreneurial initiative, and its positive association with the SEO. Not surprisingly, age appears as a dissuasive factor for the entrepreneurial activity along with the failure fear. Conversely, the self-perception of skills and the knowledge about other entrepreneurs is positively associated with the entrepreneurial activity.

Considering the fact that the database allows for a cross sectional analysis, the first appraisal to be made before the model construction is the degree of association among the explanatory variables, to avoid the existence of multicollinearity (Table 17). The appraisal made was the VIF (variance inflation factor) test, and, either in the case of BSTART and SESTART, all VIFs are far below the lower trunca-

Table 13. Gender Segmentation Per Stage of Development

		Factor -Driven (S1)	%	Efficiency-Driven (S2)	%	Innovation-Driven (S3)	%	Total
Gender	Male	10726	48,34	35723	49,03	42832	49,67	89281
	Female	11463	51,66	37135	50,97	43397	50,33	91995
Total		22189	100	72858	100	86229	100	181276

Table 14. Entrepreneurial activity per stage of development

		Factor -Driven (S1)	%	Efficiency-Driven (S2)	%	Innovation-Driven (S3)	%	Total
Bstart	No	14891	67.70	58176	80.12	79742	92.81	152809
	Yes	7105	32.30	14438	19.88	6177	7.19	27720
Total		21996	100.0	72614	100.0	85919	100.0	180529
Sestart	No	19681	89.61	68205	94.29	78558	95.61	166444
	Yes	2283	10.39	4128	5.71	3605	4.39	10016
Total		21964		72333	100.0	82163	100.0	176460

Table 15. Entrepreneurial activity per gender

		BSTART					SESTART				
		No	%	Yes	%	Total	No	%	Yes	%	Total
Gender	Male	73248	47.94	15650	56.46	88898	81487	48.96	5350	53.41	86837
	Female	79556	52.06	12070	43.54	91626	84952	51.04	4666	46.59	89618
Total		152804	100	27720	100	180524	166439	100	10016	100	176455

tion level of 3. Therefore, there is strong evidence of independence among the explanatory variables in both models.

The estimation coefficients for the 8 models in analysis (Table 18) reveals: model 1 and 2 appraises entrepreneurial initiative (BSTART) and SEO initiative, respectively, for the entire sample and infers the effect of development in both propensities by means of a multinomial variable (DEV_STAGE). Models

Table 16. Correlation Matrix

	Bstart	Sestart	Stage of Develop.	Occupation	Income	Education	Social Context	Skill Perception	Fear fail	SEO Intensity	Gender	Age
Bstart	1											
Sestart	,168**	1										
Stage of Develop.	**-,240****	-,075**	1									
Occupation	,146**	,065**	0,004	1								
Income	,048**	,046**	,025**	**,196****	1							
Education	-,030**	,043**	**,206****	,143**	**,266****	1						
Social Context	**,213****	,099**	-,148**	,150**	,119**	,055**	1					
Skill Perception	**,280****	,100**	-,157**	,179**	,113**	,054**	,253**	1				
Fear Fail	-,092**	-,036**	,068**	-0,001	-,033**	,017**	-,030**	-,144**	1			
Seo Intensity	,086**	,025**	-,126**	-,012**	-,036**	-,098**	,051**	,068**	0,000	1		
Gender	-,061**	-,021**	-,009**	-,188**	-,090**	-,020**	-,067**	-,123**	,071**	0,002	1	
Age	-,076**	-0,005	,134**	-,165**	-,035**	-,049**	-,109**	-0,002	-,027**	,008*	,018**	1

**. Correlation is significant at the 0.01 level (two-tailed);

*. Correlation is significant at the 0.05 level (two-tailed)

Table 17. Multicollinearity

	Tolerance	VIF	Tolerance	VIF
Stage of Development	0,892	1,122	0,892	1,121
Occupation	0,887	1,128	0,886	1,128
Income	0,887	1,128	0,886	1,128
Education	0,866	1,154	0,866	1,154
Social Context	0,917	1,090	0,917	1,09
Skill Perception	0,896	1,116	0,896	1,115
Fear Fail	0,970	1,030	0,971	1,03
SEO Intensity	0,966	1,036	0,966	1,035
Gender	0,953	1,049	0,953	1,049
Age	0,941	1,063	0,941	1,063

a. Dependent variable: BSTART
b. Dependent variable: SESTART

3, 4 analyse both entrepreneurial intentions in the factor driven economies; models 5 and 6 in Efficiency Driven economies and finally models 7 and 8 in innovation driven environments. All models appear as being globally significant with a fair goodness of fit.

When appraising the entire sample, for the dependent variable BSTART, education and gender as statistically insignificant. And, concerning SESTART, gender is the only insignificant predictor.

The sample splitting allowed the country segmentation according to the stage of development, and there was a previous expectation, as expressed in the literature that significant differences were about to be found in terms of the determinants of the entrepreneurial initiative.

Concerning the factor driven sub-sample, and for the BSTART dependent variable, most of the explanatory variables remain as being significant, even though, the perception of SEO businesses operating in the economy fail to be significant, along with gender. In respect to SESTART, Gender and Age fail to be significant. It is of worth to reinforce that this sub-sample includes only 9 among the 60 countries in analysis.

Efficiency driven economies are analysed in detail in models 5 and 6. The single predictor which fails significance is gender in the explanation of BSTART. Concerning SESTART, the gender is statistically significant, and women being less prone to have the initiative, and the fear to fail not being significant for the first time.

For the innovation driven economies, and for traditional entrepreneurial intentions (here proxied by BSTART), the single insignificant predictor is gender; for SEO entrepreneurial intentions, only age fails to provide explanations on the behaviour of the dependent variable.

As the logit coefficients cannot be directly interpreted, table 19 presents the Marginal Effects at means, permitting the quantification of the effects of the predictors in the dependent variable.

The conventional entrepreneurial initiative, in the overall sample is influenced by the individuals' occupation; employed respondents are 4.9 pp more prone to start a business compared to the unemployed. This effect, among the same sample, is lower for SEO initiatives (1 pp). Among stage 1 respondents, the working status has a 13.75 pp increase in BSTART, and a 19 pp increase in SESTART. Among efficiency driven respondents the same predictor has an 8.6 pp effect and 0.9 pp. For Innovation Driven economies

Table 18. Logistic Regression

	Entire Sample				Stage of Development 1				Stage of Development 2				Stage of Development 3			
	Bstart n.obs = 57337 loglikelihood= -19000,962		**Sestart n.obs = 57231 log likelihood= -10211,293**		**Bstart n.obs = 509 log likelihood= -285,2243**		**Sestart n.obs = 511 log likelihood= -232,84806**		**Bstart obs = 30033 log likelihood= -13046,367**		**Sestart n.obs = 29952 log likelihood= - 5672,7723**		**Bstart obs = 26797 log likelihood= -5543,9037**		**Sestart n.obs = 26770 log likelihood= -4017,7856**	
	coef.	**s.e.**	**coef.**	**s.e.**	**coef.**	**s.e.**	**coef.**	**s.e.**	**coef.**	**s.e.**	**coef.**	**s.e.**	**coef.**	**s.e.**	**coef.**	**s.e.**
Dev. Stage	-1.061***	.0289593	-.603***	.0419978	-	-	-									
Work	.611***	.0239918	.285***	.0323696	.550***	.1540847	.921***	.1945867	.669***	.0282639	.218***	.042193	.418***	.0482609	.321***	.0545189
Income	.111***	.0175281	.091***	.0267963	-.412***	.1468792	-.524***	.1643316	.088***	.0210814	.124***	.0370759	.225***	.0328792	.081*	.0418086
Education	-.0158	.0207606	.361***	.0305582	-.281**	.1345551	-.737***	.1666249	-.058**	.024833	.473***	.0411243	.135***	.0394139	.491***	.0494405
Social context	.606***	.0273001	.478***	.0421842	1.362***	.2453323	1.182***	.2889475	.530***	.0322289	.289***	.056463	.758***	.0531052	.606***	.067469
Skill perception	1.214***	.0314066	.542***	.0452448	1.070***	.2449894	.660**	.2903876	1.065***	.0360782	.478***	.060662	1.712***	.0701746	.603***	.0718501
Fear to Fail	-.309***	.0278924	-.194***	.0423001	-.456*	.2520054	-1.473***	.3257122	-.247***	.0326314	-.029	.0558887	-.452***	.0557178	-.238***	.0686849
SEO Intensity	.282***	.0273806	.267***	.041785	.147	.2173458	1.129***	.2499263	.269***	.0316718	.226	.0550703	.374***	.0562196	.270**	.0718106
Gender	.013	.0269809	.024	.0409879	-.035	.2188099	-.155	.2425003	.044	.0316577	-.113**	.0552002	-.0596	.0535309	.172**	.0665795
Age	-.075***	.0106578	.046***	.0159595	-.215**	.0870196	-.113	.0976299	-.042***	.0123556	.052**	.0209537	-.195***	.0218245	.037	.0272238
Constant	-1.36***	.0960682	-3.472***	.1435386	-.740	.5798678	-1.800**	.6967504	-3.494***	.0901731	-4.813***	.1492946	-4.560***	.156799	-5.50***	.1956521

***. Significant at the 0.01 level (2-tailed).

**. Significant at the 0.05 level (2-tailed).

*. Significant at the 0.10 level (2-tailed).

Table 19. Marginal effects at means

	Entire Sample				Stage of Development 1				Stage of Development 2				Stage of Development 3			
	Bstart n.obs = 57337 log likelihood= -19000.962		**Sestart n.obs = 57231 log likelihood= -10211.293**		**Bstart n.obs = 509 log likelihood= -285.2243**		**Sestart n.obs = 511 log likelihood= -232.84806**		**Bstart obs = 30033 log likelihood= -130046.367**		**Sestart n.obs = 29952 log likelihood= -5672.7723**		**Bstart obs = 26797 log likelihood= -5543.9037**		**Sestart n.obs = 26770 log likelihood= -4017.7856**	
	dy/dx	**s.e.**	**dy/dx**	**s.e.**	**dy/dx**	**s.e.**	**dy/dx**	**s.e.**	**dy/dx**	**s.e.**	**dy/dx**	**s.e.**	**dy/dx**	**s.e.**	**dy/dx**	**s.e.**
Dev. Stage	-.085***	.00228	-.022***	.0015	-	-	-									
Work	.049***	.00181	.0104***	.00116	.138***	.03852	.191***	.03923	.086***	.00341	.009***	.00171	.0145***	.00164	.0091958	.002***
Income	.009***	.0014	.003***	.00097	-.103***	.03672	-.109***	.03418	.011***	.00272	.005***	.00152	.008***	.00115	.0023307	.001*
Education	-.001	.00166	.013***	.0011	-.070**	.03364	-.153**	.03373	-.007**	.00321	.019***	.00165	.005***	.00138	.0140483	.001***
Social context	.051***	.00245	.018***	.00168	.321***	.05128	.214***	.045	.070***	.00437	.012***	.0024	.030***	.0024	.0190239	.002***
Skill perception	.010***	.00257	.020***	.00165	.258***	.0546	.127***	.05151	.136***	.00438	.019***	.00242	.069***	.00293	.017836	.002***
Fear to Fail	-.024***	.00216	-.007***	.0015	-.113*	.0617	-.256*	.04514	-.032***	.0041	-.001	.00228	-.016***	.00192	-.0067382	.002***
SEO Intensity	.023***	.00239	.010***	.00166	.037	.05426	.224	.04695	.036***	.00428	.009***	.00238	.014***	.00235	.0082591	.002***
Gender	.001	.00215	.001	.00149	-.009	.0547	-.032	.05083	.006	.00409	-.005**	.00227	-.002	.00186	.0049532	.002**
Age	-.006***	.00085	.002***	.00058	-.054**	.02175	-.023**	.02026	-.005***	.00159	.002**	.00086	-.007***	.00076	.0010705	.001

***. Significant at the 0.01 level (2-tailed).

**. Significant at the 0.05 level (2-tailed).

*. Significant at the 0.10 level (2-tailed).

the effect is 1.5 pp and 0.9 pp, respectively. In sum, employed individuals seem to be more dynamic in their entrepreneurial intentions, even though among the factor driven respondents the magnitude of the effect is far larger than in other economies, pointing towards some sort of a multiple regime effect of this variable.

Financial endowments are entrepreneurial enhancers, as, for the entire sample, raising the income tercile to whom the individual belongs, raises the probability to start a new business. Surprisingly, when sub-sampling the respondents, the predictor becomes an entrepreneurial detractor in both traditional businesses and SEO, for the stage 1 economies. In either the stage 2 or 3, income operates as an enhancer.

The literature in the field has evidence on either the positive or the negative effect of higher levels of education towards entrepreneurial initiatives. In the entire sample, higher levels of education deter the traditional entrepreneurial initiative, and enhance the SEO initiative. Albeit, for Stage 1 respondents, education always works as a detractor; the results of Stage 2 are similar of those found in the entire sample; and, for Stage 3 respondents, Education transversally operates as an enhancer.

Knowing other individuals which have already experienced entrepreneurial initiatives is believed as being an enhancer of the entrepreneurial intentions. Our results, for the entire sample go in the same line, knowing other entrepreneurs raise the probability to become another. This result holds for the three sub-samples, which means that role modelling appears as a transversal booster of the entrepreneurial initiative.

Self-confidence, according to the literature is also key in what concerns starting a new business, therefore, our previous expectation was that individuals which did mention having the relevant skills as being more prone to enterprise. For the entire sample, the empirical evidence supports our previous belief, and the same result holds for each of the sub-samples.

Fearing failure is found in the literature as a deterring factor in terms of the entrepreneurial activity. In the entire sample estimation, raising the fear to fail deters individuals from starting a business, either a traditional initiative or a SEO. This result holds for all the sub-samples, but with different magnitudes. There seems to be a strong social effect in what concerns failure, as individuals deter their initiatives, even if they belong to developed societies and even when targeting sustainable initiatives.

The perception about businesses as engines in the resolution of social problems should motivate individuals to enterprise, independent of being in a more conventional or innovative/sustainable way. This is supported by the empirical results of the entire sample, when looking at the sub-sampling procedure; the variable is only significant for stage 2 and 3 economies with a positive result in both types of entrepreneurial intentions. Perhaps stage 1 respondents do believe more in the role of the Government in solving social problems rather than the private initiative.

Gender is one of the most surprising results found in the estimation as one could expect, supported by the literature to find important gender differences in terms of the entrepreneurial initiative and even more significant in terms of the SEO. Still, gender is not significant for the overall estimation and for both types of enterprises, showing that there are no significant differences in the entrepreneurial initiative which can be explained by the gender. The statistical insignificance holds for Stage 1 respondents in both types of business, and Stage 2 for traditional entrepreneurial intentions. As in the case of SEO initiatives among Stage 2 respondents, women are less prone to enterprise. In what concerns stage 3 gender is not significant to explain traditional entrepreneurial propensity, but it explains SEO, and women being more prone to enterprise.

To summarise, 3 hypotheses are supported, other 2 are partially supported and 1 is unsupported (Table 20).

Table 20. Validation of the Hypotheses

Hypotheses	Bstart*			Sestart**			Econometric
in Test	S1***	S2***	S3***	S1***	S2***	S3***	Result
H1	U	U	U	U	(-)	(+)	Unsupported
H2	(-)	(-)	(+)	(-)	(+)	(+)	Partially supported
H3	(+)	(+)	(+)	(+)	(+)	(+)	Supported
H4	U	(-)	(-)	(-)	U	(-)	Supported
H5	U	(+)	(+)	U	(+)	(+)	Supported
H6	(-)			(-)			Partially supported

* Entrepreneurial initiative **Sustainability Entrepreneurial Orientation Initiative ***Stage of Development

CONCLUSION

The purpose of this paper was to discuss the differences among conventional and SEO entrepreneurial initiative among countries with different economic environments and detailing the role of gender in this assignment. Relying on prior studies which highlight the importance of further research on the drivers of SEO, its importance and the singularities of its determinants, along with the central role of gender in entrepreneurial intentions, the present work aims to contribute to strength this field of research and aims to provide empirical evidences on entrepreneurial initiative, since it is central to understand how to capture the vitality of this workforce to boost economic prosperity and sustainability.

Since women's participation in the workforce, mostly as entrepreneurs in the Europe is lagging behind many other regions, we expand the research by paying attention to the role of gender and context as a predictor for starting a business, herein as entrepreneurial initiative/action, splitting its nature in terms of traditional business start or sustainability oriented. To this end, eight logistic regressions were run, using data from the Global Entrepreneurship Monitor (GEM, 2015), and covering an entire set of 60 countries.

According to Pines et al.(2010) based on several studies departing from GEM the rates of women's entrepreneurship are lower than men's; still there is no evidence on this quantification for SEO initiatives. Although the results of the present study point into the same direction at least concerning some stages of development, other factors are recognized as levers to boost entrepreneurial activity, and in particular SEO.

This study explores how policy might be redesigned to reinforce heterogeneous treatments of different development stages and the role of the Government in the resolution of social problems; thus, changing the institutional landscape to support a wider range of entrepreneurship initiatives and motivations and enhancing the positive effects of these projects in terms of job creation, sustainability and growth. This paper challenges equality assumptions in policy design in terms of entrepreneurship, addressing the importance of building and strengthening of appropriate institutions for development, as the role of women in creating, running and growing businesses is central for economic growth along with the promotion of other entrepreneurial determinants. Therefore, this research opens up avenues for the development of SEO's entrepreneurship study focusing on effects along individual and environment level.

REFERENCES

Adema, W., Ali, N., Frey, V., Kim, H., Lunati, M., Piacentini, M., & Queisser, M. (2014). *Enhancing Women's Economic Empowerment through Entrepreneurship and Business Leadership in OECD Countries*. Academic Press.

Aho, E., Cornu, J., Georghiou, L., & Subirá, A. (2006). *Creating an Innovative Europe*. Academic Press.

Bosma, N., & Kelley, D. (2019). *Global Entrepreneurship Monitor: 2018/2019 Global Report*. Academic Press.

Ennis, C. A. (2018). The Gendered Complexities of Promoting Female Entrepreneurship in the Gulf. *New Political Economy*, *24*(3), 1–20.

Fellnhofer, K., & Puumalainen, K. (2017). Can role models boost entrepreneurial attitudes? *International Journal of Entrepreneurship and Innovation Management*, *21*(3), 274–290. doi:10.1504/IJEIM.2017.083476 PMID:28458611

Gast, J., Gundolf, K., & Cesinger, B. (2017). Doing business in a green way: A systematic review of the ecological sustainability entrepreneurship literature and future research directions. *Journal of Cleaner Production*, *147*, 44–56. doi:10.1016/j.jclepro.2017.01.065

Gundry, L. K., & Welsch, H. P. (2001). The ambitious entrepreneur: Ig growt strategies of women-owned enterprises. *Journal of Business Venturing*, *9026*(312), 453–455. doi:10.1016/S0883-9026(99)00059-2

Gupta, V. K., & Bhawe, N. M. (2007). The Influence of Proactive Personality and Stereotype Threat on Women's Entrepreneurial Intentions. *Journal of Leadership & Organizational Studies*, *13*(4), 73–85. doi:10.1177/10717919070130040901

Heilman, M. E. (2001). Description and Prescription: How Gender Stereotypes Prevent Women's Ascent Up the Organizational Ladder. *The Journal of Social Issues*, *57*(4), 657–674. doi:10.1111/0022-4537.00234

Hossain, A., & Zaman, K. N. (2009). Factors influencing women business development in the developing countries. *The International Journal of Organizational Analysis*, *17*(3), 202–224. doi:10.1108/19348830910974923

Kelley, D. J., Baumer, B. S., Brush, C., Greene, P. G., Mahdavi, M., Majbouri, M., … Heavlow, R. (2017). *Global Entrepreneurship Monitor: Women ' s Entrepreneurship 2016 / 2017 Report*. Academic Press.

Klyver, K., Nielsen, S. L., & Evald, M. R. (2013). Women ' s self-employment : An act of institutional (dis) integration? A multilevel, cross-country study. *Journal of Business Venturing*, *28*(4), 474–488. doi:10.1016/j.jbusvent.2012.07.002

Liñán, F. (2008). Skill and value perceptions: How do they affect entrepreneurial intentions? *The International Entrepreneurship and Management Journal*, *4*(3), 257–272. doi:10.100711365-008-0093-0

Meek, W. R., Pacheco, D. F., & York, J. G. (2010). The impact of social norms on entrepreneurial action: Evidence from the environmental entrepreneurship context. *Journal of Business Venturing*, *25*(5), 493–509. doi:10.1016/j.jbusvent.2009.09.007

Minniti, M., & Nardone, C. (2007). Being in Someone Else's Shoes : The Role of Gender in Nascent Entrepreneurship. *Small Business Economics*, *28*(2-3), 223–238. doi:10.100711187-006-9017-y

Pines, A. M., Lerner, M., & Schwartz, D. (2010). Gender differences in entrepreneursip: Equality, diversity and inclusion in times of global crises. *Equality, Diversity and Inclusion*. *International Journal (Toronto, Ont.)*, *29*(2), 2186–2198.

Porter, M. (1990). *Competitive Advantage of Nations. Competitive Advantage of Nations*. New York: Macmillan. doi:10.1007/978-1-349-11336-1

Raghuvanshi, J., Agrawal, R., & Ghosh, P. K. (2017). Analysis of Barriers to Women Entrepreneurship : The DEMATEL Approach. *The Journal of Entrepreneurship*, *26*(2), 220–238. doi:10.1177/0971355717708848

Toutain, O., Fayolle, A., Pittaway, L., & Politis, D. (2017). Role and impact of the environment on entrepreneurial learning. *Entrepreneurship and Regional Development*, *29*(9–10), 869–888. doi:10.1080/08985626.2017.1376517

Chapter 6
Teaching Sustainable Entrepreneurship and Leadership:
Case of a Taught Course – Innovation and Sustainability Specialization

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ABSTRACT

Sustainability has been a part of the corporate lexicon for over a decade now. This has made it important for business schools across the globe to recognize the importance of sustainability and incorporate it into the curricula to train future managers. There are very few instances of having a core specialization being offered in the area of sustainability in an Indian management institute. This case study is an experiential documentation of a course titled Sustainable Entrepreneurship and Leadership offered at a leading university in India. This is a case study of the development of course in Sustainable Entrepreneurship and Leadership: its curriculum design, pedagogy, and evaluation methods. Through this course, an attempt was made to introduce the concept of sustainability in leadership and entrepreneurial ventures to the students. Also, a tryst was made to develop an appreciation towards the triple bottom line of profit, people, and the planet.

1. INTRODUCTION

Integrating principles, values and practices of sustainable development in education for promoting behavioral changes to appreciate and involve in sustainability has been in call for over one decade. The concept of sustainable development as described by the Brundtland Commission in its report 'Our Common

DOI: 10.4018/978-1-7998-2704-7.ch006

Future' suggests that it is "[…] development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts:

- the concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given; and
- the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs. […][1]"

Triple Bottom Line (TBL) of sustainability points towards 3 essential P's which cannot be overlooked by modern day businesses. These are People, Profit and Planet[2]. Concepts of sustainability, development and entrepreneurship need to find its just place in business school teaching and training. Desire for a profitable enterprise is also something which most of the B-School graduates think about, besides placement. Future entrepreneurs and managers should be exposed to sustainable entrepreneurial vision and action education.

Sustainable entrepreneurship is a recent addition to the long body of literature on entrepreneurship (Guercini & Cova, 2018). Very little advancement has been made in the direction of how sustainable entrepreneurship should be taught in a business school. In keeping with the need to understand and internalize the importance of the subject, the Centre for Management Studies, NALSAR University of Law in India took the decision to introduce a course titled Sustainable Entrepreneurship and Leadership as a specialization in its MBA program in 2014. This chapter is an attempt at discussing key issues in designing as well as delivering the course and providing insights to fellow educators on integrating sustainable entrepreneurship and leadership into MBA curricula.

The university had two major concerns to attend to while introducing the course into the MBA curriculum. To begin with, it is well understood that business students are highly interested in acquiring new skillsets to be relevant to the changing business landscape with an eye on the future. While designing the course, it was important that it matched their career objectives. Thus, it was paramount that clear linkages between the course content and the long term as well as immediate interests of the students were to be addressed. That was a significant challenge.

The other concern was to include the issues of sustainable entrepreneurship and leadership in parlance to the economic realities of a diverse group of students. Although the class had a healthy representation from all over India, it is pertinent to understand that the concepts and realities of sustainability are different among different sub-groups of students depending on the state/province, urban, semi – urban or rural backgrounds of the students. To avoid confusion, the course was designed from the lens of a developed, developing and under – developed society and economy. This provided for a more balanced approach to the issues surrounding the subject area.

The paper discusses in detail the course design and modules. Section 2 provides a brief background of the inception of the course. Section 3 presents the understanding of sustainable entrepreneurship for the purpose of development of this course. Section 4 presents the course overview along with a description of the structure and evaluation mechanism of the course and section 5 provides the discussions and conclusions.

2. GENESIS

Established in the year 1998, National Academy of Legal Studies and Research (NALSAR) University is a premier institute of legal education in the country. In 2013, university decided to set up a B-School within its campus to set the highest benchmarks in the intersection between management and law. The B-School apart from traditional functional offerings also offers Innovation & Sustainability as a specialization.

Innovation and Sustainability as a specialization is a resultant of progressive and responsible thinking of the university. The specialization augurs appropriately with the vision of the University of promoting legal studies and research for the benefit of the society. In keeping with this vision, the specialization was designed with an aim for bringing out individuals who are legally aware, managerially equipped and socially responsible. Innovation is key to business success and thus enjoys protection of law through Intellectual Property Rights (IPRs). However, many entrepreneurs are unaware of the provisions of the law and, thus, at times infringe upon another's IPRs or their IPRs get infringed upon. This results in significant losses. It is established, historically, that knowledge of law would help entrepreneurs avoid such losses. Similarly, sustainability is a matter of rights of not only the immediate stakeholders of the business but also of the larger society as well. Practices like excessive usage of natural resources, emissions from manufacturing units etc. curtail the basic freedom of life and thus invites attention from the law. Such practices also lead to fines or even closure of businesses. To be sustainable is not only crucial to the business but also the society at large. The specialization was conceptualized as an amalgamation of studies in both business as well as law.

2.1 Innovation and Sustainability Specialization

The specialization consists of one core course and four electives. Students opting to register for the Innovation and Sustainability specialization have to subscribe for two electives from among the four electives offered namely Sustainable Supply Chain Management, Responsible Investing, Managing Cooperatives & NGOs and Innovation & Design Thinking in addition to the core course, Sustainable Entrepreneurship and Leadership (SEL), which is mandatory. The motive behind making SEL a mandatory course was grounded on the realization that not all students who register for the specialization might not have studied the fundamentals of sustainability in their earlier years and hence might not have developed an appreciation for the concept.

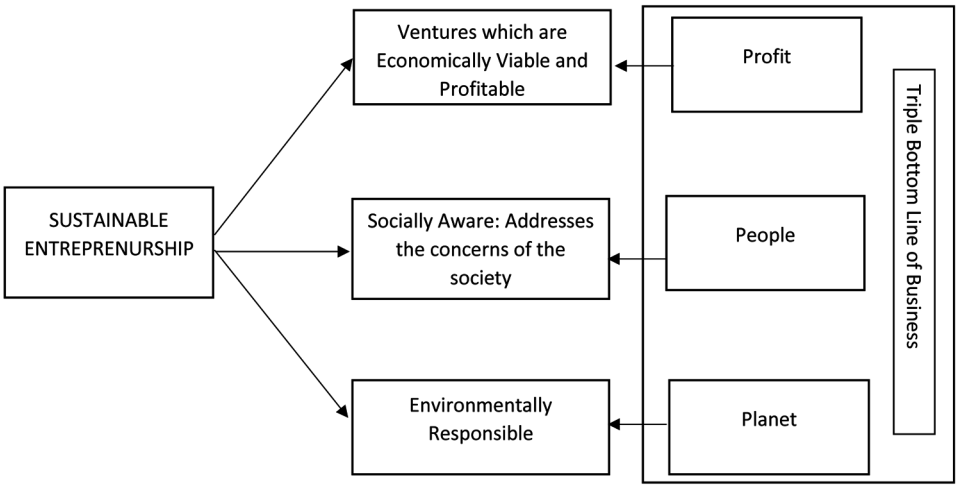
This formed the basis of the design of the specialization. SEL along with the electives provided a robust offering to the subscribers in order to develop conceptual clarity backed by critical thinking while applying imbibed tools & techniques in an entrepreneurial capacity as well as leadership roles in national and international firms.

3. THEORETICAL BACKGROUND

3.1 Understanding Sustainable Entrepreneurship

Sustainability lately has been recognized as one of the most critical themes relating to firm performance. The very understanding of sustainability has reached new frontiers and found a place in the higher education curricula (Amran et al., 2010). The central theme followed by the faculty while designing the course

Figure 1. Course framework



on Sustainable Entrepreneurship and Leadership was the concept of sustainable entrepreneurship. While crafting the course, the group of faculty scanned through available definitions of sustainable entrepreneurship present in the literature. The availability of hundreds of definitions of entrepreneurship present in the literature (Bruyat & Julein, 2001) made it difficult to arrive at one common understanding of entrepreneurship. For the purpose of designing the course, the definition of sustainable entrepreneurship as proposed by Cohen and Winn (2007) was found to be particularly important and relevant. Sustainable entrepreneurship was hence conceptualized as a multi-disciplinary field examining the institutional contexts, precursors, processes and economic and ecological consequences of firms' strategies. It is important here to integrate three vectors of sustainability: economic, environmental and social. Although broad, this definition provided the key points for reference and directed the course towards creating an understanding of environmental responsibility of a business beyond the commonly inferred outcomes of income generation and economic activity. The course framework which guided the structure of the course is shown in Figure 1.

The group of faculty then identified pertinent issues and relevant case studies for class discussions to create a holistic learning experience for the registered students. It is important here to note that that higher education plays an important role in laying the foundation for competence development for sustainable entrepreneurship (Lans et al., 2014).

3.2 Work Based Learning and Enterprise Education in Practice

Work-based learning has gained significant importance in recent times. Learning is understood to be supported by a process of social interaction with peers which enhances learning and creation of new knowledge (Bryant, Akinleye, & Durrant, 2013). The social aspect of work-based learning has gained much importance owing to the fact that in work setting a learner is not learning alone it is the combined knowledge of peers, superiors and subordinates which adds up to the learning of an individual. Formation and utilization of communities of practices where every member contributes, learns and grows is another important feature of work-based learning. The SEL course in its approach gave participants numerous

avenues to learn through social interactions. Another feature of work-based learning includes learning from other stakeholders, course allowed the participants to interact with industry and entrepreneurs along with the course instructors and peers to learn the nuances of triple bottom line.

Enterprise in an inclusive concept allowing exposition through the lens of a discipline or as a context (Price, 2004). Enterprise education principle comprises of assisting, developing and improving the linkage between education and business thereby bringing greater coherence to their activities (Jones & Iredale, 2010). Enterprise education aims to maximize opportunities for development of enterprising skills, behaviors and attiributes (Gibb, 1993). These skills, behaviors and attributes can enable the students and programme participants to appreciate the value of enterprise creation which is responsible and accountable to all the stakeholders' viz. society, shareholders and the environment.

Enterprise education can involve industry or be informed by the industry through a variety of ways some of those can be work placements, business start-up simulations, mock interviews, research and consultancy projects, careers talks, business ideas generation, mentoring, preparation of curricula vitae, business planning, etc. (Jones & Iredale, 2010). In the context of case presented here, we look at enterprise as a discipline and attempt to describe the pedagogy followed which sits in synchronization with the prescription.

4. COURSE OVERVIEW AND STRUCUTRE

Sustainable Entrepreneurship and Leadership is an elective course under Innovation and Sustainability specialization offered to second-year MBA students at NALSAR University of Law. The course brings together commercial, social and green entrepreneurship on one common platform for training managers who would be interested in starting their own venture in future as well as those taking leadership positions in their companies. The central theme of the course is sensitizing the participants towards creation of an enterprise which cares about three P's; People, Profit and Planet. This also enables the students to widen their understanding of entrepreneurship. While in a typical entrepreneurship course the focus is only upon financial or economic value creation, SEL is aimed at creation of value for economy, environment and people.

4.1 Key Themes and Objective

In recent times, both academic and corporate attention is drawn towards Sustainable Entrepreneurship (SE). It is an emerging field of study as well as practice. As a concept SE tries to combine elements from sustainability and entrepreneurship as well as leadership. Recent literature has defined SE as "an innovative, market oriented and personality driven form of value creation by environmentally or socially beneficial innovations and products exceeding the start-up phase of a company" (Schaltegger & Wagner, 2007, p.32).

Consistent with the idea the course has got wider application to a variety of firms. Students were first sensitized towards the concept of sustainable entrepreneurship and its effect on the firms' performance. Key objective being preparing responsible future managers and entrepreneurs' course was suitable for a multitude of audience.

4.2 Course Structure

As currently configured, SEL is a 28 session, 4 credit, elective course with case analysis as its pedagogy. Each session usually has one or two reading assigned which is drawn from trade publications, Harvard or Ivey case studies, news piece in popular media or practitioner oriented social entrepreneurship journals. The majority of the case studies involve discussion around social or green entrepreneur's struggle, vision and achievements and also structure of these enterprises. In order to provide a balanced approach, keeping in mind the versatility of the audience, readings as well as case studies were chosen with care that reflected demographic variety and economic realities. This was a crucial exercise in the development of this course. As future managers and entrepreneurs, they might find themselves in situations that may not be familiar with. Through diverse readings and cases that present varied situations, it is expected that their decision making shall be more inclusive and accommodative to the larger society. It is also expected that through such exposure, they shall be conscious of pertinent issues like environment, ecosystem etc and not be limited to the orientation of profits alone.

The course is divided into five modules: Meaning and definition of entrepreneurship in general and sustainable entrepreneurship in particular, Entrepreneur's business models, Capital and financing options, marketing for new age ventures and challenges, Leadership for Entrepreneurs.

Module 1: Meaning and Definition of Entrepreneurship and Sustainable Entrepreneurship

The module attempts to combine the aspects of commercial, social and green entrepreneurship to showcase a holistic picture to the course participants. In the first session, one of the participants raised an interesting question:

"how is this course different from another offering on corporate social responsibility or social entrepreneurship". The question was answered through a reflection on the triple bottom line and the principles of economic value creation by a firm. Another question on how is it going to be beneficial for those who are not going to start their own enterprise was addressed by explaining regulatory requirements regarding sustainability, corporate image management and responsible management as a practice.

For better understanding of the concepts, several background readings were assigned. To further clarify and compare the concepts from CSR and entrepreneurship, cases that involved CSR and entrepreneurship in one form or other were used.

The course began with the Hindustan Construction Company case (Hindustan Construction Company (HCC) (A): Strategic Corporate Social Responsibility) to showcase how shared value that can be created and augmented by doing CSR. Students were able to appreciate the case as it was in the Indian context. Following this, they were exposed to the concept of corporate sustainability through Nike case (Governance and Sustainability at Nike (A)) The case illustrates how a big and successful corporation addressed the concerns of environment and society. It explains the formation of a board-level corporate responsibility committee to create Sustainable Business and Innovation strategy. In the following sessions, the students were introduced to the concept of entrepreneurship through the celebrated case on women entrepreneurship, SEWA (SEWA Trade Facilitation Center: Changing the Spool). This case is about Self-Employed Women's Association which converted itself or rather metamorphosed from a non-for-profit organization to a for-profit company. The case presents the social aspect of entrepreneurship through livelihood generation activities for poor rural and urban women in India.

Module 2: Entrepreneur's Business Model

This module was developed to discuss the approach to model construction, type of models and business do's and don'ts. Some of the specific components of business models which are important and cannot be ignored by entrepreneurs and established businesses alike are price, product, marketing tactics, finances, organizational form and value proposition.

The first case discussed under this module was of Sarvajal (Sarvajal: Water for All). Founded by Piramal Foundation in the year 2008, Sarvajal aims to alleviate the problem of access to clean drinking water. Instead of going by the most traditional model of opening its own plant of filtering and supplying clean drinking water, Pirmal opted for a franchise model. It was the first time that such a model was used for public utilities in India. Sarvajal identified its market, priced its product at the most affordable price, and positioned itself as an option which cannot be matched and backed by the corporate strategy executed its plan. The second case was Hariyali (Hariyali Kisaan Bazaar: A Rural Business Initiative). It was an initiative of DCM Shriram Consolidated Ltd (DSCL). This case talks about forward and backward integration in rural area to deliver quality services. Issues of supply chain and ancillary services were discussed in a great detail in the class to develop a larger understanding of such business models. The third case used in this module was that of Aravind Hospital (Aravind Eye Hospital, Madurai, India: In Service for Sight) to examine and illustrate the lean operations model of Aravind Eye Hospital. It is the largest eye care provider in the world. The significant feature being the low cost involved in operations, high success rate and treatment of two third of patients for free. The case also illustrated the elements of cost optimization, assembly line like processes, waste reduction, elimination of non-value activities, etc.

Module 3: Capital and Financing Options

For most of the first generation entrepreneurs, the only obstacle in starting a business is finance. Capital is still considered to the single largest hurdle in starting ones' own venture. New age entrepreneurs are often turned down for business loans especially by banks for reasons such as lack of backing, past failures, etc. Apart from bringing in the general and the most common sources of finance, the participants were exposed to new age methods of funding.

Venture Capitalists (VCs) are the most glamorous and appealing form of financing in the current times. They not only make capital investments in the venture which are high-growth in early stages but also provide advice and add a lot of prestige by their presence in the board of the companies. Students were made aware of the process of venture funding and the advantages of venture capital funding. To give the course participants a hands on experience of how to pitch their idea and venture to a venture capitalist a template was given to the class and course participants were asked to make a pitch.

VCs being one of the options for financing another option which is emerging and is highly successful for small enterprises is that of Crowdfunding. Crowdfunding in its unique form allows the entrepreneurs to fund their venture by drawing relatively small contributors from a relatively large number of individuals using internet as a medium or platform. To discuss crowdfunding, the example of Wishberry was discussed. Started in the year 2012, Wishberry is India's largest crowdfunding platform. The platform primarily supports creative sector projects which have a tangible idea at their hand.

To make the students aware of the due diligence process of funders investing in social enterprises, the case of Acumen Fund case study (Acumen Fund: Measurement in Impact Investing (A)) was discussed. This case study is about a philanthropic organization which makes investments in entrepreneurial solutions

to global problems of poverty, healthcare, education and environment. It also discussed the challenges of measuring social performance both during due diligence and post-investment.

Module 4: Marketing for New Age Ventures and Challenges

In this module, the focus was on marketing. Sessions were designed keeping in mind the evolving trends in marketing for both commercial and social enterprises. Among other things, the students were particularly interested in exercises on social media marketing for small firms and took active part in simulations and role plays. This enabled them to practice strategizing as well as appreciating various challenges that entrepreneurial firms faced in their endeavor towards sustainability.

During the passage of this module, the case of a large international mining company, Noranda headquartered in Canada (Noranda, Inc.: Mining, Smelting, and Sustainability?) was discussed. The case while exploring the concept of sustainability for multinational corporations also drew the attention of course subscribers towards the challenges that came from non-governmental organizations as well as from the governmental to monitor, report and achieve sustainability.

As a part of this module the elements of building an entrepreneurial ecosystem like policy support, culture, supply of human capital, market development, and support infrastructure were discussed through T-Hub, a government of Telangana initiative, India's largest incubator for Startups.

Module 5: Leadership for Entrepreneurs

Entrepreneurs are often labelled as different breed of leaders. At times they are defined as rebels, innovators, world changers, risk takers and at other times simply as workaholics. These being only a partial list of adjectives, it often makes a confusing proposition for people to understand which leadership qualities are essential. This module made an attempt to understand some of those must have leadership traits for an entrepreneur.

This first case used in this module was of Frank Addante (Frank Addante, Serial Entrepreneur). This case is about a 28-year-old serial entrepreneur who is in a process of building his fifth venture. Frank being a highly successful entrepreneur at a young age has shown some exemplary leadership skills and has also learned some crucial lessons which were discussed in the class. To demonstrate the leadership abilities of founder of a large corporation, Phil Knight's case study (Knight the King: The Founding of Nike) was discussed. The case traces the journey of Nike from being conceived as an MBA class project to becoming the top athletic-shoe company in the country. How Knight led the company during difficult and dramatic times made a compelling discussion point in the class.

5.3 Course Assignments and Evaluation Components

To maximize learning for the course participants a variety of assignments and evaluation components were developed such as quizzes, interview an entrepreneur, two minute elevator pitch and term paper.

- *Quiz:* Much similar to other courses this component consisted of two quizzes in multiple choice formats of 20 questions each. The objective was to assess the learning from various concepts discussed in the class.

- *Interview an Entrepreneur:* To better understand and appreciate the key concepts learnt, students (in groups) were asked to interview an entrepreneur. The requirements on the assignment enabled the students to meet with entrepreneurs and discuss the business model adopted, sources of funding and challenges experienced. The following are the guidelines for the exercise:

STEP 1: Identify an entrepreneur whom you as a group would be interested in studying and make an appointment. Be sure to explain why you want the appointment; provide a realistic estimate of how much time you will need and the purpose of the meeting. Let the person know that they will be videotaped and will need to sign a release and waiver form.

STEP 2: Identify specific question you would like to have answered. Organize your thoughts into general categories with specific issues within the categories. Use them to focus the interview and guide your questioning. Think about how the filming will be done. (Angles, close in shots, theme, etc.)

Guidelines were provided to the students to frame the questions. They were:

1. Use open ended questions, questions that cannot be answered in yes, no or very short answer, will help the interview move along.
2. Ask general questions with specific follow-up questions to get more details and insights.
3. Use transition statements like, "I would like to know more about ____, could you tell me about your experience?"

Similarly, guidelines for preparing the interview guide were also provided. The students were to:

1. Briefly introduce yourself: your name, the nature of the assignment, what you are studying, etc. Find some commonality with the entrepreneur.
2. Listen closely and don't let your thoughts wander to other subjects or the next question
3. Give the entrepreneur feedback in the form of nodding slightly, casual remarks (Uhhuh, I see, is that so, etc), or echo – repeating back a few of their words
4. Paraphrase a complete thought to ensure you understand their thoughts
5. Record your impression on paper – this will help you concentrate on listening closely.
6. Be considerate of the entrepreneurs' time, arrive on time or early, and end the interview in a timely manner, but don't be obsessed with the time.
7. Try not to be too nervous, entrepreneurs are people too and chances are they are honored to be identified as someone you would want to talk to.

STEP 3: Evaluate what you have learned. Analyze what they have said and identify interesting or unusual ideas or concepts. Compare what the Entrepreneur said compared to what we discuss about entrepreneurs in class. Are they similar, different, why? Reflect on what the entrepreneur has said.

STEP 4: Prepare a short - 15 minute video

STEP 5: Write a Thank You note. This is more than a courtesy. It will also help the entrepreneur remember you and the class favorably should you or other students want to follow up on the interview

- *Two minute elevator pitch:* This component required students to deliver a two-minute elevator pitch for a conceptualized venture. Guidelines were given to the course participants to develop their pitch which was in lines with the venture capital funding pitches.

- *Term Paper:* In addition to the above assignments, students wrote a term paper on a specific topic assigned to them. The paper was an integral part of the course because it further enabled the students to recognize how entrepreneurship can vary, how sustainability can define the way corporates conduct themselves, and how new means of financing is changing the entrepreneurial landscape.

5. CONCLUSION AND IMPLICATIONS

In the modern era of competitive engagements among businesses and among businesses and customers, it is often observed that sustainability has taken a back seat. However, in the past decade or so, it has found its space in the mainstream business decisions across industry, policymakers and academia. Yet, its interpretation, implementation and assessment vary from the point of view of the practitioner. Through this paper, the authors have made an attempt to highlight the need and the process through which integration of sustainability issues was made alongside entrepreneurship and leadership at Centre for Management Studies of NALSAR University of Law.

Recent additions of a number of sustainability oriented courses in business schools is indicative of the pressing need for developing a robust framework for teaching sustainability in a variety of contexts and settings. Through this paper, the authors present the process of adoption and recommendations that can be included in MBA and other similar business programs while incorporating sustainability into their curriculum with diverse perspectives that are not limited to geography, economic standing or political affiliations.

The SEL course was aimed to provide students with a perspective on sustainability, entrepreneurial activity and leadership and act as a curtain raiser when it comes to their understanding of issues pertaining to sustainability. The course followed a work-based learning approach to make the participants more aware of the triple bottom line principles. In order to check the outcome of the course, the university undertook an informal assessment consisting of unstructured interviews and interactions. They serve the purpose of identifying successes of the course in parlance to the desired outcomes as well as getting insights for developing the course further. Participants of this course displayed a heightened sense of tolerance towards societal problems. They also exhibited increased consciousness towards sustainability than those who had not opted for this elective. They also showed an enhanced sense of inclusivity towards stakeholders in businesses and were holistic in their approach towards profits. Suggestions were captured for evaluation by faculty for suitability and incorporation into the course as well.

The authors conclude that the use of case studies and real time examples proved to be extremely beneficial in drawing their attention and facilitating discussions. Through the paper, the authors have also come to the conclusion that relating theory through taught content and case based pedagogy involving diverse business situations in varied set of circumstances was the key driver of success. Also, it is the considered opinion of the authors that the ability to offer and teach the same or similar courses is dependent on instructors' interest in the topic along with a strong grasp on the subject.

Like at any other institution of higher learning, the designers and faculty at CMS, NALSAR University of Law faced several challenges in assimilating issues around a complex and broad subject like sustainability into the MBA curricula. This paper also explores development of a framework for identification, classroom teaching and discussion on relevant topics for dissipation of sustainability as an integrative concept. The discussions on development of course and course structure in the context of an emerging

country can bring more clarity to other business schools which may be planning to induct sustainability as an area of specialization or sustainable entrepreneurship as an elective course in the MBA curricula.

REFERENCES

Amran, A., Nabiha Abdul Khalid, S., Abdul Razak, D., & Haron, H. (2010). Development of MBA with specialisation in sustainable development: The experience of Universiti Sains Malaysia. *International Journal of Sustainability in Higher Education*, *11*(3), 260–273. doi:10.1108/14676371011058550

Bruyat, C., & Julien, P. A. (2001). Defining the field of research in entrepreneurship. *Journal of Business Venturing*, *16*(2), 165–180. doi:10.1016/S0883-9026(99)00043-9

Bryant, P., Akinleye, A., & Durrant, A. (2013). Educating the early career arts professional using a hybrid model of work based learning. *Higher Education, Skills and Work-based Learning*, *3*(1), 17–29. doi:10.1108/20423891311294957

Cohen, B., & Winn, M. I. (2007). Market imperfections, opportunity and sustainable entrepreneurship. *Journal of Business Venturing*, *22*(1), 29–49. doi:10.1016/j.jbusvent.2004.12.001

Ghoshal, S. (2005). Bad management theories are destroying good management practices. *Academy of Management Learning & Education*, *4*(1), 75–91. doi:10.5465/amle.2005.16132558

Gibb, A. A. (1993). Enterprise culture and education: Understanding enterprise education and its links with small business, entrepreneurship and wider educational goals. *International Small Business Journal*, *11*(3), 11–34. doi:10.1177/026624269301100301

Guercini, S., & Cova, B. (2018). Unconventional entrepreneurship. *Journal of Business Research*, *92*, 385–392. doi:10.1016/j.jbusres.2018.06.021

Jones, B., & Iredale, N. (2010). Enterprise education as pedagogy. *Education + Training*, *52*(1), 7–19. doi:10.1108/00400911011017654

Lans, T., Blok, V., & Wesselink, R. (2014). Learning apart and together: Towards an integrated competence framework for sustainable entrepreneurship in higher education. *Journal of Cleaner Production*, *62*, 37–47. doi:10.1016/j.jclepro.2013.03.036

Price, A. (2004). *Institute for Enterprise CETL Stage 2 Bid, HEFCE*. Leeds, UK: Leeds Metropolitan University.

Schaltegger, S., & Wagner, M. (2008). *Types of sustainable entrepreneurship and conditions for sustainability innovation: from the administration of a technical challenge to the management of an entrepreneurial opportunity. In Sustainable Innovation and Entrepreneurship* (pp. 27–48). Cheltenham, UK: Edward Elgar.

ENDNOTES

[1] Report of the World Commission on Environment and Development: Our Common Future, 1987 retrieved from http://www.un-documents.net/our-common-future.pdf. Accessed on December 07, 2016.

[2] The Triple Bottom Line: What Is It and How Does It work http://www.ibrc.indiana.edu/ibr/2011/spring/article2.html. Accessed on December 07, 2016.

Chapter 7
Exploring Internationalization in Sustainable Entrepreneurship

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ABSTRACT

Sustainable entrepreneurship has become a central topic in research, although there exists a lack of study between the approaches to internationalization in sustainable businesses. This chapter aims at providing an examination of the relationship between SE and internationalization. In this way, the question of how and why firms involved in SE enter international markets, their challenges and difficulties in the process, and the different pathways are explored. Especially, the focus lies on the impact of SE involvement on the engagement in an international process. To achieve this goal, two main streams of literature are used: internationalization theories and sustainable entrepreneurship theory. The discussion section offers some future research questions worth studying.

INTRODUCTION

The concept of sustainability has entered economic field, becoming a frequent topic in the business research. Since the study of Elkington (1994) that introduced the concept of triple bottom line (TBL), the aspects of environment and society are tied with the economic profit. Over the last years, the con-

DOI: 10.4018/978-1-7998-2704-7.ch007

cern for sustainable issues has increased, not only in society, but also the main economic agents, that is firms, are aware of the concept (Domínguez-Escrig, Mallén-Broch, Lapiedra-Alcamí, & Chiva-Gómez, 2018). Thus, firms must face other aspects that are different from financial traditional profitability, being spurred to sustainable development.

With this regard, research has emphasized the relevance of entrepreneurship to firms as a way to adapt to the current business landscape, capitalizing on their ability to innovate and react to threats (Al Omoush, Al-Qirem, & Al Hawatmah, 2018; Kirkwood & Walton, 2010). Moreover, entrepreneurship is said to raise businesses above the threshold of sustainability (Hull, Hung, Hair, Perotti, & DeMartino, 2007; Scheepers, Hough, & Bloom, 2007; White, 2009; Zahra, 2015) in the extent to which innovative sustainability strategy is related to entrepreneurial business strategy for growth in situations regarded as highly competitive (Hull et al., 2007; White, 2009; Zhang & Dhaliwal, 2009; Ligthelm, 2010; Raymondet, Bergeron, Croteau, & St-Pierre, 2015).

Research has drawn attention to the connection between the concepts of sustainability and entrepreneurship, emerging the concept of sustainable entrepreneurship (SE). According to Isaak (2002, p. 81), it could be understood as a venturing activity in "*an existential form of business behaviour committed to ecological sustainability*". Although not only the environmental sustainability, the objective of SE is thought to be the preservation of nature, life support and community. Moreover, perceived opportunities are those that bring products, processes and services taking into consideration economic profit for the business and gains to individuals, the economy and society (Shepherd & Patzelt, 2011). In such a way, what differs SE from the traditional entrepreneurship is the sustainable and ecological mindfulness (Hechavarría, 2016). Additionally, traditional aspects of product/process innovation and market innovation related to entrepreneurship are considered, as well as moral dimensions.

This fact put sustainable businesses (firms and entrepreneurs) in the spotlight of the sustainable development of most economies in the world, becoming SE as a vehicle to transform the current economy into sustainable economy (Shepherd & Patzelt, 2011). In addition to the relevance of SE in economy, there is a belief that sustainable business should be fostered in order to get a global committed to sustainable development.

In such a context, one way of expansion and growth in businesses is to open to foreign markets and expand their products, services or processes. In this regard, there is a considerable body of literature focused on internationalization that makes it possible the understanding of drivers, challenges and different pathways of entering foreign markets. Research related to enablers of the process of internationalization classify the main factors as internal (firm-specific) and external. On the one hand, the firm-specific drivers are firm size, labor, productivity, learning ability (Vélez-Ocampo, Govindan, & González-Pérez, 2017), level of innovation (Genc, Dayan, & Genc, 2019; Pervan, Al-Ansaari & Xu 2015) and foreign ownership. On the other hand, the external factors as regarded as those related to home-country and host-country. In the home-country, export promotion programs (EPP) (Leonidou, Katsikeas & Piercy, 1998), government support (Ratten, Ramadani, Dana, Hoy & Ferreira, 2017) cost and time involved in exporting, transport cost indicators are outlined as the most important. What's more, in the host country, tariffs, laws, political risk factors, and geographical and cultural distance (Kuivalainen et al., 2013; Rugman & Verbeke, 2004) are pointed out as the main factors.

Research on internationalization is mainly focused on the traditional entrepreneurial businesses (i.e. firms that focus only in the economic aspect). So, trying to tackle global challenges such as environmental and social problems, one alternative is to foster internationalization in sustainable businesses. Nevertheless, few studies have analyzed how and why firms within sustainable entrepreneurship enter in foreign

markets (Zolfaghari Ejlal Manesh & Rialp-Criado, 2019). Thus, the study of the relationship between internationalization and sustainable entrepreneurship is an unexplored topic (Park, 2018).

In order to address the lack of study between the approaches to internationalization in sustainable businesses, this book chapter aims at providing an examination of the relationship between SE and internationalization. In this way, the question of how and why firms involved in SE enter international markets, their challenges and difficulties in the process and the different pathways are explored. Especially, the focus lies on the impact of SE involvement on the engagement in an international process.

To achieve this goal, two main streams of literature are used: internationalization theories and sustainable entrepreneurship theory. A bibliographic review will allow addressing the gap in the literature.

The contributions of this study are both theoretical and empirical. On the one hand, the need to understand how different factors affect strategic decision of internationalization in sustainable entrepreneurship is covered. On the other hand, the knowledge of different factors affecting strategic decision of internationalization in sustainable entrepreneurship, could help policy makers to design export promotion or support plans.

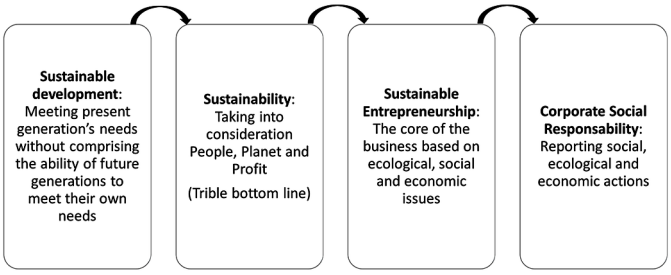
WHAT MAKES THE DIFFERENCE IN SUSTAINABLE ENTREPRENEURSHIP

Bringing Light to the Concept

The concept of sustainable entrepreneurship has gained prominence between research community since it appears to be a tool to solve social and environmental problems (Muñoz & Cohen, 2018; Stubbs, 2017), taking into consideration the preservation of the environment to future generations. It is thought to play an important role in economic growth, consistent with sustainable development (Urbaniec, 2018). Thus, acting sustainably entails that the core of the business is related to the three pillars of sustainability: People, Planet and Profit (Elkington, 1994) or the well-recognized triple bottom line (TBL), balancing economic, social and ecological goals (Figure 1) (Cohen, Smith, & Mitchell, 2008; Schaltegger & Wagner, 2011). According to Shepherd & Patzelt (2011), SE entails sustaining and developing six elements from both sustainable development literature and entrepreneurship literature. First, coming from sustainable development literature, they are sustaining nature, life support systems and communities. Second, from entrepreneurship literature, three constructs are identified: develop economic gains, non-economic gains to individuals and non-economic gains to society. Therefore, this type of entrepreneurship not only pursues social, economic and environmental aims, but also it combines all components of sustainability in a systematic fashion (Muñoz & Cohen, 2018; Tilley & Young, 2009). In such a vein, SE is deemed as a vehicle to solve societal and environmental problems, being the economic goal as both means and ends and integrating sustainable development into the strategic goal and organizational processes (Muñoz & Cohen, 2017).

The current approaches on sustainable development has provoked a flourishing range of terms and it is worth noting to clarify the difference. Green entrepreneurship, eco-entrepreneurship and ecological entrepreneurship are terms related with business activities oriented primarily on profit-seeking behaviour in environmental areas (Schaefer, Corner & Kearins, 2015). These terms encompasses large and SME firms already established in environmental industry as well as conventional firms that adopt specific environmental management actions (Nikolaou, Tasopoulou, & Tsagarakis, 2018). In a similar way, social entrepreneurship is deemed as those entrepreneurs who has the main goal of creating social value, being

Figure 1. Relevant concepts in SE
Source: own elaboration



the creation of economic profit a necessary condition to guarantee financial viability (Kraus, Burtscher, Niemand, Roig-Tierno, & Syrjä, 2017). In social entrepreneurship, the type of organizations could be for profit and not-for-profit firms, focusing on issues our society faces.

Debate exits about the differentiation between corporate social responsibility (CSR) and sustainable entrepreneurship. Some authors state that both CSR and triple bottom line (TBL) are report standards to show sustainable actions in firms (Popescu & Banta, 2019), making the difference in the preference of large companies to report on CSR (Kraus et al., 2017). Other researchers claim that the fact of the size and age of the company makes different the way in which they articulate the strategic plans through organizational processes or business models, being CSR opted for mature and large corporations reporting (Muñoz & Cohen, 2018; Spence, Gherib, & Biwolé, 2011). According to the International Organization for Standardization (2011), a firm demonstrates CSR when incorporates social and environmental aspects into its decision-making and their impact is accountable. In this study, CSR and SE are regarded as different concepts. While CSR could be part of the strategic plan of a firm as an approach (Katsikis & Kyrgidou, 2007) or the activities to sponsor social or environmental goods, beyond the interest of a company (McWilliams & Siegel, 2001; Sarango-Lalangui, Santos, & Hormiga, 2018), SE is based on entrepreneurial actions that focus its core business on the three pillars of sustainability, namely ecological, social and economic issues. In this vein, at the heart of SE lies the idea of sustainability.

Building a Sustainable Entrepreneurship Theory

While research on SE has flourishes and yielded rich academic progress in management, entrepreneurship and environment field, there is yet lack of understanding of the nature in theory and practice (Muñoz & Cohen, 2018). SE as a research field is still in its prime and different disciplines are pushing to ground sustainable entrepreneurship theory, from the business entrepreneurship theory and sustainable development approach. On the one hand, the entrepreneurship concept is based on the Schumpeterian view that regards entrepreneurship as an attitude of establishing new ideas by new business models and simultaneously replacing conventional business systems by making them obsolete or the well-known process creative destruction (Schumpeter, 2003). In such a way, innovation plays a key role in the concept of entrepreneurship (Drucker, 1986) through new products, processes, markets or factor inputs. In doing so, entrepreneurs are regarded as actors who discover, realise and create opportunities for developing new solutions (Schaltegger, Beckmann, & Hockerts, 2018; Stevenson & Gumpert, 1985). On the other hand, the sustainability term is viewed as a synthesis of the three central pillars for the future development:

society, economy and ecology. Although the term was initially introduced by the Brundtland commission in 1987 (Dutta & Banerjee, 2018; World Commision on Environment and Development, 1987), his concept is embedded in the sustainable development approach that states that meeting the current needs have to take into the account the commitment to future generations' ability to satisfy their needs (UN World Commission on Environment and Development, 1986).

Therefore, literature on the linking of entrepreneurial activities and sustainable development has spawned the research stream on SE that deems it as a crucial element in giving response to the question of how businesses can become a tool toward more sustainable development by the creative destruction of unsustainable patterns of producing, consuming and living (Schaltegger et al., 2018). In such a way, the actors involved in the SE, that is, sustainable entrepreneurs are regarded as creators of sustainable transformations.

The abovementioned arguments highlight the importance of studies on this stream research that has only begun to dig deeper into issues related to a better understanding of the role of the sustainable entrepreneur. While a detailed analysis goes far beyond the aim of this study, the motivations and context of SE for the main agents, that is, entrepreneurs, deserve closer attention to our purpose (Zolfaghari Ejlal Manesh & Rialp-Criado, 2019).

Discovering Sustainable Entrepreneurship Involvement

According to Muñoz and Cohen (2018) what differentiates SE from entrepreneurship can be explained by the framework of Sahlman (1996), which establishes that entrepreneurship phenomenon may be analysed through four interrelated factors, namely people, context, deal and opportunity. With regards to SE, these factors are named *sustainable entrepreneur, the context for SE, SE outcome or value creation* and *the sustainability opportunity* (Table 1).

Sustainable Entrepreneur

The *sustainable entrepreneur* is portrayed as an individual who undertakes a sustainable venture and that contrary to the traditional view of the entrepreneurship, is not only motivated by the economic considerations, but also the pursuit of social and environmental solutions (Dean & McMullen, 2007; York & Venkataraman, 2010). According to Schaltegger (2002), they have creative tension to conciliate non-financial with financial motives. Six themes can be gleaned from literature (Muñoz & Cohen, 2018), namely, knowledge and prowess, entrepreneurial self-efficacy, motivation and intention, values and attitudes, business orientation and moral cognition.

The first theme, knowledge and skills, differs from traditional view in the sense that the knowledge of ecological and social environments (Kuckertz & Wagner, 2010), in addition to perceived environmental threats and problems, are enablers to the identification of opportunities for sustainable development, even if they do not have the intention to pursue these opportunities (Patzelt & Shepherd, 2010; Shepherd & Patzelt, 2011). This knowledge gives support to the entrepreneurial self-efficacy (Muñoz & Cohen, 2018), that is, a person's capacity to believe in his/her ability to perform a task. In this sense, in SE, the entrepreneurial self-efficacy, the evaluation of one's knowledge and skills to exploit a sustainability opportunity, plays a key role in the sense that the process becomes more complex due to the requirement of a well understanding of the markets as well as the natural and social environments (Shepherd & Patzelt, 2011).

Regarding motivation, some authors state that is the main cause of variance between a traditional and sustainable venture (Shane, Locke, & Collins, 2003). In addition to the well-studied self-realization, financial success, innovation or independence (Carter, Gartner, Shaver, & Gatewood, 2003; Popescu, Popescu & Popescu, 2015), they show a predominant desire to "change the world" (Schaltegger, 2002). What's more, intentions have proven to be the best predictor of any planned behaviour (Krueger, Reilly, & Carsrud, 2000), grounded on the theory of planned behaviour (Ajzen, 1991). According to Fitzsimmons & Douglas, (2011), entrepreneurial intentions depend on the perception of desirability and feasibility of the venture opportunity and the interaction of these two kinds of perceptions, becoming a more complex process. Moreover, the combination of their desire to change the world with the desire to obtain profit is the main driver (Schlange, 2006).

Some authors explained SE as a result of individual behavioural practices, namely resistant, reactive, anticipatory and innovation based on sustainability roots (Klewitz & Hansen, 2014). Under these behavioural attitudes are the values and attitudes of individuals, such as equality, solidarity, freedom, tolerance, respect for nature and shared responsibility (Leiserowitz, Kates, & Parris, 2006) and altruist attitude (Koe, Omar, & Rizal, 2020; Patzelt & Shepherd, 2010; Spence et al., 2011; Zolfaghari Ejlal Manesh & Rialp-Criado, 2019). In this line, Stubbs (2017) argue that value alignment is one of the key drivers formalizing sustainable behaviour. Although, some authors (e.g. Schaper, 2002) state that the environmental attitudes of owners are not a driver for environmental behaviour in small businesses.

With regards to the business orientation, based on innovativeness, proactiveness and risk taking (Miller, 1983), the only alternative orientation is the one that combines at the heart of the business the three pillars: economic, ecological and social ethical issues (Walley & Taylor, 2002). In this sense, (Hernández-Perlines & Ibarra-Cisneros, 2018) define the sustainable entrepreneurship orientation as "*willingness to foster innovative, proactive, and risky actions coherent with the development of economic, social, and environmental aspects of both the company and the environment in which they operate*", allowing the detection of business opportunities.

Sustainability orientation refers to belief in the connection of environmental and societal considerations in business operations (Chea Hooi, Ahmad, Amran, & Abidur Rahman, 2016; Kuckertz & Wagner, 2010). It involves the readiness of the organisation to implement sustainability-related initiatives (Tata & Prasad, 2015).

Finally, a moral cognition, which is regarded as the essential values and beliefs of the entrepreneur or owner-manager, supports its role as wealth generator by the integration of sustainability into daily routines (De Clercq & Voronov, 2011; Wahga, Blundel, & Schaefer, 2018), with the subsequent development of social and symbolic capital (Fuller & Tian, 2006). In sustainability context, entrepreneurs have to balance the opportunities with ethical and moral values, what makes a relevant difference with the traditional concept of entrepreneurship where sometimes values are sacrificed (Fisscher, Frenkel, Lurie, & Nijhof, 2005). What's more, moral intensity is thought to guide perceptions and inspire entrepreneurial action (Muñoz & Dimov, 2017). Even, these authors state that individuals with prior knowledge struggle to seize a sustainability opportunity only if they face a high level of moral intensity. In spite of its importance, the moral nature in sustainability decision-making is underexplored, requiring more in-depth study (Muñoz & Cohen, 2018).

Context for Sustainable Entrepreneurship

The second theme in the exploration of sustainable entrepreneurship is *the context for sustainable entrepreneurship*, which is regarded as all elements out of control for the sustainable entrepreneur that could affect the development of the venture (Muñoz & Cohen, 2018). In this context, formal and informal institution structures play a key role since they can provide support to the opportunity process and the risks entrepreneurs face (Marques et al., 2018; Šabasevičienė & Grybaitė, 2014).

Under the institutional entrepreneurship theory, which highlight the importance of institutions in encouraging the entrepreneurial activity, sustainable entrepreneurs are thought to change within existing organization to sustainability (Schaltegger et al., 2018). While formal institutions derived from regulations and social norms, informal institutions are those "*values, norms, rules, beliefs, and taken-for-granted assumptions*'' (Barley & Tolbert, 1997). According to Hörisch, Kollat and Brieger (2017), the most common formal institution is government activist and an example of informal institution is a socially support culture.

Most research has highlighted the positive influence of institutions on sustainable entrepreneurship (Meek, Pacheco, & York, 2010). For instance, policy intervention could lead to enable sustainable businesses (Silajdžić, Kurtagić, & Vučijak, 2015). What's more, initiatives based of knowledge transfer by government (De Palma & Dobes, 2010) and training in higher education institutions and research centres (Marques et al., 2018) are regarded as enablers in SE. Likewise, Muñoz and Dimov (2015) find that a supportive social context could spur both behaviours. On the one hand, its presence may positively affect the creation of new sustainable ideas and, on the other hand, the absence could lead to sustainable entrepreneurial action against a non-sustainable situation. In this vein, the lack of regulation can provide opportunities for environmentally pursued entrepreneurial actions (Hörisch et al., 2017).

Tied with the concept of institutions is the need of building legitimacy by sustainable entrepreneurs (Hörisch et al., 2017), understood as the perception that actions are desirable. Legitimacy is vitally important for new industries, becoming a valuable signal to stakeholders and investors in order to get competitive advantage (Ge, Jiang, Gao, & Tsai, 2016). Also, it is suggested that collaboration with institutions or reputable partners could boost the legitimacy (Steinz, Rijnsoever, & Nauta, 2016).

All in all, support and appropriate conditions from institutions should prevail in agendas. First and foremost, they can ensure the survival in the early stages of sustainable businesses (de Lange, 2017) since they stablish the "rules of the game". This is vitally important in SE, due to the fact that emerging sustainable markets present highly unregulated environments. According to Verbong, Geels and Raven, (2008), policy interventions, through subsidies and regulatory adaptations, play a key role in the creation of a bridge between "valley of death" and sustainable innovation in markets (Muñoz & Cohen, 2018). Second, it provides a promoting tool for sustainable entrepreneurship, contribution to economic social and environmental wealth (Kant, 2018).

Not only are institutions relevant in the sustainable entrepreneurship context, relationships with other stakeholders and the role of the territory embeddedness are unexplored questions (Vlasov, Bonnedahl, & Vincze, 2018). In this sense, embeddedness could be considered an enabler to

Sustainable Entrepreneurship Outcome

With regards to the third factor, *sustainable entrepreneurship outcome,* encompasses the benefits or values from economic, social and environmental perspective to relevant stakeholders. According to

Muñoz and Cohen (2018), a sustainable entrepreneur is capable to reconciliate both goals, sustainable development and economic wealth accumulation. In such a way, they create value for societies, organization and individuals (Hitt, Ireland, Sirmon, & Trahams, 2011). With the main purpose of contributing to environmental quality and social well-being, sustainable entrepreneurs fulfil two vital functions: together with creating economic value, the activity could have a major impact on shifts towards a more sustainable society (Parrish & Foxon, 2009). In such a way, the outcome of SE enables a transformation in society and market conditions and regulations (Schaltegger & Wagner, 2011).

The interest gained in research on SE has provoked a great deal of works focusing on the analysis of the economic impact or financial implications of the incorporation of sustainability in the strategic plans (Kraus, Burtscher, Vallaster, & Angerer, 2018; Muñoz & Cohen, 2018; Wahga et al., 2018). These studies claim that the sustainable opportunity offers the diminishing of costs and an increase in revenues with the consequent effect on economic performance (Dixon-Fowler, Slater, Johnson, Ellstrand, & Romi, 2012). However, some firms conceive sustainability as a drain for their economic profits since it requires much effort (Dahlmann, Brammer, & Millington, 2008; Wahga et al., 2018).

Due to the lack to understanding of sustainable development by most SMEs (Chea Hooi et al., 2016), tied with the perception of profitability of sustainability activities, many opportunistic entrepreneurs could be attracted, searching for economic profit (Muñoz & Cohen, 2018). Thus, there is a call for acting in the development of the understanding and implementation of a framework for the relationship between the three concepts of sustainability (Anbarasan, 2018; Hahn, Pinkse, Preuss, & Figge, 2015).

Sustainability Opportunity

Regarding the fourth factor, *sustainability opportunity* in SE, the understanding and detection to identify a sustainable opportunity are said to be relevant. The sustainability opportunity could be defined as the one that involves the pursuit of new combinations so as to simultaneously address economic, environmental and social benefits (Muñoz & Cohen, 2018). In this vein, opportunities could have viewed as a vehicle to solve a sustainability problem, which are mostly characterised with high uncertainty (Wiek, Ness, Schweizer-Ries, Brand, & Farioli, 2012).

In such a way, opportunities can emerge from market imperfections. Some authors have studied the market imperfections that may foster the development of sustainable innovative business solutions, namely inefficient firms, externalities, flawed pricing mechanisms and information asymmetries. Dean and McMullen (2007) identified five market imperfections (public goods, externalities, monopoly power, inappropriate government intervention and imperfect information), concluding that the achievement of SE is based on the defeat of barriers to the efficient functioning of markets for environmental resources.

In sum, not only does the nature of opportunities differ from traditional entrepreneurship, the process through which the sustainable entrepreneurs seize on opportunities to take advantage of markets imperfections regarding social and environmental topics (Muñoz & Cohen, 2018) is besides more complex. In addition to that, what distinguish sustainability opportunities from others is the fact that the former can be identified outside markets and represent dis-opportunities or problems and they do not obey to "waiting to be recognised and realised" (Schaltegger et al., 2018).

Table 1. Sustainable Entrepreneurship involvement

Factor	Dimension	Particular Characteristics
Sustainable entrepreneur	Knowledge and skills	• Need of comprehensive understanding of environmental and social issues • Detection of threats and problems regarding social and ecological environment • Enabler to opportunity identification
	Self-efficacy	• Evaluation of one's knowledge and skills to exploit a sustainability opportunity is crucial owing the complex of the process
	Motivations /intentions	• Predominant desire of change the world • Intentions depend on the perception of desirability and feasibility of the venture opportunity and the interaction of these two kinds of perceptions
	Values and attitudes	• Behavioural practices such as resistant, reactive, anticipatory and innovation based on sustainability roots • Values such as equality, solidarity, freedom, tolerance, respect for nature and shared responsibility • Altruist attitude • Value alignment is crucial is crucial in sustainable behaviour
	Business orientation	• Willingness to undertake innovative, proactive and risky projects aiming at the achievement of economic, social and environmental issues of the firm and the environment in which they operate
	Moral cognition	• Integration of sustainability in the daily routine • Moral intensity guide perceptions and inspire actions • A balance of opportunities with ethical and moral values
Context for SE	Influence of formal institutions	• Positive influence of policy intervention, knowledge transfer initiatives and training in higher education institution and research centers • Subsidies and regularly adaptations help to survive in early stages
	Influence of informal institutions	• Importance of social support culture
	Legitimacy	• Vital in new industries
	Embeddedness	• Enabler to detect the social and ecological needs of the surroundings
	Relationships with stakeholders	• Emphasis in building of networks
SE outcome	Value creation and impact	• Economic wealth • Contribution to environmental quality • Contribution to social well-being
Sustainability opportunity	Process	• High uncertainty • Major complexity
	Source	• Coming from market imperfections and outside markets by dis-opportunities or problems

Source: own elaboration based on Muñoz and Cohen (2018).

INTERNATIONALIZATION PROCESS IN SUSTAINABLE ENTREPRENEURSHIP

Due to the idiosyncrasy of sustainable entrepreneurs that encompasses the coalition of three objectives and the growing interest gained between academic and institutions, it makes it necessary to foster the creation of sustainable entrepreneurship as a vehicle to enhance sustainable development. In this sense, the achievement of economic, social and ecological performance remains important in order to achieve competitive advantage. Likewise, sustainable entrepreneurship emerges in a global context, owing to

the fact that sustainability is a concept that should not be considered as a concern for some nations, but as a universal and international problem (Spence, 2011) that affects all firms and industries.

Thus, the study of the process of internationalization for sustainable entrepreneurs is worth taking into consideration since they would face problems in a global context and need to provide solutions at an international scope (Zolfaghari Ejlal Manesh & Rialp-Criado, 2019). Moreover, fostering entrepreneurship has the potential to enhance organization performance and reach strategic goals. Accordingly, further research is needed in order to get a better understanding of features of sustainable entrepreneurship in the global market since there is a call for research to address this gap.

Underlying Theories in Internationalization Processes

The concept of internationalization encompasses the whole operations of a firm to develop in overseas markets, such as exporting, investing abroad or licensing, in which the foreign nature of operations or actors involved are the core of internationalization (Laghzaoui, 2011). While, from the traditional international business approach, internationalization is deemed as a process in which performance is considered the ultimate goal, in a sustainability context it could be understood as the achievement of the three goals. Research has endeavored to create a framework for understanding overseas transactions, under some important theories.

One of the first theories trying to explain international production is the *market power theory* (Hymer, 1976). According to this theory, two conditions should be met to firms in order to do foreign direct investment (FDI). First, the firm must have a competitive advantage and there must exist imperfection in the target market. Moreover, the potential hazards of foreignness are due to the lack of knowledge of the local cultural, political, and legal systems. In this vein of underscoring the competitive advantage, the *Eclectic paradigm or OLI* presented by Dunning (1988) states that specific assets play a crucial role in decision-making process, namely ownership advantages (O), locational advantages (L), and internalization advantages (I). Accordingly, the combination of these core dimensions are organizational capabilities that allow international venture competitive advantage. Regarding the rational analysis of benefits and costs, the *transaction cost analysis* (Williamson, 1975), grounded on the efficiency in transactions between the different production units and their transaction costs, states that the internationalization degree of a firm is justified by this type of analysis.

The *resource-based view* (RBV) claims that the conjunction of resources and capabilities enables the achievement of competitive advantage by the creation of innovative and efficient management of resources. The competitive advantage can be sustained to the extent to which these resources are unique, that is, valuable, rare, difficultly imitable and non-replaceable (Nikolaou et al.,2018). In such a way, the internationalization process is deemed as a way to acquire new resources by acquisitions or strategic alliances (Das & Teng, 2000). Moreover, some academics has pointed out that incorporating sustainable issues creates a key capability to sustainable competitive advantage (Hart, 1995) that improves the international activity (Ghauri, Tasavori, & Zaefarian, 2014).

In the internationalization process of a firm, the study of the role of institutions is addressed by the *institutional theory.* According to this theory, firms should have a thoroughly comprehension of the rules, norms and behaviors prevailing in the host market in order to gain legitimacy (DiMaggio & Powell, 1983). Adapting to these norms, firms could be perceived as legitimate and consequently, obtain and maintain their competitive advantage. In this sense, this theory has been widely used by studies that highlight the importance of the collaboration with institution in order to avoid access barriers (Steinz et al., 2016).

In this vein, *network approach* highlights the importance of environment and surrounding factors as a crucial pillar stone, becoming the way a firm enters and interacts with international networks a key driver in internationalization process (Blomstermo, Eriksson, & Sharma, 2004; Coviello & Munro, 1997).

Distinctive Features of Internationalization in SE

According to De Massis, Frattini, Majocchi, & Piscitello (2018), research on internationalization could be summarized in four key aspects: locality versus globality; scope, modes, and location alternatives; timing and speed of internationalization; and international business models. Table 2 summarizes the internationalization process in the context of sustainable entrepreneurship.

The *locality versus globality* trade-off is deemed as the option of the sustainable entrepreneur to focus on local market or/and struggle to compete internationally. In SE context, the entrepreneur has to conciliate the environmental and social performance with the economic profit, with the desire of international growth. On the one hand, owing to the universal character of sustainability, it seems easy to think in the internationalization of the sustainability activity (Spence et al., 2011). In addition to that, the altruist attitude of the sustainable entrepreneur makes it feasible to think globally, in the sense, they are motivated to find a global solution for preventing global warming or environmental degradation (Covin & Slevin, 1991; Zolfaghari Ejlal Manesh & Rialp-Criado, 2019). What's more, the pressure of formal and informal institutions to open markets could ease and foster the internationalization process (Šabasevičienė & Grybaitė, 2014; Steinz et al., 2016). On the other hand, the embeddedness in local territory could discourage the possibility to expand overseas and may lead them to be prone to the local market. In this vein, the local grassroots networks could have a positive impact on proactive entrepreneurship for resilience (Vlasov et al., 2018) and act as a barrier for international openness.

Other group of factors in internationalization process are bundled into *scope, location and modes of entry choices*. According to De Massis et al. (2018), scope is regarded as the firm's geographic extent and location refers to the distant to the host countries. While both questions remain underexplored in SE, the factor of modes of entry and degree of control over foreign activities, have gained more attention in research. In this vein, formal and informal networks stand for the most relevant mode due to the importance of these networks in order to success in international ventures (Steinz et al., 2016; Zolfaghari Ejlal Manesh & Rialp-Criado, 2017, 2018).

Timing and speed of internationalization address the question of how quickly firms open to international markets after their inception. It is considered to be one of the more relevant aspect of internationalization process, showing an endeavor in literature to create a framework to explain this issue. Two main theories explain a gradual mode or a quick one. While Uppsala model (Johanson & Vahlne, 1977) claims that experience in international transactions is acquired gradually and becomes a pivotal resource in the process, born global or international new ventures (INV) approach, asserts that firms can enter foreign markets from the moment of their founding, irrespective of the youth of the companies (Schueffel, Baldegger, & Amann, 2014). In SE, the rapid internationalization is a feature since many firms enter in international markets even before the commercialization phase. This is the case of renewable energy industry, where the commercialization phase may be slow and a way to accelerate it is by the international sales (Zolfaghari Ejlal Manesh & Rialp-Criado, 2017, 2018). Moreover, especially in high technological intensity sectors, SMEs opt for entering in international markets as born global or INV by a quick process, owing to their flexibility and agility (McDougall & Oviatt, 2005).

Table 2. The role of SE involvement in the internationalization process

	SE involvement	*Behavioural practices of sustainable entrepreneurs*	*Strategic drivers of SE*	*Internationalization processes*	*Internationalization outcomes*
Particular aspects	• Sustainable entrepreneur • Context for • SE outcomes • Sustainability opportunity	• Altruism • Resistant • Reactive • Anticipatory • Innovation based on sustainability rooted	• Desire to change the world • Give a solution to environmental problems • Contribute to improving the well-being of society • Institutional support/pressure • Seek of legitimacy	• Locality versus globality • Scope, modes and location choices • Timing and speed of internationalization • International business models	• Economic, social and environmental performance • Contribution to raising the environmental and social awareness • Likelihood of survival

Source: own elaboration based on De Massis et al. (2018).

Two different *international business models* could be adopted for firms in foreign markets, namely the options in terms of the focused (niche) and mass market (broad) strategy. Most SMEs adopt a niche market due to their lack of resources and a specific technological innovation in products (Zolfaghari Ejlal Manesh & Rialp-Criado, 2019). However, incumbents may opt for mass markets due to the access to more resources, and networks. Moreover, these large and mature companies may consider these SMEs as threats and they may opt for merging or acquiring them. In such a way, they exert a pushy effect on small firms to international markets. This strategy is followed by companies in the energy sector, for instance a Spanish venture in renewable energy system "Alpha"[1]. Its most successful section is wind power, being present in different international markets. "Alpha" was created by an incumbent Spanish firm after acquiring another Spanish SME in 2007. After the merge, the international activities and participation were spurred around the world, in Europe, Africa, America, Asia and Oceania. More examples could be found in IDAE database[2].

Empirical Evidence of Internationalization Approaches in SE

In this section, empirical evidence on the intersection of international business and sustainable entrepreneurship is examined. The research on the role of sustainable involvement influencing international diversification, growth, and performance is scant due to the novelty of the subject about international sustainable entrepreneur and the fact that the role of the non-financial incentives in the process of internationalization has been neglected (Park, 2018; Zolfaghari Ejlal Manesh & Rialp-Criado, 2019). Two different current research can be gleaned from empirical research. Those studies that analyse the internationalization as one strategy within a sustainable business and those that consider the engagement in the sustainable development as a strategy to growth internationally.

SE as a Strategy for Internationalization

Sustainable business literature on international context is mainly limited about the importance of adopting greening strategies to increase performance of the big and incumbent firms (Zolfaghari Ejlal Manesh & Rialp-Criado, 2017), becoming in such a way in the discussion about how large firms increase their competitive advantage by adopting sustainable strategies, which in turn, provokes economic profit (Ambec & Lanoie, 2008; Ariño, & Canela, 2010). In this vein, Park (2018) with a sample of large firms in an

emerging country, namely South Korea, states that internationalization has both effects on sustainability. On the one hand, there is a positive effect on adopting sustainability activities due to the endeavour to avoid the liability of foreignness. On the other hand, internationalization could exert a negative impact on sustainability engagement due to the fact that subsidiaries of the emerging large companies are susceptible of being decoupled.

Likewise, SMEs has attracted attention from research community, showing that the sustainable engagement, when regarding international context, is forced by pressure of intermediaries organization, environmental regulations and competitiveness reward, especially in developing countries (Wahga et al., 2018). Moreover, foreign direct investments could be deemed as enablers to the realization of sustainable innovation strategy's firm (Aldieri & Vinci, 2019).

In the context of family firms, Hernández-Perlines and Ibarra-Cisneros (2018) in their study with 174 Spanish family firms, analysed the effect of sustainable entrepreneurial orientation in international firm performance. Their results show a positive impact and that sustainable entrepreneurial orientation explained 58.6% of the variance of the international performance of family firms.

Sustainable International Entrepreneurship

This approach focuses on the strategy of firms within the context of SE to internationalize their operations. In this vein, it could be considered a way to increase returns to scale, increase their competitive and innovative edge. Thus, it is a way to growth or become more valuable firms. In such a vein, empirical research worth noting to shed light on the differences in the internationalization process due to sustainable involvement.

Only two studies have studied the internationalization strategy from the point of view of organizational strategy. First, Zolfaghari Ejlal Manesh and Rialp-Criado (2019) study the relationship between international entrepreneurship and sustainable entrepreneurs, in an attempt to define "*international ecopreneur*" and explore what factors encourage ecopreneurs to enter the international market and how they apply their human capital and social capital to identify and ventures. They use the methodology of case study of six Spanish sustainable firms in the renewable energy industry, showing their endeavours to access international markets and how these sustainable entrepreneurs take the opportunity to start their business overseas. Their results show that the main drivers that force to enter in international markets are the sustainability issues and the desire of making the world a better place to live.

Moreover, according to their results, important determinants in the international venture are identified, namely formal and informal ties, prior international experience and education. Those have a positive influence on the decision to enter international markets. In this vein, human capital, that is, entrepreneur with previous experience coming from projects or proper education are thought to help to identify future partner to expand businesses. In particular, the education in an international context could alleviate different cultural problems by the knowledge of language and communication and business skills. In addition to the human capital, social capital or networks, both formal and informal, highlight as enablers to the identification and exploitation of international opportunities. Informal networks are for instance family and friends, which usually help in the process of international opportunity recognition and exploitation, especially in new and foreign context. Formal networks can be universities or institutions which are created by experts in a specific technology.

Second, Zolfaghari Ejlal Manesh and Rialp-Criado (2017) is the other study that focus on the relationship between sustainable firms and internationalization strategy. In the renewable energy sector

in Spain, they focus on the organizational factors, that is factors such as the importance of the firms' resources and capabilities, the relationship between the incumbent and new entrants in development of this industry, the process of commercialization and business model in the internationalization of the renewable energy companies. Their research addresses the question of how these factors can affect internationalization process. On base of their results, the Spanish firms internationalize to survive due to the lack of financial resources and the difficulty to access to funding due to the perception of being highly risky. What's more, some factors can moderate the influence of lack financial resources, such as the level of technological maturity or/and size of the firms (Almor & Hashai, 2004).

In this sector, the disadvantageous position of small firms relative to incumbent and larger firms can be explained by liabilities of newness and size. For instance, small companies cannot compete with incumbents is sector such as wind energy. Thus, speeding up the commercialization process is the driving force for renewable energy firms' internationalization, even in the pre-commercialization period. In addition to that, the age, size and level of technological maturity are claimed to be the main factors explaining the speed, scale and scope of business internationalization.

DISCUSSION AND CONCLUSION

This study brings a connection between two research streams, namely international businesses and sustainable entrepreneurship. Due to the novelty of the SE literature, major research issues remain to be explored on the intersection between both streams. In this study, we have identified two different approaches to study the topic of the interaction. First, the studies that deem the engagement in sustainability issues as a strategic decision in order to enhance their strategy of internationalization. Second, we have found studies that try to disentangle the effects that sustainable firms have on the internationalization decision-making process.

The first approach highlights the problem of the rent-seeking entrepreneurs with a focus on profit albeit considering sustainability as a strategy to gain competitive advantage (Muñoz & Cohen, 2018). In such a way, research has emphasized the positive impact of sustainability on income statement due to the increase of revenues. Despite being an opportunistic behaviour, which differs from the concept of sustainable entrepreneurship, it could become an opportunity to engage in sustainability issues. In such a way, sustainability is regarded a driver or enabler of internationalization in those countries without environmental regulations, for instance emerging or developing countries, where following sustainability issues could help to gain legitimacy in the host country.

We have focused on the second approach that struggles to get a deeper understanding of how the internationalization decision could be affected by the sustainable entrepreneurship involvement. First, we acknowledge the need for further theoretical and empirical research that accounts for the characteristics of the SE framework in its four dimensions, sustainable entrepreneur, context for SE, SE outcome and sustainability opportunity (Muñoz & Cohen, 2018). In this sense, we follow the simplification of the key aspects based on De Massis et al. (2018) and consider four major areas of research in internationalization process, locality versus globality; scope, modes and location choices; timing and speed of internationalization and, international business models. The intersection of the SE framework and the different aspects of the internationalization making decisions become a topic worth considering for future research.

Second, with regards to the decision of selling abroad, that is the decision regarding location versus globality, or generally speaking, the motivations or drivers for the internationalization decision, research has shown that motivations of sustainable entrepreneur make it easy the decision of trade overseas (Spence et al., 2011). The sustainable entrepreneurs' desire of making the world a better place to live is a global issue that ease expansion of operations overseas. Notwithstanding, some individual aspects of the sustainable entrepreneurs remains underexplored. For instance, the impact of the moral cognition on the internationalization decision. Regarding the context, institutions are regarded as driver in internationalization process, although the impact of initiatives to entering in foreign markets are not studied. In this sense, the networks and relationships with other stakeholders are worth studying due to the fact that they are thought to have great of deal of influence (Marques et al., 2018). What's more, the pressure of industry to acquire technological knowledge, could enable the propensity to open to foreign markets. The SE outcome may affect the decision of internationalization due to the search of economic prosperity mainly or the "the need to survive" (Zolfaghari Ejlal Manesh & Rialp-Criado, 2019). Although the relationship between achievement of social and ecological performance and the internationalization decision remains unexplored. With regards to the sustainability opportunity, the process of recognition of an opportunity based on sustainability roots makes it easier the internationalization of the idea due to the global impact of an environmental solution.

Third, studies in relation to scope and location decisions are scant. In this sense, the SE involvement could vary from traditional entrepreneurship in the sense of geographical decisions. For instance, the

Table 3. Some themes for future research on internationalization in SE

		SE Framework			
		Sustainable Entrepreneur	**Context for SE**	**SE Outcome**	**Sustainability Opportunity**
Internationalization Decision-Makin	Locality versus globality	Impact of moral cognition on the decision to internationalize operations	Influence that different informal institutions could have on the decision, as well as the pressure of competitors, customers, and other stakeholders	Are firms within SE in global markets more profitable than those focus on local markets?	Are the sustainability opportunity identified in global or local markets?
	Scope, location choices and modes of entry	How knowledge and skills of sustainable entrepreneur could impact on the market selection and alternative to access foreign markets	The way in which informal ties could affect scope/location decisions and modes of entry	Is the choice of geographic market affected by the search of triple benefit in SE?	Does the opportunity recognition impact on the selection of geographic markets or modes of entry?
	Timing and speed of internationalization	Are the high level of required knowledge a barrier to quick access to international markets?	Does the strong influence of institutions and stakeholders have an impact on the quick or incremental process?	The study of empirical evidence of firms within SE with slow process and quick access	Could the search of sustainability opportunity enable a slow process or by stages?
	Internationalization business models	Is the choice or mass or niche market affected by drivers of sustainable entrepreneur?	How does firms within SE choose business models in different industries?	Does the performance differ from business model based on mass or niche markets?	Does the identification of an opportunity based on sustainability roots conditionate the business model?

Source: own elaboration

proximity driver is not studied within SE. In this vein, we urge scholar to examine how the sustainable entrepreneur could affect the location decision or scope. With regards to the influence that SE involvement has on modes of entry, the need of legitimacy or knowledge requirements could emphasize the alliance or networks (Wahga et al., 2018). In this sense, it is worth studying the impact of industry or other factors in the different modes of entry.

Fourth, regarding the timing and speed of internationalization, research has shown that quick and born global is common due to the fact that many sectors or industries need to start the commercialization process before entering in new market (Zolfaghari Ejlal Manesh & Rialp-Criado, 2019). But also, it is acknowledged that knowledge has a crucial role in the internationalization process of sustainable entrepreneurship. In such a vein, evidence in the fact that tied the sustainable entrepreneur's individual knowledge with the decision of opting for quick or slow internationalization is scarce. Also, the context, namely the informal relationship of SE should differ from traditional entrepreneurship due to the importance of networks.

Fifth, with regards to the impact of SE involvement in the business model chosen, that is niche or mass market, is thought that SE could enable niche markets due to the lack of financial resources. Notwithstanding, the context for SE, especially incumbents competitors could make a pressure and affect this decision (Zolfaghari Ejlal Manesh & Rialp-Criado, 2017).

In Table 3, some questions for future research that arise from the conjunction of SE involvement and internationalization factors are outlined.

In conclusion, we have detected the opportunity to integrate both approaches, SE involvement and internationalization studies, to try to get a better understanding of internationalization of SE businesses. This study reviews the theoretical issues of the international business research, entrepreneurship theory and sustainable development approach. While the aim of this study is to address from a theoretical perspective the bridge between these disciplines, the empirical results are still not enough. This constraint becomes in turn as an opportunity to shed light in more empirical studies regarding firms or individual engaged in sustainable business.

REFERENCES

Ajzen, I. (2011). The theory of planned behaviour: Reactions and reflections. *Psychology & Health*, *26*(9), 1113–1127. doi:10.1080/08870446.2011.613995

Al Omoush, K. S., Al-Qirem, R. M., & Al Hawatmah, Z. M. (2018). The degree of e-business entrepreneurship and long-term sustainability: An institutional perspective. *Information Systems and e-Business Management*, *16*(1), 29–56. doi:10.100710257-017-0340-4

Aldieri, L., & Vinci, C. P. (2019). Firm Size and Sustainable Innovation: A Theoretical and Empirical Analysis. *Sustainability*, *11*(10), 2775. doi:10.3390u11102775

Almor, T., & Hashai, N. (2004). The competitive advantage and strategic configuration of knowledge-intensive, small- and medium-sized multinationals: A modified resource-based view. *Journal of International Management*, *10*(4), 479–500. doi:10.1016/j.intman.2004.08.002

Ambec, S., & Lanoie, P. (2008). Does it pay to be green? A systematic overview. *The Academy of Management Perspectives*, *22*(4), 45–62. doi:10.5465/amp.2008.35590353

Anbarasan, P., & Sushil. (2018). Stakeholder engagement in sustainable enterprise: Evolving a conceptual framework, and a case study of ITC. *Business Strategy and the Environment*, *27*(3), 282–299. doi:10.1002/bse.1999

Barley, S. R., & Tolbert, P. S. (1997). Institutionalization and structuration: Studying the links between action and institution. *Organization Studies*, *18*(1), 93–117. doi:10.1177/017084069701800106

Blomstermo, A., Eriksson, K., & Sharma, D. (2004). Domestic activity and knowledge development in the internationalization process of firms. *Journal of International Entrepreneurship*, *2*(3), 239–258. doi:10.1023/B:JIEN.0000032775.53005.59

Carter, N., Gartner, W., Shaver, K., & Gatewood, E. (2003). The career reasons of nascent entrepreneurs. *Journal of Business Venturing*, *18*(1), 13–39. doi:10.1016/S0883-9026(02)00078-2

Chea Hooi, H., Ahmad, N. H., Amran, A., & Abidur Rahman, S. (2016). The functional role of entrepreneurial orientation and entrepreneurial bricolage in ensuring sustainable entrepreneurship. *Management Research Review*, *39*(12), 1616–1638. doi:10.1108/MRR-06-2015-0144

Cohen, B., Smith, B., & Mitchell, R. (2008). Toward a sustainable conceptualization of dependent variables in entrepreneurship research. *Business Strategy and the Environment*, *17*(2), 107–119. doi:10.1002/bse.505

Coviello, N., & Munro, H. (1997). Network relationships and the internationalization process of small software firms. *International Business Review*, *6*(4), 361–386. doi:10.1016/S0969-5931(97)00010-3

Covin, J. G., & Slevin, D. P. (1991). A conceptual model of entrepreneurship as firm behavior. *Entrepreneurship Theory and Practice*, *16*(1), 7–26. doi:10.1177/104225879101600102

Dahlmann, F., Brammer, S., & Millington, A. (2008). Barriers to proactive environmental management in the United Kingdom: Implications for business and public policy. *Journal of General Management*, *33*(3), 1–20. doi:10.1177/030630700803300301

Das, T. K., & Teng, B. S. (2000). A resource-based theory of strategic alliances. *Journal of Management*, *26*(1), 31–61. doi:10.1177/014920630002600105

De Clercq, D., & Voronov, M. (2011). Sustainability in entrepreneurship: A tale of two logics. *International Small Business Journal*, *29*(4), 322–344. doi:10.1177/0266242610372460

de Lange, D. E. (2017). Start-up sustainability: An insurmountable cost or a life-giving investment? *Journal of Cleaner Production*, *156*, 838–854. doi:10.1016/j.jclepro.2017.04.108

De Massis, A., Frattini, F., Majocchi, A., & Piscitello, L. (2018). Family firms in the global economy: Toward a deeper understand of internationalization determinants, processes, and outcomes. *Global Strategy Journal*, *8*(1), 3–21. doi:10.1002/gsj.1199

De Palma, R., & Dobes, V. (2010). An integrated approach towards sustainable entrepreneurship—Experience from the TEST project in transitional economies. *Journal of Cleaner Production*, *18*(18), 1807–1821. doi:10.1016/j.jclepro.2010.07.025

Dean, T. J., & McMullen, J. S. (2007). Toward a theory of sustainable entrepreneurship: Reducing environmental degradation through entrepreneurial action. *Journal of Business Venturing*, *22*(1), 50–76. doi:10.1016/j.jbusvent.2005.09.003

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

Dixon-Fowler, H., Slater, D., Johnson, J., Ellstrand, A., & Romi, A. (2012). Beyond 'Does it pay to be green?' A meta-analysis of moderators of the CEP– CFP relationship. *Journal of Business Ethics*, *112*(2), 353–366. doi:10.100710551-012-1268-8

Domínguez-Escrig, E., Mallén-Broch, F. F., Lapiedra-Alcamí, R., & Chiva-Gómez, R. (2018). The influence of leaders' stewardship behavior on innovation success: The mediating effect of radical innovation. *Journal of Business Ethics*, 1–14.

Drucker, P. (1986). *Innovation and Entrepreneurship*. New York: Routledge.

Dunning, J. (1988). The eclectic paradigm of international production: A restatement and some possible extensions. *Journal of International Business Studies*, *19*(1), 1–31. doi:10.1057/palgrave.jibs.8490372

Dutta, A., & Banerjee, S. (2018). Does microfinance impede sustainable entrepreneurial initiatives among women borrowers? Evidence from rural Bangladesh. *Journal of Rural Studies*, *60*(March), 70–81. doi:10.1016/j.jrurstud.2018.03.007

Elkington, J. (1994). Towards the sustainable corporation: Win-win-win business strategies for sustainable development. *California Management Review*, *36*(2), 90–100. doi:10.2307/41165746

Fisscher, O., Frenkel, D., Lurie, Y., & Nijhof, A. (2005). Stretching the frontiers: Exploring the relationships between entrepreneurship and ethics. *Journal of Business Ethics*, *60*(3), 207–209. doi:10.100710551-005-0128-1

Fitzsimmons, J., & Douglas, E. (2011). Interaction between feasibility and desirability in the formation of entrepreneurial intentions. *Journal of Business Venturing*, *26*(4), 431–440. doi:10.1016/j.jbusvent.2010.01.001

Fuller, T., & Tian, Y. (2006). Social and symbolic capital and responsible entrepreneurship: An empirical investigation of SME narratives. *Journal of Business Ethics*, *67*(3), 287–304. doi:10.100710551-006-9185-3

García-Castro, R., Ariño, M. A., & Canela, M. A. (2010). Does social performance really lead to financial performance? Accounting for endogeneity. *Journal of Business Ethics*, *92*(1), 107–126. doi:10.100710551-009-0143-8

Ge, B., Jiang, D., Gao, Y., & Tsai, S. (2016). The Influence of Legitimacy on a Proactive Green Orientation and Green Performance: A Study Based on Transitional Economy Scenarios in China. *Sustainability*, *8*(12), 1344. doi:10.3390u8121344

Genc, E., Dayan, M., & Genc, O. F. (2019). The impact of SME internationalization on innovation: The mediating role of market and entrepreneurial orientation. *Industrial Marketing Management*, *82*, 253–264. doi:10.1016/j.indmarman.2019.01.008

Ghauri, P. N., Tasavori, M., & Zaefarian, R. (2014). Internationalisation of service firms through corporate social entrepreneurship and networking. *International Marketing Review*, *31*(6), 576–600. doi:10.1108/IMR-09-2013-0196

Hahn, T., Pinkse, J., Preuss, L., & Figge, F. (2015). Tensions in corporate sustainability: Towards an integrative framework. *Journal of Business Ethics*, *127*(2), 97–316. doi:10.100710551-014-2047-5

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

Hechavarría, D. M. (2016). Mother nature's son? The impact of gender socialization and culture on environmental venturing. *International Journal of Gender and Entrepreneurship*, *8*(2), 137–172. doi:10.1108/IJGE-10-2015-0038

Hernández-Perlines, F., & Ibarra-Cisneros, M. (2018). The Role of Environment in Sustainable Entrepreneurial Orientation. The Case of Family Firms. *Sustainability*, *10*(6), 2037. doi:10.3390u10062037

Hitt, M., Ireland, D., Sirmon, D., & Trahms, C. (2011). Strategic entrepreneurship: Creating value for individuals, organizations, and society. *The Academy of Management Perspectives*, *25*(2), 57–75.

Hörisch, J., Kollat, J., & Brieger, S. (2017). What influences environmental entrepreneurship? A multilevel analysis of the determinants of entrepreneurs' environmental orientation. *Small Business Economics*, *48*(1), 47–69. doi:10.100711187-016-9765-2

Hull, C. E., Hung, Y. T. C., Hair, N., Perotti, V., & DeMartino, R. (2007). Taking advantage of digital opportunities: A typology of digital entrepreneurship. *International Journal of Networking and Virtual Organisations*, *4*(3), 290–303. doi:10.1504/IJNVO.2007.015166

Hymer, S. (1976). *International Operations of National Firms: A Study of Direct Foreign Investment*. Cambridge, MA: The MIT Press.

Isaak, R. (2002). The making of the ecopreneur. *Greener Management International*, *38*(38), 81–91. doi:10.9774/GLEAF.3062.2002.su.00009

Johanson, J., & Vahlne, J. E. (1977). The internationalization process of the firm – a model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies*, *8*(1), 23–32. doi:10.1057/palgrave.jibs.8490676

Kant, M. (2018). Corrigendum: Overcoming Barriers to Successfully Commercializing Carbon Dioxide Utilization. *Frontiers in Energy Research*, *6*(September), 1–19.

Katsikis, I.N., & Kyrgidou, L.P. (2007). The concept of sustainable entrepreneurship: A conceptual Framework and empirical analysis. *Academy of Management Proceedings*, *2007*(1), 1-6.

Kirkwood, J., & Walton, S. (2010). What motivates ecopreneurs to start businesses? *International Journal of Entrepreneurial Behaviour & Research*, *16*(3), 204–228. doi:10.1108/13552551011042799

Klewitz, J., & Hansen, E. G. (2014). Sustainability-oriented innovation of SMEs: A systematic review. *Journal of Cleaner Production*, *65*, 57–75. doi:10.1016/j.jclepro.2013.07.017

Koe, W., Omar, R., & Rizal, J. (2020). Factors Influencing Propensity to Sustainable Entrepreneurship of SMEs in Malaysia. *Procedia: Social and Behavioral Sciences*, *172*, 570–577. doi:10.1016/j.sbspro.2015.01.404

Kraus, S., Burtscher, J., Niemand, T., Roig-Tierno, N., & Syrjä, P. (2017). Configurational paths to social performance in SMEs: The interplay of innovation, sustainability, resources and achievement motivation. *Sustainability*, *9*(10), 1828. doi:10.3390u9101828

Kraus, S., Burtscher, J., Vallaster, C., & Angerer, M. (2018). Sustainable Entrepreneurship Orientation: A Reflection on Status-Quo Research on Factors Facilitating Responsible Managerial Practices. *Sustainability*, *10*(2), 444. doi:10.3390u10020444

Krueger, N. Jr, Reilly, M., & Carsrud, A. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, *15*(5), 411–432. doi:10.1016/S0883-9026(98)00033-0

Kuckertz, A., & Wagner, M. (2010). The influence of sustainability orientation on entrepreneurial intentions – investigating the role of business experience. *Journal of Business Venturing*, *25*(5), 524–539. doi:10.1016/j.jbusvent.2009.09.001

Kuivalainen, O., Sundqvist, S., Saarenketo, S., McNaughton, R. B., D'Angelo, A., Majocchi, A., ... Buck, T. (2013). Geographical pathways for SME internationalization: Insights from an Italian sample. *International Marketing Review*, *30*(2), 80–105. doi:10.1108/02651331311314538

Laghzaoui, S. (2011). SMEs' internationalization: An analysis with the concept of resources and competencies. *Journal of Innovation Economics Management*, *1*(4), 181–196. doi:10.3917/jie.007.0181

Leiserowitz, A., Kates, R., & Parris, T. (2006). Sustainability values, attitudes, and behaviors: A review of multinational and global trends. *Annual Review of Environment and Resources*, *31*(1), 413–444. doi:10.1146/annurev.energy.31.102505.133552

Leonidou, L. C., Katsikeas, C. S., & Piercy, N. F. (1998). Identifying managerial influences on exporting: Past research and future directions. *Journal of International Marketing*, *6*(2), 74–102. doi:10.1177/1069031X9800600209

Ligthelm, A. A. (2010). Entrepreneurship and small business sustainability. *Southern African Business Review*, *14*(3), 131–153.

Marques, C. S., Gerry, C., Marques, C. P., Susana, C., Gerry, C., Peixeira, C., ... Gerry, C. (2018). The long road from one-size-fits-all SME promotion to bespoke business start-ups bespoke business start-ups. *European Planning Studies*, *26*(11), 2216–2236. doi:10.1080/09654313.2018.1530145

McDougall, P., & Oviatt, B. (2005). Defining international entrepreneurship and modeling the speed of internationalization. *Entrepreneurship Theory and Practice*, *29*(5), 537–554. doi:10.1111/j.1540-6520.2005.00097.x

McWilliams, A., & Siegel, D. (2001). Corporate social responsibility: A theory of the firm perspective. *Academy of Management Review*, *26*(1), 117–127. doi:10.5465/amr.2001.4011987

Meek, W. R., Pacheco, D. F., & York, J. G. (2010). The impact of social norms on entrepreneurial action: Evidence from the environmental entrepreneurship context. *Journal of Business Venturing*, *25*(5), 493–509. doi:10.1016/j.jbusvent.2009.09.007

Miller, D. (1983). The correlates of entrepreneurship in three types of firms. *Management Science*, *29*(7), 770–791. doi:10.1287/mnsc.29.7.770

Muñoz, P., & Cohen, B. (2018). Sustainable Entrepreneurship Research: Taking Stock and looking ahead. *Business Strategy and the Environment*, *27*(3), 300–322. doi:10.1002/bse.2000

Muñoz, P., & Dimov, D. (2017). Moral intensity as catalyst for opportunities for sustainable development. In *The World Scientific Reference on Entrepreneurship* (Vol. 3, pp. 225–247). Sustainability, Ethics, and Entrepreneurship. doi:10.1142/9789813220614_0009

Nikolaou, I. E., Tasopoulou, K., & Tsagarakis, K. (2018). A Typology of Green Entrepreneurs Based on Institutional and Resource-based Views. *The Journal of Entrepreneurship*, *27*(1), 111–132. doi:10.1177/0971355717738601

Park, S.-B. (2018). Multinationals and sustainable development: Does internationalization develop corporate sustainability of emerging market multinationals? *Business Strategy and the Environment*, *27*(8), 1514–1524. doi:10.1002/bse.2209

Parrish, B., & Foxon, T. (2009). Sustainability entrepreneurship and equitable transitions to a low-carbon economy. *Greener Management International*, *55*, 47–62.

Patzelt, H., & Shepherd, D. (2010). Recognizing opportunities for sustainable development. *Entrepreneurship Theory and Practice*, *35*(4), 631–652. doi:10.1111/j.1540-6520.2010.00386.x

Pervan, S., Al-Ansaari, Y., & Xu, J. (2015). Environmental determinants of open innovation in Dubai SMEs. *Industrial Marketing Management*, *50*, 60–68. doi:10.1016/j.indmarman.2015.05.029

Popescu, C. R., & Banța, V. C. (2019). Performance Evaluation of the Implementation of the 2013/34/EU Directive in Romania on the Basis of Corporate Social Responsibility Reports. *Sustainability*, *11*(9), 2531. doi:10.3390u11092531

Popescu, C. R., Popescu, V. A., & Popescu, G. N. (2015). The Entrepreneur's Role in the Performance Growth of the Financial Audit Activity in Romania. *Amfiteatru Economic*, *17*(38), 228–246.

Ratten, V., Ramadani, V., Dana, L. P., Hoy, F., & Ferreira, J. (2017). Family entrepreneurship and internationalization strategies. *Review of International Business and Strategy*, *27*(2), 150–160. doi:10.1108/RIBS-01-2017-0007

Raymond, L., Bergeron, F., Croteau, A. M., & St-Pierre, J. (2015, January). Entrepreneurial orientation and e-business capabilities of manufacturing SMEs: an absorptive capacity lens. In *2015 48th Hawaii International Conference on System Sciences* (pp. 3740–3749). IEEE. 10.1109/HICSS.2015.450

Rugman, A. M., & Verbeke, A. (2004). A perspective on regional and global strategies of multinational enterprises. *Journal of International Business Studies*, *35*(1), 3–18. doi:10.1057/palgrave.jibs.8400073

Šabasevičienė, V., & Grybaitė, V. (2014). Main foreign direct investment factors as precondition of sustainable. *Entrenreneruship and Sustainaibility Issues*, *1*(4), 230–238. doi:10.9770/jesi.2014.1.4(5)

Sahlman, W. A. (1996). Some thoughts on business plans. In V. Sahlman, H. Stevenson, M. Roberts, & A. Bhide (Eds.), *Entrepreneurial Venture* (pp. 138–176). Boston, MA: Harvard Business School Oress.

Sarango-Lalangui, P., Santos, J. L. S., & Hormiga, E. (2018). The development of sustainable entrepreneurship research field. *Sustainability (Switzerland)*, *10*(6), 1–19.

Schaefer, K., Corner, P. D., & Kearins, K. (2015). Social, environmental and sustainable entrepreneurship research: What is needed for sustainability-as-flourishing? *Organization & Environment*, *28*(4), 394–413. doi:10.1177/1086026615621111

Schaltegger, S. (2002). A framework for ecopreneurship. *Greener Management International*, *38*(38), 45–58. doi:10.9774/GLEAF.3062.2002.su.00006

Schaltegger, S., Beckmann, M., & Hockerts, K. (2018). Collaborative entrepreneurship for sustainability. Creating solutions in light of the UN sustainable development goals. *International Journal of Entrepreneurial Venturing*, *10*(2), 131–152. doi:10.1504/IJEV.2018.092709

Schaltegger, S., & Wagner, M. (2011). Sustainable entrepreneurship and sustainability innovation: Categories and interactions. *Business Strategy and the Environment*, *20*(4), 222–237. doi:10.1002/bse.682

Schaper, M. (2002). The essence of ecopreneurship. *Greener Management International*, *38*(38), 26–30. doi:10.9774/GLEAF.3062.2002.su.00004

Scheepers, M. J., Hough, J., & Bloom, J. Z. (2007). Entrepreneurial intensity: A comparative analysis of established companies in South Africa. *South African Journal of Economic and Management Sciences*, *10*(2), 238–255. doi:10.4102ajems.v10i2.585

Schlange, L. E. (2006). Stakeholder identification in sustainability entrepreneurship. The role of managerial and organizational cognition. *Greener Management International*, *55*(55), 13–32. doi:10.9774/GLEAF.3062.2006.au.00004

Schueffel, P., Baldegger, R., & Amann, W. (2014). Behavioral patterns in born-again global firms Towards a conceptual framework of the internationalization activities of mature SMEs. *Multinational Business Review*, *22*(4), 418–441. doi:10.1108/MBR-06-2014-0029

Schumpeter, J. (2003). Theorie der wirtschaftlichen Entwicklung. In *Joseph Alois Schumpeter* (pp. 5–59). Boston, MA: Springer. doi:10.1007/0-306-48082-4_2

Shane, S. A., Locke, E. A., & Collins, C. J. (2003). Environmental motivation. *Human Resource Management Review*, *12*(2), 257–279. doi:10.1016/S1053-4822(03)00017-2

Shepherd, D. A., & Patzelt, H. (2011). The new field of sustainable entrepreneurship: Studying entrepreneurial action linking "What is to be sustained" with "What is to be developed.". *Entrepreneurship Theory and Practice*, *35*(1), 137–163. doi:10.1111/j.1540-6520.2010.00426.x

Silajdžić, I., Kurtagić, S. M., & Vučijak, B. (2015). Green entrepreneurship in transition economies: A case study of Bosnia and Herzegovina. *Journal of Cleaner Production*, *88*, 376–384. doi:10.1016/j.jclepro.2014.07.004

Spence, M., Gherib, J. B. B., & Biwolé, V. O. (2011). Sustainable Entrepreneurship: Is Entrepreneurial will Enough? A North–South Comparison. *Journal of Business Ethics*, *99*(3), 335–367. doi:10.100710551-010-0656-1

Steinz, H. J., Van Rijnsoever, F. J., & Nauta, F. (2016). How to Green the red Dragon: A Start-ups' Little Helper for Sustainable Development in China. *Business Strategy and the Environment*, *25*(8), 593–608. doi:10.1002/bse.1899

Stevenson, H. H., & Gumpert, D. E. (1985). The heart of entrepreneurship. *Harvard Business Review*, *63*(2), 85–95.

Stubbs, W. (2017). Sustainable entrepreneurship and B Corps. *Business Strategy and the Environment*, *26*(3), 331–344. doi:10.1002/bse.1920

Tata, J., & Prasad, S. (2015). CSR communication: An impression management perspective. *Journal of Business Ethics*, *132*(4), 765–778. doi:10.100710551-014-2328-z

Tilley, F., & Young, W. (2009). Sustainability Entrepreneurs: Could They Be the True Wealth Generators of the Future? *Greener Management International*, *55*, 79–92.

Urbaniec, M. (2018). Sustainable entrepreneurship: Innovation-related activities in European enterprises. *Polish Journal of Environmental Studies*, *27*(4), 1773–1779. doi:10.15244/pjoes/78155

Vélez-Ocampo, J., Govindan, K., & González-Pérez, M. A. M. A. (2017). Internationalization of Mexican family firms: The cases of Xignux and Grupo Alfa. *Review of International Business and Strategy*, *27*(2), 180–198. doi:10.1108/RIBS-10-2016-0058

Verbong, G., Geels, F., & Raven, R. (2008). Multi-niche analysis of dynamics and policies in Dutch renewable energy innovation journeys (1970–2006): Hype-cycles, closed networks and technology-focused learning. *Technology Analysis and Strategic Management*, *20*(5), 555–573. doi:10.1080/09537320802292719

Vlasov, M., Bonnedahl, K. J., & Vincze, Z. (2018). Entrepreneurship for resilience : Embeddedness in place and in trans-local grassroots networks. *Journal of Enterprising Communities: People and Places in the Global Economy*, *12*(3), 374–394. doi:10.1108/JEC-12-2017-0100

Wahga, A. I., Blundel, R., & Schaefer, A. (2018). Understanding the drivers of sustainable entrepreneurial practices in Pakistan' s leather industry A multi-level approach. International. *Journal of Entrepreneurial Behavior & Research*, *24*(2), 382–407. doi:10.1108/IJEBR-11-2015-0263

Walley, E. E., & Taylor, D. W. (2002). Opportunists, Champions, Mavericks . . .? A Typology of Green Entrepreneurs. *Greener Management International*, *38*(38), 31–43. doi:10.9774/GLEAF.3062.2002.su.00005

White, P. (2009). Building a sustainability strategy into the business. *Corporate Governance: The International Journal of Business in Society, 9*(4), 386–394.

Wiek, A., Ness, B., Schweizer-Ries, P., Brand, F., & Farioli, F. (2012). From complex systems analysis to transformational change: A comparative appraisal of sustainability science projects. *Sustainability Science*, *7*(1), 5–24. doi:10.100711625-011-0148-y

Williamson, O. (1975). *Markets and hierarchies: Analysis and antitrust implications*. New York: Free Press.

World Commission on Environment and Development. (1987). *Our Common Future: From One Earth to One World*. Oxford, UK: Oxford University Press.

York, J. G., & Venkataraman, S. (2010). The entrepreneur-environment nexus: Uncertainty, innovation, and allocation. *Journal of Business Venturing*, *25*(5), 449–463. doi:10.1016/j.jbusvent.2009.07.007

Zahra, S. A. (2015). Corporate entrepreneurship as knowledge creation and conversion: The role of entrepreneurial hubs. *Small Business Economics*, *44*(4), 727–735. doi:10.100711187-015-9650-4

Zhang, C., & Dhaliwal, J. (2009). An investigation of resource-based and institutional theoretic factors in technology adoption for operations and supply chain management. *International Journal of Production Economics*, *120*(1), 252–269. doi:10.1016/j.ijpe.2008.07.023

Zolfaghari Ejlal Manesh, S. M., & Rialp-Criado, A. (2017). Internationalization to survive; the case of renewable energy companies in Spain. *Competitiveness Review*, *27*(4), 306–334. doi:10.1108/CR-09-2015-0076

Zolfaghari Ejlal Manesh, S. M., & Rialp-Criado, A. (2019). International ecopreneurs: The case of eco-entrepreneurial new ventures in the renewable energy industry. *Journal of International Entrepreneurship*, *17*(1), 103–126. doi:10.100710843-017-0222-3

ENDNOTES

1 It is not the real name. The name is given by the authors in their study (Zolfaghari Ejlal Manesh & Rialp-Criado, 2019).

2 The Institute for Diversification and Saving of Energy (part of Ministry of Industry, Energy and Tourism agency of Spain).

Chapter 8
Assessing Regional Advantage Based on Smart Specialisation Strategies

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ABSTRACT

Making smart regions smarter through smart specialization strategies (RIS3) is today on the political and economic agenda. In this context, it becomes a priority to know the regional stakeholders' perception of RIS3, based on the prioritization of the use of resources and capacities in their territories. The aim of this study is to perform a bibliometric analysis with the keywords smart specialization, regional innovation systems, and value, rareness, imitability, and organization (VRIO). The authors aim to contribute to the clarification of the literature on regional innovation ecosystems. They also intend to suggest a new model that allows the VRIO model to be adapted to the territories. Through extensive research using the Web of Science database, five clusters were identified (multiple helix; smart specialization and RIS3; innovation and entrepreneurship; regional policies and knowledge transfer and technology commercialization; regional growth, entrepreneurial, and innovative ecosystem), whose content analysis allowed to construct the conceptual regional helix assessment model.

DOI: 10.4018/978-1-7998-2704-7.ch008

1. INTRODUCTION

Research on innovation, entrepreneurship, and competitiveness has intensified over time. The emergence of new regional innovation policies in the general public policy stream is a consequence of recent economic crises, as well as the result of more than four decades of research. This study takes new positions on the role of entrepreneurship and innovation in regional economic development, highlighting the importance of collaborative networks.

Currently, the world is composed of "smart regions" and "smart cities"(Kourtit & Nijkamp, 2018; Lopes & Franco, 2017; Markkula & Kune, 2015). Successful regional entrepreneurship and innovation ecosystems have been formed from a solid knowledge base, reconciling a network of complementary innovation processes with combinations of innovation resources (talent, funding, and infrastructure).

Entrepreneurship and innovation ecosystems are defined by the combinations of social, political, economic and cultural elements in a region. These ecosystems support the development and growth of innovative start-ups. (Lopes, Farinha, & Ferreira, 2018; Spigel & Harrison, 2018) encourage entrepreneurs in their early stages to take the risks to start the business (Spigel, 2017).

The triple (industry, government and academia) and quadruple (industry, government, academia, and society) helixes are increasingly recognized as a source of regional innovation, which encourages the transformation of scientific and technological research results into economic outcomes, in particular as reference for the development of Research and Innovation Strategies for Smart Specialization (RIS3In recent decades, it has been revealed that the dynamics of interaction between triple helix agents have resulted in important advances in the field of innovation, supported in some cases by collaborative projects supported by public funds.This thinking has gained increasing acceptance as a promising structured regional approach in a knowledge-based economy (Carayannis, Grigoroudis, Campbell, Meissner, & Stamati, 2018; Etzkowitz, 2003; Etzkowitz & Leydesdorff, 2000).

With the implementation of RIS3 in the European Union (EU), it is expected that the most developed economies in R&D systems will be able to invest in the creation of new intensive activities with a strong science component. In contrast, the least developed economies should focus their R&D on areas where the industry has already was implemented" (Foray, David, & Hall, 2009; Foray *et al.*, 2012). RIS3 has changed our understanding of the role innovation plays in economic development, focusing on the regions.

When RIS3 came into being, regions had to select smart specialization domains, as well as their priorities, in areas where the region has a relative advantage. RIS3 consists of investing in knowledge, human capital, industrial and technological capital, and territorial skills (Camagni & Capello, 2013; Muller, Zenker, Hufnagl, Heraud, *et al.*, 2017). RIS3 highlighted the key role played by Higher Education Institutions (HEI) in regional development (Secundo, Perez, Martinaitis, & Leitner, 2017). HEIs represent sources of entrepreneurial activities through leadership, knowledge and technology transfer, as well as their commercialization (Klofsten & Jones-Evans, 2000; Lopes, Ferreira, Farinha, & Raposo, 2018).

HEIs currently have three missions. However, traditionally, the mission of HEIs focused only on research and teaching. However, regional governments began to encourage HEIs to spread their learning processes by transferring knowledge to society (Etzkowitz, Webster, Gebhardt, & Terra, 2000). Over time, more and more academic participants engage in entrepreneurial activities. These activities were considered as a "third mission" of HEIs, as well as the means for their qualification as entrepreneurial universities. (Laredo, 2007).

In the regional context, academic entrepreneurship has gained increasing recognition as a source of new knowledge and technologies, as well as serving as a driver for the development of a knowledge-based society (Lopes, Ferreira, *et al.*, 2018).

In this alignment, several authors have been focusing their research on finding new models to measure the international competitiveness associated with companies located in a given country or territory (eg, Buckley et al. 1990, Silva 1996, Coviello et al. 1998, Doyle & Wong 1998, Özçelik & Taymaz 2004, Tiits et al. 2015, Landika, Sredojevic, & Jakupovic 2018). Thus, a gap persists in the literature which takes into account the specific characteristics and resources of the regions to increase their competitiveness by increasing their socioeconomic performance. To address these inefficiencies, regions, and policymakers need to increase their competitiveness, based on the resources and capacities of regions, through advanced innovation by adopting a model of socio-economic development for the regions. Thus, the objective of the present study is to perform a bibliometric analysis with the keywords smart specialization, regional innovation systems and VRIO. We aim to contribute to the clarification of the literature on regional innovation ecosystems. We also intend to suggest a new model that allows the VRIO model to be adapted to the territories (regions, countries or groups of countries). With this new model it will be possible to analyze the perceptions of stakeholders from the perspective of the different dimensions of smart specialization policies.

The structure of this chapter is as follows: the first section introduces the introduction, where the context of the theme under analysis is made and the purpose of the study is clarified. In the second section comes the literature review, aiming at a better understanding of the state of the art. The third section presents the methodology followed in the study, followed by the analysis and discussion of the results. Finally, there is the section of conclusions and limitations associated with this study, and further research lines are highlighted.

2. LITERATURE REVIEW

2.1. Regional Innovation Ecosystem

Over the past two decades, many empirical contributions have demonstrated the importance role that innovation plays in regional growth. In this context, the ability to innovate is one of the main determinants of competitiveness and economic performance. The regions that innovate most often are those that invest the most in R&D and are more likely to boost their economic returns. Innovation activity can determine the economic success of a region (Evangelista, Meliciani, & Vezzani, 2018; Lopes & Franco, 2017; Lundvall, 1999).

The triple helix model is composed of the interactive relations between three institutional spheres (industry-government-academy). The relations of the institutions are decisive for the creation of knowledge. Knowledge represents the key to increasing production thus making interactions between the three actors stable. The triple helix model assumes that innovation and entrepreneurship provide the catalyst for competitiveness and regional development. Key features of this dynamic growth include cooperation between institutional spheres and business sophistication, resulting in the creation of wealth and employment from academically launched R&D and innovation and then transferred to industry with government support (figure 1) (Farinha, Ferreira, & Gouveia, 2016; Leydesdorff, 2012). As a result of

Figure 1. Triple helix model
Source: Farinha and Ferreira (2016)

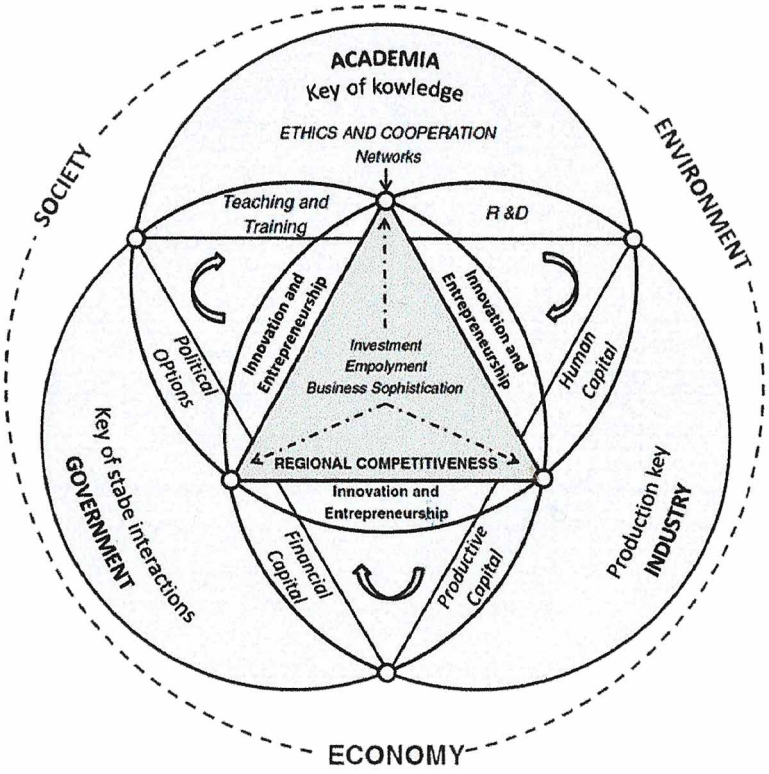
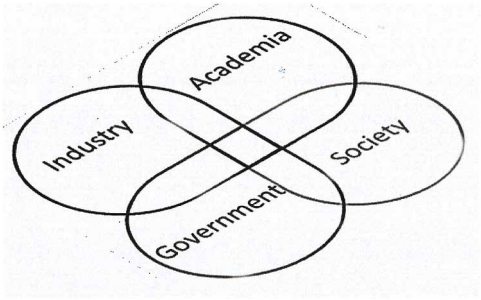


Figure 2. Quadruple helix model



the constant evolution of economies and society, the triple helix model evolved into quadruple helix, adding civil society to the model.

The quadruple helix emphasizes the importance of integrating civil society. The quadruple helix is composed of the interactive relationships between industry, government, academia, and society (figure 2). From quadruple helix emerges an ecosystem of knowledge and innovation, well-configured for the knowledge economy and society (Carayannis & Campbell, 2009).

In terms of regional innovation systems (RIS), the increase of the dynamics of interaction between stakeholders results in wealth creation, employment creation and consequent increased levels of quality of living (Michie & Oughton, 2001; Muscio, Reid, & Leon, 2015).

RIS is defined as a system in which companies and other organizations are systematically engaged in interactive learning through an institutional environment characterized by innovation (Cooke, Uranga, & Etxebarria, 1998). Nowadays, the concept of RIS does not appear so often in the literature as the European Union changed its political agenda in 2014. These new policies are called research and innovation strategies for smart specialization (RIS3) and are based on the smart specialization of regions.

Smart specialization is a strategy to support the socioeconomic development of the US, based on the identification of priority areas and industries on a regional level, while stimulating the development of collaborative projects, based on innovation processes. (Markkula & Kune, 2015).

The goal of the smart specialization is to create unique advantages that are hard to copy. The concepts of interconnected knowledge, technology, innovation, and expertise are concepts that must be put in place for any economy to evolve (Fagerberg, 2005; Schumpeter, 1950; Tiits, Kalvet, & Mürk, 2015). Thus, smart specialization can be said to include a vision of development process, identifying territorial strengths and weaknesses, defining strategic priorities and making use of smart policies to maximize the potential for knowledge progress in the regions (Martínez-López & Palazuelos-Martínez, 2014).

RIS3 consists of investing in knowledge, human capital, industrial and technological capital, and the skills of the territories. Thus, RIS3 highlights the role of knowledge, technology, and innovation for economic development and social welfare (Camagni & Capello, 2013; Foray, 2014; Tiits, Kalvet, & Mürk, 2015).

The role of higher education institutions (HEIs) has materialized in building bridges between knowledge and business practice, making their applied research available to regional innovation ecosystems. The contribution of HEIs in their various roles is crucial for the development of the regions. In many countries, HEIs are taking an increasingly active role in regional development and the interface of universities, industry, government, and society (Quadruple Helix). Co-creation, exploration of knowledge and exploitation of opportunities are important concepts and facilitators of innovation. The third mission of the IES is essential to maintain active regional innovation ecosystems through applied research production and knowledge and technology transfer (Carayannis *et al.*, 2018; Lopes, Farinha, *et al.*, 2018; Markkula & Kune, 2015).

For regional innovation systems to be effective, it is important to consider the resources and capabilities underlying the region in which they operate.

2.2. Resource-Based View and VRIO Model Background

The theory of the resource-based view (RBV) was created with the objective of developing tools to investigate the position of companies associated with the resources used by them. Resources and capabilities are key aspects of strategy design, becoming evident as the relationship between resources, capabilities, competitive advantages and profitability are realized (Grant, 1991; Wernerfelt, 1984). From this perspective, companies can be viewed as a collection of productive resources, identifying the basis for creating competitive advantage (Backman, Verbeke, & Schulz, 2017; Barney, 1991), as well as value for the company and the creation of barriers to new companies that may emerge as competitors (Grant, 1991; Wernerfelt, 1984).

Wernerfelt (1984), in his theoretical contribution to the development of regions, defined a resource as anything that can be thought of as the strength or weakness of a given organization. As an example, resources may be goods and equipment, individual skills, patents, financial or creative resources. These resources are monitored by the organization and will enable the implementation of efficient and effective strategies (Barney, 1991). Resources can be classified into five categories: 1) human resources; 2) financial resources; 3) physical resources; 4) individual resources and 5) organizational resources (Barney & Hesterly, 2007).

According to Grant (1991), "capacity" is the condition that a set of resources has to perform an activity in an integrated manner. Resources are the source of the organization's capabilities, while capabilities are the essential sources of competitive advantage. Resources and capabilities, when well exploited and linked to market opportunities, become core competencies that will provide the organization with differentiation and become a competitive advantage.

Some tools were developed based on RBV. The "Value, Rarity, Imitability and Implemented in the Organization" (VRIO) model serves as a means of application of the RBV. These tools appear to assist in the internal analysis of the organization from the perspective of resources and capabilities and their impact on competitive advantage (Barney & Hesterly, 2007). The VRIO model consists of four dimensions of relevance to resources that achieve real and sustainable advantages: "Value, Rarity, Imitation, and Implementation in the Organization" (Barney, 1991; Barney & Wright, 1998). The VRIO framework examines an organization's activities and identifies capabilities that can improve a company's competitive position in the marketplace (Andersen, 2011). Thus, the following research question was asked: How to apply the VRIO Model to regionsStarting from the valuation of resources and capabilities intrinsic to organizations, it is now pertinent to adapt the VRIO model to the regions as a strategic tool for performance evaluation. Regions have fields of expertise, unique characteristics, differentiated human resources, and different infrastructures.

3. RESEARCH METHODOLOGY

Bibliometric studies have been increasingly developed in the social sciences and are being used as an alternative to systematic literature reviews (Ferreira, Li, Reis, & Serra, 2014; Marques, Reis, & Gomes, 2018; Teixeira, Iwamoto, & Medeiros, 2013). Bibliometrics consists of the quantitative study of published physical units, or bibliographic units, or substitutes for any of them (Broadus, 1987). The principle of bibliometrics is to analyze scientific or technical activity through quantitative studies of publications, and quantitative indicators, in addition to supporting the understanding of the dynamics of science and technology, also function as tools for policy planning and decision making in a particular area (Medeiros & Russo, 2018; Santos, 2003). The bibliometric analysis provides useful information for academics and practitioners who study and want to deepen their knowledge within a particular field of research (Duque Oliva, Cervera Taulet, & Rodríguez Romero, 2006).

This study bases its epitemological construction on five fundamental principles: 1) clearly defining objectives with predefined eligibility criteria for the study; 2) apply an explicit and reproducible methodology; 3) seek to systematize and identify all studies that meet the search criteria; 4) evaluate and validate the results of the included studies; 5) present a systematization of the characteristics and results of the included studies (Higgins & Green, 2011; Medeiros & Russo, 2018).

Table 1. Method

Steps	Applied Criteria	No. of Publications
1st step	Base de dados WoS	-
2nd step	Studies published until June 31, 2018 (research date)	-
3rd step	Search Terms: "Smart special *" or "Regional Innovat * Syst *" or "VRIO"	292
4th step	Only "articles" were selected for analysis	172

Documents found in this study met the predefined inclusion criteria to determine the relevance of the study in: i) studies that are available in Web of Science Core Collection (WoS); ii) Studies published until June 31, 2018 (date of the research); iii) Include as search keywords "Smart specialisation" or "Regional Innovation Systems" or "VRIO"; iv) Only articles for analysis were selected (Table 1).

The WoS database was chosen for the present research as it is widely recognized by researchers as a multidisciplinary scientific database comprising thousands of high impact scientific conference and journal publications in the sciences, social sciences, arts and humanities from 1900 (Mota, Pinto, Paranhos, & Hasenclever, 2017).

3.1 Results

The scope of this analysis covers all available articles, languages, and countries because the purpose of this research is to arrive at a model of socio-economic development for the regions considering the resources and capacities of the regions.

3.1.1 Authors With the Greatest Productivity

Many authors from a wide variety of backgrounds have conducted research on smart specialization, regional innovation systems, and VRIO by publishing their findings in scientific journals indexed in Thomson Reuters Web of Science. This section displays, the 37 most impactful authors in the field of study (table 2). However, in the 172 articles, there are 380 authors.

Table 2 analyses the total number of citations as well as the number of articles published on the theme by the author. This ranking also provides a country where the authors developed their research activity. The most prolific author on the subject is Barney, JB and Wright, PM with a published article, 579 times cited. Over the years, Barney, JB has developed his research in various fields such as management, business, applied psychology, operations research management science and economics. Wright, PM has developed his research in the field of management, applied psychology, business, industrial relations labor and social psychology. However, the author with the most articles published is Mccann, P, and Ortega-Argiles, R (six) who have 224 citations. It should be noted that most of these researchers work in the USA, Sweden, and the Netherlands. Nevertheless, a remarkably large number of authors work in Austria, Lithuania, Italy and other countries in Europe.

Table 2. Most important authors in the literature

Rank	Author	Country	Documents	Citations	Rank	Author	Country	Documents	Citations
1	Barney, JB	USA	1	579	20	Arend, RJ	USA	1	20
2	Wright, PM	USA	1	579	21	Levesque, M	Canada	1	20
3	Mccann, P	Netherlands	6	224	22	De Geus, S	Netherlands	1	17
4	Ortega-Argiles, R	Netherlands	6	224	23	Dogaru, T	Spain	1	17
5	Capello, R	Italy	5	104	24	Van Oort, F	Netherlands	1	17
6	Kozlenkova, IV	USA	1	97	25	Karo, E	Estonia	1	15
7	Palmatier, RW	USA	1	97	26	Kattel, R	Estonia	1	15
8	Samaha, SA	USA	1	97	27	Morgan, K	Wales	2	14
9	Camagni, R	Italy	1	84	28	Muscio, A	Italy	2	14
10	Beard, JW	USA	1	57	29	Reimeris, R	Lithuania	2	14
11	Sumner, M	USA	1	57	30	Leon, LR	Belgium	1	14
12	Andersen, J	Sweden	1	54	21	Reid, A	Belgium	1	14
13	Kroll, H	Germany	4	46	32	Carayannis, EG	USA	1	11
14	Martinaitis, Z	Lithuania	3	23	33	Edelkina, A	Russia	1	11
15	Naldi, L	Sweden	1	23	34	Matzler, K	Austria	1	11
16	Nilsson, P	Sweden	1	23	35	Meissner, D	Russia	1	11
17	Westlund, H	Sweden	1	23	36	Peters, M	Austria	1	11
18	Wixe, S	Sweden	1	23	37	Siller, L	Austria	1	11
19	Paliokaite, A	Lithuania	2	21	-	-	-	-	-

3.2 Most Productive Journals

This research identifies 105 journals that publish in the field under study. Table 3 presents the 35 most productive journals.

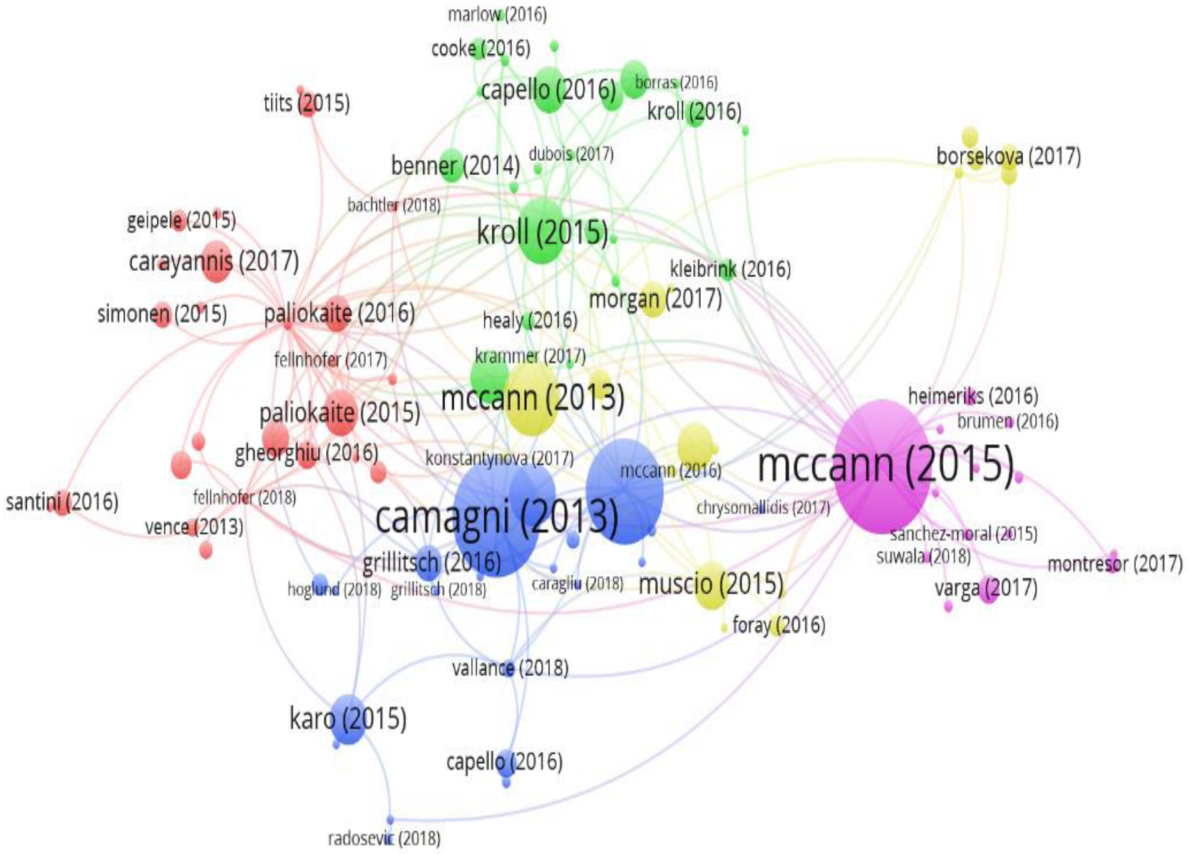
As noted in Table 3, two journals stand out: European Planning Studies with 22 published articles and Journal of the Knowledge Economy with 9 published articles. Regarding citations, Human Resource Management stands out with 579 citations (article by the authors Barney and Wright (1998)), the journal Regional Studies gathers 105 citations. European Planning Studies and the Journal of The Academy of Marketing Science presents 97 citations.

Regarding the impact factor (IF) evaluation of the publications included in this study, in a quality recognition approach to the published research, we highlight the Journal of Academy of Marketing Science, with an IF 8.488, the Journal of Strategic Information Systems, with an IF 4,313, and the Cambridge Journal of Regions Economy and Society with an IF 3,968.

Table 3. Journals with a greater number of studies

Rank	Journal	Number of Publications	Citations	Impact Factor 2017
1	European Planning Studies	22	97	1.863
2	Journal of the Knowledge Economy	9	25	-
3	Technological Forecasting and Social Change	6	27	3.129
4	Environment and Planning C-Politics and Space	5	12	1.864
5	Management Decision	4	68	1.525
6	Regional Studies	4	105	3.147
7	Technology Innovation Management Review	4	10	-
8	Miscellanea Geographica	3	0	-
9	Science and Public Policy	3	12	1.368
10	Argumenta Oeconomica	2	0	0.178
11	Cambridge Journal of Regions Economy and Society	2	65	3.968
12	Environment and Planning C-Government and Policy	2	13	1.771
13	Foresight and Sti Governance	2	1	-
14	Growth and Change	2	84	1.192
15	Habitat International	2	4	3.0
16	International Journal of Knowledge-Based Development	2	1	-
17	Journal of Economic Policy Reform	2	29	1.513
18	Northern Review	2	1	-
19	Pakistan Journal of Agricultural Sciences	2	0	0.677
20	Papers in Regional Science	2	4	1.657
21	R&D Management	2	0	1.857
22	Regional Science Policy and Practice	2	1	-
23	Revista Brasileira de Marketing	2	0	-
24	Technology Analysis & Strategic Management	2	2	1.49
25	Ter es Tarsadalom	2	0	-
26	Human Resource Management	1	579	2.474
27	International Journal of Operations & Production Management	1	8	2.955
28	Journal of Rural Studies	1	23	2.658
29	Journal of Strategic Information Systems	1	57	4.313
30	Journal of Sustainable Tourism	1	11	3.329
31	Journal of Technology Transfer	1	11	2.932
32	Journal of The Academy of Marketing Science	1	97	8.488
33	Organization Science	1	20	3.027
34	Oxford Review of Economic Policy	1	35	1.444
35	Small Business Economics	1	14	2.852

Figure 3. Cluster analysis



Legend:

Cluster 1 - Multiple Helix innovative ecosystem

Cluster 2 - Smart specialization and RIS3

Cluster 3 -Innovation and entrepreneurship

Cluster 4 - Regional policies and knowledge transfer and technology commercialization

Cluster 5 - Regional growth entrepreneurial and

3.3 Cluster Analysis

VosViewer software benchmarked and identified the most relevant clusters about the field under study. O Vosviewer utiliza a técnica de mapeamento VOS (visualização de semelhanças). O software pode ser usado para criar mapas com base no corpo de texto ou em redes, como por exemplo as redes de citação

Table 4. Articles by cluster

Cluster 1 - Multiple Helix	Cluster 2 - Smart Specialization and RIS3	Cluster 3 -Innovation and Entrepreneurship	Cluster 4 - Regional Policies and Knowledge Transfer and Technology Commercialization	Cluster 5 - Regional Growth Entrepreneurial and Innovative Ecosystem
Andersen, Johnston, and Saritas (2017)	Benner (2014)	Bacic and Aralica (2017)	Bellini, Grillo, Lazzeri, and Pasquinelli (2017)	Brumen, Gorenak, Rosi, and Rangus (2016)
Arbolino, Boffardi, Lanuzza, and Ioppolo (2018)	Borras and Jordana (2016)	Camagni and Capello (2013)	Borsekova, Vanova, and Vitalisova (2017)	Di Berardino, Mauro, Quaglione, and Sarra (2017)
Bachtler and Begg (2018)	Capello and Kroll (2016)	Capello and Lenzi (2016b)	Carvalho and Winden (2018)	Doran, McCarthy, and O'Connor (2017)
Becic and Svarc (2015)	Capello (2017)	Capello and Lenzi (2016a)	Del Vecchio and Passiante (2017)	Evangelista *et al.* (2018)
Carayannis, Meissner, and Edelkina (2017)	Cooke (2016)	Caragliu and Del Bo (2018)	Foray (2016)	Gonzalez, Mack, and Flores (2017)
Casaramona, Sapia, and Soraci (2015)	Dubois, Kristensen, and Teras (2017)	Chrysomallidis and Tsakanikas (2017)	Konstantynova and Lehmann (2017)	Heimeriks and Balland (2016)
Dogaru (2016)	Estensoro and Larrea (2016)	Chrysomallidis and Tsakanikas (2017)	Lengyel and Lesko (2016)	Mccann and Ortega-Argiles (2015)
Fellnhofer (2017a)	Healy (2016)	Dyba, Loewen, Looga, and Zdražil (2018)	Martins (2016)	Montresor and Quatraro (2017)
Fellnhofer (2017b)	Healy (2017)	Gjelsvik (2018)	McCann and Ortega-Argiles (2013b)	Mustra, Simundi, and Kulis (2017)
Fellnhofer (2018)	Iacobucci and Guzzini (2016)	Grillitsch (2016)	McCann and Ortega-Argiles (2016a)	Sacco (2017)
Geipele, Staube, Ciemleja, Zeltins, and Ekmanis (2015)	Kleibrink, Gianelle, and Doussineau (2016)	Grillitsch and Asheim (2018)	McCann and Ortega-Argiles (2016b)	Sanchez-Moral (2015)
Gheorghiu, Andreescu, and Curaj (2016)	Krammer (2017)	Hoglund and Linton (2018)	McCann and Ortega-Argiles (2016c)	Suwala and Micek (2018)
Lorentzen, Muller, Manamela, and Gastrow (2011)	Kroll (2015)	Karo and Kattel (2015)	Morgan (2017)	Talbot (2016)
Mieszkowski and Kardas (2015)	Kroll, Boke, Schiller, and Stahlecker (2016)	McCann and Ortega-Argiles (2013a)	Muscio *et al.* (2015)	Varga (2017)
Paliokaite, Martinaitis, and Reimeris (2015)	Kutsenko, Islankina, and Kindras (2018)	Moodysson, Trippl, and Zukauskaite (2017)	Muscio and Ciffolilli (2018)	-
Paliokaite, Martinaitis, and Sarpong (2016)	Lundstrom and Maenpaa (2017)	Naldi, Nilsson, Westlund, and Wixe (2015)	Romao and Neuts (2017)	-
Piirainen, Tanner, and Alkaersig (2017)	Marlow and Richardson (2016)	Nordberg (2015)	Weidenfeld (2018)	-
Reimeris (2016)	Morgan (2016)	Pugh (2018)	-	-
Rinaldi, Cavicchi, Spigarelli, Lacche, and Rubens (2018)	Muller, Zenker, Hufnagl, Heraud, *et al.* (2017)	Radosevic and Stancova (2018)	-	-
Santini, Marinelli, Boden, Cavicchi, and Haegeman (2016)	Navarro, Valdaliso, Aranguren, and Magro (2014)	Vallance, Blazek, Edwards, and Kveton (2018)	-	-
Simonen, Svento, and Juutinen (2015)	Nazarczuk, Uminski, and Gawlikowska-Hueckel (2018)	Zemtsov and Barinova (2016)	-	-
Tiits, Kalvet, and Murk (2015)	Oort, Geus, and Dogaru (2015)	-	-	-
Todeva (2015)	Virkkala, Maenpaa, and Mariussen (2017)	-	-	-
Vence, Sanchez, and Rodil (2013)	Vlckova, Kasprikova, and Vlckova (2018)	-	-	-
Wilson *et al.* (2015)	-	-	-	-
25 Articles	**24 Articles**	**21 Articles**	**17 Articles**	**14 Articles**

e co-citação. O Vosviewer permite também a criação de mapas de publicação para fornecer informações importantes sobre os temas em análise (Sinkovics, 2016). O Vosviewer pode ser utilizado para estudar qualquer tema. Já estão publicados diversos artigos cientificos que utilizaram o Vosviewer como por exemplo Lopes, Ferreira, *et al.* (2018), Lopes, Ferreira, and Farinha (2019), Maier, Maftei, Maier, and Bitan (2019), Perannagari and Chakrabarti (2019) and Hallinger and Kovačević (2019). Each color identifies each cluster (Figure 3). Of the 172 article articles that were extracted from WoS meeting the above criteria, VosViewer software excluded 71 articles for cluster analysis. According to VosViewer, these 71 clusters did not fit into any of the clusters.

Table 4 shows the articles that make up each cluster.

As can be seen from Table 4, cluster 1 (Multiple Helix) consists of 25 articles, cluster 2 (Smart specialization and RIS3) has 24 articles, cluster 3 (Innovation and entrepreneurship) has 21 articles, cluster 4 (Regional policies and Knowledge transfer and technology commercialization) has 17 articles and cluster 5 (Regional growth entrepreneurial and innovative ecosystem) has 14 articles.

3.3.1. Cluster 1

The first cluster identified in this approach, referred to as "multiple helix", is supported by five scientific studies. The study developed by Acheampong (2018) argues that the application of advanced quantitative research techniques would enrich future efforts of all stakeholders with a quadruple helix perspective (the relationship between academia, businesses, political decision, and civil society) involved in smart specialization.

Fellnhofer (2017b) argues that the European Commission is putting a lot of effort into facilitating smart specialization strategies for smart, sustainable and inclusive economic growth in Europe. Stakeholder engagement has received increasing attention but is often overlooked by the academic community, possibly due to its complexity. However, with online platforms mechanisms reveal a promising potential for aggregation of different stakeholders, including the involvement of civil society, assisting in the implementation of smart specialization strategies.

Fellnhofer (2018) presented a bibliometric study whose objective is to systematically explore the multidisciplinary and multilevel aspect in smart specialization strategies. Some research paths with a recommended step-by-step approach, but also implications for theory and practice were highlighted.

The article published by Rinaldi, Cavicchi, Spigarelli, Lacchè, and Rubens (2018) analyses the emerging role of universities in social and human sciences in contemporary society through third and fourth mission activities, specifically the possible contributions these universities can make to capacity building and enhancement, supporting the concept of innovation change coherently through an Intelligent Specialization Strategy (S3) approach. In the activities of the third and fourth mission, universities may play different and broader roles (generative, absorbing, collaborative and leadership), which could support regions in designing and implementing S3.

A paper presented by Casaramona *et al.* (2015) looked at the path to an international cooperation approach to facilitate the creation of an innovation-friendly environment in the Mediterranean partner countries. The author argued that the Mediterranean region needs to review and improve its research and innovation capabilities and systems. It is reinforced the need to invest in open innovation, where innovation is based on information, knowledge flow and networking. He adds that the low level of collaborations and interactions between the main actors of innovation is one of the main factors that hinder the implementation of innovation in Mediterranean societies. Moving from open innovation to targeted

open innovation, one can set specific goals related to the smart specialization that can support regional development.

3.3.2. Cluster 2

The cluster identified as "smart specialization and RIS3" is based on five scientific studies. Estensoro and Larrea (2016) argue that part of the difficulties in implementing RIS3 is related to the ability to develop bottom-up approaches, involving different public and private stakeholders, regionally better positioned than governments.The centrality of enterprise discovery in building and implementing a smart specialization strategy is critical. The construction of networks of territorial actors that can act as the senses of governments in the territory is urgent. However, one of the major challenges is how to deal with the complexity and conflict and the ability of social researchers to integrate into RIS3 processes.

The purpose of Muller, Zenker, Hufnagl, Héraud, *et al.* (2017) is to provide information on the implications of the European Commission's smart specialization agenda in a specific cross-border context. The article critically reflects on some of the facilities on the RIS3 agenda (research and innovation strategies for smart specialization), illustrating their practical implementation in French and German regions.

Casaramona et al. (2015) argue that smart specialization that guides the innovative development of regions has proven to be an academic idea and a far-reaching political instrument. In the European Union, smart specialization is mentioned among the ex-ante conditions for receiving subsidies from the European Structural and Investment Funds. The results of the study confirm that most principles of smart specialization are considered, at least formally, in traditional regional innovation strategies.

Kroll (2015) and Kroll, Böke, Schiller and Stahlecker (2016) reflected on the implementation of the policy agenda for RIS3 in Europe. Policy challenges should include analysis of regional governance capacities and levels of business sophistication based on it. It adds that the main merit of RIS3 processes may in fact be in their contribution to changing governance routines and practices, even if these, for the time being, remain without measurable effect on policies.

3.3.3. Cluster 3

The cluster identified as "innovation and entrepreneurship" is centred on three scientific studies. Grillitsch and Asheim (2018) advocated that new industrial innovation policies, such as smart specialization, aim to drive economic growth through diversification into more complex and higher value economic activities.

Gjelsvik (2018) explored how university strategies and regional development paths co-evolve. The objective is to contribute to the discussion about how regions depend on a trajectory of transformation over time and how local universities can assume different roles in these processes. It also argues that universities contribute to creating new, transforming or extending existing regional economic development paths through collaboration with regional industry. The study confirmed that universities play different roles depending on the type of industrial transformation that is taking place in their regional economies. Four different paths of regional development was highlighted: new pathways, new pathways to the region through transplants elsewhere, path renewal through diversification into related industries, and path extension through upgrading existing industries.

Zemtsov and Barinova (2016) proved the need for a regionally differentiated innovation policy based on the principles of smart specialization. It proposed guidelines for a new policy related to the conservation of human capital, the formation of innovative businesses and the intensification of horizontal

connections. It suggested support tools for each type of region, which differ in the potential for creation and implementation of new technologies, technological and industrial expertise.

3.3.4. Cluster 4

The cluster "regional policies and knowledge transfer and technology commercialization" is based on 5 scientific articles. The study developed by Martins (2016) focuses on two former European industrial regions - South Yorkshire (United Kingdom) and the Northern Region of Portugal. The study aims to identify a set of resources associated with business leaders and their relationship to industrial performance.

The study developed by Romão and Neuts (2017) analyzes the contribution of territory-sensitive resources based on natural characteristics and endogenous cultural factors - environmental dimension, innovation capacity and patterns of specialization to regional sustainable development.

The study points out that particularly resource-rich regions show poor socio-economic performance, showing high levels of tourism experts, based on large-scale, low value-added products and services, suggesting the need for new approaches to territorial design. Information and communication technologies can contribute to these achievements by integrating knowledge and innovation into the products and services that make up the experiences of smart tourism (smart development) and their connections with related sectors.

Del Vecchio and Passiante (2017) added that tourism can be used to promote smart regional growth, based on the example of the Puglia region of Italy, which is trying to achieve smart, sustainable and inclusive growth using a smart specialization strategy. The relevance of tourism to smart specialization is confirmed by the dynamics that are currently reconfiguring the sector into a regionally integrated and knowledge-intensive sector.

Konstantinova and Lehmann (2017) argue that several publicly or privately supported cluster associations have been established to facilitate proximity and interaction between regional stakeholders.These cluster associations launched a series of activities and services aimed at increasing the competitiveness, innovation, and productivity of their members and other stakeholders. This thinking line also points out that the activities developed in different clusters of information and communication technologies (ICT) reveal a central development for regional advanced industrial transformation in the context of regional smart specialization and the Industrial Renaissance.

3.3.5. Cluster 5

The cluster identified as "Regional Growth Entrepreneurial and Innovative Ecosystem" is based on three scientific studies. This cluster addresses in Talbot (2016) the failure of the most developed western economies and their difficulty in returning to the rates of economic growth enjoyed in the first half of the twentieth century. Central to secular stagnation is the complex link between capital investment and innovation, leading to fears that the recent collapse of investment is a cause and effect of the so-called end of innovation. Talbot's paper examined the smart specialization agenda and demand-driven innovation strategies as a means of removing innovation activity from reliance on large-scale top-down capital investments shifting focus to the role of the entrepreneur. in the process of innovation and growth. The study defend that the key features of smart specialization are used to underpin the construction of a conceptual model called the microsphere that presents policymakers with a framework for reconnecting

with the entrepreneur to drive innovation and growth at the regional level, further arguing that smart specialization can foster innovation among non-growing small rural businesses.

McCann and Ortega-Argilés (2015) address the relationship between smart specialization and regional growth based on EU cohesion policies. The study seeks to explain the challenges involved in applying this originally sectoral model to a regional and spatial scenario.

Evangelista et al. (2018) explore the specialization of the European Union (EU) regions on the perspective of key enabling technologies and assesses whether specialization in these technological areas affects regional growth.

The study reveals that regions specialized in technology are concentrated in central Europe; However, during the period considered (1996–2011), the less innovative and peripheral regions of the EU increased their knowledge of technology at the expense of the more advanced regions.

There is also evidence that (spatial) technology diffusion often occurs in contiguous regions. Finally, technological specialization aligned with smart specialization strategies positively affects regional economic growth (gross domestic product per capita) and this effect is stronger for less innovative regions of the EU.

CONCLUSION REMARKS

The sustainability and socio-economic development of countries and regions depends on their competitive advantages, including their position in global markets, their ability to attract investment (domestic or foreign investment), their ability to attract and retain skills, which together dictate their overall ability to produce wealth, job creation and social welfare (Buesa, Heijs, & Baumert, 2010; Dudek & Wrzochalska, 2017; Farinha & Ferreira, 2016). The aim of this study is to perform a bibliometric analysis with the keywords smart specialization, regional innovation systems and VRIO. We aim to contribute to the clarification of the literature on regional innovation ecosystems. We also intend to suggest a new model that allows the VRIO model to be adapted to the territories (regions, countries or groups of countries).

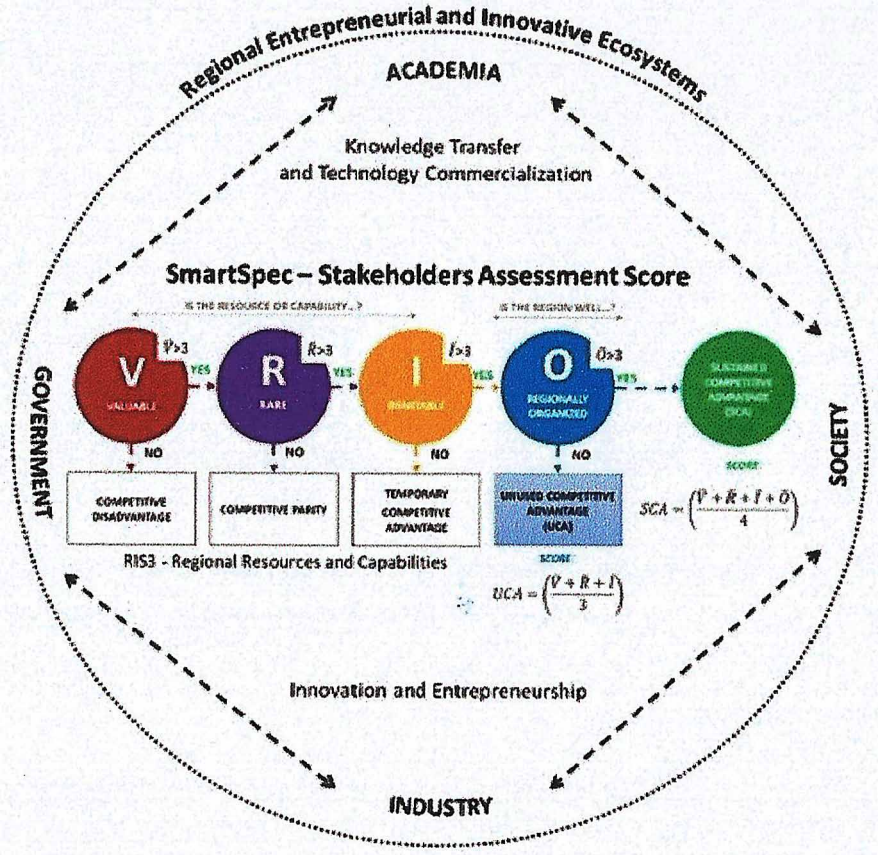
RIS3 constitute the main growth approach of the European Union (EU) for the 2014-2020 period. These strategies must be formulated by a process of discovery and innovation for which academic entrepreneurship is crucial (Panori, Komninos, Kakderi, & Fellnhofer, 2017).

The smart specialization strategy aims to create a competitive advantage on regional territories (Radosevic & Stancova, 2018). Regions through regional governments, when implementing RIS3 are challenged to define smart specialization domains. It is through these areas of smart specialization that regions have access to the 2014-2020 Structural Funds (Foray *et al.*, 2012; Gemma & Bulderberga, 2017a; Paliokaite *et al.*, 2015).

Innovation has become increasingly relevant in smart specialization and therefore in RIS3 (Gemma & Bulderberga, 2017b). Regions and their actors need to pay more attention to the resources and capacities they have available so that regional development is increasing. Innovation policy should be seen as a means of mobilizing, renovating, building and acquiring new resources and capabilities in a region and not as a cost. Regions should build and stimulate regional network capacity for economic renewal. (Laasonen & Kolehmainen, 2017).

Smart specialization domains, before being selected, require a detailed and complete diagnosis of territorial innovation capabilities. A poor diagnosis can lead to the expected results for the regions not

Figure 4. Regional helix assessment model



being achieved. In order to be competitive, it is fundamental to explore the regional characteristics and traditions (Camagni & Capello, 2013).

It should be noted that the VRIO model was originally developed and applied in organizations (Barney, 1991). The model developed and presented in this study is therefore unique to the regions. In the new model presented, RIS3 of the respective regions is used as resources and capabilities.

Building Regional Helix Assessment Model

Based on the results of the clusters (cluster 1 - multiple helix; cluster 2 - smart specialization and RIS3; cluster 3 - innovation and entrepreneurship; cluster 4 - regional policies and knowledge transfer and technology commercialization; cluster 5 - regional entrepreneurial growth and innovative ecosystem) and From the literature review, the Regional Helix Assessment Model (figure 4) was developed.

The "Regional Helix Assessment Model" is a support model for measuring the perception of regional stakeholders in the different domains of RIS3 in the context of entrepreneurial innovative regional

ecosystems. These ecosystems supported by the collaborative interfaces of quadruple or more helices (Carayannis *et al.*, 2018; Leydesdorff, 2012; Peris-Ortiz, Ferreira, Farinha, & Fernandes, 2016) need to be associated with other performance measurement tools, including measuring the perception of regional stakeholders in the different domains of smart specialization.

Based on the original models of the triple, quadruple or more helices, aligned with the dynamics of regional smart specialization and the enhancement of their resources and capabilities (Barney, 1991), brought together in regional innovation and entrepreneurship ecosystems through the knowledge transfer and technology commercialization (Lopes, Farinha, et al., 2018), it is urgent to evaluate the performance of this territories, from the perception of their stakeholders.

The adaptation of VRIO model to the territories (regions, countries or groups of countries), allows analysing the stakeholders' perceptions, in the perspective of the different dimensions of smart specialization policies (Barney, 1991; Wernerfelt, 1984).

The Regional Helix Assessment Model is a theoretical model that needs to be addressed in the regions in conjunction with its strategic priorities for smart specialization. For the model to be applied, it is necessary to apply a survey to the stakeholders of each region. The questionnaire is based on the resources and capabilities (smart specialization domains defined in RIS3) of the regions. The scale of the questionnaire corresponds to the scale applied by Croasmun and Ostrom (2011) (5-point Likert scale). Competitive Advantage (ACS) position when this feature or capability is already implemented in the region.

REFERENCES

Acheampong, G. (2018). Microfinance, gender and entrepreneurial behaviour of families in Ghana. *Journal of Family Business Management*, *8*(1), 38–57. doi:10.1108/JFBM-09-2017-0028

Andersen, J. (2011). Strategic resources and firm performance. *Management Decision*, *49*(1), 87–98. doi:10.1108/00251741111094455

Andersen, P. D., Johnston, R., & Saritas, O. (2017). FTA and Innovation Systems. *Technological Forecasting and Social Change*, *115*, 236–239. doi:10.1016/j.techfore.2016.12.012

Arbolino, R., Boffardi, R., Lanuzza, F., & Ioppolo, G. (2018). Monitoring and evaluation of regional industrial sustainability: Evidence from Italian regions. *Land Use Policy*, *75*, 420–428. doi:10.1016/j.landusepol.2018.04.007

Bachtler, J., & Begg, I. (2018). Beyond Brexit: Reshaping policies for regional development in Europe. *Papers in Regional Science*, *97*(1), 151–170. doi:10.1111/pirs.12351

Bacic, K., & Aralica, Z. (2017). Regional competitiveness in the context of "New industrial policy" - the case of Croatia. *Zbornik Radova Ekonomskog Fakulteta U Rijeci-Proceedings of Rijeka Faculty of Economics, 35*(2), 551-582.

Backman, C. A., Verbeke, A., & Schulz, R. A. (2017). The Drivers of Corporate Climate Change Strategies and Public Policy: A New Resource-Based View Perspective. *Business & Society*, *56*(4), 545–575. doi:10.1177/0007650315578450

Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, *17*(1), 99–120. doi:10.1177/014920639101700108

Barney, J. B., & Hesterly, W. S. (2007). *Administração estratégica e vantagem competitiva*. São Paulo: Pearson Prentice Hall.

Barney, J. B., & Wright, P. M. (1998). On becoming a strategic partner: The role of human resources in gaining competitive advantage. *Human Resource Management*, *37*(1), 31–46. doi:10.1002/(SICI)1099-050X(199821)37:1<31::AID-HRM4>3.0.CO;2-W

Becic, E., & Svarc, J. (2015). Smart Specialisation in Croatia: Between the Cluster and Technological Specialisation. *Journal of the Knowledge Economy*, *6*(2), 270–295. doi:10.100713132-015-0238-7

Bellini, N., Grillo, F., Lazzeri, G., & Pasquinelli, C. (2017). Tourism and regional economic resilience from a policy perspective: Lessons from smart specialization strategies in Europe. *European Planning Studies*, *25*(1), 140–153. doi:10.1080/09654313.2016.1273323

Benner, M. (2014). From smart specialisation to smart experimentation Building a new theoretical framework for regional policy of the European Union. *Zeitschrift für Wirtschaftsgeographie*, *58*(1), 33–49. doi:10.1515/zfw.2014.0003

Borras, S., & Jordana, J. (2016). When regional innovation policies meet policy rationales and evidence: A plea for policy analysis. *European Planning Studies*, *24*(12), 2133–2153. doi:10.1080/09654313.2016.1236074

Borsekova, K., Vanova, A., & Vitalisova, K. (2017). Smart Specialization for Smart Spatial Development: Innovative Strategies for Building Competitive Advantages in Tourism in Slovakia. *Socio-Economic Planning Sciences*, *58*, 39–50. doi:10.1016/j.seps.2016.10.004

Broadus, R. N. (1987). Toward a Definition of Bibliometrics. *Scientometrics*, *12*(5-6), 373–379. doi:10.1007/BF02016680

Brumen, B., Gorenak, M., Rosi, M., & Rangus, M. (2016). Regional Tourism Indicators and Smart Specialization Strategy. *Lex Localis-Journal of Local Self-Government*, *14*(3), 419–430. doi:10.4335/14.3.419-430(2016)

Buckley, P. J., Pass, G., & Prescott, K. (1990). Measures of international competitiveness: Empirical findings from British manufacturing companies. *Journal of Marketing Management*, *6*(1), 1–13. doi:10.1080/0267257X.1990.9964112

Buesa, M., Heijs, J., & Baumert, T. (2010). The determinants of regional innovation in Europe: A combined factorial and regression knowledge production function approach. *Research Policy*, *39*(6), 722–735. doi:10.1016/j.respol.2010.02.016

Camagni, R., & Capello, R. (2013). Regional Innovation Patterns and the EU Regional Policy Reform: Toward Smart Innovation Policies. *Growth and Change*, *44*(2), 355–389. doi:10.1111/grow.12012

Capello, R. (2017). Towards a New Conceptualization of Innovation in Space: Territorial Patterns of Innovation. *International Journal of Urban and Regional Research*, *41*(6), 976–996. doi:10.1111/1468-2427.12556

Capello, R., & Kroll, H. (2016). From theory to practice in smart specialization strategy: Emerging limits and possible future trajectories. *European Planning Studies*, *24*(8), 1393–1406. doi:10.1080/09654313.2016.1156058

Capello, R., & Lenzi, C. (2016a). Persistence in regional learning paradigms and trajectories: Consequences for innovation policy design. *European Planning Studies*, *24*(9), 1587–1604. doi:10.1080/09654313.2016.1177493

Capello, R., & Lenzi, C. (2016b). Relevance and utility of European Union research, technological development and innovation policies for a smart growth. *Environment and Planning. C, Government & Policy*, *34*(1), 52–72. doi:10.1177/0263774X15614655

Caragliu, A., & Del Bo, C. (2018). Much Ado About Something? An Appraisal of the Relationship Between Smart City and Smart Specialisation Policies. *Tijdschrift voor Economische en Sociale Geografie*, *109*(1), 129–143. doi:10.1111/tesg.12272

Carayannis, E. G., & Campbell, D. F. (2009). 'Mode 3'and'Quadruple Helix': Toward a 21st century fractal innovation ecosystem. *International Journal of Technology Management*, *46*(3-4), 201–234. doi:10.1504/IJTM.2009.023374

Carayannis, E. G., Grigoroudis, E., Campbell, D. F., Meissner, D., & Stamati, D. (2018). The ecosystem as helix: An exploratory theory-building study of regional co-opetitive entrepreneurial ecosystems as Quadruple/Quintuple Helix Innovation Models. *R & D Management*, *48*(1), 148–162. doi:10.1111/radm.12300

Carayannis, E. G., Meissner, D., & Edelkina, A. (2017). Targeted innovation policy and practice intelligence (TIP2E): Concepts and implications for theory, policy and practice. *The Journal of Technology Transfer*, *42*(3), 460–484. doi:10.100710961-015-9433-8

Carvalho, L., & Winden, W. V. (2018). Making waves: The valuation of innovations in San Sebastian's surf economy. *European Planning Studies*, *26*(1), 75–93. doi:10.1080/09654313.2017.1372369

Casaramona, A., Sapia, A., & Soraci, A. (2015). How TOI and the quadruple and quintuple helix innovation system can support the development of a new model of international cooperation. *Journal of the Knowledge Economy*, *6*(3), 505–521. doi:10.100713132-015-0253-8

Chrysomallidis, C., & Tsakanikas, A. (2017). The implementation of smart specialization strategy in Greece: Re-balancing governance between the central state and the regions. *Regional Science Policy and Practice*, *9*(3), 183–200. doi:10.1111/rsp3.12095

Cooke, P. (2016). Four minutes to four years: The advantage of recombinant over specialized innovation-RIS3 versus "smartspec'. *European Planning Studies*, *24*(8), 1494–1510. doi:10.1080/09654313.2016.1151482

Cooke, P., Uranga, M. G., & Etxebarria, G. (1998). Regional systems of innovation: An evolutionary perspective. *Environment & Planning A*, *30*(9), 1563–1584. doi:10.1068/a301563

Coviello, N. E., Ghauri, P. N., & Martin, K. A. M. (1998). International competitiveness: Empirical findings from SME service firms. *Journal of International Marketing*, *6*(2), 8–27. doi:10.1177/1069031X9800600206

Croasmun, J. T., & Ostrom, L. (2011). Using Likert-Type Scales in the Social Sciences. *Journal of Adult Education*, *40*(1), 19–22.

Del Vecchio, P., & Passiante, G. (2017). Is tourism a driver for smart specialization? Evidence from Apulia, an Italian region with a tourism vocation. *Journal of Destination Marketing & Management*, *6*(3), 163–165. doi:10.1016/j.jdmm.2016.09.005

Di Berardino, C., Mauro, G., Quaglione, D., & Sarra, A. (2017). Structural change and the sustainability of regional convergence: Evidence from the Italian regions. *Environment and Planning C-Politics and Space*, *35*(2), 289–311. doi:10.1177/0263774X16655800

Dogaru, V. (2016). The Expanding of Constructal Law in Economics - a Justification for Crossed Flows of Similar Macro Goods. *International Journal of Heat and Technology*, *34*(S1), S59–S74. doi:10.18280/ijht.34S108

Doran, J., McCarthy, N., & O'Connor, M. (2017). The employment-population nexus and implications for sustainable economic development: Insights from Irish regions using a partial adjustment model. *International Review of Applied Economics*, *31*(4), 508–526. doi:10.1080/02692171.2016.1263608

Doyle, P., & Wong, V. (1998). Marketing and competitive performance: An empirical study. *European Journal of Marketing*, *32*(5/6), 514–535. doi:10.1108/03090569810216145

Dubois, A., Kristensen, I., & Teras, J. (2017). Outsmarting geography: Implementing territorial innovation strategies in sparsely populated regions. *European Planning Studies*, *25*(8), 1316–1333. doi:10.1080/09654313.2017.1320355

Dudek, M., & Wrzochalska, A. (2017). Making Development More Sustainable? The EU Cohesion Policy and Socio-Economic Growth of Rural Regions in Poland. *European Journal of Sustainable Development*, *6*(3), 189–200. doi:10.14207/ejsd.2017.v6n3p189

Duque Oliva, E. J., Cervera Taulet, A., & Rodríguez Romero, C. (2006). A bibliometric analysis of models measuring the concept of perceived quality inproviding internet service. *Innovar (Universidad Nacional de Colombia)*, *16*(28), 223–243.

Dyba, W., Loewen, B., Looga, J., & Zdražil, P. (2018). Regional Development in Central-Eastern European Countries at the Beginning of the 21st Century: Path Dependence and Effects of EU Cohesion Policy. *Quaestiones Geographicae*, *37*(2), 77–92. doi:10.2478/quageo-2018-0017

Estensoro, M., & Larrea, M. (2016). Overcoming policy making problems in smart specialization strategies: Engaging subregional governments. *European Planning Studies*, *24*(7), 1319–1335. doi:10.1080/09654313.2016.1174670

Etzkowitz, H. (2003). Innovation in innovation: The Triple Helix of university-industry-government relations. *Social Science Information Sur Les Sciences Sociales*, *42*(3), 293–337. doi:10.1177/05390184030423002

Etzkowitz, H., & Leydesdorff, L. (2000). The dynamics of innovation: From National Systems and "Mode 2" to a Triple Helix of university-industry-government relations. *Research Policy*, *29*(2), 109–123. doi:10.1016/S0048-7333(99)00055-4

Etzkowitz, H., Webster, A., Gebhardt, C., & Terra, B. R. C. (2000). The future of the university and the university of the future: Evolution of ivory tower to entrepreneurial paradigm. *Research Policy*, *29*(2), 313–330. doi:10.1016/S0048-7333(99)00069-4

Evangelista, R., Meliciani, V., & Vezzani, A. (2018). Specialisation in key enabling technologies and regional growth in Europe. *Economics of Innovation and New Technology*, *27*(3), 273–289. doi:10.1080/10438599.2017.1338392

Fagerberg, J. (2005). *The Oxford handbook of innovation*. Oxford, UK: Oxford University Press.

Farinha, L., Ferreira, J., & Gouveia, B. (2016). Networks of innovation and competitiveness: A triple helix case study. *Journal of the Knowledge Economy*, *7*(1), 259–275. doi:10.100713132-014-0218-3

Farinha, L., & Ferreira, J. J. (2016). Measuring innovative and entrepreneurial networks performance. *World Academy of Science, Engineering and Technology, International Journal of Social, Behavioral, Educational, Economic*. *Business and Industrial Engineering*, *10*(8), 2765–2774.

Fellnhofer, K. (2017a). Evidence revisited: Literature on smart specialisation calls for more mixed research designs. *International Journal of Knowledge-Based Development*, *8*(3), 229–248. doi:10.1504/IJKBD.2017.086407

Fellnhofer, K. (2017b). Facilitating entrepreneurial discovery in smart specialisation via stakeholder participation within online mechanisms for knowledge-based policy advice. *Cogent Business & Management*, *4*(1), 14. doi:10.1080/23311975.2017.1296802

Fellnhofer, K. (2018). Visualised bibliometric mapping on smart specialisation: A co-citation analysis. *International Journal of Knowledge-Based Development*, *9*(1), 76–99. doi:10.1504/IJKBD.2018.090502

Ferreira, M. P., Li, D., Reis, N. R., & Serra, F. R. (2014). Culture in international business research: A bibliometric study in four top IB journals. *Management Research: The Journal of the Iberoamerican Academy of Management*, *12*(1), 68–91.

Foray, D. (2014). *Smart specialisation: opportunities and challenges for regional innovation policy* (Vol. 79). London: Routledge. doi:10.4324/9781315773063

Foray, D. (2016). On the policy space of smart specialization strategies. *European Planning Studies*, *24*(8), 1428–1437. doi:10.1080/09654313.2016.1176126

Foray, D., David, P. A., & Hall, B. (2009). *Smart specialisation–the concept*. Retrieved from:http://ec.europa.eu/invest-in-research/pdf/download_en/kfg_policy_brief_no9.pdf

Foray, D., Goddard, J., Beldarrain, X. G., Landabaso, M., McCann, P., Morgan, K., & Ortega-Argilés, R. (2012). *Guide to research and innovation strategies for smart specialisation (RIS3)*. Luxembourg: Publications Office of the European Union.

Geipele, I., Staube, T., Ciemleja, G., Zeltins, N., & Ekmanis, Y. (2015). Identity of Innovative Multifunctional Material Manufacturing Business in Latvia. *Latvian Journal of Physics and Technical Sciences*, *52*(4), 3–17.

Gemma, S., & Bulderberga, Z. (2017a). Smart specialisation strategy assessment in Baltic States. In S. Treija & S. Skujeniece (Eds.), Research for Rural Development 2017 (vol. 2, pp. 135-141). Jelgava: Latvia Univ Agriculture. doi:10.22616/rrd.23.2017.060

Gemma, S., & Bulderberga, Z. (2017b). Smart specialization strategy in Latvia, Estonia and Lithuania. In A. Auzina (Ed.), Integrated and Sustainable Regional Development Marketing and Sustainable Consumption (pp. 71-78). Jelgava: Latvia Univ Agriculture.

Gheorghiu, R., Andreescu, L., & Curaj, A. (2016). A foresight toolkit for smart specialization and entrepreneurial discovery. *Futures*, *80*, 33–44. doi:10.1016/j.futures.2016.04.001

Gjelsvik, M. (2018). Universities, innovation and competitiveness in regional economies. *International Journal of Technology Management*, *76*(1-2), 10–31. doi:10.1504/IJTM.2018.088704

Gonzalez, A. V., Mack, E. A., & Flores, M. (2017). Industrial complexes in Mexico: Implications for regional industrial policy based on related variety and smart specialization. *Regional Studies*, *51*(4), 537–547. doi:10.1080/00343404.2015.1114174

Grant, R. M. (1991). The Resource-Based Theory of Competitive Advantage - Implications for Strategy Formulation. *California Management Review*, *33*(3), 114–135. doi:10.2307/41166664

Grillitsch, M. (2016). Institutions, smart specialisation dynamics and policy. *Environment and Planning. C, Government & Policy*, *34*(1), 22–37. doi:10.1177/0263774X15614694

Grillitsch, M., & Asheim, B. (2018). Place-based innovation policy for industrial diversification in regions. *European Planning Studies*, *26*(8), 1638–1662. doi:10.1080/09654313.2018.1484892

Hallinger, P., & Kovačević, J. (2019). A bibliometric review of research on educational administration: Science mapping the literature, 1960 to 2018. *Review of Educational Research*, *89*(3), 335–369. doi:10.3102/0034654319830380

Healy, A. (2016). Smart specialization in a centralized state: Strengthening the regional contribution in North East Romania. *European Planning Studies*, *24*(8), 1527–1543. doi:10.1080/09654313.2016.1184233

Healy, A. (2017). Innovation in Circumpolar Regions: New Challenges for Smart Specialization. *Northern Review,* (45), 11-32.

Heimeriks, G., & Balland, P. A. (2016). How smart is specialisation? An analysis of specialisation patterns in knowledge production. *Science & Public Policy*, *43*(4), 562–574. doi:10.1093cipolcv061

Higgins, J., & Green, S. (2011). *Cochrane Handbook for Systematic Reviews of Interventions Version 5.1.0* [updated March 2011]. Available from http://handbook.cochrane.org

Hoglund, L., & Linton, G. (2018). Smart specialization in regional innovation systems: A quadruple helix perspective. *R & D Management*, *48*(1), 60–72. doi:10.1111/radm.12306

Iacobucci, D., & Guzzini, E. (2016). Relatedness and connectivity in technological domains: Missing links in S3 design and implementation. *European Planning Studies*, *24*(8), 1511–1526. doi:10.1080/09654313.2016.1170108

Karo, E., & Kattel, R. (2015). Economic development and evolving state capacities in Central and Eastern Europe: Can "smart specialization" make a difference? *Journal of Economic Policy Reform*, *18*(2), 172–187. doi:10.1080/17487870.2015.1009068

Kleibrink, A., Gianelle, C., & Doussineau, M. (2016). Monitoring innovation and territorial development in Europe: Emergent strategic management. *European Planning Studies*, *24*(8), 1438–1458. doi:10.1080/09654313.2016.1181717

Klofsten, M., & Jones-Evans, D. (2000). Comparing academic entrepreneurship in Europe–the case of Sweden and Ireland. *Small Business Economics*, *14*(4), 299–309. doi:10.1023/A:1008184601282

Konstantynova, A., & Lehmann, T. (2017). Cluster Activities in Different Institutional Environments. Case Studies of ICT-Clusters from Austria, Germany, Ukraine and Serbia. *Administrative Sciences*, *7*(2), 11. doi:10.3390/admsci7020011

Kourtit, K., & Nijkamp, P. (2018). Smart Cities in Smart Space: A Regional Science Perspective. *Scienze Regionali*, *17*(1), 105–114. doi:10.3280/SCRE2015-001008

Krammer, S. M. S. (2017). Science, technology, and innovation for economic competitiveness: The role of smart specialization in less-developed countries. *Technological Forecasting and Social Change*, *123*, 95–107. doi:10.1016/j.techfore.2017.06.028

Kroll, H. (2015). Efforts to Implement Smart Specialization in Practice-Leading Unlike Horses to the Water. *European Planning Studies*, *23*(10), 2079–2098. doi:10.1080/09654313.2014.1003036

Kroll, H., Boke, I., Schiller, D., & Stahlecker, T. (2016). Bringing owls to Athens? The transformative potential of RIS3 for innovation policy in Germany's Federal States. *European Planning Studies*, *24*(8), 1459–1477. doi:10.1080/09654313.2016.1159666

Kroll, H., Böke, I., Schiller, D., & Stahlecker, T. (2016). Bringing owls to Athens? The transformative potential of RIS3 for innovation policy in Germany's Federal States. *European Planning Studies*, *24*(8), 1459–1477. doi:10.1080/09654313.2016.1159666

Kutsenko, E., Islankina, E., & Kindras, A. (2018). Smart by Oneself? An Analysis of Russian Regional Innovation Strategies within the RIS3 Framework. *Foresight and Sti Governance*, *12*(1), 25–45. doi:10.17323/2500-2597.2018.1.25.45

Laasonen, V., & Kolehmainen, J. (2017). Capabilities in knowledge-based regional development - towards a dynamic framework. *European Planning Studies*, *25*(10), 1673–1692. doi:10.1080/09654313.2017.1337727

Landika, M., Sredojevic, V., & Jakupovic, S. (2018). Matric Aspects of Predictions of Business Efficiency of Small and Medium Enterprises as Precondition of International Competitiveness. *Casopis Za Ekonomiju I Trzisne Komunikacije, 8*(1), 108-117.

Laredo, P. (2007). Revisiting the third mission of universities: Toward a renewed categorization of university activities? *Higher Education Policy*, *20*(4), 441–456. doi:10.1057/palgrave.hep.8300169

Lengyel, B., & Lesko, M. (2016). International Collaboration and Spatial Dynamics of US Patenting in Central and Eastern Europe 1981-2010. *PLoS One*, *11*(11), e0166034. doi:10.1371/journal.pone.0166034

Leydesdorff, L. (2012). The triple helix, quadruple helix,…, and an N-tuple of helices: Explanatory models for analyzing the knowledge-based economy? *Journal of the Knowledge Economy*, *3*(1), 25–35. doi:10.100713132-011-0049-4

Lopes, J., Farinha, L., & Ferreira, J. J. (2018). Value Creation and Commercialization in Insular Ecosystems. *International Journal of Social Ecology and Sustainable Development*, *9*(3), 92–102. doi:10.4018/IJSESD.2018070107

Lopes, J., Ferreira, J. J., & Farinha, L. (2019). Innovation strategies for smart specialisation (RIS3): Past, present and future research. *Growth and Change*, *50*(1), 38–68. doi:10.1111/grow.12268

Lopes, J., Ferreira, J. J., Farinha, L., & Raposo, M. (2018). Emerging Perspectives on Regional Academic Entrepreneurship. *Higher Education Policy*, 1–29.

Lopes, J., & Franco, M. (2017). Review About Regional Development Networks: an Ecosystem Model Proposal. *Journal of the Knowledge Economy*, 1-23.

Lorentzen, J., Muller, L., Manamela, A., & Gastrow, M. (2011). Smart specialisation and global competitiveness: Multinational enterprises and location-specific assets in Cape Town. *African Journal of Business Management*, *5*(12), 4782–4791.

Lundstrom, N., & Maenpaa, A. (2017). Wicked game of smart specialization: A player's handbook. *European Planning Studies*, *25*(8), 1357–1374. doi:10.1080/09654313.2017.1307328

Lundvall, B.-A. (1999). Technology policy in the learning economy. *Innovation Policy in a Global Economy*, 19-34.

Maier, D., Maftei, M., Maier, A., & Bitan, G. E. (2019). A Review of Product Innovation Management Literature in the Context of Organization Sustainable Development. *Amfiteatru Economic*, *21*(Special 13), 816–829. doi:10.24818/EA/2019/S13/816

Markkula, M., & Kune, H. (2015). Making Smart Regions Smarter: Smart Specialization and the Role of Universities in Regional Innovation Ecosystems. *Technology Innovation Management Review*, *5*(10), 7–15. doi:10.22215/timreview/932

Marlow, D., & Richardson, K. (2016). How smart is England's approach to smart specialization? A policy paper. *European Planning Studies*, *24*(8), 1478–1493. doi:10.1080/09654313.2016.1179267

Marques, T., Reis, N., & Gomes, J. F. S. (2018). Responsible Leadership Research: A Bibliometric Review. *BAR - Brazilian Administration Review*, *15*(1), e170112. doi:10.1590/1807-7692bar2018170112

Martínez-López, D., & Palazuelos-Martínez, M. (2014). Breaking with the past in smart specialisation: A new model of selection of business stakeholders within the entrepreneurial process of discovery. *Journal of the Knowledge Economy*, 1-14.

Martins, J. T. (2016). Relational capabilities to leverage new knowledge Managing directors' perceptions in UK and Portugal old industrial regions. *The Learning Organization*, *23*(6), 398–414. doi:10.1108/TLO-03-2016-0022

McCann, P., & Ortega-Argiles, R. (2013a). Modern regional innovation policy. *Cambridge Journal of Regions, Economy and Society*, *6*(2), 187–216. doi:10.1093/cjres/rst007

McCann, P., & Ortega-Argiles, R. (2013b). Transforming European regional policy: A results-driven agenda and smart specialization. *Oxford Review of Economic Policy*, *29*(2), 405–431. doi:10.1093/oxrep/grt021

Mccann, P., & Ortega-Argiles, R. (2015). Smart Specialization, Regional Growth and Applications to European Union Cohesion Policy. *Regional Studies*, *49*(8), 1291–1302. doi:10.1080/00343404.2013.799769

McCann, P., & Ortega-Argilés, R. (2015). Smart specialization, regional growth and applications to European Union cohesion policy. *Regional Studies*, *49*(8), 1291–1302. doi:10.1080/00343404.2013.799769

McCann, P., & Ortega-Argiles, R. (2016a). The early experience of smart specialization implementation in EU cohesion policy. *European Planning Studies*, *24*(8), 1407–1427. doi:10.1080/09654313.2016.1166177

McCann, P., & Ortega-Argiles, R. (2016b). Smart specialisation, entrepreneurship and SMEs: Issues and challenges for a results-oriented EU regional policy. *Small Business Economics*, *46*(4), 537–552. doi:10.100711187-016-9707-z

McCann, P., & Ortega-Argiles, R. (2016c). Smart Specialisation: Insights from the EU Experience and Implications for Other Economies. *Investigaciones Regionales,* (36), 279-293.

Medeiros, A. R., & Russo, S. L. (2018). Trademarks as an indicator: Systematic review and bibliometric analysis of literature. *Biblios-Revista De Bibliotecologia Y. Ciencias de la Información*, (71), 50–67.

Michie, J., & Oughton, C. (2001). Regional innovation strategies: Integrating regional, industrial and innovation policy. *New Economy*, *8*(3), 164–169. doi:10.1111/1468-0041.00209

Mieszkowski, K., & Kardas, M. (2015). Facilitating an Entrepreneurial Discovery Process for Smart Specialisation. The Case of Poland. *Journal of the Knowledge Economy*, *6*(2), 357–384. doi:10.100713132-015-0242-y

Montresor, S., & Quatraro, F. (2017). Regional Branching and Key Enabling Technologies: Evidence from European Patent Data. *Economic Geography, 93*(4), 367-396.

Moodysson, J., Trippl, M., & Zukauskaite, E. (2017). Policy learning and smart specialization: Balancing policy change and continuity for new regional industrial paths. *Science & Public Policy*, *44*(3), 382–391.

Morgan, K. (2016). Collective entrepreneurship: The Basque model of innovation. *European Planning Studies*, *24*(8), 1544–1560. doi:10.1080/09654313.2016.1151483

Morgan, K. (2017). Nurturing novelty: Regional innovation policy in the age of smart specialisation. *Environment and Planning C-Politics and Space*, *35*(4), 569–583. doi:10.1177/0263774X16645106

Mota, F. B., Pinto, C. D., Paranhos, J., & Hasenclever, L. (2017). Mapping the 'dynamic capabilities' scientific landscape, 1990-2015: A bibliometric analysis. *COLLNET Journal of Scientometrics and Information Management*, *11*(2), 309–324. doi:10.1080/09737766.2017.1306181

Muller, E., Zenker, A., Hufnagl, M., Héraud, J.-A., Schnabl, E., Makkonen, T., & Kroll, H. (2017). Smart specialisation strategies and cross-border integration of regional innovation systems: Policy dynamics and challenges for the Upper Rhine. *Environment and Planning C. Politics and Space*, *35*(4), 684–702.

Muller, E., Zenker, A., Hufnagl, M., Heraud, J. A., Schnabl, E., Makkonen, T., & Kroll, H. (2017). Smart specialisation strategies and cross-border integration of regional innovation systems: Policy dynamics and challenges for the Upper Rhine. *Environment and Planning C-Politics and Space*, *35*(4), 684–702. doi:10.1177/0263774X16688472

Muscio, A., & Ciffolilli, A. (2018). Technological diversity in Europe: Empirical evidence from agri-food research projects. *Regional Studies*, *52*(3), 374–387. doi:10.1080/00343404.2017.1301662

Muscio, A., Reid, A., & Leon, L. R. (2015). An empirical test of the regional innovation paradox: Can smart specialisation overcome the paradox in Central and Eastern Europe? *Journal of Economic Policy Reform*, *18*(2), 153–171. doi:10.1080/17487870.2015.1013545

Mustra, V., Simundi, B., & Kulis, Z. (2017). Effects of smart specialization on regional economic resilience in EU. *Revista De Estudios Regionales,* (110), 175-195.

Naldi, L., Nilsson, P., Westlund, H., & Wixe, S. (2015). What is smart rural development? *Journal of Rural Studies*, *40*, 90–101. doi:10.1016/j.jrurstud.2015.06.006

Navarro, M., Valdaliso, J. M., Aranguren, M. J., & Magro, E. (2014). A holistic approach to regional strategies: The case of the Basque Country. *Science & Public Policy*, *41*(4), 532–547. doi:10.1093cipolct080

Nazarczuk, J. M., Uminski, S., & Gawlikowska-Hueckel, K. (2018). The Role of Specialisation in the Export Success of Polish Counties in 2004-2015. *Entrepreneurial Business and Economics Review*, *6*(2), 91–109. doi:10.15678/EBER.2018.060205

Nordberg, K. (2015). Enabling Regional Growth in Peripheral Non-University Regions-The Impact of a Quadruple Helix Intermediate Organisation. *Journal of the Knowledge Economy*, *6*(2), 334–356. doi:10.100713132-015-0241-z

Oort, F. V., Geus, S., & Dogaru, T. (2015). Related Variety and Regional Economic Growth in a Cross-Section of European Urban Regions. *European Planning Studies*, *23*(6), 1110–1127. doi:10.1080/09654313.2014.905003

Özçelik, E., & Taymaz, E. (2004). Does innovativeness matter for international competitiveness in developing countries?: The case of Turkish manufacturing industries. *Research Policy*, *33*(3), 409–424. doi:10.1016/j.respol.2003.09.011

Paliokaite, A., Martinaitis, Z., & Reimeris, R. (2015). Foresight methods for smart specialisation strategy development in Lithuania. *Technological Forecasting and Social Change*, *101*, 185–199. doi:10.1016/j.techfore.2015.04.008

Paliokaite, A., Martinaitis, Z., & Sarpong, D. (2016). Implementing smart specialisation roadmaps in Lithuania: Lost in translation? *Technological Forecasting and Social Change*, *110*, 143–152. doi:10.1016/j.techfore.2016.01.005

Panori, A., Komninos, N., Kakderi, C., & Fellnhofer, K. (2017). *Smart Specialisation Strategies: An Online Platform for Strategy Design and Assessment.* Paper presented at the International Conference on Reliability and Statistics in Transportation and Communication.

Perannagari, K. T., & Chakrabarti, S. (2019). Analysis of the literature on political marketing using a bibliometric approach. *Journal of Public Affairs*, 13.

Peris-Ortiz, M., Ferreira, J. J., Farinha, L., & Fernandes, N. O. (2016). *Introduction to Multiple Helix Ecosystems for Sustainable Competitiveness. In Multiple Helix Ecosystems for Sustainable Competitiveness* (pp. 1–13). Springer. doi:10.1007/978-3-319-29677-7

Piirainen, K. A., Tanner, A. N., & Alkaersig, L. (2017). Regional foresight and dynamics of smart specialization: A typology of regional diversification patterns. *Technological Forecasting and Social Change*, *115*, 289–300. doi:10.1016/j.techfore.2016.06.027

Pugh, R. (2018). Questioning the implementation of smart specialisation: Regional innovation policy and semi-autonomous regions. *Environment and Planning C-Politics and Space*, *36*(3), 530–547. doi:10.1177/2399654417717069

Radosevic, S., & Stancova, K. C. (2018). Internationalising Smart Specialisation: Assessment and Issues in the Case of EU New Member States. *Journal of the Knowledge Economy*, *9*(1), 263–293. doi:10.100713132-015-0339-3

Reimeris, R. (2016). New rules, same game: The case of Lithuanian Smart specialization. *European Planning Studies*, *24*(8), 1561–1583. doi:10.1080/09654313.2016.1179722

Rinaldi, C., Cavicchi, A., Spigarelli, F., Lacche, L., & Rubens, A. (2018). Universities and smart specialisation strategy From third mission to sustainable development co-creation. *International Journal of Sustainability in Higher Education*, *19*(1), 67–84. doi:10.1108/IJSHE-04-2016-0070

Rinaldi, C., Cavicchi, A., Spigarelli, F., Lacchè, L., & Rubens, A. (2018). Universities and smart specialisation strategy: From third mission to sustainable development co-creation. *International Journal of Sustainability in Higher Education*, *19*(1), 67–84. doi:10.1108/IJSHE-04-2016-0070

Romao, J., & Neuts, B. (2017). Territorial capital, smart tourism specialization and sustainable regional development: Experiences from Europe. *Habitat International*, *68*, 64–74. doi:10.1016/j.habitatint.2017.04.006

Romão, J., & Neuts, B. (2017). Territorial capital, smart tourism specialization and sustainable regional development: Experiences from Europe. *Habitat International*, *68*, 64–74. doi:10.1016/j.habitatint.2017.04.006

Sacco, P. L. (2017). The essence of smart specialization: Local economies as computational platforms. *Regional Studies*, *51*(5), 814–816. doi:10.1080/00343404.2016.1265239

Sanchez-Moral, S. (2015). Territory, Economic Change, Equity and Networks. *Revista De Estudios Andaluces*, *32*(1), 49–75.

Santini, C., Marinelli, E., Boden, M., Cavicchi, A., & Haegeman, K. (2016). Reducing the distance between thinkers and doers in the entrepreneurial discovery process: An exploratory study. *Journal of Business Research*, *69*(5), 1840–1844. doi:10.1016/j.jbusres.2015.10.066

Santos, R. N. M. d. (2003). Scientific production: Why to measure it? What to measure? *Revista digital de Biblioteconomia e Ciência da Informação, 1*(1).

Schumpeter, J. A. (1950). *Capitalism, Socialism, and Democracy* (3rd ed.). New York: Harper.

Secundo, G., Perez, S. E., Martinaitis, Z., & Leitner, K. H. (2017). An Intellectual Capital framework to measure universities' third mission activities. *Technological Forecasting and Social Change*, *123*, 229–239. doi:10.1016/j.techfore.2016.12.013

Simonen, J., Svento, R., & Juutinen, A. (2015). Specialization and diversity as drivers of economic growth: Evidence from High-Tech industries. *Papers in Regional Science*, *94*(2), 229–247.

Sinkovics, N. (2016). Enhancing the foundations for theorising through bibliometric mapping. *International Marketing Review*, *33*(3), 327–350. doi:10.1108/IMR-10-2014-0341

Spigel, B. (2017). The Relational Organization of Entrepreneurial Ecosystems. *Entrepreneurship Theory and Practice*, *41*(1), 49–72. doi:10.1111/etap.12167

Spigel, B., & Harrison, R. (2018). Toward a process theory of entrepreneurial ecosystems. *Strategic Entrepreneurship Journal*, *12*(1), 151–168. doi:10.1002ej.1268

Suwala, L., & Micek, G. (2018). Beyond clusters? Field configuration and regional platforming: The Aviation Valley initiative in the Polish Podkarpackie region. *Cambridge Journal of Regions, Economy and Society*, *11*(2), 353–372. doi:10.1093/cjres/rsy010

Talbot, S. (2016). Creating a smart rural economy through smart specialisation: The microsphere model. *Local Economy*, *31*(8), 892–919. doi:10.1177/0269094216678601

Teixeira, M. L. A., Iwamoto, H. M., & Medeiros, A. L. (2013). Bibliometric studies (?) In Administration: Discussing the transposition of purpose. *Administração: Ensino e Pesquisa*, *14*(3), 423–452.

Tiits, M., Kalvet, T., & Murk, I. (2015). Smart Specialisation in Cohesion Economies. *Journal of the Knowledge Economy*, *6*(2), 296–319. doi:10.100713132-015-0239-6

Tiits, M., Kalvet, T., & Mürk, I. (2015). Smart specialisation in cohesion economies. *Journal of the Knowledge Economy*, *6*(2), 296–319. doi:10.100713132-015-0239-6

Todeva, E. (2015). Market-Driven Clusters as Prerequisites and Consequences of Smart Specialisation. *Journal of the Knowledge Economy*, *6*(2), 250–269. doi:10.100713132-014-0221-8

Traill, B., & Da Silva, J. G. (1996). Measuring international competitiveness: The case of the European food industry. *International Business Review*, *5*(2), 151–166. doi:10.1016/0969-5931(96)00003-0

Vallance, P., Blazek, J., Edwards, J., & Kveton, V. (2018). Smart specialisation in regions with less-developed research and innovation systems: A changing role for universities? *Environment and Planning C-Politics and Space*, *36*(2), 219–238. doi:10.1177/2399654417705137

Varga, A. (2017). Place-based, Spatially Blind, or Both? Challenges in Estimating the Impacts of Modern Development Policies: The Case of the GMR Policy Impact Modeling Approach. *International Regional Science Review*, *40*(1), 12–37. doi:10.1177/0160017615571587

Vence, X., Sanchez, M. D., & Rodil, O. (2013). Targeting biomed cluster from a mature pharma industry: The Medicon Valley experience. *Technology Analysis and Strategic Management*, *25*(7), 871–889. doi :10.1080/09537325.2013.815716

Virkkala, S., Maenpaa, A., & Mariussen, A. (2017). A connectivity model as a potential tool for smart specialization strategies. *European Planning Studies*, *25*(4), 661–679. doi:10.1080/09654313.2017.12 83391

Vlckova, J., Kasprikova, N., & Vlckova, M. (2018). Technological relatedness, knowledge space and smart specialisation: The case of Germany. *Moravian Geographical Reports*, *26*(2), 95–108. doi:10.2478/ mgr-2018-0008

Weidenfeld, A. (2018). Tourism Diversification and Its Implications for Smart Specialisation. *Sustainability*, *10*(2), 319. doi:10.3390u10020319

Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, *5*(2), 171–180. doi:10.1002mj.4250050207

Wilson, B., Hogan, A., Cuthill, M., Baker, D., Buys, L., & Burton, L. (2015). Someone else's boom but always our bust: Australia as a derivative economy, implications for regions. *Regional Science Policy and Practice*, *7*(2), 75–87. doi:10.1111/rsp3.12057

Zemtsov, S., & Barinova, V. (2016). The paradigm changing of regional innovation policy in Russia: From equalization to smart specialization. *Voprosy Ekonomiki*, (10): 65–81. doi:10.32609/0042-8736-2016-10-65-81

ADDITIONAL READING

Farinha, L., Ferreira, J., & Gouveia, B. (2016). Networks of innovation and competitiveness: A triple helix case study. *Journal of the Knowledge Economy*, *7*(1), 259–275. doi:10.100713132-014-0218-3

Farinha, L., & Ferreira, J. J. (2016). Measuring innovative and entrepreneurial networks performance. *World Academy of Science, Engineering and Technology, International Journal of Social, Behavioral, Educational, Economic*. *Business and Industrial Engineering*, *10*, 2765–2774.

Farinha, L., Nunes, S., Ferreira, J. J., & Fernandes, A. (2018). Understanding the foundations of global competitive advantage of nations. *Competitiveness Review*, *28*(5), 503–517. doi:10.1108/CR-10-2016-0063

Lopes, J., & Farinha, L. (2018). Measuring the performance of innovation and entrepreneurship networks. *Journal of the Knowledge Economy*, *9*(2), 402–423. doi:10.100713132-017-0487-8

Lopes, J., Farinha, L., & Ferreira, J. J. (2018a). Value Creation and Commercialization in Insular Ecosystems. *International Journal of Social Ecology and Sustainable Development*, *9*(3), 92–102. doi:10.4018/IJSESD.2018070107

Lopes, J., Farinha, L., & Ferreira, J. J. (2019a). Reflecting on the innovative performances of European regions in the age of smart specialisation. *Global Business and Economics Review*, *21*, 605–623. doi:10.1504/GBER.2019.101871

Lopes, J., Farinha, L., Ferreira, J. J., & Silveira, P. (2018b). Does regional VRIO model help policymakers to assess the resources of a region? A stakeholder perception approach. *Land Use Policy*, *79*, 659–670. doi:10.1016/j.landusepol.2018.07.040

Lopes, J., Farinha, L., Ferreira, J. J., & Silveira, P. (2018c). Smart specialization policies: Innovative performance models from European regions. *European Planning Studies*, *26*(11), 2114–2124. doi:10.1080/09654313.2018.1530148

Lopes, J., Ferreira, J. J., & Farinha, L. (2019b). Innovation strategies for smart specialisation (RIS3): Past, present and future research. *Growth and Change*, *50*(1), 38–68. doi:10.1111/grow.12268

Lopes, J., & Franco, M. (2019). Review About Regional Development Networks: An Ecosystem Model Proposal. *Journal of the Knowledge Economy*, *10*(1), 275–297. doi:10.100713132-017-0464-2

KEY TERMS AND DEFINITIONS

Regional Helix Assessment Model: Model for measuring the perception of regional stakeholders in the different domains of RIS3 in the context of entrepreneurial innovative regional ecosystems.

Regional Innovation Ecosystems: working with models for successful collaboration, developing innovative instruments tools for enhancing opportunities, acknowledging the importance of partnering and bench-learning.

Regional Innovation Systems (RIS): Interactive learning that can produce evidence of institutional reactions very quickly, although, there is a time interval before the performance and business dynamism are harmonized across regions.

Research and Innovation Strategies for Smart Specialisation (RIS3): New approach to European regional and cohesion policies.

Resource-Based View (RBV): Theory to developing tools to investigate the position of companies associated with the resources used by them.

Smart Specialization: A process of developing a vision, identifying the strengths and weaknesses of the surrounding territory, defining the strategic priorities and making use of intelligent policies to maximise the scope for the progress and advancement of knowledge in regions.

Value, Rarity, Imitability, and Implemented in the Organization (VRIO): The model VRIO serves as a means of application of the RBV. These tools appear to assist in the internal analysis of the organization from the perspective of resources and capabilities and their impact on competitive advantage.

Chapter 9
Creating Hybrid Social Ventures Through Effectuation and Bricolage: The Case of Rec.0

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ABSTRACT

In the abundant literature on social entrepreneurship, little attention is paid to the creation process of hybrid social ventures, beyond the assumptions that they are originated by market failures and are born to alleviate a social problem. Using a qualitative approach based on semi-structured interviews, the authors derive a process model explaining the creation of hybrid social ventures through effectuation and bricolage. They show that these decision-making tools may play a role in the creation process and that the new venture may have the defining characteristics of opportunity creation. They conclude that for a new venture to be created as a hybrid firm, a dual mission-goal with a social problem as the trigger and a financial goal to ensure sustainability are required.

INTRODUCTION

The abundant literature on social entrepreneurship and hybrid social ventures is centered on definitions, on the extent of an organization's hybridity, on their origin and purpose, as well as on success, sustainability, and survival factors. The literature also focuses on how to manage the tension between social and financial goals, and on the organizational implications of the hybrid form. However, little attention is paid to the creation process of hybrid social ventures, beyond the conceptions that they are born as

DOI: 10.4018/978-1-7998-2704-7.ch009

such and are created with a purpose or that they are former business or charitable organizations that have evolved into a hybrid form over time (Holt & Littlewood, 2015). The aim of this research is to increase our understanding of how hybrid social ventures are created, how their creation process unfolds, how early decision-making takes place, and how opportunities for this type of firms are identified. Filling this void is important because hybrid social ventures are growing in numbers and recognition of business opportunities is the first and most critical step in business venturing.

The issues of how hybrid social ventures are created and how opportunities for this type of firms are identified need to be addressed because organizations merging business and social missions (Lee & Jay, 2015) may play a role in resolving or alleviating social and environmental problems, more than initiatives coming from governmental institutions or not-for-profit organizations. Hybrid social ventures pursue social impact goals (Haigh, Walker, Bacq, & Kickul, 2015) and perform activities that generate societal impact (Santos, Pache, & Birkholz, 2015), but simultaneously seek to achieve financial sustainability through revenue generation from trading (Di Domenico, Haugh, & Tracey, 2010). Unlike governmental institutions and not-for-profit organizations that depend on taxation and donations, respectively, hybrid social ventures "self-finance" their social impact activities and, hence, can be a more effective solution.

Nowadays, causation and effectuation are two mainstream approaches in the literature on business venturing. While causation consists in setting goals and acquiring the required resources to achieve them, effectuation consists in creating solutions by combining the available means with contingencies. We believe that the theory of effectuation (Sarasvathy, 2001) can help us in the endeavor of filling the above-mentioned void for several reasons: The environment is uncertain and characterized by resource scarcity, and the success of social enterprises depends on the contribution of multiple stakeholders (Haigh & Hoffman, 2012; Lumpkin, Moss, Gras, Kato, & Amezcua, 2013). With regard to uncertainty and resource scarcity, Dacin, Dacin, and Tracey (2011, p. 1210) state that *"a cognitive perspective that has particular resonance for the study of social entrepreneurship is effectuation theory. (…). Given the high levels of uncertainty faced in social entrepreneurship contexts and the resource constraints that social entrepreneurs usually operate within, we consider that effectuation offers fascinating possibilities to study the decision-making strategies in this context."* In relation to multiple stakeholders, one of the pillars of the theory of effectuation is the engagement of self-selected stakeholders who provide additional resources (Wiltbank, Dew, Read, & Sarasvathy, 2006). Corner and Ho (2010) also suggest a role for effectuation in the creation process of social ventures. Di Domenico et al. (2010), in addition to referring to effectuation as a theory that sheds light on the process of entrepreneurial resource acquisition under conditions of resource scarcity, coin the concept of social bricolage. As effectuation and bricolage are connected (Fisher, 2012) and have a relationship with opportunity creation (Welter, Mauer, & Wuebker, 2016), we will also refer to bricolage and opportunity creation. In this respect, there is literature suggesting a link between social entrepreneurship and the creation of opportunities: *"We found no social entrepreneurship articles that portrayed opportunities based on creation theory, and we believe such efforts could fill both conceptual and empirical gaps in social entrepreneurship research"* (Short, Moss, & Lumpkin, 2009, p. 175). In their study of opportunities for social value creation, Corner and Ho (2010, p. 638) conclude that they are *"created, not found or discovered."* Therefore, the objective of this chapter is to show that the effectuation approach, more than the casual approach, can help create new ventures that simultaneously combine business and charity at their core (Battilana & Lee, 2014; Kolk & Lenfant, 2016).

The main contribution of this research is a process model explaining the creation of hybrid social ventures through effectuation and bricolage. The proposed framework fills the void in the literature on

how the creation process of these ventures unfolds. The model illustrates that entrepreneurs may create hybrid social ventures by means of effectuation and bricolage if there is a social mission to pursue and financial goals to ensure the sustainability of the new venture. The topics of this chapter can be of interest for entrepreneurs willing to create a lucrative business with the potential to simultaneously resolve or alleviate a societal problem.

The content of this chapter pertains to the domain of sustainable entrepreneurship. Sustainable entrepreneurs create profitable businesses that also pursue social or environmental causes (Choi & Gray, 2008). They obtain entrepreneurial rents while simultaneously improve environmental conditions (Cohen & Winn, 2007). They focus on environmental preservation in the pursuit of opportunities that deliver economic and non-economic gains to individuals and society (Shepherd & Patzelt, 2011). Dean and McMullen (2007) state that environmental problems are the result of the failure of markets, and entrepreneurship can help resolve them because opportunities are inherent in market failure. Market imperfections (Cohen & Winn, 2007) and market failure (Dean & McMullen, 2007) contribute to environmental degradation and simultaneously are a source of business opportunities. Therefore, sustainable entrepreneurship connects, on one hand, with the concept of hybrid social ventures that seek alignment between financial and social returns (Di Domenico et al., 2010; Nicholls, 2010) and between activities that generate profit and activities that generate societal impact (Santos et al., 2015). On the other hand, it has a link with market failures as sources of opportunities for hybrid social ventures (Santos et al., 2015).

The chapter starts with a literature review that introduces the constructs involved in the research: Hybrid social ventures, effectuation, bricolage, and opportunity creation. We justify the use of the case study as the research methodology and present RecStores as an example of hybrid social venture created thanks to the use of effectuation and bricolage. We provide the reader with information about El Rec, the tannery district of Igualada (Barcelona), about Rec.0, the fashion retail event that takes place in El Rec, and about RecStores, the legal entity that organizes the event. The results were obtained using the literature review as a template to analyze the data collected. In the discussion we link the results to the theory in order to identify the main findings. We finish with the conclusions of this research.

BACKGROUND

In this section we will review literature on hybrid social ventures, effectuation, bricolage, and opportunity creation.

Hybrid Social Ventures

Mair and Marti (2006) define social entrepreneurship as a process involving the innovative use and combination of resources to pursue opportunities to catalyze social change and address social needs in a way that is not dominated by direct financial benefits for the entrepreneurs. Dacin, Dacin, and Matear (2010) claim that the primary mission of the social entrepreneur is to create social value by providing solutions to social problems.

However, social entrepreneurs rely on market-based mechanisms and use business ventures to solve problems (Mair, 2010; Smith, Gonin, & Besharov, 2013). Indeed, they create both social and economic value to the benefit of collective interests (Short et al., 2009). McMullen and Warnick (2016) state that they blend the pursuit of social and financial value creation into the very fabric of the new venture. Di

Domenico et al. (2010) say that they pursue a social goal and achieve financial sustainability through revenue generation from trading.

Hybrid social ventures combine business and charity at their core (Battilana & Lee, 2014; Kolk & Lenfant, 2016). They merge business and social missions (Lee & Jay, 2015). Some authors refer to alignment: Between financial and social returns (Di Domenico et al., 2010; Nicholls, 2010); between financial viability goals and social impact goals (Haigh et al., 2015); and between activities that generate profit and activities that generate societal impact (Santos et al., 2015).

Moss, Lumpkin, and Short (2010) and Moss, Short, Payne, and Lumpkin (2011) explain that social ventures exhibit dual identities, a utilitarian (entrepreneurial, product oriented) identity and a normative (social, people oriented) identity. Battilana and Lee (2014) argue that the revenue-generating activities and the activities undertaken to achieve the organization's social mission are integrated and share costs.

With regard to the extent of an organization's hybridity, Kolk and Lenfant (2016) refer to a broad continuum between social only on the one hand and financial only on the other, with hybrid in the middle. Dees and Elias (1998) locate social ventures on a continuum between purely charitable and purely commercial, depending on whether the entrepreneurial mission prioritizes a social or economic goal.

Some authors remark on the challenge of emphasizing both social and business goals simultaneously and ponder how to sustain commitments to conflicting goals over time (Smith et al., 2013) and how to create social and economic value simultaneously (Short et al., 2009).

Although Battilana and Lee (2014) and Santos et al. (2015) stress that neither form –business or charity– nor performance –financial or social– must be prioritized, some authors prioritize social goals over financial goals (Lumpkin et al., 2013; Hocherts, 2015; Holt & Littlewood, 2005; Lee & Jay, 2015). In contrast, some other authors prioritize financial goals over social goals (Dacin et al., 2010; Dacin et al., 2011). Therefore, there is no consensus about which sphere to prioritize. While Emerson (2003) contends that blended value does not require tradeoffs between social and financial value, McMullen and Warnick (2016) assert that blended value is costly and requires a tradeoff.

The success and sustainability of hybrid social ventures depends on the simultaneous achievement of the company's social and financial goals and mission (Battilana & Lee, 2014; Smith et al., 2013).

Hybrid social ventures may originate as a result of market failures (Santos et al., 2015; Lumpkin et al., 2013) or failures due to absent or inefficient government (Kolk & Lenfant, 2016; Mair, 2010); to provide social goods not supplied by the market (Short et al., 2009); as a response to the lack of facilities and services in communities characterized by limited access to resources (Di Domenico et al., 2010); more broadly, to alleviate a particular social problem (Haigh et al., 2015); and, finally, as a result of the identification of antagonistic assets, resource combinations that a priori make the marketing of a product more difficult (Hockerts, 2015).

Effectuation

Effectuation consists in taking a given set of means and selecting between possible effects that can be created with them. The means are idiosyncratic to the entrepreneur and the effects are sought but not preselected. *"Characteristics of decision makers, such as who they are, what they know, and whom they know, form the primary set of means that combine with contingencies to create an effect that is not preselected"* (Sarasvathy, 2001, p. 249). Effectuation is a coherent set of five heuristic principles grounded in expert entrepreneurial practice for decision-making under uncertainty (Read, Song, & Smit, 2009) useful in the creation of human artifacts (Sarasvathy, Dew, Read, & Wiltbank, 2008). The five principles,

enunciated as prescriptions to potential entrepreneurs, are: Start with your means (think about what you can do based on what is available to you); focus on the downside risk (affordable loss); leverage contingencies; form strategic alliances; and control versus predict (the future cannot be predicted). In contrast, causation contends that goals determine actions and entails selecting the best action to achieve a given goal, subject to the available means. It also suggests that the future can be predicted.

Businesses created using the effectual logic are usually unexpected businesses because in effectuation processes the venture cannot be envisioned from the beginning. In contrast, in causation processes the venture is envisioned from the beginning (Chandler, DeTienne, McKelvie, & Mumford, 2011), goals are set beforehand, and all efforts are directed at achieving the pre-set goals. Furthermore, *"effectuation processes do not set a specified end point, but focus on what can be done (given the capacity to influence and means at hand) to move toward a yet-to-be-determined near-term future end point"* (Welter et al., 2016, p. 7).

The effectuator's pool of resources (what I have) is composed of three categories of means: identity (who I am: traits, tastes, and abilities), knowledge (what I know: education, training, expertise, and experience), and network (whom I know: social and professional networks).

The principle of affordable loss recommends that decision-makers avoid risking more than what they can afford to lose (Read et al., 2009).

Given the exact same starting point, contingencies shape the artifact that is finally created (Sarasvathy, 2001; Harmeling, 2011). Entrepreneurs exploit contingencies rather than preexisting knowledge, and manage failures rather than trying to avoid them. They do not merely react to contingencies but rather actively seek to transform them into resources (Harmeling & Sarasvathy, 2013).

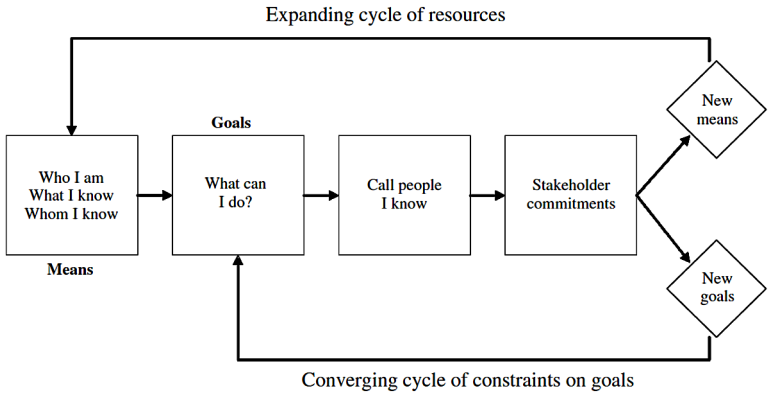
Effectuation allows for the co-creation of ventures with nothing more than the available resources and stakeholders who self-select into the process and make pre-commitments (Read, Sarasvathy, Dew, & Wiltbank, 2016). New stakeholders provide additional means (Read et al., 2009). Pre-commitments are provisions of resources made early in the process by self-selected stakeholders who engage a priori (Wiltbank et al., 2006). Stakeholders not only provide resources, they also set agendas. Courses of action are co-determined by stakeholders who commit resources to particular actions (Sarasvathy et al., 2008). Indeed, "who comes on board *determines what the new market will look like"* (italics original; Sarasvathy & Dew, 2005, p. 558). The contribution of stakeholders causes an expanding cycle of resources and a converging cycle of constrains on goals (Wiltbank et al., 2006).

The essence of effectuation is a non-predictive way of coping with uncertainty (Sarasvathy, 2001). High uncertainty reduces the accuracy and usefulness of prediction, requiring alternative approaches (Wiltbank, Read, Dew, & Sarasvathy, 2009). Effectuation refers to Knightian uncertainty, for which the future is unknowable because it is impossible to calculate probabilities since distributions do not exist (Sarasvathy et al., 2008).

Effectuators focus on the controllable aspects of an unpredictable future rather than on the predictable aspects of an uncertain future. The logic of non-predictive control suggests that to the extent you can control the future you do not need to predict (Wiltbank et al., 2009).

Sarasvathy (2001) asserts that the available set of means restricts the possible effects that can be created and that the decision-maker uses the heuristic principle of affordable loss for selecting between the means. She also says that, although the assumption of preexistent goals is eliminated, the entrepreneur is guided by a generalized end goal or aspiration in the sense that effectuation is not a theory of trial-and-error and the effectual process is purposeful and propelled through high level goals (Read et al., 2016).

Figure 1. Dynamic model of Sarasvathy and Dew (2005)



Effectuation is about creating human artifacts and designing the environments in which entrepreneurs live and work. Harmeling and Sarasvathy (2013) state that entrepreneurs must not passively accept the rules of the game, meaning the prevailing norms and modes of operation in their environments, but rather seek to influence and transform their environments. Effectual artifacts may take on shapes that are unanticipated and sometimes even unimagined (Sarasvathy et al., 2008; Harmeling, 2011). Moreover, *"the end-product (…) is inherently unpredictable at the beginning of the process because the process is actor-centric: it depends on which actors come on board with what commitments"* (Sarasvathy & Dew, 2005, p. 544).

Figure 1 shows a dynamic model that describes how new markets as effectual artifacts are created by means of the effectual interactions of their creators (Sarasvathy & Dew, 2005). Effectuators consider what they can do based on all the resources available to them. By engaging self-selected stakeholders who commit resources to the endeavor, the available means are increased. In exchange for the additional resources they commit, these stakeholders help shape the artifact by narrowing the scope of the goals.

Dew, Read, Sarasvathy, and Wiltbank (2011, pp. 235-236) view new market creation as a result of transformation processes rather than as a result of search and selection in a universe of exogenously given market opportunities. Entrepreneurs *"generate usable innovations'* out of *'a series of transformations of the particular stakeholders' means-at-hand into new goods and services that are often unanticipated residual artifacts of the effectual process."* They list a variety of transformation types: Deletion and supplementation, composition and decomposition, exaptation, manipulation, deformation, among others. Exaptation, similar to bricolage, occurs when a resource characteristic that once served a function has evolved to serve another function (Welter et al., 2016).

Bricolage

Departing from Lévi-Strauss concept of bricolage ("making do with what is at hand"), Baker and Nelson (2005) explain how some entrepreneurs create something out of nothing in resource-constrained environments by exploiting resources at hand *"available very cheaply or for free"* (p. 336) because they are rejected or ignored by other firms. Bricolage consists of recombining and reusing *"resources for different applications than those for which they were originally intended or used"* (p. 335) or recombining existing resources for new purposes or using means in novel ways (Welter et al., 2016). Also,

entrepreneurs practicing bricolage refuse to enact or be constrained by environmental limitations (e.g., firms enact limitations when they do not take action for lack of a budget). Baker and Nelson (2005) claim that resource environments are unique and idiosyncratic to the firm.

Entrepreneurs may use bricolage due to resource constraints or scarcity or lack of the right resources, as suggested in the literature that connects effectuation and bricolage (Fisher, 2012; Welter et al., 2016). Fisher (2012) asserts that resource constraints are a source of creative innovation and that taking action is a mechanism for overcoming those resource constraints. Lumpkin et al. (2013) state that limited and scarce resources force social entrepreneurs to act entrepreneurially and stimulate them to become creative. Di Domenico et al. (2010) suggest that resource constraints push the social enterprise into finding innovative ways of using existing resources and acquiring new resources in order to both achieve financial sustainability and generate social outcomes.

Opportunity Creation

Alvarez and Barney (2007) discuss the question whether opportunities exist out there, independent of the actions and perceptions of individuals, just waiting to be discovered (discovery approach), or are created by the actions of the entrepreneur (creation approach). Some authors claim that entrepreneurial opportunities are created, enacted, or produced, rather than merely discovered (Alvarez & Barney, 2007; Baker & Nelson, 2005; Berglund, 2007; Edelman & Yli-Renko, 2010; Klein, 2008; Sarason, Dean, & Dillard, 2006; Wood & McKinley, 2010).

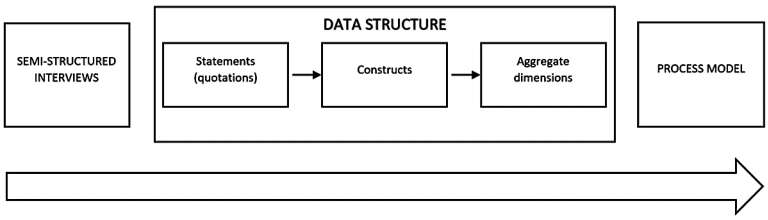
Opportunities are created by the actions, reactions, and enactment of entrepreneurs (Alvarez & Barney, 2007). Opportunities do not exist until entrepreneurs create them through a process of enactment (Alvarez, Barney, & Anderson, 2013). Entrepreneurs act, wait for a response from the market, adjust the beliefs, and act again (Alvarez et al., 2013; Vaghely & Julien, 2010). Similarly, entrepreneurs following an effectuation process make decisions, observe the results of those decisions, and utilize this new information to change course (Chandler et al., 2011). In opportunity creation, entrepreneurs test their beliefs about an opportunity against the market and based on feedback they refine the beliefs and continue to do so until they either give up or form an opportunity (Alvarez et al., 2013). Moreover, opportunities are constructed over time by means of the entrepreneur's ongoing interaction with the environment (Suddaby, Bruton, & Si, 2015).

There are some commonalities between opportunity creation (Alvarez & Barney, 2007; Alvarez et al., 2013) and effectuation (Sarasvathy, 2001; Wiltbank et al., 2006): Entrepreneurial agency in the creation of opportunities; uncertain decision-making context; iterative process of action and reaction; use of intuition and biases and heuristics; inability to see the end from the beginning; there is no end until the process has unfolded; acceptable and affordable loss; no role of potential gains and downside potential; bootstrapping and available means; opportunities unrelated to current markets and industries; experimentation and learning from successful or failed actions; construct something that was previously unknown, unknowable, and unanticipated.

Suddaby et al. (2005) equate causation to discovery and effectuation to creation. Corner and Ho (2010, p. 638) found some coincidences between effectuation and opportunity creation: *"Effectuation processes (…) seem to include the very creation of entrepreneurial opportunities."*

Both the creation approach and effectuation can involve the creation of new markets. Following Alvarez, Young, and Woolley (2015), we co-create an opportunity when we create the market (demand and supply) and the corresponding institutions (industry standards and government regulations). Prior to

Figure 2. Analytical approach following Gioia, Corley, and Hamilton (2012)



the actions of the entrepreneur, the industry did not exist and there was neither demand (e.g., sales) nor supply (e.g., production). Customers must often be educated as part of the creation process. We usually cooperate with diverse stakeholders. In a similar vein, Sarasvathy, Dew, Velamuri, & Venkataraman (2003) argue that in opportunity creation neither demand nor supply exist prior to the entrepreneurial venture, and both sides of the market have to be created anew.

In the Introduction section we mentioned that little attention is paid to the creation process of hybrid social ventures. The literature review on effectuation, bricolage, and opportunity creation suggests that these frameworks may help us to fill this gap. Therefore, we propose the following research question: "How can effectuation (and bricolage and opportunity creation) contribute to explaining early decision-making in hybrid social ventures?" We will answer this question by examining the creation process of RecStores.

METHODOLOGY

The case study was chosen as the research methodology because the research question starts with "how" (Yin, 2017) and the purpose of the inquiry is to understand a specific phenomenon and to build theory using qualitative evidence, rather than test hypotheses and generalize findings. Because of the exploratory nature of this study, we chose a qualitative approach based on semi-structured interviews with founders-managers of RecStores, the legal entity established to organize the Rec.0 event. The expected outcome of this research was a process model describing the relationships between some constructs that would shed light on how hybrid social ventures are created.

We used an analytical approach following Gioia, Corley, and Hamilton (2012), who propose a method to develop new concepts and derive models designed to provide qualitative rigor to the conduct and presentation of inductive research. Applying this method allowed us to convert the content of the semi-structured interviews into a process model, as shown in Figure 2.

We followed the sequence: quotations from the semi-structured interviews → constructs used by the researchers to codify the quotations → dimensions that aggregate the constructs. The set of statements, constructs and dimensions was the basis for the data structure, which represents the progression from raw data to the derived model. The model that shows the dynamic relationships among the emergent concepts and clarifies the relevant data-to-theory connections is depicted in graphical form. Using this method allowed us to maintain a chain of evidence (Yin, 2017) for external observers to be able to follow the derivation of evidence from the research question to the case study conclusions. The set of constructs used by the researchers to codify the content of the semi-structured interviews was selected from the literature review on effectuation and bricolage. On the one hand, we used the effectuation five

Table 1. RecStores, S.L. financial information (amounts in €)

Year	2012	2013	2014	2015	2016	2017
Revenues	403,529	679,254	794,907	980,609	1,197,451	1,180.165
EBIT	47,624	120,167	105,381	85,974	76,615	46,827
Net earnings	35,718	90,124	79,036	64,481	57,461	35,120
Retained earnings	35,718	125,842	204,878	269,359	326,820	361,941
ROA	24.2	40.8	28.4	17.8	15.0	7.8
ROE	123.0	93.3	50.7	31.6	23.2	12.8

Source: SABI

heuristic principles to identify evidence to confirm that RecStores was created following an effectual process, as *"following all principles clearly represents a case of effectuation"* (Welter et al., 2016, p. 10). On the other hand, we used the following codes: *means*, *effects*, *contingencies*, *strategic alliances*, *decision-making process*, *transformation* (of *means* into *effects*) and *bricolage*. The *means* code was split into: *who I am*, *what I know*, and *whom I know*. We also included *dual mission-goal* from the literature on hybrid social ventures.

As described before, primary data was collected through semi-structured interviews with founders-managers of RecStores. Although the interviews were open, a questionnaire based on the literature review was prepared to guide the interviews and keep the focus on the research question. All the interviews were recorded, transcribed, and coded. Secondary data came from archival documents including website information, newspaper clippings, internal documents, and public reports.

RecStores was selected because it was a priori considered to be an example of a hybrid social venture created through using effectuation and bricolage. RecStores is a hybrid social venture because it pursues earning money and also revitalizing El Rec. Both business and charity are part of its core (Battilana & Lee, 2014). They are earning money (see Table 1) and attracting more than 120,000 visitors to the district twice a year for 4 days. They organize an array of social and cultural activities in parallel to the fashion retail event to bring people to the tannery district, thus contributing to its recovery and preservation. We also show (see Table 2) that the venture was created thanks to the use of effectuation and bricolage.

THE CASE OF REC.0

This section is devoted to present Rec.0, an event organized by the firm RecStores to revitalize El Rec, the tannery district of Igualada (Barcelona).

El Rec, the Tannery District of Igualada (Barcelona)

Igualada had a population of 39,540 inhabitants in 2018[1] and it is located 60 kilometers to the West of Barcelona. The town is known in the region of Catalonia for its economy based on textile and tanning industries. Despite a steady downturn in both industries, some activity currently remains and many buildings bear witness to a glorious industrial past.

Table 2. Evidence in support of the effectuation five heuristic principles

Effectuation Principle	Evidence
Start with your means	*"We are six people from different backgrounds, but we complement each other well because everybody has assumed an area of responsibility. All of us knew each other for some reason: having shared an office, having been partners before, having done jobs together, having gone to the same school… We had in common the fact that all of us were self-employed."* None of the founders had experience in the fashion retail industry. They are 4 designers, one of them also a painter, a lawyer that creates news content, and an editor with education and experience in marketing. *"We had to count on friends and acquaintances."* *"We had to ask for favors."* *"We took advantage of direct and indirect contacts with brands."* They also had direct and indirect contacts with national media.
Focus on the downside risk	They have never borrowed from banks. They invested some personal savings to establish the firm. The minimum amounts guaranteed by the brands do not cover the overall cost of the event. The risk of losing money exists if the brands do not sell enough. *"We spend as little as possible not to depend on others. We are only willing to assume the risk of a rainy edition that prevents brands from selling as expected."* *"During the first editions we were not paid any salary and the firm did not make any profit, but the team accepted this because all of us believed in the project."*
Leverage contingencies	Rain, floods, gales, storms, brands and owners of abandoned tanneries who pulled out a few days before the event, blackouts in stores full of shoppers because the power generator has stopped (*"without any blackout, it is not Rec.0"*)... They have learnt a lot from contingencies. *"And, above all, we do accept contingences laughing; and so do the visitors. Nothing ever gets extremely serious... in this business."*
Form strategic alliances	They partner with: brands, designers, owners of abandoned tanneries, real estate agents, the city hall, local retailers (Off-Rec).
Control versus predict	*"One of the keys is the team, since the members go to great lengths to make every edition different and better than the previous one."* *"Finally, they decided to continue. But there is no plan to organize ten or twenty editions. And there is no time horizon."*

El Rec is the district of Igualada where tanneries have been located since the 18th Century. "Rec" is the Catalan word to name the narrow water channels that provide towns with water for human or economic activities. El Rec of Igualada runs parallel to the Anoia River and supplies water to orchards and tanneries. It also gives its name to the entire tannery district. Today most of the tanneries, built during the 19th and 20th Centuries, are abandoned.

The abandoned tanneries and the district itself constitute a cultural landscape (Jones, 2003; Plieninger & Bieling, 2012). Cultural landscapes are the result of the relationships between human activity and the environment (Farina, 2000). They include, not only natural processes, but also the past, present and future role of humans (Vos & Meekes, 1999). As Sabaté (2012) explains, cultural landscapes are the result of the action of a social group over a natural landscape or, in a less orthodox definition, the mark of human work on the territory, true memorials to anonymous workers. They are heritage to be recovered and preserved. Urban planners sustain that esteem of residents is key for the recovery, preservation, and reuse of cultural landscapes, and that reuse should not be linked to the original industrial activities, nowadays economically unviable, but rather to new activities, able to attract investments and generate new wealth and jobs such as educational tourism. Successful revitalization initiatives emerge from the bottom to the top, boosted by lovers of the territory.

Many photographers are fascinated by the so-called abandoned ruins. They take pictures of abandoned buildings that capture the effect of the passage of time in forgotten places that were full of activity in the past. Most of the pictures are taken indoors. This practice is also a means to call people's attention to the need of preserving threatened heritage. The tanneries and the entire district have also been the object of photographers of abandoned ruins.

Rec.0 and RecStores

Rec.0 is a biannual event that takes place for 4 days in the tannery district of Igualada[2]. It consists in selling off discontinued stock of renowned fashion brands. There are two editions per year, spring-summer (May) and autumn-winter (November). Clothing is sold in pop up, ephemeral stores inside the abandoned tanneries at large discounts. Among similar events in Europe, Rec.0 is the largest in numbers. The last edition attracted 120,000 visitors, 80 percent of which were non-local, and concentrated 100 fashion brands in 60 stores. Together with the sell-off, other parallel activities are organized, such as music, gastronomy, conferences, exhibitions, and a contest for emerging designers. Up to the time of collecting the data for this research, 20 editions have taken place.

RecStores is the legal entity established by the six creators of the Rec.0 event. Among other tasks, the firm sets the rules, selects the fashion brands, coordinates the communication campaign, rents the abandoned tanneries, converts them into stores by supplying furniture, fitting-rooms, counters and lighting, supervises the inventory for sale in the stores, and organizes the parallel activities. The brands pay a commission on their sales to RecStores. There is a minimum amount guaranteed, but it does not cover the overall cost of the event and, hence, the risk of losing money exists if the brands do not sell as expected. The minimum amounts guaranteed are low because they were set at the beginning with the aim of attracting the desired brands. The overall cost of the event includes indoor and outdoor assembly, permits and licenses, the salaries of the staff in charge of communication and supervision and the rent of power generators. The brands have included Rec.0 in their annual plans to sell discontinued stock, together with other channels such as their own outlet stores and online outlets. They use Rec.0 not only to sell inventory but also to enhance brand awareness[3].

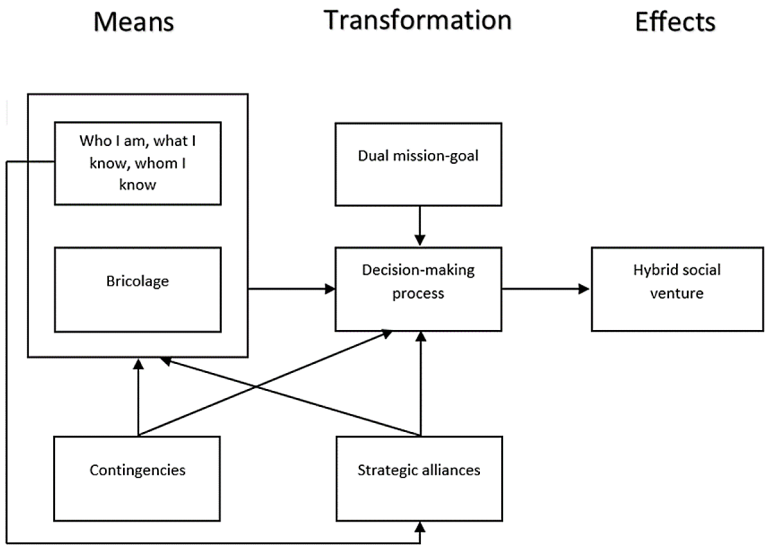
RESULTS

Table 3 shows the data structure for this research. The column "Statements" shows the quotations from the semi-structured interviews. The column "Constructs" shows the constructs used by the researchers to codify the quotations. The constructs in the second column are gathered in the column "Aggregate dimensions."

Figure 3 is the outcome of Table 3 and is a graphical representation of the derived model. It summarizes the results of this research:

1. The founders of RecStores possessed a pool of resources (what I have) comprised of three categories of means: identity (who I am), knowledge (what I know), and network (whom I know)
2. They used bricolage materials
3. They transformed contingencies into additional resources
4. The contingences also influenced their decision-making process

Figure 3. Dynamic relations among constructs



5. They combined their set of means with the contingencies to create a non-preselected effect, a hybrid social venture with a dual mission-goal: earn money and attract visitors to El Rec; the hybrid social venture has some characteristics of opportunity creation
6. They transformed means into effects through a decision-making process
7. They were inspired by a dual mission-goal: earn money and attract visitors to El Rec
8. The transformation required some partnerships forged thanks to strategic alliances of self-selected stakeholders
9. The partnerships were facilitated by the founders' *whom I know*
10. The partnerships provided additional resources
11. The partnerships also influenced their decision-making process.

Figure 3 depicts a process model explaining that RecStores was created by combining a set of means with contingencies. It corroborates the dynamic model of Sarasvathy and Dew (2005) shown in Figure 1. The founders attracted the attention of some partners who committed resources and increased the available means (expanding cycle of resources). In turn, in exchange for the resources they committed, the partners influenced the evolution of the event (converging cycle of constraints on goals).

The crux of the model depicted in Figure 3 is the influence of the dual mission-goal in the decision-making process to create the new venture. The founders were not inspired by the desire to create a lucrative business. Rather, they wanted to revitalize El Rec. This was their generalized end goal or aspiration. The idea emerged when the city hall was about to approve a new urban plan, which numerous citizens and experts considered a threat to the tannery district. They perceived the risk of losing the area's architectural heritage forever. They wanted to revitalize the district deteriorated due to the passage of time and the lack of use. Those who met to discuss options to revitalize El Rec believed that a big event had to be organized in the district, and that fashion sales attract a lot of people. Someone recalled that the town had a flourishing, nowadays declining, textile industry and also a tradition of factory outlets to sell

Table 3. Data structure

Statements	Constructs	Aggregate Dimensions
Who I am *"We are six people from different backgrounds, but we complement each other well because everybody has assumed an area of responsibility. All of us knew each other for some reason: having shared an office, having been partners before, having done jobs together, having gone to the same school… We had in common the fact that all of us were self-employed."* *"One of the keys is the team, since the members go to great lengths to make every edition different and better than the previous one."* What I know None of the founders had experience in the fashion retail industry. They are 4 designers, one of them also a painter, a lawyer that creates news content, and an editor with education and experience in marketing. Whom I know *"We had to count on friends and acquaintances."* *"We had to ask for favors."* *"We took advantage of direct and indirect contacts with brands."* They also had direct and indirect contacts with national media.	Who I am, what I know, whom I know	Means
Bricolage resources are: abandoned tanneries, the objects inside them, and the tannery district of Igualada itself. *"Most of the materials are retrieved from abandoned tanneries and then restored, because this type of material is the essence of the event. We have a large warehouse full of retrieved and restored material."* Until the sixth edition they had no communication budget and had to count on social networks and media.	Bricolage	
Rain, floods, gales, storms, brands and owners of abandoned tanneries who pull out a few days before the event, blackouts in stores full of shoppers because the power generator has stopped (*"without any blackout, it is not Rec.0"*)... They have learnt a lot from contingencies. *"And, above all, we do accept contingences laughing; and so do the visitors. Nothing ever gets extremely serious... in this business."*	Contingences	Contingencies
They partner with: brands, designers, owners of abandoned tanneries, real estate agents, the city hall, local retailers (Off-Rec).	Strategic alliances	Strategic alliances
They wanted to revitalize El Rec, the tannery district of Igualada, rather than to create a business on their own.	Dual mission-goal	Dual mission-goal
They have never borrowed from banks. They invested some personal savings to establish the firm. The minimum amounts guaranteed by the brands do not cover the overall cost of the event. The risk of losing money exists if the brands do not sell enough. *"We spend as little as possible not to depend on others. We are only willing to assume the risk of a rainy edition that prevents brands from selling as expected."* *"During the first editions we were not paid any salary and the firm did not earn any profit, but the team accepted this because all of us believed in the project."* *"The idea has been refined."*	Decision-making process	Transformation
They earn money and attract 120,000 people to El Rec for 4 days twice a year. "*We have converted an abandoned place into a place full of light and people."* *"In November, when fashion purchases are low, suddenly we create the need for buying and people who would not buy come to buy."* *"We are creating a new reality, a world that does not exist, ephemeral; a world that only lasts 4 days twice a year."*	Hybrid social venture	Effects

discontinued stock from the industry's firms. Someone else showed a press clipping about the emerging phenomenon of pop up stores. This is how the business idea was born.

The founders achieved the generalized end goal or aspiration of revitalizing El Rec by organizing an event that brought a lot of people to the district. "*We have converted an abandoned place into a place full of light and people."*

The resulting hybrid social venture, RecStores, has some characteristics of opportunity creation. In addition to facilitating the product supply through their partnerships with fashion brands, they also created a demand for the products: *"In November, when fashion purchases are low, suddenly we create the need for buying and people who would not buy come to buy."* They created both sides of a new market, attracting consumers who anticipate their purchases and aggregating the supply of discontinued clothing. There are no data available to assert that Rec.0 has converted non-consumers into consumers, or to show that Rec.0 has increased the purchases of discontinued clothing. Maybe it has only changed the timing of the purchases, by concentrating them in a few days per year. The event enables the brands to obtain a higher margin compared to selling the same inventory through other alternative channels.

They also created a new purchase experience:

Rec.0 cannot be held inside a mall or a warehouse. Aesthetics is very important. Visitors are offered to purchase, but also the experience of doing it in a singular place, a deteriorated place we want to recover. There is an intangible aspect linked to the authenticity of the place. Visitors identify Rec.0 with fashion stores in abandoned tanneries. It is not about purchasing discontinued inventory; it is about doing it in the setting of El Rec.

They have also contributed to creating the rules or standards for such events.

Decision-Making Process

The founders did not write a business plan before establishing RecStores. They followed an iterative process of action and reaction and relied on trial-and-error experimentation in the early stages of development of the venture. As they said, *"the idea has been refined."* Nowadays, they continue relying on intuition rather than on formal analysis and planning:

After each edition we asked ourselves whether the event would continue. Among the members of the group, some said we had to stop and others said we had to continue. In the end, we decided to continue. However, there is no plan to organize ten or twenty editions. And there is no time horizon. From the first edition to the second the number of brands doubled, and worth-of-mouth worked perfectly. The great acceptance by the brands has compelled us to continue. One of the keys is the team, since the members go to great lengths to make every edition different and better than the previous one. However, all of us believe that Rec.0 will stop at some point, regardless of the brand merchants' desires and expectations. They do not even remotely consider the end of the event. In addition, the citizens of Igualada have come to appreciate the event so much they have made it their own".

With regard to the inception of the business idea, the founders said that *"something none of us knew how it would end up being was born,"* a thought process that fits the statement "the new venture cannot be envisioned from the beginning" mentioned in the literature review. The founders also said:

When we started we did not imagine that Rec.0 would grow as it has grown. When we started we thought that Rec.0 would be an ephemeral event; that we would do it once; that it would consist of a single edition. But then the second, the third, etc. followed.

These words are related to the inability to see the end from the beginning and to the fact that there is no end until the process has unfolded, suggested by both effectuation and opportunity creation.

Effectuation Five Heuristic Principles

The founders knew each other for personal or professional reasons, and met up motivated by a generalized end goal or aspiration, the desire to revitalize El Rec. None of them had prior knowledge of the fashion retail industry. From the 6 founders, 4 are designers. Their social capital basically consisted of direct and indirect contacts with fashion brands and media.

They only put some savings at risk. They neither borrowed from banks nor counted on external investors. The sole risk of the venture was not to collect enough from the firms to offset the overall cost of the event. Hence, their downside potential was the difference between the minimum amounts guaranteed by the brands and the overall cost of Rec.0. They calculate this difference for each edition, consider whether they can afford to lose it, and do not risk more. The upside potential has never been a matter of concern. The founders were not paid any salary and RecStores did not earn any money until the event was consolidated. During the period 2012−2017 (see Table 1) revenues grew steadily and net earnings were positive every year, yet they have been decreasing annually. The firm retains the net earnings, a policy consistent with the decision not to rely on external sources of funding and to possess a buffer against severe contingencies.

They have learnt a lot from contingencies. For instance, they sign the contracts with stakeholders earlier to prevent that the owners of the tanneries or the brands pull out a few days before the event. They also have some covered areas ready in case it rains.

RecStores partner with their customers, fashion brands and fashion designers, who pay a commission on their sales; and with their suppliers, owners of the abandoned tanneries, who are paid a rent, and real estate agents, who are paid a fee. The fashion brands pre-commit resources (e.g., the fixed costs of opening a pop up store for 4 days twice a year and the guaranteed minimum amounts). They have other stakeholders such as the city hall. The town incurs additional costs during the event which are offset by the opening licenses paid by the brands. In addition, the event allows the town to appear in the national media. RecStores even partner with local retailers. There is a conflict between RecStores and the brands, on the one hand, and the local fashion stores whose sales have deteriorated due to the event, on the other hand, because all of them compete for the same budgets. They have encouraged agreements between the brands and the local retailers, and have launched some initiatives to promote the sales of local retailers during the event like Off-Rec, a circuit through city center stores and restaurants.

Finally, as they do not rely on analysis and planning (they did not write a business plan before establishing the venture), they do not make any predictions. The venture is the result of the unplanned actions of the founders-managers, and they control the future of the event in one way or another.

Bricolage

Abandoned tanneries, the objects inside them and the tannery district of Igualada itself are bricolage resources, rejected or ignored by other firms, recombined or reused for different applications than those for which they were originally intended or used. They are *"the essence of the event."* Rec.0 cannot be understood without these bricolage resources. As the founders said, *"Rec.0 cannot be held inside a mall or a warehouse. (…). There is an intangible aspect linked to the authenticity of the place. Visitors identify Rec.0 with fashion stores in abandoned tanneries."* The "setting," a term frequently used by the founders to refer to the abandoned tanneries, is also a differentiation factor. As they said, *"recently some clones of Rec.0 have appeared, but they lack the* setting*."*

Part of the founders' success relies on having put the idea in practice despite lacking the budget to do it comfortably. They refused to enact environmental limitations by taking advantage of effectuation means and bricolage resources. As an example, they managed to overcome resource limitations by leveraging direct and indirect contacts with fashion brands and media:

We had to knock at the door of people we did not know and ask them to come to Igualada to participate in a two-day radical sell-off of stock in pop up stores inside abandoned tanneries.

In the first editions we had no communication budget; therefore, we had to rely on direct and indirect contacts with national media. We made a lot of calls to national media, but in fact they agreed to give coverage to the event because it is innovative, never seen before in Catalonia. It has grown and it has become a consolidated event.

DISCUSSION

RecStores is an example of a hybrid social venture created thanks to the use of effectuation and bricolage. It was created by the actions of entrepreneurs (Alvarez & Barney, 2007). They followed the pattern action → market response → new action suggested by Alvarez et al. (2013), Vaghely and Julien (2010), and Chandler et al. (2011). They constructed RecStores through ongoing interaction with the environment (Suddaby et al., 2015). Moreover, in the creation process of RecStores we have found some features of opportunity creation: In one way or another, supply and demand, market, and industry standards were created anew (Alvarez et al., 2015; Sarasvathy et al., 2003).

The main contribution of this research is the process model explaining the creation of hybrid social ventures through effectuation and bricolage. We have observed that effectuation and bricolage may play a role in the creation process of hybrid social ventures and that the new venture may have the defining characteristics of opportunity creation, thus connecting the three constructs (Welter et al., 2016).

RecStores was born as a hybrid social venture with a purpose. Therefore, it was neither a business nor a charitable organization evolving into a hybrid form over time (Holt & Littlewood, 2015). Creating hybrids from pure business or pure charitable organizations seems a matter of extending the mission to social goals in the former or to financial goals in the latter. However, understanding how new ventures that are born as hybrid firms are created is not so straightforward. In the same vein, we have also shown the role of the dual mission-goal in the creation process of RecStores: Solving a social problem is the trigger, while the financial goal ensures the sustainability of the venture. Pursuing a social mission is a

way to generate a lucrative business opportunity, which in turn enables achieving the social goal, a finding that corroborates mainstream literature on hybrid social ventures. For instance, RecStores was created explicitly to address a social objective in addition to a financial one (McMullen & Warnich, 2016). The founders pursue a social mission and generate positive social impact and engage in commercial activities that generate financial returns that sustain their operations (Battilana & Lee, 2014). The venture's social performance and financial performance do not only reinforce one another but also enable one another in such a way that success depends on achieving both the social mission and the economic outcomes (Smith et al., 2013). They create social and economic value simultaneously (McMullen & Warnick, 2016).

Early decision-making was inspired by the dual mission-goal of earning money and attracting visitors to El Rec, but the entrepreneurs were guided by a generalized end goal or aspiration (Read et al., 2016): Revitalizing El Rec. They moved *"toward a yet-to-be determined near-term future end point"* (Welter et al., 2016, p. 7): A financially sustainable new venture able to attract a lot of people to El Rec in order to revitalize the district.

RecStores fits the notion that hybrid social ventures run commercial operations with the goal of addressing a societal problem (Santos et al., 2015). The primary objective of RecStores is social value creation. Economic value creation in the form of earned income is necessary to ensure sustainability and financial self-sufficiency (Mair & Marti, 2006). This is consistent with the fact that hybrid social ventures use business and market forces (Boyd et al., 2017), use the market system (Hoffman, Badiane, & Haigh, 2012), apply business-inspired earned-income strategies (Hockerts, 2015), and are businesses trading for a social purpose (Nicholls, 2010). In conclusion, performing activities to achieve business goals contributes to the achievement of social or, more broadly, non-business goals.

RecStores was an unexpected business that could not have been envisioned from the beginning (Chandler et al., 2011). It took on an unanticipated and unimagined shape (Sarasvathy et al., 2008; Harmeling, 2011). It was a serendipitous opportunity, an opportunity unwittingly created (Buenstorf, 2007). RecStores was unexpected because what the founders really wanted and expected was to recover threatened architectural heritage. Buenstorf (2007) says that entrepreneurial opportunities are often the unintended outcomes of activities motivated by other objectives or by-products of competitive processes, and the Rec.0 case allows us to understand that entrepreneurial successes might be by-products of activities performed to achieve social or non-business goals.

This is exactly the opposite of social goals being an unintentional by-product of a commercial process in business entrepreneurship (Mair & Marti, 2006; McMullen & Warnick, 2016).

Bricolage at Rec.0 consists of recombining existing resources (abandoned tanneries) for new purposes (serve as pop up stores to sell discontinued clothing inventory). Abandoned tanneries are the object of exaptation: They had a function in the past and they have another function now. The reason for practicing bricolage was not resource constraints or scarcity or lack of the right resources, but to minimize investments, costs, and therefore risks, and also enrich the purchase experience of shoppers. Bricolage allowed the founders to minimize the overall cost of Rec.0, hence the downside potential and the affordable loss. However, by enriching the purchase experience, bricolage is an integral part of the value proposition.

Rec.0 has a positive impact on the tannery district because of spillovers or positive externalities (Santos et al., 2015) generated by the commercial activity and by the social and cultural activities organized in parallel to the event.

Identifying a social problem (the need to recover, preserve, and revitalize El Rec) and offering a potential solution to it (attract a lot of people to the district by organizing a mass event) occurred as a spark or moment of insight or moment of inspiration, realizing that social value could be created (Corner &

Ho, 2010). Sometimes opportunities are identified by linking disparate pieces of information, a process described as "connecting the dots" by Baron (2006). In this research, the business idea emerged when the founders connected five dots:

1. The desire to revitalize El Rec
2. The assumption that a big event would contribute to revitalizing El Rec
3. The assumption that fashion sales attract a lot of people
4. The town's tradition of factory outlets to sell discontinued inventory from the local textile industry
5. The press clipping about pop up stores.

RecStores was created to address the failure of the local government to preserve a cultural landscape and hence assumed the role and activities of that inefficient government (Mair, 2010). As explained before, preserving cultural landscapes depends crucially on the ability of residents to conceive activities created to reuse them (Sabaté, 2012), and Rec.0 is an example of such activities.

The case illustrates the notion that entrepreneurs are more likely to discover sustainable development opportunities the more they perceive that their natural and communal environment is threatened (Patzelt & Shepherd, 2011). Rec.0 also connects with civic wealth creation (Lumpkin & Bacq, 2019), a framework to explain that positive societal changes happens when community members and entrepreneurially-minded agents come together with aggregated resources and new capacities.

Entrepreneurs often perform activities to have fun, and those activities end up configuring lucrative business opportunities, as the Cold Opportunity case exemplifies[4]. Rec.0 is another example of this phenomenon. The founders started organizing the event because they had nothing to lose, except their time and affordable amounts of money. As the founders commented, they do it because they have fun doing it, and they will stop doing it when they do no longer have fun doing it.

Finally, Rec.0 is also an example of the paradox that some durable businesses have been created by entrepreneurs who thought that their businesses would be ephemeral.

FUTURE RESEARCH DIRECTIONS

As we mentioned in the Results and Discussion sections, the crux of the derived model is the influence of the dual mission-goal in the decision-making process to create a hybrid social venture. This point merits further research efforts, and we suggest studying the creation process of some new ventures that are born as hybrid firms in order to identify how the founders connect social mission with financial goals. The same research protocol ought to be used to study hybrid social ventures in domains other than the preservation and recovery of threatened architectural heritage (e.g., hybrid organizations created to resolve or alleviate poverty, social inequality, health concerns, climate change, or degradation of civil liberties, or to address community challenges).

CONCLUSION

The research question "how can effectuation (and bricolage and opportunity creation) contribute to explaining early decision-making in hybrid social ventures?" has led us to show that effectuation and

bricolage provide a useful framework to explain the creation process of hybrid social ventures that may have the defining characteristics of opportunity creation. We have also emphasized the role of the dual mission-goal in the creation process of hybrid social ventures: Solving a social problem is the trigger, while the financial goal ensures the sustainability of the venture. We have suggested a novel purpose of bricolage: To be an integral part of the value proposition.

Our research allows us to conclude that pursuing social or non-business goals is a way to generate lucrative business opportunities that, in turn, are imperative to achieve social or non-business goals over time. It also works vice versa: Performing activities to achieve business goals contributes to the achievement of social or non-business goals, thereby connecting this research with the topic of the positive impact of achieving entrepreneurial goals on society.

This chapter has a number of practical suggestions for interested entrepreneurs, most of which relate to the nature of the dual mission-goal of hybrid social ventures (e.g., start by evaluating the market failure that it causing the social issue we would like to resolve or alleviate; or write an inspiring mission statement combining financial viability goals and social impact goals, etc.). Rec.0 provides the reader with an example to follow.

The main limitation of this inquiry is the reliance on a single case in a specific domain. That is why we suggest to use the same research protocol to study more hybrid social ventures in different domains.

With regard to the specific domain of Rec.0, one of the lessons of this research can be applied to recovering, preserving and revitalizing cultural landscapes or any other sort of deteriorated heritage. Rec.0 corroborates the recommendation of some urban planners that preserving cultural landscapes depends crucially on the ability of residents to conceive activities embedded in them and that are created to reuse the cultural landscape. Private initiative of resident entrepreneurs exploiting lucrative business opportunities embedded in the cultural landscape could be an effective alternative to public policies and resources.

REFERENCES

Alvarez, S. A., & Barney, J. B. (2007). Discovery and creation: Alternative theories of entrepreneurial action. *Strategic Entrepreneurship Journal*, *1*(1−2), 11–26. doi:10.1002ej.4

Alvarez, S. A., Barney, J. B., & Anderson, P. (2013). Forming and exploiting opportunities: The implications of discovery and creation processes for entrepreneurial and organizational research. *Organization Science*, *24*(1), 301–317. doi:10.1287/orsc.1110.0727

Alvarez, S. A., Young, S. L., & Woolley, J. L. (2015). Opportunities and institutions: A co-creation story of the king crab industry. *Journal of Business Venturing*, *30*(1), 95–112. doi:10.1016/j.jbusvent.2014.07.011

Baker, T., & Nelson, R. E. (2005). Creating something from nothing: Resource construction through entrepreneurial bricolage. *Administrative Science Quarterly*, *50*(3), 329–366. doi:10.2189/asqu.2005.50.3.329

Baron, R. A. (2006). Opportunity recognition as pattern recognition: How entrepreneurs 'connect the dots' to identify new business opportunities. *The Academy of Management Perspectives*, *20*(1), 104–119. doi:10.5465/amp.2006.19873412

Battilana, J., & Lee, M. (2014). Advancing research on hybrid organizing–Insights from the study of social enterprises. *The Academy of Management Annals*, *8*(1), 397–441. doi:10.1080/19416520.2014.893615

Berglund, H. (2007). Opportunities as existing and created: A study of entrepreneurs in the Swedish mobile internet industry. *Journal of Enterprising Culture*, *15*(03), 243–273. doi:10.1142/S0218495807000149

Boyd, B., Henning, N., Reyna, E., Wang, D., Welch, M., & Hoffman, A. J. (2017). *Hybrid organizations: new business models for environmental leadership*. London, UK: Routledge. doi:10.4324/9781351279246

Buenstorf, G. (2007). Creation and pursuit of entrepreneurial opportunities: An evolutionary economics perspective. *Small Business Economics*, *28*(4), 323–337. doi:10.100711187-006-9039-5

Chandler, G. N., DeTienne, D. R., McKelvie, A., & Mumford, T. V. (2011). Causation and effectuation processes: A validation study. *Journal of Business Venturing*, *26*(3), 375–390. doi:10.1016/j.jbusvent.2009.10.006

Choi, D. Y., & Gray, E. R. (2008). The venture development processes of "sustainable" entrepreneurs. *Management Research News*, *31*(8), 558–569. doi:10.1108/01409170810892127

Cohen, B., & Winn, M. I. (2007). Market imperfections, opportunity and sustainable entrepreneurship. *Journal of Business Venturing*, *22*(1), 29–49. doi:10.1016/j.jbusvent.2004.12.001

Corner, P. D., & Ho, M. (2010). How opportunities develop in social entrepreneurship. *Entrepreneurship Theory and Practice*, *34*(4), 635–659. doi:10.1111/j.1540-6520.2010.00382.x

Dacin, M. T., Dacin, P. A., & Tracey, P. (2011). Social entrepreneurship: A critique and future directions. *Organization Science*, *22*(5), 1203–1213. doi:10.1287/orsc.1100.0620

Dacin, P. A., Dacin, M. T., & Matear, M. (2010). Social entrepreneurship: Why we don't need a new theory and how we move forward from here. *The Academy of Management Perspectives*, *24*(3), 37–57.

Dean, T. J., & McMullen, J. S. (2007). Toward a theory of sustainable entrepreneurship: Reducing environmental degradation through entrepreneurial action. *Journal of Business Venturing*, *22*(1), 50–76. doi:10.1016/j.jbusvent.2005.09.003

Dees, J. G., & Elias, J. (1998). The challenges of combining social and commercial enterprise. *Business Ethics Quarterly*, *8*(1), 165–178.

Dew, N., Read, S., Sarasvathy, S. D., & Wiltbank, R. (2011). On the entrepreneurial genesis of new markets: Effectual transformations versus causal search and selection. *Journal of Evolutionary Economics*, *21*(2), 231–253. doi:10.100700191-010-0185-1

Di Domenico, M., Haugh, H., & Tracey, P. (2010). Social bricolage: Theorizing social value creation in social enterprises. *Entrepreneurship Theory and Practice*, *34*(4), 681–703. doi:10.1111/j.1540-6520.2010.00370.x

Edelman, L., & Yli-Renko, H. (2010). The impact of environment and entrepreneurial perceptions on venture-creation efforts: Bridging the discovery and creation views of entrepreneurship. *Entrepreneurship Theory and Practice*, *34*(5), 833–856. doi:10.1111/j.1540-6520.2010.00395.x

Emerson, J. (2003). The blended value proposition: Integrating social and financial returns. *California Management Review*, *45*(4), 35–51. doi:10.2307/41166187

Farina, A. (2000). The cultural landscape as a model for the integration of ecology and economics. *Bioscience*, *50*(4), 313–321. doi:10.1641/0006-3568(2000)050[0313:TCLAAM]2.3.CO;2

Fisher, G. (2012). Effectuation, causation, and bricolage: A behavioral comparison of emerging theories in entrepreneurship research. *Entrepreneurship Theory and Practice*, *36*(5), 1019–1051. doi:10.1111/j.1540-6520.2012.00537.x

Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2012). Seeking qualitative rigor in inductive research: Notes on the Gioia Methodology. *Organizational Research Methods*, *16*(1), 15–31. doi:10.1177/1094428112452151

Haigh, N., & Hoffman, A. J. (2012). Hybrid organizations: The next chapter of sustainable business. *Organizational Dynamics*, *41*(2), 126–134. doi:10.1016/j.orgdyn.2012.01.006

Haigh, N., Walker, J., Bacq, S., & Kickul, J. (2015). Hybrid organizations: Origins, strategies, impacts, and implications. *California Management Review*, *57*(3), 5–12. doi:10.1525/cmr.2015.57.3.5

Harmeling, S. (2011). Contingency as an entrepreneurial resource: How private obsession fulfills public need. *Journal of Business Venturing*, *26*(3), 293–305. doi:10.1016/j.jbusvent.2009.10.003

Harmeling, S. S., & Sarasvathy, S. D. (2013). When contingency is a resource: Educating entrepreneurs in the Balkans, the Bronx, and beyond. *Entrepreneurship Theory and Practice*, *37*(4), 713–744. doi:10.1111/j.1540-6520.2011.00489.x

Hockerts, K. (2015). How hybrid organizations turn antagonistic assets into complementarities. *California Management Review*, *57*(3), 83–106. doi:10.1525/cmr.2015.57.3.83

Hoffman, A. J., Badiane, K. K., & Haigh, N. (2012). Hybrid organizations as agents of positive social change: bridging the for-profit and non-profit divide. In *Using a positive lens to explore social change and organizations* (pp. 152–174). London, UK: Routledge.

Holt, D., & Littlewood, D. (2015). Identifying, mapping, and monitoring the impact of hybrid firms. *California Management Review*, *57*(3), 107–125. doi:10.1525/cmr.2015.57.3.107

Jones, M. (2003). The concept of cultural landscape: discourse and narratives. In H. Palang & G. Fry (Eds.), *Landscape Interfaces* (pp. 21–51). Dordrecht, The Netherlands: Springer. doi:10.1007/978-94-017-0189-1_3

Klein, P. G. (2008). Opportunity discovery, entrepreneurial action, and economic organization. *Strategic Entrepreneurship Journal*, *2*(3), 175–190. doi:10.1002ej.50

Kolk, A., & Lenfant, F. (2016). Hybrid business models for peace and reconciliation. *Business Horizons*, *59*(5), 503–524. doi:10.1016/j.bushor.2016.03.014

Lee, M., & Jay, J. (2015). Strategic responses to hybrid social ventures. *California Management Review*, *57*(3), 126–147. doi:10.1525/cmr.2015.57.3.126

Lumpkin, G. T., & Bacq, S. (2019). Civic wealth creation: A new view of stakeholder engagement and societal impact. *The Academy of Management Perspectives*, 1.

Lumpkin, G. T., Moss, T. W., Gras, D. M., Kato, S., & Amezcua, A. S. (2013). Entrepreneurial processes in social contexts: How are they different, if at all? *Small Business Economics*, *40*(3), 761–783. doi:10.100711187-011-9399-3

Mair, J. (2010). Social entrepreneurship: taking stock and looking ahead. In A. Fayolle & H. Matlay (Eds.), *Handbook of Research and Social Entrepreneurship* (pp. 15–28). Cheltenham, UK: Edward Elgar Publishing Limited. doi:10.4337/9781849804684.00007

Mair, J., & Marti, I. (2006). Social entrepreneurship research: A source of explanation, prediction, and delight. *Journal of World Business*, *41*(1), 36–44. doi:10.1016/j.jwb.2005.09.002

McMullen, J. S., & Warnick, B. J. (2016). Should we require every new venture to be a hybrid organization? *Journal of Management Studies*, *53*(4), 630–662. doi:10.1111/joms.12150

Moss, T. W., Lumpkin, G. T., & Short, J. C. (2010). Social entrepreneurship: a historical review and research agenda. *Historical Foundations of Entrepreneurial Research,* 318.

Moss, T. W., Short, J. C., Payne, G. T., & Lumpkin, G. T. (2011). Dual identities in social ventures: An exploratory study. *Entrepreneurship Theory and Practice*, *35*(4), 805–830. doi:10.1111/j.1540-6520.2010.00372.x

Nicholls, A. (2010). The legitimacy of social entrepreneurship: Reflexive isomorphism in a pre-paradigmatic field. *Entrepreneurship Theory and Practice*, *34*(4), 611–633. doi:10.1111/j.1540-6520.2010.00397.x

Olive-Tomas, A. (2014). El Rec.0 i les teories sobre la creació de negocis. *Revista d'Igualada*, *48*, 39–46.

Patzelt, H., & Shepherd, D. A. (2011). Recognizing opportunities for sustainable development. *Entrepreneurship Theory and Practice*, *35*(4), 631–652. doi:10.1111/j.1540-6520.2010.00386.x

Plieninger, T., & Bieling, C. (2012). Connecting cultural landscapes to resilience. In T. Plieninger & C. Bieling (Eds.), *Resilience and the cultural landscape: understanding and managing change in human-shaped environments* (pp. 3–26). New York, NY: Cambridge University Press. doi:10.1017/CBO9781139107778.003

Read, S., Sarasvathy, S. D., Dew, N., & Wiltbank, R. (2016). Response to Arend, Sarooghi, and Burkemper (2015): Co-creating effectual entrepreneurship research. *Academy of Management Review*, *41*(3), 528–536. doi:10.5465/amr.2015.0180

Read, S., Song, M., & Smit, W. (2009). A meta-analytic review of effectuation and venture performance. *Journal of Business Venturing*, *24*(6), 573–587. doi:10.1016/j.jbusvent.2008.02.005

Sabaté, J. (2012). Paisatges culturals al Rec d'Igualada. *Revista d'Igualada*, *42*, 49–53.

Santos, F., Pache, A. C., & Birkholz, C. (2015). Making hybrids work: Aligning business models and organizational design for social enterprises. *California Management Review*, *57*(3), 36–58. doi:10.1525/cmr.2015.57.3.36

Sarason, Y., Dean, T., & Dillard, J. F. (2006). Entrepreneurship as the nexus of individual and opportunity: A structuration view. *Journal of Business Venturing*, *21*(3), 286–305. doi:10.1016/j.jbusvent.2005.02.007

Sarasvathy, S. D. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review*, *26*(2), 243–263. doi:10.5465/amr.2001.4378020

Sarasvathy, S. D., & Dew, N. (2005). New market creation through transformation. *Journal of Evolutionary Economics*, *15*(5), 533–565. doi:10.100700191-005-0264-x

Sarasvathy, S. D., Dew, N., Read, S., & Wiltbank, R. (2008). Designing organizations that design environments: Lessons from entrepreneurial expertise. *Organization Studies*, *29*(3), 331–350. doi:10.1177/0170840607088017

Sarasvathy, S. D., Dew, N., Velamuri, R., & Venkataraman, S. (2003). Three views of entrepreneurial opportunity. In Z. J. Acs & D. B. Audretsch (Eds.), *Handbook of Entrepreneurship Research: An Interdisciplinary Survey and Introduction* (pp. 77–98). New York, NY: Springer.

Shepherd, D. A., & Patzelt, H. (2011). The new field of sustainable entrepreneurship: Studying entrepreneurial action linking "what is to be sustained" with "what is to be developed". *Entrepreneurship Theory and Practice*, *35*(1), 137–163. doi:10.1111/j.1540-6520.2010.00426.x

Short, J. C., Moss, T. W., & Lumpkin, G. T. (2009). Research in social entrepreneurship: Past contributions and future opportunities. *Strategic Entrepreneurship Journal*, *3*(2), 161–194. doi:10.1002ej.69

Smith, W. K., Gonin, M., & Besharov, M. L. (2013). Managing social-business tensions: A review and research agenda for social enterprise. *Business Ethics Quarterly*, *23*(3), 407–442. doi:10.5840/beq201323327

Suddaby, R., Bruton, G. D., & Si, S. X. (2015). Entrepreneurship through a qualitative lens: Insights on the construction and/or discovery of entrepreneurial opportunity. *Journal of Business Venturing*, *30*(1), 1–10. doi:10.1016/j.jbusvent.2014.09.003

Vaghely, I. P., & Julien, P. A. (2010). Are opportunities recognized or constructed? An information perspective on entrepreneurial opportunity identification. *Journal of Business Venturing*, *25*(1), 73–86. doi:10.1016/j.jbusvent.2008.06.004

Vos, W., & Meekes, H. (1999). Trends in European cultural landscape development: Perspectives for a sustainable future. *Landscape and Urban Planning*, *46*(1−3), 3–14. doi:10.1016/S0169-2046(99)00043-2

Welter, C., Mauer, R., & Wuebker, R. J. (2016). Bridging behavioral models and theoretical concepts: Effectuation and bricolage in the opportunity creation framework. *Strategic Entrepreneurship Journal*, *10*(1), 5–20. doi:10.1002ej.1215

Wiltbank, R., Dew, N., Read, S., & Sarasvathy, S. D. (2006). What to do next? The case for non-predictive strategy. *Strategic Management Journal*, *27*(10), 981–998. doi:10.1002mj.555

Wiltbank, R., Read, S., Dew, N., & Sarasvathy, S. D. (2009). Prediction and control under uncertainty: Outcomes in angel investing. *Journal of Business Venturing*, *24*(2), 116–133. doi:10.1016/j.jbusvent.2007.11.004

Wood, M. S., & McKinley, W. (2010). The production of entrepreneurial opportunity: A constructivist perspective. *Strategic Entrepreneurship Journal*, *4*(1), 66–84. doi:10.1002ej.83

Yin, R. K. (2017). *Case study research and applications: design and methods*. Thousand Oaks, CA: Sage.

KEY TERMS AND DEFINITIONS

Bricolage: Decision-making tool that helps entrepreneurs to create a new venture when the available resources are scarce.

Effectuation: Theory of entrepreneurship that prescribes creating effects from the available means by combining the resources at hand with contingencies.

Hybrid Social Venture: Venture that combines a social and financial goals in its mission statement.

Opportunity Creation: While some opportunities exist out there waiting to be discovered by alert entrepreneurs, others must be created by the actions of the entrepreneur.

ENDNOTES

1 https://www.idescat.cat/emex/?id=081022&lang=en. Accessed September 25th, 2019.

2 https://www.rec0.com/en/. Accessed September 25th, 2019.

3 Information provided by the founders during an interview with one of the authors (Olive-Tomas, 2014).

4 See the Cold Opportunity (A, B, and C) cases written by Professor Saras Sarasvathy from Darden School of Business, University of Virginia (UV2032, UV2034, and UV2035).

Chapter 10
Depth of Outreach and Financial Sustainability of Microfinance Institutions: An Empirical Revisit

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ABSTRACT

Microfinance institutions tend to rely on donations and subsidies to achieve their social objective of outreach to the poor. Over the years, the industry has experienced tremendous growth, with donor funding pouring in. The question, however, arises whether microfinance firms can operate and continue to serve the poor clients on cost-covering basis without ongoing subsidies. There has been a growing tendency in the industry, which was traditionally a domain of not-for-profits, to embrace commercialization and pursue profitability to ensure self-sustainability. This chapter makes an empirical revisit to an inconclusive research question: Is there a trade-off between microfinance outreach and sustainability? Based on data for 1,232 microfinance firms from 43 countries, the study confirms the existence of trade-off between the two bottom lines of microfinance.

DOI: 10.4018/978-1-7998-2704-7.ch010

INTRODUCTION

"Money, says the proverb, makes money. When you have got a little, it is often easy to get more. The great difficulty is to get that little." — Adam Smith

This *great difficulty* was apparently noticed by microfinance pioneers who started giving small amount of loans to the people in the bottom of the pyramid. Having got the *little*, poor people now can unleash their creative and entrepreneurial power to *get more*. It was sort of a revolution, because poor people were widely considered unbankable, due to their lack of collateral, and ignored completely by the conventional banking system. Microfinance institutions (MFIs) proved that wrong by giving and recovering loans successfully through innovative mechanisms. Over four decades, microfinance has evolved and emerged as a promising tool for financial inclusion and poverty alleviation.

MFIs' credit is disbursed in very small sums to very poor people for income generating activities. The idea is that the poor will invest microloans in microenterprises, repay in installments out of profits, and gradually be able to lift themselves out of poverty. This credit is different from formal credit as the loans are small and without physical collateral, clients are poor, and techniques are unconventional such as group lending, immediate and frequent repayment in small installments, progressive loan structure, peer pressure and collateral substitutes. MFIs tend to rely on donations and subsidies to achieve their social objective of outreach to the poor. Over the years, the industry has experienced tremendous growth, with donor funding pouring in.

The question, however, arises whether microfinance firms can operate and continue to serve the poor clients on cost-covering basis without ongoing donations and subsidies. In recent years, microfinance providers have increased their attention for financial self-sufficiency. There has been a growing tendency in microfinance, which was traditionally a domain of not-for-profits, to pursue profit in order to ensure self-sustainability. A wave of commercialization is currently gaining momentum in the industry where private capital, rather than donor aid or government funding, becomes the source of MFI finance. The unprecedented growth of the microfinance sector, in fact, contributes to this recent trend of increased commercialization. Microfinance firms now increasingly focus on earning profit, and some microlenders even turn themselves into purely commercial institutions. Their excessive focus on financial performance is due to increased competition, commercialization, and involvement of private investors in microfinance.

Doubts however arise whether MFI financial performance comes at the expense of social performance. Do MFIs lose their focus on outreach to the poor because of increased focus on profit-making? Do they drift from their social mission due to a stronger focus on commercial mission of profit and sustainability? In other words, can sustainability be attained without undermining depth of outreach? Is there a trade-off between the two goals? Based on cross-country microfinance data, this chapter makes an empirical revisit to the trade-off debate.

LITERATURE REVIEW

As a social venture, microfinance firm concentrates on providing financial services to the poor and help overcome poverty, primarily by using credit. The goal is to reach the poor, especially the poorest of the poor, with subsidized credit as it is argued that the poor cannot afford higher interest rates (Hermes & Lensink, 2011). MFIs rely on donations, government subsidies and other concessional funds to achieve

this social objective of serving the poorest. The issue of financial sustainability, however, has been emphasized gradually and microfinance providers have taken an increasingly commercial approach over recent decades (Reichert, 2018). The industry has witnessed a paradigm shift from subsidized credit to sustainable for-profit microfinance (Quayes, 2015; Quidt & Ghatak, 2018). As a result, MFIs now confront the challenge of meeting a double bottom line: social objective of outreach to the poor and commercial objective of attaining financial sustainability (Kar, 2011; Robinson, 2001).

Outreach is usually defined as the ability of MFIs to provide financial services to large numbers of poor people, especially the very poor (depth of outreach) who are costlier to serve (Christen et al., 1995; Conning, 1999). On the other hand, sustainability is the ability of MFIs to cover all expenses through operations and become self-reliant (Shekh, 2006). It involves generating sufficient profits in order to be able to continuously carry out activities without dependence on donors or subsidized funds (Abdulai & Tewari, 2017). This profit approach brings new changes in the organizational core of microfinance firms. MFIs are now encouraged to raise interest rates, earn ample profits to attract private investors and expand rapidly (Cull, Demirgüç–Kunt, & Morduch, 2009). But the ability of MFIs to simultaneously achieve the dual missions of profit and social welfare has become a highly debated issue (Reichert, 2018).

The pursuit of sustainability or a more commercialized approach, as it is argued, can achieve the needed scale or breadth of outreach. The proponents of such approach associate subsidies with inefficiency, impermanence and limited scalability (Moon, 2009). Many practitioners, on the contrary, contend that subsidies are necessary to make the interest rates affordable to the poor. Moreover, profit-seeking MFIs may end up excluding the poorest as they find it more attractive to issue large loans to relatively richer clients. So, sustainability cannot be attained without undermining depth of outreach and there is a trade-off between the two goals (Awaworyi Churchill, 2018; Cull, Demirgu¨ç-Kunt, & Morduch, 2007; Hermes, Lensink, & Meesters, 2011; Olivares-Polanco, 2005).

The outreach-sustainability relationship has been widely examined in the microfinance literature (Abdulai & Tewari, 2017; Christen, Rhyne, Vogel, & McKean, 1995; Pischke, 1996; Shekh, 2006). See Zainuddin and Yasin (2019) for an extensive review in this regard. While a significant number of studies empirically show the evidence of trade-offs (Awaworyi Churchill, 2018; Conning, 1999; Cull et al., 2007; Olivares-Polanco, 2005; Paxton, 2002; Pedrini & Ferri, 2016), other empirical works, in contrast, conclude that the relationship is not statistically significant (Huq, Azad, Masum, Wanke, & Rahman, 2017; Kar, 2011; Nurmakhanova, Kretzschmar, & Fedhila, 2015). Surprisingly, a very few studies also find positive relationships between the two bottom lines (Louis, Seret, & Baesens, 2013; Quayes, 2015). On the contrary, the empirical results of Im and Sun (2015) show an inverted U-shaped relationship between profitability and outreach, which indicate that too high profit decreases the outreach level as MFIs rely on commercial logic. The meta-analysis of Reichert (2018) associates risk indicators with fewer trade-offs but suggests that the incidence of trade-offs is increased by depth of outreach, cost of outreach and efficiency indicators. Efficiency—an indicator of financial performance—of MFIs has also been examined in relation to the depth of outreach. Although the results of Kaur (2016) show no evidence of trade-off, other researchers, however, find a negative relationship between cost-efficiency and reaching out to poorer clients (Abate, Borzaga, & Getnet, 2014; Annim, 2012; Hermes et al., 2011). Thus, the findings of studies to date have been diverse, and these mixed outcomes call for a rigorous empirical investigation of the relationship between microfinance outreach and sustainability.

The present study examines the relationship between depth of outreach and financial sustainability of microfinance firms. It hypothesizes that there is a negative relationship between depth of outreach and financial sustainability of MFIs. The relationship between outreach and sustainability is usually explained

by the cost and risk associated with small loans. MFIs face high transaction costs in low-income communities since managing numerous small loans is far more expensive compared to handling one large loan for a richer client (Armendáriz & Morduch, 2010). Conning (1999) highlights the outreach-sustainability trade-off and explains this relationship by high monitoring and delegation costs in microfinance that arise due to information asymmetry. A negative relationship is also found between cost-efficiency and reaching out to poorer clients (Abate et al., 2014; Annim, 2012; Hermes et al., 2011). Interest rates for such small loans need to be high in order to attain sustainability, given the high transaction cost per dollar lent. But the high interest rate not only increases financial burdens of poor borrowers but also decreases their access to credit. It requires such investment of the loan, as Chavan and Ramakumar (2005) note, that could generate equally high profit to repay, which is very unrealistic for a small rural enterprise. As a result, sustainability-seeking MFIs tend to move upmarket and end up giving larger loans to richer borrowers. Ghosh and Tassel (2008) rightly observes that an emphasis on profitability implies a de-emphasis on the goal of poverty reduction. Financial sustainability of a microfinance organization, therefore, comes at the expense of outreach to poorer clients.

DATA AND METHODOLOGY

Data Sources and Sample Selection

MFI data used in this study are from the Microfinance Information Exchange (MIX) Market database. MIX Market is a web-based platform and one of the most exhaustive worldwide microfinance databases that contains detailed information on financial, operational and social performance of individual MFIs. MFIs voluntarily submit their financial and outreach reports to MIX Market, which then reviews and validates the data against certain business and audit rules. MIX transforms the outreach and financial statements of MFIs into a list of standardized variables for analysis and comparison and releases the information online that can be accessed by users through subscriptions.[1]

MIX Market is the most popular international database for research in microfinance. The database has a couple of strengths. First, it provides details of the organization profiles and characteristics of individual MFIs. There are currently no other global MFI databases available comparable to MIX. Second, a key strength of the database is that MIX data are adjusted to conform to international accounting standards (Cull et al., 2009). Third, the detailed financial information, which is adjusted for comparability, is another strength. MFI data can be compared across countries and regions.

However, MIX database is not without criticism. A drawback of this data source is that MIX data are self-reported by the MFIs, and because of the time and cost involved in reporting, smaller microlenders may not submit their information to MIX (Cull et al., 2009; Lopatta, Tchikov, Jaeschke, & Lodhia, 2017). Hence, the MFI list is incomplete, and the data do not capture all microfinance firms globally. Furthermore, participation in the database is voluntary and MFIs sometimes fail to provide their data to MIX. As a result, there are missing values—for certain years or for one or more variables—in the data of some of the MFIs, which is another limitation of the dataset (Quayes, 2012). Nevertheless, MIX Market contains the best available cross-country data of microfinance organizations and is, therefore, widely used as a data source for research on MFIs (see, for example, Awaworyi Churchill, 2018; Cull et al., 2007; Hermes et al., 2011; Im & Sun, 2015).

Data on macroeconomic variables such as inflation (consumer prices, annual %) are collected from the database of International Monetary Fund, whereas GDP per capita (current US $) are drawn from the World Bank database of development indicators to complement the MIX Market data. The MIX dataset is unbalanced, as MFIs self-report and voluntarily participate in the database and sometimes fail to submit information to the MIX. Another reason why data are not available for all MFIs for every year is that some MFIs are relatively new, while others discontinue their operations and cease to report to MIX. In order to construct the dataset, this research only includes MFIs that provide information on its variables of interest. Observations that have missing values on variables that are indispensable for the analysis of the study are excluded. The final unbalanced panel consists of 5,741 MFI-year observations over the period 2003 to 2016 for 1,232 microfinance firms from 43 countries in 6 regions: Africa, East Asia and the Pacific, Eastern Europe and Central Asia, Latin America and the Caribbean, Middle East and North Africa, and South Asia.

Variables and Operational Definitions

Operational definitions are specific ways in which variables are measured in a particular research. By making the measurement constant, operational definition helps to control the variable and ensures the reproducibility of the study results. Defining variables operationally is, therefore, a critical step in a research study. The following subsections discuss the operational definitions used for each of the variables of interest to this study.

Dependent Variable

Financial sustainability—the ability of MFIs to generate sufficient profits in order to become self-reliant—is measured here by the ratio of operational self-sufficiency (OSS). OSS is the most widely used indicator for measuring sustainability (Abdulai & Tewari, 2017; Awaworyi Churchill, 2018; Huq et al., 2017; Kar, 2011; Nurmakhanova et al., 2015; Quayes, 2015). It takes into account the financial expense, operating expense and impairment loss on loans, and measures the MFI's ability to cover these costs through its operating incomes. The present study does not use the other possible measures of financial sustainability such as financial self-sufficiency (FSS), return on assets (ROA) and return on equity (ROE). First, donors monitor OSS which is a more reliable approximation of MFI sustainability than FSS (Kar, 2011). FSS includes a cost for MFI own funds, simply by applying the inflation rate. However, the ratio is less reliable, given the difficulty in estimating the opportunity cost as well as the equity for own funds of an MFI (Crombrugghe, Tenikue, & Sureda, 2008). Second, the use of traditional finance measures such as ROA and ROE is not convenient considering the institutional diversity and the accounting practices of microfinance industry (Nurmakhanova et al., 2015). The ratio such as ROE can be distorted by differences in the MFI financing structure; it is always unfavorable in microfinance as many firms are founded with donor money without any profit expectation (Huq et al., 2017; Reichert, 2018). Finally, efficiency indicators are also used to measure the sustainability of MFIs; but some schools of thought remain skeptical about the use of such measures as proxies for financial sustainability (Awaworyi Churchill, 2018).

Table 1. List of variables and measurements

	Variable	Indicator	Measurement	Source
Dependent Variable	Operational self-sufficiency (OSS)	Financial sustainability	Financial revenue / (Financial expense + Impairment loss + Operating expense)	MIX
Explanatory Variable	Average loan size (ALS)	Depth of outreach	Average loan balance per borrower / GNI per capita	MIX
Institutional Control Variables	Yield on gross portfolio (YLD)	Revenue ability	Financial revenue from loans / Average gross loan portfolio; adjusted for inflation	MIX
	Number of active borrowers (NAB)	Breadth of outreach	Total number of current borrowers	MIX
	Percentage of women borrowers (WOM)	Outreach to women	Number of active women borrowers / Number of active borrowers	MIX
National Control Variables	GDP per capita (GDP)	Macro economic	Gross domestic product / Midyear population	WB
	Inflation (INF)	Macro economic	Consumer price index	IMF

Explanatory Variables

Depth of outreach, which refers to the profile of MFI borrowers in terms of their poverty level and indicates how poor the clients are, is proxied here by average loan size. Ideally, as Louis et al. (2013) note, one would measure depth of outreach by using the personal wealth or income level of individual borrowers. Such information, however, is not available, and the most commonly used measure instead is the average loan size (Abate et al., 2014; Awaworyi Churchill, 2018; Kaur, 2016). The argument behind this proxy is that poorer clients demand smaller loans, and their low income does not allow them to take out big loans. In other words, there is a strong positive correlation between wealth level and loan size (Quayes, 2012). Moreover, MFIs will not disburse larger loans to the poorer due to higher default risk (Hermes & Hudon, 2018). As a result, lower average loan sizes indicate higher outreach. In this chapter, average loan size is used as a ratio over Gross National Income (GNI) per capita of the respective country, and such practice is widely used in the literature for international comparisons (Abdulai & Tewari, 2017; Im & Sun, 2015; Kar, 2011; Nurmakhanova et al., 2015; Quayes, 2015). The ratio not only normalizes the loan size variable so that it is no longer in local monetary units but also provides an adjustment for the income levels of a country (Cull et al., 2007; Gutiérrez-Nieto, Serrano-Cinca, & Mar Molinero, 2009).

Control Variables

A set of control variables is included in the model based on existing literatures and theoretical considerations (see Table 1). Three firm-specific control variables are used: yield on gross portfolio, number of active borrowers, and percentage of women borrowers. Yield on gross portfolio represents financial revenue from loans (interest, fees and commissions) compared to average gross loan portfolio, which is then adjusted for inflation. Number of active borrowers is the number of individuals who presently have an outstanding loan balance with the MFI. Percentage of women borrowers denotes the number of active women borrowers as a percentage of total number of active borrowers. In addition to institutional

control variables, two country-specific control variables are used: GDP per capita, which is in current U.S. dollars, and inflation, which is measured by the consumer price index.

Model Specification

The design of this research is explanatory in nature. Linear panel regression technique is used for analyzing the data to address the research question. The analysis is conducted using Stata version 15 with appropriate syntax for the panel data. The model to be tested estimates the direct effect of average loan size on the operational self-sufficiency of MFIs. It is based on the following formula, which also includes three firm-specific and two country-specific control variables on the basis of previous studies and theoretical considerations:

$$OSS_{it} = \alpha + \beta_1 ALS_{it} + \beta_2 YLD_{it} + \beta_3 NAB_{it} + \beta_4 WOM_{it} + \beta_5 GDP_{it} + \beta_6 INF_{it} + \mu_i + \varepsilon_{it}$$

where α is the intercept term and β is the coefficient for the explanatory variables. The subscript *i* refers to microfinance entity and the subscript *t* denotes time period. μ_i is the unobservable entity-specific effects and ε_{it} is the error term that varies across entities and over time.

RESULTS AND DISCUSSIONS

Descriptive Statistics

The descriptive statistics of the dependent and independent variables used in the subsequent panel regressions appear in Table 2. The dependent variable (OSS) which is the measurement of sustainability ranges from -1.2763 to 8.4158 and have a mean of 1.1719, indicating the variation of financial performance of MFIs in the sample. Some are not financially sustainable (-1.2763), while others indicate high level of sustainability in terms of financial performance (8.4158). On the other hand, the explanatory variable (ALS) shows that average loan balance per borrower in relation to GNI per capita is 0.3486 with a minimum value of 0.001 to 53.5081 maximum. Among the institutional control variables, yield on gross portfolio (Yield) reveals a positive return on an average (0.2521) with a variation from negative (-0.2473) to positive (10.6225) return. The variation in breadth of outreach is illustrated by the number of active borrowers (Borrowers) which shows that MFIs under consideration serve as low as 3 to maximum 8,166,287 borrowers, with a mean value of 134,218 borrowers. On an average 69.72% of active borrowers are women; while some MFIs have only women borrowers (maximum value 1), others do not lend to women at all (minimum value 0). Lastly, the countries under consideration in which MFIs are operating have a mean GDP of US$ 4,204.885 and a decent inflation rate of 6.51% on an average.

Additionally, Variance Inflation Factor (VIF) has also been included in the descriptive statistics to show if multicollinearity exists among the independent variables. VIF value>10 indicates multicollinearity problem (Gujarati, 2004). The absence of collinearity is verified by low VIF statistic values presented in Table 2 which range between 1.03 to 1.23. The study also calculates the pairwise correlation. As stated by Brooks (2019), a correlation coefficient of>80% indicates serious multicollinearity problem. Observations for all variables from Table 3 show that all of the correlation coefficients are

Table 2. Descriptive statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max	VIF
OSS	5741	1.1719	0.4381	-1.2763	8.4158	
ALS	5741	0.3486	1.0352	0.001	53.5081	1.08
Yield	5741	0.2521	0.2434	-0.2473	10.6225	1.15
Borrowers	5741	134218	587469	3	8166287	1.03
Women	5741	0.6972	0.2629	0	1	1.21
GDP	5741	4204.885	3504.588	118.9	16529.7	1.23
Inflation	5741	0.0651	0.0448	-0.037	0.622	1.10

below 80%. Both the correlation and VIF values, therefore, confirm nonexistence of multicollinearity problem among the variables.

Results of the Main Model

This sub-section deals with the empirical findings and all regression results corresponding to the regression model specified for the study. To recognize the objective of detecting the most efficient estimator to deal with the characteristics of the panel data, the presence of individual effects was tested through different specification tests.

First, Breusch and Pagan Lagrange multiplier test (LM Test) was conducted to identify the existence of random effects in the model and the result shows (Prob > $\chi 2 = 0.0000$) inefficiency of pooled OLS model. Considering the existence of the effect of error term (ε_{it}) in the model, the study further tests fixed effects (FE) against random effects (RE) by the Hausman test. The null is rejected (Prob > $\chi 2 = 0.0000$) at 1%, level of significance, supporting the use of a fixed effect estimator.

However, estimation of fixed effect model was subject to econometric issues like heteroskedasticity and autocorrelation as confirmed by modified Wald test ((Prob > $\chi 2 = 0.0000$) and Wooldridge (Prob > $F = 0.0025$) respectively. Moreover, in panel data settings, cross-sectional dependence is one of the challenges, as the existence leads to inconsistent estimates (Sarkodie & Strezov, 2019). To accommodate the issue in estimation, the study thus employed CD test suggested by Pesaran (2015) and found strong

Table 3. Matrix of correlations

Variables	OSS	ALS	Yield	Borrowers	Women	GDP	Inflation
OSS	1						
ALS	0.0560	1					
Yield	-0.0044	-0.1035	1				
Borrowers	0.0454	-0.0277	-0.0720	1			
Women	-0.0374	-0.2588	0.0958	0.1224	1		
GDP	0.0085	0.0575	0.2404	-0.1257	-0.2961	1	
Inflation	-0.0062	-0.0029	-0.2323	0.0486	0.0684	-0.2369	1

Table 4. Specification test results

Test Name	Test Statistics
LM	2462.35***
Hausman	119.27***
Modified Wald	3.0e+35***
Wooldridge	9.177***
CD	3.471***

Notes:

1. LM stands for Breusch and Pagan Lagrangian multiplier test for random effects; Hausman stands for Hausman specification test for fixed vs random effects; Modified Wald stands for Modified Wald test for groupwise heteroskedasticity in fixed effect regression model; Wooldridge stands for Wooldridge test for autocorrelation in panel data; CD stands for Pesaran (2015) test for weak cross-sectional dependence.

2. *** denotes statistical significance at 1% level; the results of the LM, Hausman and Wald tests are based on Chi-squared distribution, whereas Wooldridge and Pesaran tests are based on F distribution and standard normal distribution, respectively.

3. The null hypotheses of the LM, Hausman, modified Wald, Wooldridge and Pesaran tests are no variance across units, no correlation between μ_i and x_{it}, homoskedasticity, no first-order autocorrelation and no cross-sectional dependence, respectively.

existence of cross-sectional dependence in the model (p-value = 0.000). All the estimation results are summarized in Table 4.

The presence of heteroscedasticity, serial and contemporaneous correlation requires remedial measures to be taken in order to get valid inferences. As a result, for coefficients estimated by the fixed-effects estimator, the study employs a panel data regression with Driscoll and Kraay's standard error which is robust to heteroscedasticity, autocorrelation and cross-sectional dependence. It is advised that Driscoll and Kraay standard errors be used when cross-sectional dependence is present in the model (Hoechle, 2007). Unlike standard techniques, Driscoll and Kraay (1998) algorithm accounts for cross-sectional dependence which results in a consistent and robust estimated standard error.

The regression result presented in Table 5 shows that all the independent variables except Borrowers and GDP show significant statistical relationship with the dependent variable (OSS) at 1% level of significance, while Inflation is significant at 5% level of significance. The positive coefficient of the main explanatory variable (ALS) indicates that the bigger the loan size (meaning lower outreach), the higher is the financial sustainability. The relationship clearly illustrates the existence of trade-off between microfinance outreach and sustainability and demonstrates that sustainability-seeking MFIs lower their depth of outreach in order to improve financial performance. The result is in coherence with the previous empirical studies who also find the evidence of trade-off between outreach and sustainability (Conning, 1999; Paxton, 2002; Olivares-Polanco, 2005; Cull et al., 2007; Pedrini & Ferri, 2016 & Awaworyi Churchill, 2018). However, it does not support the findings of Kar (2011), Nurmakhanova et al. (2015), Huq et al. (2017) and Roy and Pati (2019) who report that the outreach-sustainability relationship is not statistically significant and both can be achieved without hampering one another. The result also contradicts the findings of Louis et al. (2013) and Quayes (2012, 2015, 2019) who show a significant complementary relationship between the two MFI objectives and suggest that greater depth of outreach has a positive effect on financial performance. The present chapter confirms the outreach-sustainability trade-off and provides the statistical evidence that MFIs cannot achieve self-sustainability without undermining the depth of outreach.

Table 5. Regression results with Driscoll-Kraay standard errors

OSS	Coef.	Std. Err.	t	P>t
ALS	0.0630	0.0130	4.87	0.000
Yield	0.6375	0.1008	6.32	0.000
Borrowers	1.78e-08	1.41e-08	1.26	0.207
Women	0.2254	0.0453	4.98	0.000
GDP	4.08e-06	3.44e-06	1.19	0.235
Inflation	0.4660	0.2138	2.18	0.030

Moreover, the other institutional variables—Yield and Women—assert significant positive impact on financial sustainability of MFIs, as confirmed by the results. The positive coefficient of Women is in contrast with the finding of Kittilaksanawong and Zhao (2018) that shows lending to women reduces MFI sustainability. The present study suggests that increasing more female clients in the microlenders' loan portfolio improves the sustainability of MFIs. This result is in line with D'Espallier, Guerin and Mersland (2011) who confirm that a higher percentage of women borrowers is associated with lower portfolio risk and enhanced repayment. The significant positive relationship between Yield and sustainability indicates why for-profit microlenders or MFIs pursuing sustainability have the incentive to increase their interest rates. The high interest rates increase financial burdens of poor people as well as decrease their access to credit as they cannot afford higher interest rates (Hermes and Lensink, 2011).

Furthermore, among the macroeconomic variables, only inflation is found to have a significant positive impact on MFI self-sufficiency. This outcome confirms the results obtained by Hartarska and Nadolnyak (2007) and Nurmakhanova et al. (2015) who also demonstrate their positive association and argue that MFIs develop certain safeguards to perform successfully in inflationary environments.

CONCLUSION

This chapter draws its motivation from an inconclusive research question: Is there a trade-off between social outreach and financial sustainability of MFIs? It empirically examines the relationship between microfinance outreach and sustainability using data for 1,232 MFIs from 43 countries. The study confirms that MFI sustainability comes at the expense of outreach and there is a trade-off between the two goals. The findings have several implications for theory, practice and method.

Implications

From the theoretical point of view, the present study contributes to existing microfinance research by reexamining the unresolved issue concerning the relationship between outreach and sustainability. The findings confirm and strengthen the theoretical view of welfarists that sustainability leads to reductions in depth. On the contrary, the study results do not uphold the win-win theory of institutionalists and nullify their claim that outreach and sustainability are complementary. From the methodological point of view, this study contributes by using a dataset large enough to draw robust conclusions. The study examines data from 43 countries across 6 regions, and the datasets richly represent a variety of diverse

national and cultural background. In addition, MFIs in the sample come from a wide range of settings in terms of age, scale, regulation, profit and legal statuses. The number and diversity of microfinance firms examined in this chapter enable the researcher to generalize the findings of this study to a broader organizational and national context.

From the practical point of view, the findings have significant implications not only for microfinance practitioners but also for regulators and policymakers. This study goes in the right direction to generalize across national boundaries that a negative relationship between depth of outreach and financial sustainability exists. Understanding this relationship between the two bottom lines of microfinance can help MFI managers achieve better decision-making. The findings should ideally prompt microlenders to be more vigilant in order to ensure that their targeted clients do not shift from the poorest of the poor to wealthier borrowers. Now-a-days, the search for financial sustainability is increasing on the one hand, while the issue of mission drift is gaining momentum on the other. The evidence of the existence of trade-off sends an important signal to microcredit players and stakeholders that the present move towards sustainability is unacceptable as it puts the outreach objective of serving the poorest at stake. Donor agencies and funding bodies, therefore, need to exercise more caution in selecting the right microfinance organizations and justify their investments in the microfinance sector, accordingly. At the same time, governments and other market participants who deal with financial inclusion should play their proper roles to make sure that this sector remains pro-poor and stick to its mandate of poverty alleviation.

Limitations and Future Research

An important limitation of the present study is the indicators used to measure outreach and sustainability. In fact, there is a lack of consensus in the microfinance literature on their exact measurement. This chapter used OSS for measuring financial sustainability of microfinance institutions and did not use the other possible measures such as FSS, ROA and ROE. Using alternative proxies for sustainability may provide greater insights into the relationship of microfinance social and financial performance. Similarly, the chapter used only ALS as a proxy for depth of outreach. ALS is the most widely used, but not the perfect, measure for MFI outreach. Ideally, outreach should be measured by the personal wealth of borrowers, and such information is not available. Nevertheless, application of other proxies together with ALS would be beneficial for future research. For example, future studies could consider whether outreach to women also has a direct effect within the current research model. Future research should eventually endeavor to establish a reasonable degree of consensus on the measurement of microfinance outreach and sustainability.

The scope of this study may be widened by incorporating other variables in the model. Other firm-specific factors, such as profit status, regulation, lending methodology, MFI size and capital structure, may be worth considering for further investigation. The study could also be extended by investigating the impact of additional macroeconomic variables on MFI trade-off. In the microfinance literature, operational efficiency is an important issue. But a number of studies so far show mixed results on the existence of trade-off between efficiency and social performance. More empirical evidence is needed to confirm whether socially oriented microfinance institutions are less efficient. Moreover, future microfinance researchers should investigate how the efficiency of MFIs can be improved through restructuring their existing operating cost per a unit of loan outstanding. Reduced operational costs would not dismantle the prevailing negative outreach-sustainability relationship altogether, but would certainly help to reduce the trade-off effect. A promising area in this regard is the use of innovative technologies in

credit delivery and management process. Mobile banking, for instance, could be designed creatively to help microfinance organizations lower their operation costs and provide financial services to the highly marginalized clientele in a more sustainable manner.

A final limitation relates to the source of data and methodology used in this research. MFI data were collected from the MIX Market database, and a major drawback of this data source is that the data are self-reported by microlenders and the reporting is voluntary. As a result, smaller microfinance firms often do not participate in the database due to time and cost involved in reporting. In order to obtain a more complete picture of global microfinance firms, other potential MFI data sources could be explored in future studies. Methodologically, this study embraced quantitative lines of inquiry to address the research questions and employed a static panel model for the estimation. Future research on the link between microfinance outreach and sustainability adopting the same framework but using a dynamic panel technique would be a worthwhile initiative.

REFERENCES

Abate, G. T., Borzaga, C., & Getnet, K. (2014). Cost-Efficiency and Outreach of Microfinance Institutions: Trade-Offs and the Role of Ownership. *Journal of International Development*, *26*(6), 923–932. doi:10.1002/jid.2981

Abdulai, A., & Tewari, D. D. (2017). Trade-off between outreach and sustainability of microfinance institutions: Evidence from sub-Saharan Africa. *Enterprise Development & Microfinance*, *28*(3), 162–181. doi:10.3362/1755-1986.16-00014

Annim, S. K. (2012). Microfinance Efficiency: Trade-Offs and Complementarities between the Objectives of Microfinance Institutions and Their Performance Perspectives. *European Journal of Development Research*, *24*(5), 788–807. doi:10.1057/ejdr.2011.60

Armendáriz, B., & Morduch, J. (2010). *The economics of microfinance* (2nd ed.). Cambridge, MA: MIT Press.

Awaworyi Churchill, S. (2018). Sustainability and depth of outreach: Evidence from microfinance institutions in sub-Saharan Africa. *Development Policy Review*, *36*(52), 676–695. doi:10.1111/dpr.12362

Brooks, C. (2019). *Introductory Econometrics for Finance* (4th ed.). Cambridge, UK: Cambridge University Press. doi:10.1017/9781108524872

Chavan, P., & Ramakumar, R. (2005). Interest Rates on Micro-Credit. In V. K. Ramachandran & M. Swaminathan (Eds.), *Financial Liberalization and Rural Credit in India* (pp. 147–156). New Delhi: Tulika Books.

Christen, R. P., Rhyne, E., Vogel, R. C., & McKean, C. (1995). *Maximizing the outreach of microenterprise finance: An analysis of successful microfinance programs*. Washington, DC: USAID.

Conning, J. (1999). Outreach, sustainability and leverage in monitored and peer-monitored lending. *Journal of Development Economics*, *60*(1), 51–77. doi:10.1016/S0304-3878(99)00036-X

Crombrugghe, A. D., Tenikue, M., & Sureda, J. (2008). Performance Analysis for a Sample of Microfinance Institutions in India. *Annals of Public and Cooperative Economics*, *79*(2), 269–299. doi:10.1111/j.1467-8292.2008.00362.x

Cull, R., Demirgu¨ç-Kunt, A., & Morduch, J. (2007). Financial performance and outreach: A global analysis of leading microbanks. *Economic Journal (London)*, *117*(517), F107–F133. doi:10.1111/j.1468-0297.2007.02017.x

Cull, R., Demirgüç–Kunt, A., & Morduch, J. (2009). Microfinance Meets the Market. *The Journal of Economic Perspectives*, *23*(1), 167–192. doi:10.1257/jep.23.1.167

D'Espallier, B., Guerin, I., & Mersland, R. (2011). Women and repayment in microfinance: A global analysis. *World Development*, *39*(5), 758–772. doi:10.1016/j.worlddev.2010.10.008

Driscoll, J. C., & Kraay, A. C. (1998). Consistent covariance matrix estimation with spatially dependent panel data. *The Review of Economics and Statistics*, *80*(4), 549–560. doi:10.1162/003465398557825

Ghosh, S., & Tassel, E. V. (2008). *A Model of Mission Drift in Microfinance Institutions* (Working Papers No. 08003). Florida: Florida Atlantic University.

Gujarati, D. (2004). Basic Econometrics (4th ed.). New York: The McGraw− Hill Companies.

Gutiérrez-Nieto, B., Serrano-Cinca, C., & Mar Molinero, C. (2009). Social efficiency in microfinance institutions. *The Journal of the Operational Research Society*, *60*(1), 104–119. doi:10.1057/palgrave.jors.2602527

Hartarska, V., & Nadolnyak, D. (2007). Do regulated microfinance institutions achieve better sustainability and outreach? Cross-country evidence. *Applied Economics*, *39*(10), 1207–1222. doi:10.1080/00036840500461840

Hermes, N., & Hudon, M. (2018). *Determinants of the Performance of Microfinance Institutions: A Systematic Review* (Working Paper No. 2018008-EEF; p. 70). Groningen, The Netherlands: University of Groningen.

Hermes, N., & Lensink, R. (2011). Microfinance: Its Impact, Outreach, and Sustainability. *World Development*, *39*(6), 875–881. doi:10.1016/j.worlddev.2009.10.021

Hermes, N., Lensink, R., & Meesters, A. (2011). Outreach and Efficiency of Microfinance Institutions. *World Development*, *39*(6), 938–948. doi:10.1016/j.worlddev.2009.10.018

Hoechle, D. (2007). Robust standard errors for panel regressions with cross-sectional dependence. *The Stata Journal*, *7*(3), 281–312. doi:10.1177/1536867X0700700301

Huq, B. I. A., Azad, M. A. K., Masum, A. K. M., Wanke, P., & Rahman, M. A. (2017). Examining the Trade-off Between Social Outreach and Financial Efficiency: Evidence from Micro-finance Institutions in South Asia. *Global Business Review*, *18*(3), 617–628. doi:10.1177/0972150917692169

Im, J., & Sun, S. L. (2015). Profits and outreach to the poor: The institutional logics of microfinance institutions. *Asia Pacific Journal of Management*, *32*(1), 95–117. doi:10.100710490-014-9398-4

Kar, A. K. (2011). Microfinance Institutions: A Cross-Country Empirical Investigation of Outreach and Sustainability. *Journal of Small Business and Entrepreneurship*, *24*(3), 427–446. doi:10.1080/08276331.2011.10593547

Kaur, P. (2016). Efficiency of Microfinance Institutions in India: Are They Reaching the Poorest of the Poor? *Vision: The Journal of Business Perspective*, *20*(1), 54–65. doi:10.1177/0972262916628988

Kittilaksanawong, W., & Zhao, H. (2018). Does lending to women lower sustainability of microfinance institutions? Moderating role of national cultures. *Gender in Management*, *33*(3), 187–202. doi:10.1108/GM-11-2015-0098

Lopatta, K., Tchikov, M., Jaeschke, R., & Lodhia, S. (2017). Sustainable Development and Microfinance: The Effect of Outreach and Profitability on Microfinance Institutions' Development Mission. *Sustainable Development*, *25*(5), 386–399. doi:10.1002d.1663

Louis, P., Seret, A., & Baesens, B. (2013). Financial Efficiency and Social Impact of Microfinance Institutions Using Self-Organizing Maps. *World Development*, *46*, 197–210. doi:10.1016/j.worlddev.2013.02.006

Moon, B. E. (2009). The great divide in microfinance: Political economy in microcosm. In T. A. Watkins & K. Hicks (Eds.), *Contemporary Studies in Economic and Financial Analysis* (Vol. 92, pp. 109–144). doi:10.1108/S1569-3759(2009)0000092007

Nurmakhanova, M., Kretzschmar, G., & Fedhila, H. (2015). Trade-off between financial sustainability and outreach of microfinance institutions. *Eurasian Economic Review*, *5*(2), 231–250. doi:10.100740822-015-0016-7

Olivares-Polanco, F. (2005). Commercializing Microfinance and Deepening Outreach? Empirical Evidence from Latin America. *Journal of Microfinance/ESR Review, 7*(2), 47–69.

Paxton, J. (2002). Depth of Outreach and its Relation to the Sustainability of Microfinance Institutions. *Savings and Development*, *26*(1), 69–86.

Pedrini, M., & Ferri, L. M. (2016). Doing Well by Returning to the Origin. Mission Drift, Outreach and Financial Performance of Microfinance Institutions. *Voluntas*, *27*(6), 2576–2594. doi:10.100711266-016-9707-2

Pesaran, M. H. (2015). Testing Weak Cross-Sectional Dependence in Large Panels. *Econometric Reviews*, *34*(6–10), 1089–1117. doi:10.1080/07474938.2014.956623

Pischke, J. D. V. (1996). Measuring the trade-off between outreach and sustainability of microenterprise lenders. *Journal of International Development*, *8*(2), 225–239. doi:10.1002/(SICI)1099-1328(199603)8:2<225::AID-JID370>3.0.CO;2-6

Quayes, S. (2012). Depth of outreach and financial sustainability of microfinance institutions. *Applied Economics*, *44*(26), 3421–3433. doi:10.1080/00036846.2011.577016

Quayes, S. (2015). Outreach and performance of microfinance institutions: A panel analysis. *Applied Economics*, *47*(18), 1909–1925. doi:10.1080/00036846.2014.1002891

Quayes, S. (2019). Probability of Sustainability and Social Outreach of Microfinance Institutions. *Economic Bulletin*, *39*(2), 1047–1056.

Quidt, J. D., & Ghatak, M. (2018). Is the Credit Worth It? For-Profit Lenders in Microfinance with Rational and Behavioral Borrowers. *Annals of Public and Cooperative Economics*, *89*(1), 175–199. doi:10.1111/apce.12189

Reichert, P. (2018). A meta-analysis examining the nature of trade-offs in microfinance. *Oxford Development Studies*, 1–23. doi:10.1080/13600818.2018.1427223

Robinson, M. S. (2001). *The microfinance revolution.* New York: The World Bank. doi:10.1596/0-8213-4524-9

Roy, P., & Pati, A. P. (2019). Double bottom line commitments of microfinance: Evidence from Indian institutions. *International Journal of Social Economics*, *46*(1), 116–131. doi:10.1108/IJSE-08-2016-0240

Sarkodie, S. A., & Strezov, V. (2019). Effect of foreign direct investments, economic development and energy consumption on greenhouse gas emissions in developing countries. *The Science of the Total Environment*, *646*, 862–871. doi:10.1016/j.scitotenv.2018.07.365 PMID:30064112

Shekh, M. N. I. (2006). Microfinance and Poverty Reduction: Is there a Trade-Off? A Case Study from Rural Bangladesh. *Forum for Development Studies*, *33*(2), 367–385. doi:10.1080/08039410.2006.9666355

Zainuddin, M., & Yasin, I. M. (2019). The trade-off debate in microfinance: A review of the theoretical and empirical literature. *Enterprise Development & Microfinance*, *30*(1), 36–54. doi:10.3362/1755-1986.18-00027

ENDNOTE

[1] MIX offers four types of subscriptions: Discovery, Essentials, Intelligence, and Gold. Amongst them, only MIX Discovery is free that allows users to access limited data including organizational profiles, and country and regional market overviews. The three paid subscriptions are tailored to the needs of specific users. While MIX Intelligence and Gold provide solutions to investors and funders, MIX Essentials is for researchers and students. The researchers of this study subscribe to MIX Essentials and collect the most recent information available at the time of the study.

Chapter 11
Sustainable Innovation:
Challenges in the Tourism Industry

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ABSTRACT

Tourism is an industry, very focused on economic growth, with significant negative environmental and social impacts. Consequently, the tourism industry faces major challenges related to sustainability. Sustainable innovation is a tool that contributes not only to increased business competitiveness but can also play an important role in mitigating the negative impacts that such growth can generate. Recognizing the opportunity that this innovation can have in the tourism industry, this chapter analyzes the state of the art and systematizes the knowledge and evolution of the academic debate about this relationship between sustainable innovation and tourism from 1992 to 2018. This chapter indicates that sustainable tourism is focused on seven major areas of research and predominantly analyzed through quantitative methods. It is still an embryonic topic with scarce research done in several areas, such as the monitoring of its impacts, the effects felt by the communities of tourist destinations, and the impacts that sustainable innovation may have on other tourism subsectors.

INTRODUCTION

The world is rapidly changing and the growing environmental concerns are the result of careless development disregarding the environment (Hansen et al., 2000). The lack of concern for the environment has created negative outcomes, such as global warming, the deterioration of biodiversity, natural ecosystems and global warming (Schor, 2005; Tseng et al., 2013). It is important to stress that, current approaches to sustainability, such as efficiency improvements and cleaner production, on their own, do not underpin

DOI: 10.4018/978-1-7998-2704-7.ch011

sustainability (Short, Bocken, Barlow, & Chertow, 2014). As such, sustainability needs to be included as a key driver for business innovation. As such, only if sustainable development goals are included in the process of innovation and are perceived as a source of competitive advantage businesses are going to actively embrace it instead of considering it as an obligation or burden (Nidumolu, Prahalad, & Rangaswami, 2009).

Innovation is considered an essential driving force for economic growth (European Commission, 1995; OECD, 2016) and is at the basis of businesses' competitive advantages (Brandão & Costa, 2013). However, in spite of its traditional economic-based perspective, focused on the acquisition and production of wealth (Smerecnik & Andersen, 2011), innovation does not automatically lead to the progress and well-being of society (Vollenbroek, 2002). Innovation needs to be targeted to a sustainable and balanced development that involves not only an economic dimension, but also the environmental and social dimension encompassing broad societal concerns without neglecting economic sustainability (Vollenbroek, 2002; Brezonec, 2013). As such, sustainable innovation can help mitigate the negative social and environmental impacts that a simplistic economic view entails (Barbieri, Vasconcelos, Andreassi, & Vasconcelos, 2010).

Tourism, one of the world's fastest growing industries (Hallenga-Brink & Brezet, 2005) has been geared essentially towards economic growth (e.g., Faché, 2000; Knowles et al., 1999). This feature has contributed to create significant negative impacts both on the environment and on the community (Chou et al., 2012; Dibra, 2015; González & León, 2001; Horng et al., 2017; OCDE, 2013). As such, sustainable innovation can be used to identify ways to ensure and maximize positive economic benefits (Bramwell & Lane, 2012; OCDE; 2013) and mitigate negative ecological and social impacts (Liburd et al., 2007).

However, the analysis of the impact that sustainable innovation has on the tourism industry has not received much attention in the academic world (Brandão & Costa, 2013; García-Pozo et al., 2016; González & León, 2001; Horng, Wang, Liu, Chou, & Tsai, 2016). Given the embryonic state of sustainable innovation studies in tourism (Chan, 2009; Hjalager, 1997; González & León, 2001; Hunter & Shaw, 2007; Lawton & Weaver, 2010), this chapter seeks to understand the state of the art of this relationship in order to contribute to a clearer and broader perception of the knowledge of this relationship. To this end, a systematic review of the literature on sustainable innovation in the field of tourism is given in order to summarize its state of the art, to identify the most relevant research flows, to understand the knowledge gaps found, as well as to discuss and debate future research perspectives.

To achieve these objectives, this chapter is based on a critical and comparative review of 42 articles selected from the *Scopus* and *Science Direct* databases.

This chapter is divided into five sections. Firstly, after this introduction, the definitions of innovative and sustainable tourism are given and analysed, as well as the relationship between these two concepts. Secondly, the methodology supporting the systematic literature review is described. The results of the analysis as well as the discussion of the findings and recommendations for future research are then summarized. Lastly, the final section sets out the conclusions of the current study.

THEORETICAL BACKGROUND

Innovation and Sustainability

There is no single consensual definition of the term innovation (Brandão & Costa, 2013; Johannesson, Olsen, & Lumpkin, 2001; Nybakk & Hansen, 2008; OSLO MANUAL); however it can be broadly defined as "*the process of using any new idea to solve problems* […], *it is the generation, acceptance and implementation of new ideas, processes, products or services*" (Hjalager 2010, p.2).

Although it is deemed as a key element for the modernization of industry and a driving force for economic growth (European Commission, 1995), innovation is very much focused on the economic benefits it provides (Barbieri, Vasconcelos, Andreassi, & Vasconcelos, 2010) without taking into account a sustainable economic growth (Peeters, Gossling, & Becken, 2006). This purely economics-based view of the innovation process, centered only on wealth creation, can exacerbate the environmental and social crisis that the world is going through (Smerecnik & Andersen, 2011).

The concept of sustainable innovation (Barbieri et al., 2010), which seeks a harmonious interdependence between the economy, human beings and the environment (Kattara & Zeid, 2002; Lawton & Weaver, 2010; Sharpley, 2000; Smerecnik & Andersen, 2011), is based on the search for a new approach to traditional economic growth, primarily aiming at the harmonization of social, environmental and economic objectives for all human beings (Asia Development Bank, 2012; International Institute for Sustainable Development, 2012; Vollenbroek, 2002). However, the concept of innovation linked to the challenge of sustainable development is difficult and complex and has been associated with various terminologies such as: eco-innovation (Brezovec 2013; García-Pozo, Sánchez-Ollero & Ons-Cappa, 2016; Martínez-Pérez, García-Villaverde & Elche, 2015; Miret-Pastor et al., 2011; OECD, 2013; Rennings, 2000), innovation driven by sustainability (Brezonec, 2013), environmental innovation (Chou, Chen, & Wang, 2012; García-Pozo et al., 2016; González & León, 2001) or green innovation (Chou et al., 2012; OECD, 2013). While eco-innovation, environmental innovation and green innovation can all be associated with an ambitious dimension, sustainability-led innovation has a more holistic view encompassing social and ethical dimensions as well.

From these definitions it can be concluded that sustainable innovation embraces the concern for the three – environmental, social, economic – dimensions of sustainability and is aimed at reducing the negative impacts of profit-driven growth and the creation of net benefits (Barbieri et al., 2010). As such, sustainable innovation emerges not only as a new key competitive business perspective (Horng, Liu, Chou, Tsai, & Chung, 2017; Smerecnik & Andersen, 2011), but also as an ideal tool for society and for sustainable development (Miret-Pastor et al., 2011; Renning, 2000).

Tourism and Sustainability

Tourism is a fast growing economic sector and one of the world's largest industries (Hallenga-Brink & Brezet, 2005). However, despite its positive impacts, it has caused harmful effects on several tourist destinations (Chou et al., 2012; Deng-Westphal, Beeton, & Anderson, 2015; Dibra, 2015; González & León, 2001; Hallenga-Brink & Brezet, 2005 ; Hjalager, 1997; Hunter & Shaw, 2007; Kasim, 2009; Kattara & Zeid, 2002; Knowles Macmillan, Palmer, Grabowski, & Hashimoto, 1999; OECD, 2013; Pace, 2016) as a result of its largely competitive market-specific features that seek to increase market shares based on consumerism and meeting consumer needs, while neglecting the reduction of environmental

impacts (Faché, 2000; Knowles et al., 1999). This focus essentially on economic growth has caused soil erosion, deforestation, (water, soil and air) pollution, loss of biodiversity, natural ecosystems' degradation and overuse of natural resources, among other impacts (González & Leon, 2001; Horng et al., 2017; Best & Tapas, 2011). To mitigate these impacts, efforts are underway to make tourism a more sustainable industry (Bramwell & Lane, 2012; Hallenga-Brink & Brezet, 2005; Scott & Cooper, 2010). As such, the concept of sustainable tourism emerged (Hallenga-Brink & Brezet, 2005), defined by the OECD (2013) as the type of tourism whose policies, practices and programs take into account not only tourists' expectations regarding responsible resource management, but also the needs of communities that support or are affected by tourism projects and the environment.

Sustainable tourism should be viewed not as a type of tourism product but as a new competitive industry paradigm and a fundamental condition for all types of tourism (Edgell, Allen, Smith, & Swanson, 2008; United Nations Environment Program, 2009) due to the "*limits imposed on the human economy by the ecological system*" (Yaw, 2005, p.119). In addition to a greater social and environmental balance, this sustainability can provide a competitive advantage for business (Dibra, 2015; Horng et al., 2017; Smerecnik & Andersen, 2011) and contribute to the survival of the tourism industry itself, which is highly dependent on the preservation of environmental attributes for their attractiveness (Best & Thapa, 2011; Deng-Westphal et al., 2015; González & León, 2001). However, this is a bilateral relationship, since, if sustainability plays a major role in attractiveness, attractiveness, as a cross-sector that interacts with many other industries and services, also plays an essential role in sustainability as it can contribute to a more pervasive sustainable economic development (OECD, 2013).

Evidently, the tourism industry faces a number of important sustainability challenges, namely (OECD, 2013): (i) energy and GHG emissions; ii) water consumption; iii) waste management; iv) loss of biological diversity; v) effective management of cultural heritage. For the tourism industry to contribute to this sustainability, sustainable innovation is a fundamental key factor for responding to this stimulus (Hjalager, 1997; Liburd, Carlsen, Edwards, & Forde, 2007; Pace, 2016) as it enables the identification of ways to ensure positive economic benefits (Bramwell & Lane, 2012) and addressing ecological, social and economic challenges (Liburd, 2007). This relationship will be further detailed below.

Relationship Between Innovation and Sustainability

Innovation in tourism is still at an embryonic stage (Hjalager, 2002; Ioannides & Petersen, 2003), very much dependent on innovations from other related industry sub-sectors (Hjalager, 1997), and ultimately seeks to generate wealth and to improve competitiveness, disregarding the mitigation of the environmental impacts it causes (Peeters et al., 2006). However, transformations in tourist behaviors, namely, those more influenced by sustainability considerations and more demanding when choosing environmentally benign products (Dibra, 2015; García-Pozo et al., 2016; Goodman, 2000; González & León, 2001; Horng et al., 2017; Martínez-Pérez et al., 2015; OECD, 2013; Smerecnik & Andersen, 2011; Yaw, 2005), on the one hand, and the serious environmental and human crisis, on the other hand, fostered that sustainable innovation can play an important and strategic role in adapting the tourism product to purchasing decisions (García-Pozo et al., 2016; González & León, 2001). Moreover, sustainable tourism innovations can lead to higher customer loyalty behaviors, better satisfaction and willingness to pay premium prices, which contributes to the generation of competitive advantage and the sustainability of tourist destinations (Xu & Gursoy, 2015). Besides being considered an essential tool for the survival of the industry (Miret-Pastor

Table 1. Types of innovation and their application to tourism

Inovation	Examples in the Context of Sustainable Innovation
Product innovation	New environmental products, regardless of their motivations (philanthropy or pragmatism) (e.g. ecotourism, volunteer tourism) or incremental changes to existing products (e.g. "green hotels", environmentally conscious airlines or tour operators).
Process innovation	Process innovations primarily aim to increase the performance of existing operations. For example, energy conservation (using environmentally friendly building materials, purchasing energy-saving equipment or green labeled items); Technological innovation (e.g. improving operational efficiency through assisting technology, creating different customer experiences through suportive technology in the service process).
Organizational change	Environmental communication (e.g. guest environmental education, community environmental support, dialogue with other industry resorts on environmental sustainability, employee environmental training, compulsory environmental statements in public messages, routine meetings to discuss environmental issues); Resource conservation (e.g. paying attention to recycling, conservation, buying reusable products, encouraging recycling among guests, buying energy-saving materials and facilities, avoiding the purchase of equipment or packaging containing hazardous substances, collecting hazardous waste by categories); Corporate social responsibility (e.g. respecting and protecting the natural environment, complying with ethical principles that take precedence over the pursuit of financial performance, long-term vision of success, being committed to promoting social welfare); Cultural management (e.g. combining local culture to enhance the value of innovation, distributing cultural and creative funds each year to promote cultural innovation, having a special department in charge of cultural and creative proposals; active involvement of the local community); Sustainability management (e.g. assessing greenhouse gas emissions and the carbon footprint, creation of a detailed program to reduce environmental impacts, written environmental policy, new environmental policies, creation of an environmental impact assessment report, supporting / training employees on sustainability-related aspects, adoption of nationally or internationally recognized sustainability certification programs – e.g. Ecolabel); Organizational environment (e.g. encouraging employees to promote innovation in sustainable services, develop indicators to monitor effectiveness in promoting sustainable innovation in services, rewarding teams for promoting innovation in sustainable services, developing annual performance indicators that measure performance).
Institutional innovation	Including better decision-making by local agencies or new global governance regimes through new forms of scientific evaluation and public participation (Renning, 2000).
Marketing innovation	Product-service (e.g. use of green consumer goods and services), price (e.g. including environmental compliance costs in the price of services provided), distribution (e.g. preference for suppliers and strategic partners who embrace environmental responsibility) and promotion (e.g. using green arguments in ads, promotional materials, and marketing campaigns).

Source: Own elaboration based on Hjalager (1997), Horng et al. (2017), Renning (2000), Salmones, Crespo and Bosque (2005) and Smerecnik and Andersen (2011)

et al., 2011; González & León, 2001), sustainable innovation presents itself as a key tool to maximize the potential environmental, social and cultural benefits of tourism (OECD, 2013).

Given the importance of considering the different types of innovation to measure sustainable innovation, these were summarized in Table 1, divided into five different types of sustainable innovation based on Martínez et al. (2015) and OECD (2009).

From Table 1, it is possible to conclude that the application of the concept of sustainable innovation to tourism activities can be widely implemented in promoting both the tourism destination and its sustainable development.

Table 2. Overview of the five-step approach to systematic literature review

1. Framing the question (question formulation)
2. Identifying relevant work (locating studies)
3. Assessing the quality of studies (selecting and evaluating studies)
4. Summarizing the evidence (analysis and synthesis)
5. Interpreting the Findings (reporting and using results)

Source: Denyer and Tranfield (2009), Khan et al. (2003)

METHODOLOGY

Systematic literature review (SLR) allows a better organization and systematization of existing knowledge, identifies existing gaps and inconsistencies in the literature and depicts future research (Borrego, Foster, & Froyd, 2014; Smith, Devane, Begley, & Clarke, 2011; Tranfield, Denyer, & Smart, 2003). Moreover, it is a replaceable, scientific and transparent process that avoids bias and overcomes the perceived weaknesses of a narrative review (Cook, Mulrow & Haynes 1997; Denyer & Tranfield, 2009; Tranfield, et al., 2003). This chapter follows the five-step approach to a SLR described by Khan, Kunz, Kleiinen, and Antes (2003) and Denyer and Tranfield (2009), as shown in Table 2.

Step 1 – Question formulation

A good SLR is based on a "*well-formulated, answerable question*" (Denyer & Tranfield, 2009, p. 681) that should be specified in the "*form of a clear, unambiguous and structured question*" (Khan et al., 2003, p. 118) before starting the revision work. Thus, three key questions for the study were delineated in order to achieve the intended objective: 1) what is the current state of the art of research?; 2) what are the limitations of the studies?; and 3) what are the paths for future research?

Step 2 and 3 – Locating, selecting and evaluating studies

Considering the purpose of this chapter, an advanced research was carried out with two keywords: "sustainable innovation" and "tourism", linked by the Boolean operator "AND" to create combined search links where both should appear somewhere in the article in the fields "*all fields*". This research was performed in the following databases: Scopus and Science Direct. Only academic articles published in top peer-reviewed scientific journals were included since they are essential communication channels and the most valid ones for the researchers (Creswell, 2009; David & Han, 2004; Podsakoff, 2005; Williams & Plouffe, 2007). Thus, books, book chapters, encyclopedias, book review**s**, editorials, errata, and other publications without arbitration were excluded.

After removing duplicates, the titles and abstracts were read. Those that were not aligned with the contribution to help answer the research questions were removed, as recommended by Sarka and Ipsen (2017).

Subsequently, through the snowballing method, relevant authors with relevant research for the subject in question were included. The full text was read, as suggested by Sarka and Ipsen (2017) and Wong, Feng,

Table 3. Overview of the five-step approach of the SLR

Total number of articles	Science direct: 69 Scopus: 10 Total: 79
Filter search - document type	Science direct: 62 Scopus: 6 Total: 68
Refined search: removed duplicated articles	Total 63 (5 of the 6 articles from Scopus were on Science Direct)
Refined search: removed based on abstract and title	Total: 36
Refined results: full text and snowballing	Final number: 42

Source: Own elaboration

Pwee, and Lim (2012). Each article was analyzed with special attention to its theoretical foundations, data collection methods, discussions of research results, their limitations and suggested future research.

Only articles after 1992 were included, which was the year the world community committed itself to the Earth Summit (Rio92) with the principles of sustainable development. It was also the year that sustainability in tourism gained prominence at the Vancouver Global Conference on Business and the Environment – Globe' 92 (Asia Development Bank, 2012; International Institute for Sustainable Development, 2012; Moniz, 2006). As a result, 42 articles were chosen and analyzed.

The results of this research conducted in February 2018 are given in Table 3.

Step 4 – Analysis and synthesis

Based on Sarka and Ipsen (2017, p.599), the summary information contained in each document "was prepared in a spreadsheet format organized into descriptive, methodological and thematic" areas and subdivided into the following categories: author, title, year, main purpose, data collection / processing method, results, limitations and suggestions for future research. A content analysis was subsequently carried out. Step 5, regarding the findings, is described in the next section.

RESULTS AND DISCUSSION

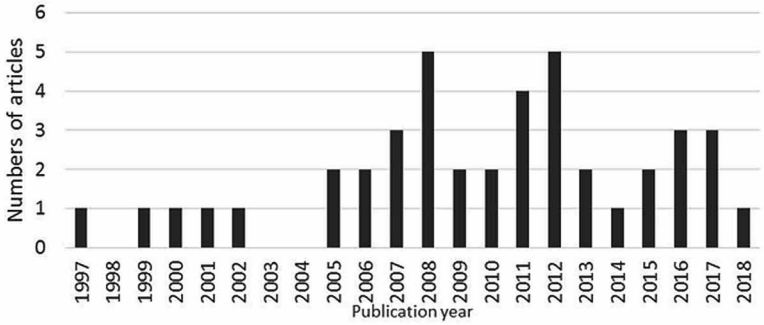
General Evolution

As shown in Figure 1, research on tourism and sustainable development only starts to be widespread after 2008. Table 4 shows that the top four journals publishing sustainable innovation research in the tourism industry account for almost 40% of published work. However, there are 22 academic journals with only one publication on this research topic.

Main Areas of Study

As a result of the content analysis, the articles analyzed cover various fields of research. Their aggregation into areas was inductively done as a result of the thematic objectives and common lines of research

Figure 1. Distribution of publication per year
Source: Own elaboration



of the different authors analyzed. They were grouped into the following thematic areas: i) impacts of sustainable innovation; ii) monitoring sustainable innovation; iii) factors that influence the integration of sustainable innovation; iv) sustainable innovation and tourist destinations; v) entrepreneurs' behavior towards sustainable innovation; vi) sustainable innovation and tourists (segmentation); and vii) broad perspective of innovation and sustainable innovation in tourism. The information on the different themes is organized in Tables 5 to 11, which summarize the authors and their main objectives and conclusions. The tables are organized by year to show if there is any trend in the type of analysis.

Impacts of Sustainable Innovation

Table 5 displays information on the impacts of sustainable innovation, their main authors and main objectives.

Table 5 reveals that the studies analyzed cover the three – environmental, economic and social – dimensions of sustainability as mentioned in the literature review, the economic dimension being the most analyzed. From the findings one can note that there is no consensus on the positive impacts of sustainable innovation at the economic level. While there are positive business impacts (García-Pozo et al., 2016; Goodman, 2000; Njite et al., 2011; Segarra-Oña et al., 2012; Yaw, 2005), they reveal that economic benefits are not perceived by all respondents (Strambach & Surmeier, 2013). Lawton and Weaver (2010) argue that there are clear positive effects of introducing sustainable innovations in cost-related aspects

Table 4. Overview of the number and percentage of articles in the main outlets

Outlet	Number of Articles	Percentage	Cumulative Percentage
International Journal of Hospitality Management	5	11,90%	11,90%
Journal of Sustainable Tourism	4	9,52%	21,43%
Journal of Cleaner Production	4	9,52%	30,95%
Tourism Management	3	7,14%	38,10%
Total	42	100%	100%

Source: Own elaboration

Table 5. Main objectives and conclusions of the articles about the impacts of sustainable innovation

Author	Main Objective	Conclusion – Main Impacts
(Goodman, 2000)	To identify the consequences of implementing sustainable innovations (environmental responsibility: employee training and environmental information systems; waste disposal practices and environmental policy; collaborating with suppliers to achieve environmental innovation) in service operations at Scandic hotels.	They contribute to improve company performance. Sustainable strategies and practices can be just as useful in service operations as they are in manufacturing operations.
(Yaw, 2005)	To study the extent to which the development and diffusion of cleaner technologies (sustainable innovations) contribute to the viability and sustainability of the Caribbean tourism industry and the reasons why businessmen adopt them.	The use of cleaner technologies in the tourism industry saves energy and material resources, which is essential for the sustainable development of tourism. However, the use of these technologies alone will not guarantee the survival of the industry. Sustainable innovation ensures greater visibility of the businesses, especially of business partners (e.g. operators) and thus the significant increase in guests and tourists.
(Krozer, Lordkipanidze, Bijma, & Akker, 2007)	To identify the impacts of sustainable innovations (sustainable mobility) in MOPARK.	Park authorities can conduct business activities to generate profit without undermining the main goals of social entrepreneurship. Sustainable activities can contribute to environmental, social and economic protection.
(Lordkipanidze, Krozer, Kadiman, Crul, & Brezet, 2008)	To analyze the impacts of sustainable innovative practices (e.g. electric boats and bikes) on the three dimensions of sustainability.	The development of sustainable innovations can reduce the negative impacts of tourism activities in National Parks by helping the rich biosphere to coexist with tourism in natural areas, which contributes to environmental protection as well as social and economic benefits.
(Tepelus, 2008)	To discuss the impact that sustainable innovation has (existing corporate social responsibility good practices such as: education of employees / tourism students, codes of conduct, marketing with social responsibility campaigns, sustainability indicators within the tourism sustainability framework) in preventing and combating trafficking in human beings.	Sustainable innovations have contributed to prevent and combat trafficking and sex tourism by creating greater awareness among all stakeholders involved (population, tourists, entrepreneurs, etc.).
(Lawton & Weaver, 2010)	To analyze the impacts that sustainable innovation (e.g. recycling and energy conservation) can have on events, particularly birdwatching events.	There are positive effects in introducing sustainable innovations both on participant cost and satisfaction. However, there are no positive effects on revenue generation.
(Njite, Hancer, & Slevitch, 2011)	To examine how companies understand corporate social responsibility and identify the motivations / limitations for practicing them.	Social corporate responsibility has positive economic results in the long term growth and less employee turnover.
Segarra-Oña et al. (2012)	To identify the impacts that environmental certificates have on hotel economic performance	Positive impacts at economic level.
Strambach & Surmeier (2013)	To identify the main economic impacts that sustainable certification programs have on tourist businesses.	The certification promotes: 1) Network relations with other certified companies, which enables mutual exchange of ideas and experiences; 2) Sharing best practices; 3) Indirect benefits perceived primarily in gaining easier access to government support and funding. Non-consensual impacts among respondents: economic impacts (recognition, credibility and positioning), attracting new business contacts and new customers.
(García-Pozo et al., 2016)	To analyze the effects of implementing sustainable innovations on labor productivity in the hotel industry and the impact of these measures on labor productivity.	Introduction of sustainable innovations has a positive influence on labor productivity, although the economic crisis has reduced the observed productivity growth for each additional eco-innovative practice implemented by hotels. However, the results show that productivity growth could have been exceeded in the years analyzed.

Source: Own elaboration

and participant satisfaction, but not in revenue generation. The introduction of sustainable innovation in tourism also generates positive social impacts (Tepelus, 2008). Lordkipanidze et al. (2008) and Krozer

Table 6. Main objectives and conclusions about monitoring

Author	Main Objective	Conclusion
(Chan, 2009)	To identify, assess and generalize the environmental measures used in sustainable innovation related to the introduction of the environmental management system in the hotel industry.	113 measures were identified. Almost half of them refer to energy conservation.
(Miret-Pastor et al., 2011)	To evaluate environmental indicators of sustainable innovation related to three environmental certificates in the field of tourism and to understand if environmental certification can be considered as an indicator of eco-innovation.	The article shows that environmental certification systems can be used as indicators of sustainable innovation in the hospitality sector.

Source: Own elaboration

et al. (2007) also conclude that sustainable innovations can reduce the negative impacts of tourism activities in National Parks and contribute to environmental, social and economic benefits. As such, one can conclude that, although the economic dimension does not yield consensual results, sustainable innovations can have a positive sustainable impact on the tourism industry.

From Table 5 it is possible to conclude that, based on the concepts laid down in Table 1, the most researched types of sustainable innovations in this area of study are: products (Krozer, et al, 2007; Lordkipanidze et al., 2008), green innovation processes (Yaw, 2005); organizational management(Garcia-Pozo et al., 2016; Tepelus, 2008); resource conservation (Garcia-Pozo et al., 2016; Goodman, 2000; Lawton & Weaver, 2010); sustainability management, namely regarding environmental certification (eg: Garcia-Pozo et al., 2016; Strambach & Surmeier, 2013; Segarra-Oña et al., 2012); and corporate social responsibility (Njite et al., 2011; Tepelus, 2008).

Monitoring Sustainable Innovation

Given the difficulty in assessing the concept of sustainability, it has been linked to the goal of maximizing positive impacts and minimizing negative impacts (Martin, 2013). As such, it is necessary to monitor sustainability to identify their effects in order to introduce preventive or corrective measures as much as possible (Bell & Morse, 2008; Choi & Sirakaya, 2006; Edgell, Allen, Smith, & Swanson, 2008; Hjalager, 1997; Moniz, 2006). However, the lack of relevant data and indicators, and their consequent monitoring, is one of the biggest challenges (Choi & Sirakaya, 2006; Miret-Pastor et al. 2011; Moscardo, 2008), and a complex issue is that it involves the same problems that make it difficult to measure innovation (Miret-Pastor et al., 2011). Therefore, research is needed to investigate the most appropriate indicators to monitor this innovation in the context of tourism.

Despite its relevance, this line of research is still under-researched as only two studies, related to the hospitality industry, have focused on this subject, as shown in Table 6.

Factors That Influence the Integration of Sustainable Innovations

There are several lines of research in this subject area, as shown in Table 7. One of them is the identification of theoretical models that explain the decision-making processes, attitudes and factors that influence entrepreneurs to adopt sustainable innovations in their tourist activities. Hallenga-Brink &

Brezet (2005) use the sustainable innovation design diamond model. Chou et al. (2012) use a model that combines Rogers' diffusion of innovation and planned behavior theories to better investigate these processes. Dibra (2015) considers Rogers' (2002) diffusion of innovation theory as the most appropriate one. Horng et al. (2017) test a new theoretical model interrelating the characteristics of innovation with sustainable innovations, environmental marketing strategy and the organizational environment as well as the mediating effect of these last two variables.

Another area of research looks at the factors and characteristics of adopters that can influence tourism businessmen to integrate sustainable innovations into their activities. This topic is extremely relevant as tourism businessmen can play a vital role in sustainable development because, if motivated, they contribute to sustainable growth and serve as a vehicle for innovation and change (Lordkipanidze et al., 2008). It is possible to conclude that managers play a key role in introducing innovation (Bergin-Seers, Breen, & Frew, 2008; Nybakk & Hansen, 2008) with a positive relationship between their environmental opinion leadership (environmental perception of managers) and sustainable innovation (Best & Tapas, 2011; González & León, 2001; Reyes-Santiago, Sánchez-Medina, & René, 2017; Smerecnik & Andersen, 2011). Similarly, businesses that are dependent on the natural environment are a key element in the adoption of environmental innovation (Best & Tapas, 2011). Recognition of opportunities, on the other hand, does not significantly influence the adoption of these innovations (Nybakk & Hansen, 2008).

Another research topic is to identify which characteristics of innovation lead to the adoption of sustainable innovations. The perceived simplicity of innovation is the most positively correlated feature with this adoption (Chou et al., 2012; Smerecnik & Andersen, 201). The ability to experiment did not correlate with the adoption of innovations for achieving sustainability (Smerecnik & Andersen, 2011). As to relative advantage, on the other hand, there is a lack of consensus among the authors: for Chou et al. (2012) and Le, Hollenhorst, Harris, McLaughlin, and Shook (2006) it is a strong predictor of the adoption of sustainable innovation, while for Smerecnik & Andersen (2011) it only entails a moderate correlation.

Another relevant topic of study is the characteristics of organization and context. The results regarding organizational characteristics are not consensual, namely in terms of company size. Some studies argue that there is a strong relationship between company size and the adoption of sustainable innovations (Best & Tapas 2011; González & León, 2001; Reyes-Santiago et al., 2017), but there are studies where this relationship is inconsistent (Le et al., 2006). In addition, there are studies that argue that larger companies have more capability to innovate (Best & Tapas, 2011; Reyes-Santiago et al., 2017) and there are studies that give greater prevalence to SMEs (Nicholls & Kang, 2006) and also argue that the more hierarchical the organization is, the lower the creativity and the experimentation in the organizations (Reyes-Santiago et al., 2017). Team participation is another favorable element in the development of sustainable innovations (Chou et al., 2018; Martínez-Pérez et al., 2015; Reyes-Santiago et al., 2017; Smerecnik & Andersen, 2011).

As to contextual characteristics, customer concerns about the environment positively influence environmental innovation (González & León, 2001), although the relationship may be very weak (Le et al., 2006) or non-statistically significant (Chou et al., 2012). Government policies do not have a consensual outcome: Bergin-Seers et al. (2008) argue that they are the most common barriers to adopting innovations, while Le et al. (2006) have not found a significant correlation between perceived changes in government policy and company decisions to adopt innovations and sustainable practices.

For Le et al. (2006) and Horng et al (2017) the characteristics of innovation are the most important factors underpinning the adoption of corporate sustainable innovation and the characteristics of the

Table 7. Main objectives and conclusions regarding the integration of sustainable innovations

Author	Main Objective	Conclusion
(González & León, 2001)	To investigate the determinants that lead to the adoption of environmental innovations in the production of hotel services.	The most frequently adopted environmental measures normally involve low investments and reduced operating costs. The environmental quality index is determined by the category of facilities, production capacity, integration into a larger management chain, environmental perception of managers and customer concern for the environment.
(Hallenga-Brink & Brezet, 2005)	To investigate the sustainable entrepreneur decision-making process based on the diamond model of sustainable innovation design.	The results indicate that this model has great potential for companies as it contributes to integrate sustainability into daily business practice.
(Le et al., 2006)	To identify the factors that influence the intentions of hotel companies to adopt environmentally sustainable innovations, namely: a) characteristics of innovation (relative advantage, compatibility, complexity, observability); b) organizational characteristics (firm size / internal resources, location, green attitude and attitude towards change (risk level); and c) perceived environmental characteristics (level of competition, customer pressure, and government / regulation).	The characteristics of innovation are the most important factors influencing the adoption of innovations of sustainable tourism practices in corporations. Relative advantages (measured in terms of savings, sales volume, and increased company reputation) also appear to be effective motivators for adopting environmental practices. As to organizational characteristics – which has the weakest correlation – the results show the level of risk is the variable that most influences the adoption of sustainable innovations. The relationship between company size and the adoption of innovation depends on the type of innovation.
(Bergin-Seers et al., 2008)	To analyze the barriers and determinants that affect the integration of innovation management in nature-based tourism in small and medium enterprises.	The most common barrier is government regulation and the main determinant that influences innovation is networks with external people, which enables the development of new products and services. Managers and a dynamic management style are key factors in making companies more innovative.
(Nybakk & Hansen, 2008)	To identify the attitudes of entrepreneurs that influence innovation in the nature-based tourism product.	The data shows that the recognition of opportunities does not significantly influence the adoption of innovations. Owners with a more entrepreneurial attitude are more likely to start new activities and adopt innovations.
(Best & Tapas, 2011)	To study what differences (in terms of characteristics, environmental attitudes / motivation, familiarity, constraints and implications) exist between adopters and non-adopters of sustainable innovations (implementation of environmental practices – energy saving lamps, energy saving devices, water saving devices, clothing and/ or towel replenishment programs, separation of solid waste for reuse or recycling, environmental policies and environmental management system).	One of the factors influencing the adoption of sustainable innovation is the environmental motivation given by the business dependence on the natural environment. As to the importance of the tourist sector's role in environmental protection, one of the factors influencing the adoption of sustainable innovations is the size of the company, given the greater ability to introduce innovations. Lastly, the results conclude that the introduction of sustainable innovation can be better if there is at least one person, a green champion within an entity that effectively drives the process, which validates other studies on the importance of this feature in adopting sustainable innovations.
(Smerecnik & Andersen, 2011)	To understand which characteristics of innovation (relative advantage, compatibility, simplicity/complexity, and testability) and the characteristics of adopters (environmental opinion leadership and innovator characteristics) that affect the voluntary adoption of sustainable innovations at ski resorts in North America.	The perceived simplicity of innovation (characteristic of innovation) and environmental opinion leadership (characteristic of adopters) are the most positively correlated characteristics with the adoption of sustainable environmental innovations. Testability did not correlate with the adoption of sustainable innovations.
(Chou et al., 2012)	Using a model that combines Rogers' theory and planned behavior theory, they investigate attitudes and behavioral decision factors in the adoption of green practices in the Taiwanese catering industry.	Attitude and perceived behavioral control have positive effects on behavioral intention, while social influence is not significant. Perceived innovation characteristics have direct positive effects on attitude and indirect positive impacts on the behavioral intention of adopting green practices. In terms of innovation characteristics (Rogers' theory), simplicity and relative advantage are correlated with greater adoption of sustainable innovation. However, contextual and organizational characteristicsplayed the most significant role.
(Nicholls & Kang, 2012)	To assess the factors and levels of adoption of various environmental innovations in the housing sector (assessed across all property characteristics, including type, property, location, and size).	Small businesses are more prone to sustainable innovations as they engage in community activities and use local and / or organic products. Nearly complete implementation of proper disposal of hazardous waste contrasts with the minimal use of key cards to control energy use.
(Dibra, 2015)	This article analyzes and compares various theoretical models to explain the factors that influence businessmen to adopt sustainable innovations in their tourism activities.	Rogers' theory was considered the most appropriate for the study of the factors that influence the adoption of sustainable innovation practices in tourism companies.
(Martínez-Pérez et al., 2015)	They analyze the mediating role played by knowledge strategy in the relationship between social capital and eco-innovation in cultural tourism clusters.	The results reveal that social capital is a key driving force that companies located in cultural tourism clusters must support to develop sustainable innovations.
(Horng et al., 2017)	They test a new theoretical model to identify the interrelationships between innovation characteristics, sustainable innovations, environmental marketing strategy and the organizational environment, as well as the mediating effect of the last two variables.	The diffusion of innovation is positively related to the environmental marketing strategy and sustainable innovations. Marketing strategy mediates the relationship between innovation diffusion and sustainable innovations. Only organizational environment plays a significant role in improving the relationship between innovation diffusion and the environmental marketing strategy. The findings reinforce the role that innovation characteristics play in selecting sustainable innovations and the role that sustainable marketing strategy plays as a mediator in strengthening the link between characteristics and the adoption of sustainable innovation.
(Reyes-Santiago et al., 2017)	To analyze the relationship between organizational culture (hierarchy, organizational culture, market and adherence) and eco-innovation.	Organizational culture and company size are the most important factors in explaining the presence of eco-innovation. This research shows that membership culture is the type of organizational culture most closely related to eco-innovation, and company size influences the adoption of sustainable innovations as small hotels have fewer financial resources.
(Chou et al., 2018)	To examine and explain the moderating role that the organizational environment (encouragement, pressure and resources) can play between sustainable services and the performance of sustainable catering companies.	There is an interaction between the organizational environment, sustainable service and company performance (overall impression for customers and increased operating profit). There is a significant perceived interaction effect between competitive pressure, employee encouragement (personal, corporate and community sustainable services' benefits) and innovative sustainable services.

Source: Own elaboration

Table 8. Main objectives and conclusions regarding sustainable innovation and tourist destinations

Author	Main Objective	Conclusion
(Moscardo, 2008)	To identify new, more sustainable tourism innovations to support the development of a destination region.	In order for sustainable innovation to contribute to a cohesive and sustainable development of a destination/ region, innovations need to integrate the socio-economic activities of the destination region, e.g. supporting the development of activities such as traditional agriculture, crafts and education.
(Scott & Cooper, 2010)	To analyze what types of sustainable innovations can be employed to make urban tourism sustainable.	A sustainable urban tourism product requires innovative measures such as: collaboration between stakeholders acting at a destination (various companies and economic activities working together in a hypercluster), creating an integrated and unique destination image of existing services and products and innovations that actively promote tourism benefits for local residents.
(Genovese et al., 2017)	To analyze the key features of agricultural organizations in the Italian alpine mountains and how they can be combined into innovative and sustainable business models.	A sustainable innovative business model must encompass the coexistence of different economic activities for better continuity and sustainability, involving not only individual organizations, but also destinations.

Source: Own elaboration

organization are the least important. However, Chou et al. (2012) argue that the contextual and organizational characteristics played the most significant role.

Sustainable Innovation and Tourist Destinations

Table 8 emphasizes that sustainable innovation applied in a territorial context should be oriented towards: 1) integrating and developing a range of other socio-economic activities beyond the tourism industry (e.g. in supporting the development of activities such as traditional agriculture, crafts, education, health) (Genovese, Culasso, Giacosa, & Battaglini, 2017; Moscardo, 2008; Scott & Cooper, 2010); 2) stimulate collaboration of a stakeholder network in the tourist destination (Genovese et al., 2017; Scott & Cooper, 2010); and 3) actively promote the benefits of tourism for local residents (Scott & Cooper, 2010).

These articles were conducted either in an urban context (Scott & Cooper, 2010) or in natural environments (Genovese et al., 2017) or in a tourist destination overview (Moscardo, 2008) and conclude that this type of innovation can contribute to a sustainable destination.

Entrepreneurs' Behaviour Towards Sustainable Innovation

Table 9 shows that there is an ambiguous behavior in the hotel sector, which may be due to studies being applied in countries with different cultures and values. While, on the one hand, there are hotel managers who lack the necessary environmental knowledge and interest (Erdogan & Barisb, 2007; Mensah, 2007), on the other hand, there is a high level of awareness and the desire to preserve the environment through the implementation of environmental practices (Kattara & Zeid, 2002; Knowles et al., 1999). There is, however, a clear gap between good "intent" and environmental action (Knowles et al., 1999) and some inactivity in the areas of sustainable innovation related to organizational management / resource conservation (Mensah, 2007) and social and environmental responsibility (Erdogan & Barisb, 2007).

Table 9. Main objectives and conclusions regarding businessmen behavior and sustainable innovations

Author	Main Objective	Conclusion
(Knowles et al., 1999)	To study the behavior of the tourism industry in England to understand if there is a gap between theory and practice regarding the application of sustainable innovation and its role in contributing to improving environmental performance.	There is a high percentage of respondents expressing concern about environmental issues in the hotel industry. However, it clearly shows a gap between good "intent" and environmental action.
(Kattara & Zeid, 2002)	To assess innovative environmental practices in Sinai and Red Sea hotels.	There is an opportunity to promote environmental practices in hotels and a high level of awareness and willingness of managers to preserve the environment and a desire to implement eco-innovations.
(Erdogan & Barisb, 2007)	To investigate the general nature of environmental protection, waste management, purchasing, energy use and conservation practices in the hotel industry in Ankara, Turkey.	Ankara hotel policies and practices often lack relevant attributes for the protection and conservation of the environment. Hotel managers generally lack the knowledge and environmental interest to achieve basic social and environmental responsibility objectives.
(Mensah, 2007)	This exploratory study analyzes sustainable innovations related to environmental organizational management (resource conservation and sustainability management) in hotels in Ghana.	Most hotel managers are inactive in the areas of recycling and solar energy use. The hotels' most popular environmental management and sustainable tourism practices were the use of energy efficient lamps and the reuse of linen and towels (it did not expand on the reasons for the hotels' activity or inactivity in environmental management).

Source: Own elaboration

Table 10. Main objectives and conclusions regarding sustainable innovation and tourists

Author	Main Objective	Conclusion
Andereck (2009)	To investigate the perceptions of tourists about environmentally innovative tourism companies' responsible practices.	Visitors with a stronger ecological orientation had more positive opinions (such innovations are important and valuable) about environmentally responsible practices by tourism companies than non-nature-oriented tourists.
Esparon, et al. (2014)	To analyze the perceived importance of various attributes of the ECO sustainable innovation certification system.	The importance of the attributes varied according to the type of products and visitor groups. In accommodations, the main attributes perceived as important were Nature (as an aesthetic experience) and Marketing. The attractions and the rides were the least important. Younger visitors give more importance to the Environment and Conservation than older visitors. Women are more sensitive to conservation than men. Visitors ranked ECO certified operators better than non-ECO certified operators in many attributes.

Source: Own elaboration

Sustainable Innovation and Tourists (Segmentation)

Although the success of eco-innovations largely depends on individual consumer adoption (Gurtner & Soyez, 2016) and the tourist as a consumer plays a leading role in the unfolding concept of sustainability in this sector (Kasim, 2004; Williams & Plouffe, 2007), little is known about the characteristics of tourists adopting green innovations. Thus, as shown in Table 10, Andereck (2009) finds a positive

Table 11. Main objectives and conclusions regarding sustainable innovation in tourism

Author	Main Objective	Conclusion
(Hjalager, 1997)	To analyze the typology of eco-innovations in sustainable tourism, specifically in natural tourism products.	Environmental issues are faced by a number of innovations in this area of sustainability. However, the tourism industry has some inertia as these are the result of innovative efforts made in other industries (e. g. suppliers).
(Peeters et al., 2006)	To analyze current innovation options that enable more sustainable tourism in three areas of the aviation sub-sector: technology, lifestyle and politics.	At a policy level, sustainable innovations can focus on financial instruments such as international travel tax or greenhouse gas emissions. However, sustainable technological innovations will not be sufficient to offset projected growth rates in aviation.
(Brezovec, 2008)	To assess the role of communication in the dissemination of sustainable innovations.	Communication needs to be treated differently from traditional communications.
(De Grosbois, 2012)	To evaluate the practice of corporate social responsibility (CSR) reporting (considered a type of sustainable innovation) among the world's largest hotel companies.	While a large number of companies report a commitment to CSR objectives, far fewer provide details of specific initiatives undertaken to contribute to those objectives and even fewer report actual performance achieved. The study identifies the following challenges: the difficulty of significantly comparing the performance of hotel groups as there are different methodologies applied; different measures used; and lack of clarity regarding the scope of the report.
(Mattera & Melgarejo, 2012)	To describe eco-innovation best practices of two leading Spanish hotel corporations: NH Hotels and Meliá Hotels International.	CSR initiatives bring financial benefits to hotel companies by identifying a relationship between CSR and financial profit. Companies incorporate important actions by focusing on reducing environmental damage (e.g. reducing energy consumption through new technologies, using recycled materials and using fair trade products).
(Horng, Wang, Liu, Chou & Tsai, 2016)	To examine the key features of sustainable innovation in hotel services.	The results show that the following characteristics are important indicators of sustainable service innovation in the field of hotel management: market position, customer satisfaction; service orientation; environmental thinking; employee involvement; incentive mechanisms; human resources development; environmental services; cultural resource management; government policy; and education.
(Pace, 2016)	To analyze how tourism companies innovate in sustainable energy consumption and explore the capabilities of adopting energy efficiency in tourist hotel establishments.	The results demonstrate different patterns of innovation adoption across companies in terms of range of energy technologies. The measures to be taken depend on a combination of companies' capabilities, particularly to solve problems regarding energy efficiency and to accumulate knowledge about energy solutions by creating spaces for the adoption of innovative ideas.

Source: Own elaboration

relationship between nature-oriented tourists and the most positive views on environmentally responsible innovation practices by tourism companies. Studying the perception and importance that sustainable (certified) innovations have for tourists, Esparon, Gyuris, and Stoeckl (2014) found that there are product characteristics (eco-housing) and demographic characteristics (gender and age) that influence the attitude towards this kind of innovative practices.

Broad Perspective of Innovation and Sustainable Innovation in Tourism

Table 11 shows the different topics of this subject area, which covers various types of research without a common thread between them.

The research topics covered are quite varied ranging from: identifying sustainable types of innovation in nature tourism – considered to be a sustainable innovative product, as shown in Table 1 – (Hjalager, 1997) and their main features in the hotel industry (Horng et al., 2016); analyzing the relationship between this type of innovation and climate change in the aviation subsector (Peeters et al., 2006); analyzing sustainable innovations related to energy efficiency (Pace, 2016); examining a type of sustainable innovation (see Table 1), namely Corporate Social Responsibility (CSR) reports (De Grosbois, 2012); and the role of communication in disseminating sustainable innovations (Brezovec, 2008).

Hjalager (1997) argues that there are several types of innovations that allow a more sustainable tourism in nature but that this industry is very dependent on other industries. Horng et al. (2016) identify several characteristics considered as relevant indicators of innovation in sustainable services in the field of hotel management, including but not limited to environmental thinking, employee involvement, environmental services and education. Of the few studies that analyze sustainable innovation in a tourism subsector other than catering/hotels, Peeters et al. (2006) conclude that sustainable technological innovations will not be sufficient to mitigate the negative impacts this subsector has on climate change. Pace (2016) concludes that different standards for adopting sustainable energy efficiency innovations depend on a combination of companies' ability to solve problems surrounding energy efficiency and accumulate knowledge about energy solutions. De Grosbois (2012) reveals that only a limited number of companies provide CSR-related sustainable innovation details, and even fewer report the actual performance achieved. Brezovec (2008) highlights the crucial role of communication in disseminating sustainable innovations by concluding that this type of communication needs to be treated differently from traditional communications.

Main Future Research

Given that sustainable innovation in tourism is still a recent and little explored topic (González & León, 2001), more research on the subject is needed. Considering this reality, there are several lines of research and gaps to explore, based on the authors of the articles analyzed. Table 12 summarizes the main lines of future research suggested by the authors under review.

Based on the articles analyzed, one can conclude that triangulation is not much explored in this subject. Given the relevance of triangulation to mitigate the limitations of each data collection method, it would be advisible to recommend its use in a more extensive way in order to make a more significant contribution to the validation and conclusion of results (which is more detailed in the previous section). Thus, the conclusions of Knowles et al. (1999), for example, who claim that there is a huge awareness of environmental issues among English hoteliers, but which is not always translated into action, could be further examined with triangulation clarifying whether this perceived awareness comes from environmental awareness or merely due to "politically correct" answers. In this line of thinking, beyond triangulation, it would be relevant to extend research methods to other data collection tools such as neuroscience tools, as attitudes and behaviors towards sustainability are often expressed using politically correct answers (Hashimoto; 2000; Lawton & Weaver; 2010), and do not represent the actual behavior. These tools could allow a better understanding of the cognitive processes that guide such behaviors and attitudes.

Table 12. Main lines of future research in sustainable innovation

Theme	Descripiton	Authors
Monitoring	Monitoring impacts of sustainable innovation (e.g. in the tourist destination)	Krozer et al. (2007)
Sustainable innovation in destination communities	To integrate the local community perspective in more detail; further analysis of the implications that sustainable innovations have for the communities involved in certified business activities.	Njite, et al (2011); Strambach and Surmeier (2013)
Sustainable innovation among employees	Employee involvement in eco-innovation tasks or how integration of these innovations is viewed from the workers' perspective	García-Pozo et al., 2016
	Analyzing the perspective of employees in the context of different types of tourism (e.g. cultural tourism).	Martínez-Pérez et al. (2015)
Sustainable innovation among businessmen	a) Factors influencing businessmen to embrace sustainable innovations, addressing, e.g., demographic or psychographic characteristics.	Bergin-Seers et al. (2008)
	b) To develop research on Rogers' (2003) theory of innovation in the context of sustainable innovation in tourism (e.g. characteristics of innovation; of the organization and of the environment) as sooner or later as it occurs.	Dibra (2015); Horng et al. (2017); Karakaya, Hidalgo, and Nuur (2014); Le et. al. (2005); Smerecnik and Andersen (2011);
	c) To explore businessmen behavioral intentions towards adopting ecological innovations and intrinsic (e.g. personality) and extrinsic (e.g. social) factors and explore other models such as the Theory of Planned Behavior.	Chou et al. (2012)
	d) Studies examining business decision-making processes in adopting sustainable innovations in hotels and tourism-related companies.	Le et al. (2006)
	e) Introducing other variables such as political ideology and level of information.	Smerecnik and Andersen (2011)
Sustainable innovation among tourists	a) Few studies have specifically considered the impact of visitors on supporting sustainable innovations in tourism businesses.	Andereck (2009)
	b) To assess visitors' perceptions of this type of innovation (e.g.: environmental certificates)	Andereck (2009); Esparon et al. (2014)
Sustainable innovation and social and ethical concerns	Sustainable innovation should not only focus on the environmental dimension but should also address social and ethical concerns.	Brezonec (2013); Tepelus (2008).
Environmental management and sustainable innovation	Studies on effective management techniques for increasing the adoption of environmental values across companies as well as finding ways to enable employees to participate in building those values.	Erdogan and Barisb (2007); Smerecnik and Andersen (2011)
Methodology	a) Studies with methodologies that allow the generalization of findings.	Genovese et al. (2017)
	b) Longitudinal studies to analyze the long-term impact that sustainable tourism innovations have on companies and the social and ecological environment.	Segarra-Oña et al. (2012)
Sustainable innovation (institutional dimension)	Studies analyzing the impact of the institutional dimension on the adoption of eco-innovation (e.g.: in different destinations; what is the government's role in encouraging the creation of sustainable innovations in tourism).	Reyes-Santiago et al. (2017)

Source: Own elaboration based on the authors mentioned above

The analysis of the articles also allows us to conclude that, in future research, it would be ideal to explore the impacts that sustainable innovation can have on various tourism subsectors, in addition to traditional, catering and hospitality, and what kind of impacts the integration of this type of innovation can have on them. Further studies, such as that of Scott and Cooper (2010), which explore the impacts that sustainable innovations have on the destination of tourism are recommended, given the importance of tourism innovations for territorial competitiveness and sustainability (Brandão & Costa, 2013).

Another perceived gap is lack of studies on Business model innovation for sustainability. If tourism destinations are to succeed based in business innovation models, they need to incorporate sustainability in their business models. As it is not a matter of the magnitude of the novelty that needs to be incorporated but how to incorporate value proposition, value creation and value capture embracing all stakeholders and having sustainability as a common ground so that sustainable strategies are widespread across all stakeholders. For that public policy needs to address not only innovation, but also sustainability among different incentives and regulations. In this way public policy needs to be concerned with a proactive behavior including all inter-organizational payers to be tuned to a shared societal added value.

Given that, in the tourism industry, the environmental problem is often related to the number of tourists and the throughput capacity of tourist destinations and locations (Hjalager, 1997), it would be relevant to research into possible sustainable innovations that could reduce this ecological problem. Lastly, it should be noted that there is still a gap in this marketing-oriented research. Considering that sustainability is often unable to be identified, studies are needed to investigate sustainable innovation information and marketing strategies as they are an essential part of this approach. Similarly, one cannot forget the importance that new technologies are having in tourism (Edgell et al., 2008; Moniz, 2006). As such, further research linking sustainable technological innovation with this sector would be an asset to the body of knowledge.

CONCLUSION

Sustainable innovation is an important tool not only for the economy but also for making sustainable development an achievable goal. This type of innovation seeks to include a concern for environmental, social and economic equity in traditional methods of innovation.

As one of the most promising growth drivers for the world economy, tourism plays an active role with its negative impacts that sustainable development seeks to mitigate. It is therefore necessary to rethink the tourism industry innovation strategies so that this industry can contribute to a greater sustainable environment. As such, analyzing sustainable innovation in the context of tourism is a necessity, although relatively unexplored academically. The objectives of this chapter emerged from this need, which led the authors to propose the identification of current knowledge and possible paths for academic research. Through systematization, the answers to the two initial questions for the study became increasingly noticeable. Regarding the first question – what is the current state of research? –, this chapter demonstrates that it is a recent research topic and that it has attracted increasing academic attention with a significant increase in publications since 2010 – 23 articles (54.76%). The data also reveals that the interest in this topic is very wide given the different fields of the academic journals that publish articles on it. Regarding the research areas, the systematization and treatment of content analysis extracted relevant information and it was possible to identify seven major areas. The two most relevant areas involve research on the factors that influence the integration of sustainable innovations (14 articles) and the impacts that sustainable

innovation has on economic, social and environmental contexts (10 articles). The quantitative methodology is used in the vast majority of studies, and survey questionnaires are the most applied instruments.

As to the second question – what are the limitations of the studies and ways for future research? –, the results show that there are still several areas to explore and discrepant research on their results. The latter case, e.g. the economic dimension, has disparate results with articles concluding that there are significant positive impacts (García-Pozo et al., 2016; Goodman, 2000; Njite et al., 2011; Segarra-Oña et al., 2012; Yaw, 2005) and other articles (Strambach & Surmeier, 2013; Lawton & Weaver 2010) where these economic benefits are not perceived as such (e.g. wealth creation). Other non-consensual results are those related to innovation characteristics, as there are distinct results in characteristics such as relative advantage. Given this discrepancy, further research on these topics would be relevant and advisible.

Another limitation found is the relationship between sustainable innovation and the social dimension, the latter being the most neglected. Indeed, the relationship between sustainability and the environment has been widely studied in multiple topics, but the sociocultural dimension has been neglected. Thus, new studies are needed to further develop the reaction / satisfaction / response / perception of tourists and other stakeholders such as industry employees and the local community regarding sustainable innovation in tourism. This analysis is relevant because the knowledge, satisfaction and involvement of the various tourism stakeholders is one of the basic principles of the concept of sustainability (Bell & Morse, 2008; United Nations Environmental Programme, 2005).

Concerning the businessmen as stakeholders, research on this important gap is in high demand, exploring the gap between good "intention" and the sustainable action that apparently exists among tourism businessmen. To this end, using neuroscience tools as research methods could underpin a better understanding of these behavioral gaps. Methodologically, it would still be relevant, given the large amount of studies with quantitative methods, to invest in research that adopts a triangulation strategy to mitigate possible drawbacks of politically correct answers.

Given the importance of climate change for the tourism industry, it would be interesting to develop studies that relate these problems to sustainable innovation (e.g. how to use it to mitigate these problems, what kind of innovations should be used, etc.). Another gap still little explored is the impact that sustainable innovation can have on the tourism sector itself, on tourist destinations and ultimately on a country. In order to reflect on these impacts, it is essential to carry out research including indicators / indexes of sustainable innovation that can assess the performance of innovations implemented / introduced in terms of sustainability. In this way, sustainable innovation can gain greater credibility and acceptance, which enables a better dissemination across the tourism industry and an increasingly relevant role for sustainable development.

REFERENCES

Andereck, K. L. (2009). Tourists' perceptions of environmentally responsible innovations at tourism businesses. *Journal of Sustainable Tourism*, *17*(4), 489–499. doi:10.1080/09669580802495790

Asia Development Bank. (2012). *The sustainable developmente timeline*. Asia Development Bank.

Barbieri, J., Vasconcelos, I., Andreassi, T., & Vasconcelos, F. (2010). Inovação e sustentabilidade: Novos modelos e proposições. *Revista de Administração de Empresas*, *50*(2), 146–154. doi:10.1590/S0034-75902010000200002

Bell, S., & Morse, S. (2008). *Sustainability indicators: Measuring the immesurable.* Sterling.

Bergin-Seers, S., Breen, J., & Frew, E. (2008). The determinants and barriers affecting innovation management in SMTEs in the tourist park sector. *Tourism Recreation Research*, *33*(3), 245–253. doi:10.1080/02508281.2008.11081548

Best, M. N., & Thapa, B. (2011). Environmental management in the Caribbean accommodations sector. *Tourism (Zagreb)*, *59*(2), 145–168.

Borrego, M., Foster, M. J., & Froyd, J. E. (2014). Systematic literature reviews in engineering education and other developing interdisciplinary fields. *Journal of Engineering Education*, *103*(1), 45–76. doi:10.1002/jee.20038

Bramwell, B., & Lane, B. (2012). Towards innovation in sustainable tourism research? *Journal of Sustainable Tourism*, *20*(1), 1–7. doi:10.1080/09669582.2011.641559

Brandão, F., & Costa, C. (2013). Inovação em turismo: uma abordagem sistémica e territorial. In C. Costa, F. Brandão, R. Costa, & Z. Breda (Eds.), *Produtos e Competitividade do Turismo na Lusofonia* (Vol. 2, pp. 69–90). Lisbon: Escolar Editora.

Brezovec, A. (2013). Communicating sustainability-led innovation in tourism: Challenges and potentials. *Tourism and Innovation Journal*, *6*(2), 57–76.

Chan, W. W. (2009). Environmental measures for hotels' environmental management systems: ISO 14001. *International Journal of Contemporary Hospitality Management*, *21*(5), 542–560. doi:10.1108/09596110910967791

Choi, H., & Sirakaya, E. (2006). Sustainability indicators for managing community tourism. *Tourism Management*, *27*(6), 1274–1289. doi:10.1016/j.tourman.2005.05.018

Chou, C. J., Chen, K. S., & Wang, Y. Y. (2012). Green practices in the restaurant industry from an innovation adoption perspective: Evidence from Taiwan. *International Journal of Hospitality Management*, *31*(3), 703–711. doi:10.1016/j.ijhm.2011.09.006

Chou, S.-F., Horng, J.-S., Liuc, C.-H., & Gan, B. (2018). Explicating restaurant performance: The nature and foundations of sustainable service and organizational environment. *International Journal of Hospitality Management*, *72*, 56–66. doi:10.1016/j.ijhm.2018.01.004

Cook, D., Mulrow, C., & Haynes, R. (1997). Systematic reviews: Synthesis of best evidence for clinical decisions. *Annals of Internal Medicine*, *126*(5), 376–380. doi:10.7326/0003-4819-126-5-199703010-00006 PMID:9054282

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage.

David, R. J., & Han, S.-K. (2004). A systematic assessment of the empirical support for transaction cost economics. *Strategic Management Journal*, *25*(1), 39–58. doi:10.1002mj.359

Deng-Westphal, M., Beeton, S., & Anderson, A. (2015). The paradox of adopting tourism ecolabels. In D. Weaver, M. Hughes, & C. Pforr (Eds.), *The Practice of Sustainable Tourism: Resolving the Paradox*. London: Routledge.

Denyer, D., & Tranfield, D. (2009). Producing a systematic review. In D. Buchanan & A. Bryman (Eds.), *The Sage Handbook of Organizational Research Methods*. London: Sage Publications.

Devuyst, D., & Hens, L. (2000). Introducing and measuring sustainable development initiatives by local authorities in Canada and Flanders (Belgium) a comparative study. *Environment, Development and Sustainability*, *2*(2), 81–105. doi:10.1023/A:1011466019809

Dibra, M. (2015). Rogers theory on diffusion of innovation-The most appropriate theoretical model in the study of factors influencing the integration of sustainability in tourism businesses. *Procedia: Social and Behavioral Sciences*, *195*, 1453–1462. doi:10.1016/j.sbspro.2015.06.443

Edgell, D., Allen, M., Smith, G., & Swanson, J. (2008). *Tourism policy and planning*. Amsterdam: Routledge. doi:10.4324/9780080942506

Erdogan, N., & Baris, E. (2007). Environmental protection programs and conservation practices of hotels in Ankara, Turkey. *Tourism Management*, *28*(2), 604–614. doi:10.1016/j.tourman.2006.07.003

Esparon, M., Gyuris, E., & Stoeckl, N. (2014). Does ECO certification deliver benefits? An empirical investigation of visitors' perceptions of the importance of ECO certification's attributes and of operators' performance. *Journal of Sustainable Tourism*, *22*(1), 148–169. doi:10.1080/09669582.2013.802325

European Commission. (1995). *Green paper of Innovation*. Brussels: European Commission.

Faché, W. (2000). Methodologies for innovation and improvement of services in tourism. *Managing Service Quality*, *10*(6), 356–366. doi:10.1108/09604520010351185

García-Pozo, A., Sánchez-Ollero, J., & Ons-Cappa, M. (2016). Eco-innovation and economic crisis: A comparative analysis of environmental good practices and labour productivity in the Spanish hotel industry. *Journal of Cleaner Production*, *138*, 131–138. doi:10.1016/j.jclepro.2016.01.011

Genovese, D., Culasso, F., Giacosa, E., & Battaglini, L. (2017). Can livestock farming and tourism coexist in mountain regions? A new business model for sustainability. *Sustainability*, *9*(11), 1–21. doi:10.3390u9112021

González, M., & León, C. (2001). The adoption of environmental innovations in the hotel industry of Gran Canaria. *Tourism Economics*, *7*(2), 177–190. doi:10.5367/000000001101297801

Goodman, A. (2000). Implementing sustainability in service operations at Scandic hotels. *Interfaces*, *30*(3), 202–214. doi:10.1287/inte.30.3.202.11653

Grosbois, D. (2012). Corporate social responsibility reporting by the global hotel industry: Commitment, initiatives and performance. *International Journal of Hospitality Management*, *31*(3), 896–905. doi:10.1016/j.ijhm.2011.10.008

Gurtner, S., & Soyez, K. (2016). How to catch the generation Y: Identifying consumers of ecological innovations among youngsters. *Technological Forecasting and Social Change*, *106*, 101–107. doi:10.1016/j.techfore.2016.02.015

Hallenga-Brink, S. C., & Brezet, J. C. (2005). The sustainable innovation design diamond for micro-sized enterprises in tourism. *Journal of Cleaner Production*, *13*(2), 141–149. doi:10.1016/j.jclepro.2003.12.021

Hansen, J., Sato, M., Ruedy, R., Lacis, A., & Oinas, V. (2000). Global warming in the twenty-first century: An alternative scenario. *Proceedings of the National Academy of Sciences of the United States of America*, *97*(18), 9875–9880. doi:10.1073/pnas.170278997 PMID:10944197

Hashimoto, A. (2000). Environmental perception and sense of responsibility of the tourism industry in Mainland China, Taiwan and Japan. *Journal of Sustainable Tourism*, *8*(2), 131–146. doi:10.1080/09669580008667353

Hjalager, A. M. (1997). Innovation patterns in sustainable tourism: An analytical typology. *Tourism Management*, *18*(1), 35–41. doi:10.1016/S0261-5177(96)00096-9

Hjalager, A. M. (2002). Repairing innovation defectiveness in tourism. *Tourism Management*, *23*(5), 465–474. doi:10.1016/S0261-5177(02)00013-4

Hjalager, A. M. (2010). A review of innovation research in tourism. *Tourism Management*, *31*(1), 1–12. doi:10.1016/j.tourman.2009.08.012

Horng, J. S., Liu, C. H., Chou, S. F., Tsai, C. Y., & Chung, Y. C. (2017). From innovation to sustainability: Sustainability innovations of eco friendly hotels in Taiwan. *International Journal of Hospitality Management*, *63*, 44–52. doi:10.1016/j.ijhm.2017.02.005

Horng, J. S., Wang, C. J., Liu, C. H., Chou, S. F., & Tsai, C. Y. (2016). The role of sustainable service innovation in crafting the vision of the hospitality industry. *Sustainability*, *8*(3), 1–18. doi:10.3390u8030223

Hunter, C. (1997). Sustainable tourism as an adaptive paradigm. *Annals of Tourism Research*, *24*(4), 850–867. doi:10.1016/S0160-7383(97)00036-4

International Institute for Sustainable Development. (2012). *Sustainable development timeline.* Retrieved from https://www.iisd.org/pdf/2012/sd_timeline_2012.pdf

Ioannides, D., & Petersen, T. (2003). Tourism 'non-entrepreneurship' in peripheral destinations: A case study of small and medium tourism enterprises on Bornholm, Denmark. *Tourism Geographies*, *5*(4), 408–435. doi:10.1080/1461668032000129146

Johannesson, 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

Kasim, A. (2004). Socio-environmentally responsible hotel business: Do tourists to Penang Island, Malaysia care? *Journal of Hospitality & Leisure Marketing*, *11*(4), 5–28. doi:10.1300/J150v11n04_02

Kasim, A. (2009). Managerial attitudes towards environmental management among small and medium hotels in Kuala Lumpur. *Journal of Sustainable Tourism*, *17*(6), 709–725. doi:10.1080/09669580902928468

Kattara, H. S., & Zeid, A. W. (2002). Current environmental issues: A study of Sinai and Red Sea hotels. *Food Service Technology*, *2*(4), 155–161. doi:10.1046/j.1471-5740.2002.00051.x

Khan, K. H., Kunz, R., Kleiinen, J., & Antes, G. (2003). Five steps to conducting a systematic review. *Journal of the Royal Society of Medicine*, *96*(3), 118–121. doi:10.1177/014107680309600304 PMID:12612111

Knowles, T., Macmillan, S., Palmer, J., Grabowski, P., & Hashimoto, A. (1999). The development of environmental initiatives in tourism: Responses form the London hotel sector. *International Journal of Tourism Research*, *1*(4), 255–265. doi:10.1002/(SICI)1522-1970(199907/08)1:4<255::AID-JTR170>3.0.CO;2-8

Krozer, Y., Lordkipanidze, M., Bijma, T., & van den Akker, F. (2007). Income generation from tourism in national parks: European experience. *WIT Transactions on Ecology and the Environment*, *102*(2), 1019–1028.

Lawton, L., & Weaver, D. (2010). Normative and innovative sustainable resource management at birding festivals. *Tourism Management*, *31*(4), 527–536. doi:10.1016/j.tourman.2009.06.004

Le, Y., Hollenhorst, S., Harris, C., McLaughlin, W., & Shook, S. (2006). Environmental management: A study of Vietnamese hotels. *Annals of Tourism Research*, *33*(2), 545–567. doi:10.1016/j.annals.2006.01.002

Liburd, J. (2007). Sustainable tourism and innovation in the mobile tourism services. *Tourism Review International*, *9*(1), 107–118. doi:10.3727/154427205774791771

Lordkipanidze, M., Krozer, Y., Kadiman, T., Crul, M., & Brezet, H. (2008). Impacts from tourism in protected areas. *Georginal International Journal of Science*. *Techology and Medicine*, *1*(1), 11–47.

Martin, S. (2013). *A surf resource sustainability index for surf site conservation and tourism management* (Unpublished Doctoral Thesis). University Prince of Songkla, Hat Yai, Thailand.

Martínez-Pérez, Á., García-Villaverde, P. M., & Elche, D. (2015). Eco-innovation antecedents in cultural tourism clusters: External relationships and explorative knowledge. *Innovation*, *17*(1), 41–57. doi:10.1080/14479338.2015.1011058

Mattera, M., & Melgarejo, A. M. (2012). Strategic implications of corporate social responsibility in hotel industry: A comparative research between NH Hotels and Meliá Hotels. *International Higher Learning Research Communications*, *2*(4), 37–53. doi:10.18870/hlrc.v2i4.85

Mensah, I. (2007). Environmental management and sustainable tourism development: The case of hotels in Greater Accra Region (GAR) of Ghana. *Journal of Retail & Leisure Property*, *6*(1), 15–22. doi:10.1057/palgrave.rlp.5100039

Miret-Pastor, L., Segarra-Oña, M. V., & Peiró-Signes, A. (2011). How to rate ecoinnovation? A tourism sector indicator's analysis. *TEC Empresarial*, *5*(2), 15–25.

Moniz, A. I. (2006). *A sustentabilidade do turismo em ilhas de pequena dimensão: O caso dos Açores* (Unpublished Doctoral Thesis). University of the Azores, Ponta Delgada, Portugal.

Moscardo, G. (2008). Sustainable tourism innovation: Challenging basic assumptions. *Tourism and Hospitality Research*, *8*(1), 4–13. doi:10.1057/thr.2008.7

Nicholls, S., & Kang, S. (2012). Going green: The adoption of environmental initiatives in Michigan's lodging sector. *Journal of Sustainable Tourism*, *20*(7), 953–974. doi:10.1080/09669582.2011.645577

Nidumolu, R., Prahalad, C., & Rangaswami, M. (2009). Why sustainability is now the key driver of innovation. *Harvard Business Review*, *87*(9), 56–64.

Njite, D., Hancer, M., & Slevitch, L. (2011). Exploring corporate social responsibility: A managers' perspective on how and why small independent hotels engage with their communities. *Journal of Quality Assurance in Hospitality & Tourism*, *12*(3), 177–201. doi:10.1080/1528008X.2011.541833

Nybakk, E., & Hansen, E. (2008). Entrepreneurial attitude, innovation and performance among Norwegian nature-based tourism enterprises. *Forest Policy and Economics*, *10*(7), 473–479. doi:10.1016/j.forpol.2008.04.004

OCDE. (2009). *Eco-innovation in industry: Enabling green growth*. Paris: OECD.

OECD. (2013). *Green Innovation in Tourism Services, OECD Tourism Papers, 2013/01*. OECD Publishing; doi:10.1787/5k4bxkt1cjd2-

Pace, L. A. (2016). How do tourism firms innovate for sustainable energy consumption? A capabilities perspective on the adoption of energy efficiency in tourism accommodation establishments. *Journal of Cleaner Production, 111*(Part B), 409–420.

Peeters, P., Gossling, S., & Becken, S. (2006). Innovation towards tourism sustainability: Climate change and aviation. *International Journal of Innovation and Sustainable Development*, *1*(3), 184–200. doi:10.1504/IJISD.2006.012421

Podsakoff, P. M., Mackenzie, S. B., Bachrach, D. G., & Podsakoff, N. P. (2005). The influence of management journals the 1980s and 1990s. *Strategic Management Journal*, *26*(5), 473–488. doi:10.1002mj.454

Rennings, K. (2000). Redefining innovation – eco-innovation research and the contribution from ecological economics. *Ecological Economics*, *32*(2), 319–332. doi:10.1016/S0921-8009(99)00112-3

Reyes-Santiago, M. R., Sánchez-Medina, P. S., & René, D. P. (2017). Eco-innovation and organizational culture in the hotel industry. *International Journal of Hospitality Management*, *65*, 71–80. doi:10.1016/j.ijhm.2017.06.001

Rogers, E. M. (2003). *Diffusion of innovations*. New York, NY: Free Press.

Salmones, M. G., Crespo, A. H., & Bosque, I. (2005). Influence of corporate socialresponsibility on loyalty and valuation of services. *Journal of Business Ethics*, *61*(4), 369–385. doi:10.100710551-005-5841-2

Sarka, P., & Ipsen, C. (2017). Knowledge sharing via social media in software development: A systematic literature review. *Knowledge Management Research and Practice*, *15*(4), 594–609. doi:10.105741275-017-0075-5

Schor, J. B. (2005). Prices and quantities: Unsustainable consumption and the global economy. *Ecological Economics*, *55*(3), 309–320. doi:10.1016/j.ecolecon.2005.07.030

Scott, N., & Cooper, C. (2010). Innovation for sustainable urban tourism: Some thoughts on best practice. *Revista de Administração Pública*, *44*(5), 1171–1190. doi:10.1590/S0034-76122010000500008

Segarra-Oña, M., Peiró-Signes, Á., Verma, R., & Miret-Pastor, L. (2012). Does environmental certification help the economic performance of hotels? Evidence from the Spanish hotel industry. *Cornell Hospitality Quarterly*, *53*(3), 242–256. doi:10.1177/1938965512446417

Sharpley, R. (2000). Tourism and sustainable development: Exploring the theoretical divide. *Journal of Sustainable Tourism*, *8*(1), 1–19. doi:10.1080/09669580008667346

Short, S. W., Bocken, N. M. P., Barlow, C. Y., & Chertow, M. R. (2014). From refining sugar to growing tomatoes. *Journal of Industrial Ecology*, *18*(5), 603–618. doi:10.1111/jiec.12171

Smerecnik, K. R., & Andersen, P. A. (2011). The diffusion of environmental sustainability innovations in North American hotels and ski resorts. *Journal of Sustainable Tourism*, *19*(2), 171–196. doi:10.1080/09669582.2010.517316

Smith, V., Devane, D., Begley, C. M., & Clarke, M. (2011). Methodology in conducting a systematic review of systematic reviews of healthcare interventions. *BMC Medical Research Methodology*, *11*(1), 15. doi:10.1186/1471-2288-11-15 PMID:21291558

Strambach, S., & Surmeier, A. (2013). Knowledge dynamics in setting sustainable standards in tourism–the case of 'Fair Trade in Tourism South Africa'. *Current Issues in Tourism*, *16*(7/8), 736–752. doi:10.1080/13683500.2013.785485

Tepelus, C. M. (2008). Social responsibility and innovation on trafficking and child sex tourism: Morphing of practice into sustainable tourism policies? *Tourism and Hospitality Research*, *8*(2), 98–115. doi:10.1057/thr.2008.10

Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British Journal of Management*, *14*(3), 207–222. doi:10.1111/1467-8551.00375

Tseng, M. L., Chiu, A. S. F., Tan, R. R., & Siriban-Manalang, A. B. (2013). Sustainable consumption and production for Asia: Sustainability through green design and practice. *Journal of Cleaner Production*, *40*, 1–5. doi:10.1016/j.jclepro.2012.07.015

United Nations Environmental Programme. (2005). *Making tourism more sustainable: A guide for policy makers*. Madrid: World Tourism Organization Publications.

United Nations Environmental Programme. (2009). *Sustainable coastal tourism: An integrated planning and management approach*. Paris: United Nations Environmental Programme.

Vollenbroek, F. A. (2002). Sustainable development and the challenge of innovation. *Journal of Cleaner Production*, *10*(3), 215–223. doi:10.1016/S0959-6526(01)00048-8

Williams, B. C., & Plouffe, C. R. (2007). Assessing the evolution of sales knowledge: A 20-year content analysis. *Industrial Marketing Management*, *36*(4), 408–419. doi:10.1016/j.indmarman.2005.11.003

Wong, W. P., Feng, J., Pwee, K. H., & Lim, J. (2012). A systematic review of economic evaluations of cardiac rehabilitation. *BMC Health Services Research*, *12*(1), 243. doi:10.1186/1472-6963-12-243 PMID:22873828

Xu, X., & Gursoy, D. (2015). Influence of sustainable hospitality supply chain management on customers' attitudes and behaviors. *International Journal of Hospitality Management*, *49*, 105–116. doi:10.1016/j.ijhm.2015.06.003

Yaw, F. Jr. (2005). Cleaner technologies for sustainable tourism: Caribbean case studies. *Journal of Cleaner Production*, *13*(2), 117–134. doi:10.1016/j.jclepro.2003.12.019

ADDITIONAL READING

Moreira, A. C. (2016). Entrepreneurial tourism: The creation of business opportunities in the ADRIMAG region, Portugal. In L. C. Carvalho (Ed.), *Handbook of Research on Entrepreneurial Success and its Impact on Regional Development* (pp. 376–404). Hershey, PA: IGI Global. doi:10.4018/978-1-4666-9567-2.ch017

Ribau, C. P., Moreira, A. C., & Raposo, M. (2018). SME internationalization research: Mapping the state of the art. *Canadian Journal of Administrative Sciences*, *35*(2), 280–303. doi:10.1002/cjas.1419

Zimmermann, R., Ferreira, L., & Moreira, A. C. (2016). The influence of supply chain on the innovation process: A systematic literature review. *Supply Chain Management*, *21*(3), 289–304. doi:10.1108/SCM-07-2015-0266

KEY TERMS AND DEFINITIONS

Green Consumer: The type of consumer that is concerned with individual environmental and social needs. It normally addresses the market in such a way that penalizes maximization of profits that disregards the maximization of the satisfaction of consumer needs, in accordance with the environment restrictions and regulations.

Sustainability: Composed of three pillars: economic, environmental, and social needs. Sustainability is concerned with the needs of the present without compromising the ability of future generations to meet their needs. It encourages businesses to be concerned with and frame their decision-making process with a long term orientation rather than short-term needs regading economic, environmental an social needs.

Sustainable Development: The organizing principle for meeting human development goals while simultaneously sustaining the ability of natural systems to provide the natural ecosystems and resources that both the economy and society depend. As such, it can be defined as the development that meets the needs of the present generations without compromising the ability of future generations to meet their own needs.

Systematic Literature Review: A specific type of literature review that uses systematic methods to collect content, secondary data and research methods that critically appraise research studies, and synthesize findings qualitatively or quantitatively. Systematic literature reviews (SLRs) are normally based as the result of research questions that seek to identify and synthesize studies that directly relate to the systematic review question. SLRs are designed to provide a complete, exhaustive summary of current evidence relevant to the research questions formulated.

Tourism: Involves the commercial provision and the demand of specific services. Tourism is a product of social arrangements involving the process of spending time away from home, normally involving recreation, pleasure, and relaxation – although in more recent times it also involves other activities as medial torism, academic tourism, industrial tourism, business tourism, pilgrimage, among others.

Chapter 12
Women Entrepreneurship and Sustainable Rural Development in India

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ABSTRACT

Rural development implies both the economic betterment of the people living in rural areas as well as bringing out holistic development. Accordingly, government has made paradigm shift from individual-centric rural development support to creation of gainful self-employment as well as wage employment among rural masses. Entrepreneurship, in this direction, has become an important consideration. Economic growth of a region largely depends on the involvement of poor and marginal sections into the process of entrepreneurship development. Globally, a large number of unemployed youth and women are becoming self-employed through entrepreneurship and creating employment opportunities for others. Researchers have worked on women's empowerment, economic development, and their role on micro-credit movement. The work on role of women in sustainable development is very limited. This chapter has tried to analyse issues related to women entrepreneurships in light of sustainable rural development in India to meet the research gap in the current context of Indian rural economy.

INTRODUCTION

In the field of research on social sciences, particularly on rural development, analysing the role of women and measuring effectiveness of their organisations are of immense importance. The age old deprivation, neglect and suppression of this weaker section of the society are now changing and their role in every

DOI: 10.4018/978-1-7998-2704-7.ch012

process of development has gradually been acknowledged since the introduction of various gender related initiatives including Constitutional Amendments (73rd and 74th) Acts of India. Rural women are now playing different roles outside of their domestic sphere such as - functionaries of *Panchayat*, as organiser of thrift and credit group of women, as community resource persons, as facilitators and so many of other natures. They are now actively involved in cottage based small industries or handicrafts, rearing small ruminants at home for generating income as well as for self employment. Their participation in rural economy has also been considered very crucial. Several attempts have been made to encourage entrepreneurship among women in rural areas of India.

Entrepreneurship and Sustainable Rural Development

Entrepreneurship is defined as an engine for national prosperity through innovations and inventions. Ahmad and Seymour (2008) have pointed out entrepreneurship in light of certain parameters like- new goods or quality, introduction of a new method of production, the opening of a new market, · the conquest of a new source of supply of new materials or parts, and the carrying out of the new organisation of any industry. On the other hand, rural area in Indian context means, in general a geographical area where most of the people are engaged in agriculture, animal farming, cottage industries and having very close relationship among people and with nature. Prakash & Goodwin (2018) have referred 'rural area' as the smallest area of habitation and 'sustainable rural development' as the holistic development of rural areas in Political, Economic, Social, Technical, Legal and Ecological fronts (PESTLE) in order to maximise human well-being without compromising the ability of future generations to meet their needs. Some other important domain of sustainable development are also taken into consideration. In view of sustainable development goals adopted by UNDP (2015), this paper has considered entrepreneurship development among women, employment generation through entrepreneurship, income generation and access to financial proposition as important issues for understanding role of entrepreneurship towards promoting sustainable rural development. The role of women in small scale industrial sectors has been identified as owners of enterprises, some were managers of enterprises and some were employees. These roles have been making impressive changes among rural women in their mindset and attitude. Nowadays, women are in the news for being in success of their economic ventures. Some of them are ruling all segments of industry and every spheres of life. This has made a positive impact on building self-confidence and of course aspiration of other women. The micro credit as well as the fund of joint venture is also further supporting the gender diversity amongst entrepreneurs. Woetzel et al.(2015) have pointed out that with equal participation of women in the economy, India's GDP can rise by 16% at usual level by 2025, which means an addition of $2.9 trillion to the Indian economy.. According to their study Indian economy has been observing transitional motion since the increasing rate of women in entrepreneurship development, management and operation of small scale industries is continued.

Government Schemes for Entrepreneurship Development in India

Both the state and central governments in India have adopted many initiatives towards promotion of micro enterprises among youth especially among women in rural India. Some of them are as follows:

While drafting various plans and programmes for the entrepreneurship development, there has been observed a paradigm shift in approaches of individual based programmes in India during 1979 to 1999 to group based self employment approach during 1999 and 2010. After first decade of twenty first century

Table 1. Periodic programmes and policies taken up by Government of India

Period	Programmes and Policies
1950-1970	Emphasis was given on welfare of women through promoting housing, health and education. Setting up Khadi and Village Industries Commission (KVIC/KVIB) for promoting cottage industries in rural India
1970 - 1990	Supply of tool kits to rural artisan(SITRA), Training of Rural Youth for Self-Employment (TRYSEM), Entrepreneurial Dev Program, Employment Assurance Scheme, Prime Minister Rojgar Yojana, IRDP, National Small Industries Commission
1990-2010	Rashtriya Mahila Kosh, Indira MahilaYojana, Micro Credit Scheme, Women's Dev Corporations, Marketing of Non-Farm Products of Rural Women, NABARD- SEWA Bank project, Priyadarshini Project, Trade Related Entrepreneurship Assistance and Dev., Mahila Vikas Pariyojana
2010 -2018	Setting up Ministry for Skill Development and Entrepreneurship, Mudra Bank, Start up Village Enterprises Programme, Micro & Small Enterprises Cluster Development Programs, Aajeevika Skill Development, SBI's Stree Shakti Scheme, Prime Minister Employment Generation Programme, Pradhan Mantry Koushal Vikash Yojana, Atal Innovation Mission(AIM), Micro Units Development and Refinance Agency (MUDRA), Pradhan Mantri MUDRA Yojana (PMMY), Setting up Skill Development Society, Vivekananda Swanirbhar Karmasansthan Prakalpa, Indian Aspiration Fund (IAF), Self-Employment and Talent Utilisation (SETU), Rajiv Gandhi Udyami Mitra Yojana (RGUMY), Interest Subvention Scheme, Gotidhara Prakalpa, Utkarsha Bangla Prakalpa, Common Display Centres (CDC) for Women Entrepreneurs - Association of Women Entrepreneurs, Credit linked Capital Subsidy Scheme, Credit Guarantee Trust Fund for MSEs, Scheme for Promotion of Innovation Rural Industry and Entrepreneurship, Scheme for Micro & Small Enterprises Cluster Development Programme, and .etc.

Source: Report of Government of India 2017 and Reference Manual 2014 of Government of India

we find that cluster based approach in entrepreneurship development in rural areas of India has been introduced and women entrepreneurs are being clubbed in the fold of different producers' collective/ cooperatives, wholesale/retail traders association and of so many service providers' collectives.

REVIEW OF LITERATURE

According to a report (PHD Research Bureau, India 2019), in 2012 approximately there was 126 million women who were either starting or already running new businesses in various domain of economies all over the world. Overall, 40 to 50 percent of all small businesses were owned by women in developing countries. As per NSSO survey (Government of India 2013), in 2013 there were 57.7 million small/ micro units in India, mostly individual proprietorship /own enterprises which employ around 120 million people. Over 60% of these units are owned by persons belonging to weaker sections of the society including - the Scheduled Castes, Scheduled Tribes, Other Backward Classes, Minorities and Women. Woetzel et al (2015) have worked on gender equality in society with gender equality in work in India specially highlighted using female empowerment index that Mizoram the highest and Bihar the lowest state in terms of gender parity. This gender disparity is gradually being decreased with the participation of women in entrepreneurships. Venkatesh et al. (2017) have observed in their study in rural India that the highest level of entrepreneurial activity and success among women entrepreneurs have occurred with high centrality and ICT use that increase over time.. Srinibasan (2011) has captured the role of self help groups in microfinance movement in India and highlighted that bank branches are getting down to rural folds to capture the fund flown through microfinance movement and more participation of poor in rural capital marketing. Hamil et al. (2015) have shown with reference to study by Delta Economics that women entrepreneurs are transparent more than male entrepreneurs during difficult recessionary times

they witnessed in the past times. Women are the key to leading development process which was quite invisible in few years back. The urge of women to be financially independent and the spread of education have encouraged women to become entrepreneurs (Bama et al.2018). The issue of entrepreneurship has become an important part of sustainable development in order to address the problem of unemployment at the global scenario. As far as women is concerned, entrepreneurship development among them have gradually made inroads across industries and service sectors since the dawn of 21st Century

Thyammal (2014) has found that there are three categorical distributions of women run/managed entrepreneurship such as women run, women managed and women-men jointly managed. Antony and Jesurajan (2013) have also outlined other categories like 1st generation enterprises, parent as entrepreneurs and in-laws as entrepreneurs. As the government initiatives are motivating, more women have been coming forward to join in micro credit movement and setting enterprises for their self employment with energetic attitude, skills and knowledge. Singh (2015) has observed other such types of entrepreneurships among women like textiles & garments, food & allied products and manufacturing

Singh et al.(2010) have pointed out that Nigerian industrial sector is gradually being dominated by small-scale enterprises (SSEs) and the representation of female entrepreneurs in these informal sectors is going to be gradually higher than male entrepreneurs. Morshed and Haque (2015) assessed the impact of entrepreneurship on women empowerment and concluded that the relation between them is statistically significant. Mayoux (2000) has opined that the business case for focusing on female clients is substantial, as women clients register higher repayment rates. Women also contribute larger portions of their income to household consumption than their male counterparts. There is thus a strong business and public policy case for targeting female borrowers. Evidence suggests that up to a point microcredit increases the workload of women and girls, perhaps offset by more equality in household decision-making. Kyro (2009) with a reference to his study in USA stated that women entrepreneurship and small business research has changed at the individual, micro, and macro levels as a dialogue with gender theories. All women entrepreneurs described families and its impact on their entrepreneurship development. British Council (2016) in their report has clearly pointed out that social enterprises are palying significant role in skills development activities, education, agriculture/fisheries/dairy, financial services and in energy and clean technology which are leading to sustainable development.

Moore and Buttner (1997) have highlighted the gender specific earlier obstacles to women's business have been changing. Women entrepreneurship has been growing up in developed economies to survive them and to help support their families. Self determination, expectation for recognition, self esteem and career goal are the key drivers for taking up entrepreneurship by women.

As far as women entrepreneurship is concerned, Prakash & Goodwin (2018) have identified several skills and capacities of women which are actual strength of developing entrepreneurship. It includes-communication skills, intuitive/innovative skills, building competencies, nurturing and integrating abilities. In the context of role of women entrepreneurship in sustainable rural development, Lawatre (2016) has suggested some principles such as - utilization of local resources, better distributions of the farm produce in the rural prosperity, providing alternative occupations as against the rural migration, manpower, money, material, machinery, management and market to the rural population. It is found that entrepreneurship development among rural women not only helps to enhance their personal capabilities and increase decision making status in their families but also, it helps to bring out remarkable changes in bringing out rural development as a whole. Vaidyanathan (2019) has pointed out that there are about 350 small scale industrial clusters present in India and approximate 2000 rural-artisan based clusters are contributing 60% of the manufacturing done for export and 40% of the employment is generated in

manufacturing industries. He has pointed out that cluster is a geographical and sectoral concentration of enterprises particularly in the small and medium enterprise sectors including manufacturing, trading and service sectors. It has shown that the present growth of economy is attributed to the entrepreneurial success of Indian business people and industrialists including women entrepreneurs. Women entrepreneurs are asset of the developing country like India. Because, women start up small enterprises, get self employed, and create job opportunity for other women. They are forming groups, making small savings at regular interval, accumulating capital through thrift and credit activities and availing loan during crucial need.

The review of the papers on empowerment of rural women, economic development and entrepreneurship development has identified the situation in general. None of the papers have identified the state-wise progress of women entrepreneurship in India . This paper has made an attempt to highlight the progress of women entrepreneurship in rural India and make an analysis on the role played by women entrepreneurs towards bringing sustainable rural development

OBJECTIVES

The major objective of this paper is to analyse the role of entrepreneurship towards promoting sustainable rural development in India. However, specific objective of this paper are:

1. To analyse the determinants of share of entrepreneurship development among women,
2. To highlight the extent of employment generation through women entrepreneurship
3. To see the role of entrepreneurship towards promoting economic development.

METHODOLOGY

This paper is prepared on the basis of secondary data collected from various Government Reports like all India 6th Economic Census (Government of India), Census of India 2011 (Government of India), research articles published in national & international journals, public and private publications available on various websites and in libraries focusing on various aspects of women entrepreneurship and sustainable rural development.

We have used the following Linear Regression Model to find the determinants of share of women entrepreneurs in different states of India -

$$PWE = a + bPWP + cPWL + dPWHIP + ePWWPR + fPLDIS + \epsilon \ldots \quad (1)$$

Where:

PWE = Percentage of women-owned establishment to total establishment as dependent variable.

Independent (explanatory) variables are as follows-

PWP =Percentage of women population to total population,
PWL = Percentage of women literacy,

PWHIW = Percentage of women household industry workers to total household industry workers,
PWWPR = Percentage of women work participation rate to total workforce,
PLDIS = Percentage of total loan disbursed to rural women SHG,
ϵ – residual (error)

RESULTS AND DISCUSSION

The results of the study have been presented in four sub titles. It includes - determinants and state wise share of women entrepreneurship in India, - entrepreneurship and employment generation, - women entrepreneurship and income generation and - women entrepreneurship and financial proposition. The results of the study have been explained in point by point as follows.

Determinants of State Wise Share of Women Entrepreneurship in India

It has been pointed out by Hamil et al. (2015) that women in enterprises/businesses are being considered as recent phenomenon in India. According to them, women entrepreneurship is not new to Indian perspective. The home based entrepreneurship among women helps augment family income in a modest way. In the recent years women have come to the fore from different walks of lives. Despite, the social, psychological and economic barriers they have come forward to work successfully at par with men. They have been sincerely utilising their education, knowledge and experience through establishing entrepreneurship by themselves. An outline has been put down (Table-2) as follows:

It is seen from the above table 2 that state of North East India like Manipur has the highest percentage of women entrepreneurs (38.41%) followed by Mizoram (27.5%) and Meghalaya (27. 98%). Kerala, the only Southern state having almost similar (27.24%) percentage of women entrepreneurs as it has in the states mentioned above. Besides, states, like –Chandigarh, Jammu & Kashmir, Punjab Uttar Pradesh, Tripura, Daman & Diu have lower percentage of women entrepreneurs (from 6% to 8%).

Result of Liner Regression

On the basis of regression model (Equation.1), the estimated results have been presented in table-3 below

The result of linear regression using Model (Table-3) with adjusted R square (value =0.467) shows that state wise distribution of women owned establishment (Table 4) has significant relation with percentage of women literacy (sig. $p < .01$), percentage of women household industry workers (sig. $p \leq 04$) and percentage of women work participation rate (sig. $p < .01$). The percentage of loan disbursed to rural women SHGs and percentage of women population have no significant relation with percentage of women owned establishments in each state. Also, the result of multi co-linearity test shows that there is no significant relation between/among the independent variables such as percentage of women population, percentage of women literacy, percentage of women in household industry work, percentage of women work participation, and percentage of loan disbursed to women Self help groups are used for this study.

Table 2. State wise distribution of women owned establishment in India during January 2013 to April 2014

State	Total Number of Establishment	Women Owned Establishment (Number.)	% of Women Owned Establishment to Total	State Rank (Women Owned Establishment)
Tamil Nadu	5029402	1087609	21.63	6
West Bengal	5905650	831337	14.08	14
Andhra Pradesh	4242757	849912	20.03	7
Kerala	3355004	913917	27.24	4
Maharashtra	6137342	664300	10.82	20
Gujarat	3972929	528623	13.31	16
Uttar Pradesh	6683905	482379	7.22	33
Karnataka	2880548	545806	18.95	8
Telengana	2087675	356486	17.08	12
Odisha	2088905	249600	11.95	17
Rajasthan	2895130	247992	8.57	26
Madhya Pradesh	2152659	223405	10.38	23
Bihar	1707398	153610	9.00	25
Assam	2030042	154158	7.59	31
Punjab	1513252	110921	7.33	32
Haryana	1164786	124524	10.69	22
Delhi	875308	70434	8.05	28
Chattishgarh	773661	77976	10.08	24
Jharkhand	638713	54732	8.57	27
Manipur	229838	88286	38.41	1
Himachal Pradesh	412240	49173	11.93	18
Jammu & Kashmir	501949	31292	6.23	35
Uttarakhand	394179	31419	7.97	29
Meghalaya	105556	29530	27.98	2
Goa	96587	16656	17.24	10
Nagaland	60937	13657	22.41	5
Mizoram	57486	15828	27.53	3
Puduchery	59152	10169	17.19	11
Tripura	236773	14506	6.13	36
Arunachal Pradesh	36415	6413	17.61	9
Chandigarh	83578	5783	6.92	34
Sikkim	37219	5304	14.25	13
A&N Island	23291	2513	10.79	21
D & N Haveli	11183	1304	11.66	19
Daman & Diu	10506	805	7.66	30
Lakshadweep	3404	460	13.51	15
All India	**58495359**	**8050819**	**13.76**	

Source: All India 6th Economic Census, 2016

Table 3. Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.737[a]	.543	.467	5.45704

Table 4. Coefficients

Model		Un-standardized Coefficients		Standardized Coefficients	t	Sig.	Co-linearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-52.434	20.616		-2.543	.016		
	PWP	.573	.457	.178	1.254	.220	.758	1.319
	PWL	.350	.092	.516	3.791	.001	.822	1.217
	PWHIW	.631	.304	.284	2.074	.047	.811	1.232
	PWWPR	.407	.113	.528	3.590	.001	.705	1.419
	PLDIS	.067	.062	.144	1.069	.294	.842	1.188

Dependent Variable: PWE

Entrepreneurship and Employment Generation

On the basis of literature reviewed, it is learnt that entrepreneurship development among women has played vital role to encourage employment generation in rural areas particularly for women as safety, security and decent work are concern to them. Mainly, the opportunity of daily wage based, seasonal and permanent nature of employment are generated in the women run entrepreneurships. As per report (GoI-2017-18), micro small and medium scale of entrepreneurship have played remarkable role in the field of employment generation in our country. It has been found that during 2001-2002 the employment generation was 54.16 lakh persons in the entrepreneurship which has changed more than doubles to 114.14 lakh persons during 2016-17. In case of women entrepreneurship, the report (GoI-2016) shows that 8.05 million out of the total 58.5 million establishments were run by women entrepreneurs in India which is around 13.76% of the total number of establishments. Total workers engaged in women owned & run establishments were 13.48 million persons, which is 10.24% of the total number of workers engaged in India under different economic activities. Study (UNDP-2015) captured that Indian women and girls belonging to age group between 23 and 34 years aspire to involve in the workforce through home based employment or home based businesses. The main cause of this is majority of them are married and have children. In case of their involvement in micro business, it has been stated that there is no specific age group for women and girls who desire to start their own micro businesses. Jana and Das (2019) have observed that the contribution of service sectors for yearly average growth rate of GDP is gradually increasing in India while contribution of industry and manufacturing has slightly increased in share for GDP but the contribution of agriculture and allied sector has observed decreasing trend .

As per report (Government of India 2013), a chart (Chart-1) has been presented herewith as follows to present the employment (in person) generated by women owned establishment in India. It shows in the ascending order that Indian Union Territory like Lakshadweep has only 945 number of persons employed by women owned establishment and states followed by Daman & Diu, Dadra & Nagar Haveli,

A& N Island and Sikkim having less than 10,000 persons employed by each state in their women owned establishments. On the other hand, highest persons employed (i.e., 1856686 persons) by women owned establishments is in the state of Tamil Nadu, followed by West Bengal (1372730 persons) and Andhra Pradesh (1325009) and states having more than ten lakh persons employment in women owned establishment are -Kerala, Maharashtra and Gujarat. In case of establishment wise average employment, it has been found that Dadra & Nagar Haveli has highest average of employment (3.39 person per establishment) followed by Daman & Diu (2.39 person per establishment), Delhi (2.26 person), Jammu & Kashmir (2.21 person), Arunachal Pradesh (2.20 person), Jharkhand (2.16 person) and Nagaland (2.02 person per establishment). All other states have average less than two persons per establishment.

Entrepreneurship and Income Generation

It is fact that in almost every trade of entrepreneurship, there is a common objective to generate income for maintaining better life and living as well as for self reliance. Jana et al. (2019) have identified various trades of enterprises taken up by women in backward district of West Bengal and have found that remarkable amount of income generated by women entrepreneurs from each trade run by them. A desirable environment is being created for every woman to boost up entrepreneurial values and train sufficiently in business dealings. Rao (2000) has put down about some additional business opportunities that are recently undertaken for income generation by the women entrepreneurs in rural areas. Such as- Eco-friendly & biotechnology, mobile & internet enabled enterprises, event management, tourism industry, beauty culture, hospitality & catering, LPG distributorship, mineral water supply, herbal & health care products, food, fruits & vegetable processing. Rajeshwary (2006) in his study based in Mumbai highlighted on women entrepreneurship development in three categories like manufacturing, trading and service sectors for which descriptive statistics used to draw the level of significance. Malyadri and Gangadhar (2015) has analysed the impact of microfinance on women empowerment in the context of economic growth and pointed out that women entrepreneurs have contribution in two different ways. They contribute in the form of capital formation, income generation, increasing per capita income and employment generation which are important domains of economic growth. On the other, Yadav & Rathee (2017) have observed that women play a crucial role in balancing regional growth through enhancing standard of living. In case of income generation by women entrepreneurs, Nagamuthu (2018) represents that 39.06% of the studied on women entrepreneurs in unorganised sectors in the rural areas of Coimbatore district of Tamil Nadu have more than Rs. 5,000/- monthly income from entrepreneurship. Gopinathan (2010) has observed that the monthly income from entrepreneurship of women is varied in some selected districts of Maharashtra. He has shown that 48.8% of the women entrepreneurs have monthly income between Rs. 3000 and Rs.5000/ and 12.% have more than that. This study has shown nearly 52% of the women entrepreneurs have observed changes in their monthly income after joining in the entrepreneurship. In terms of the development of khadi & village industries in rural India, report (Government of India 2017-18) shows that the volume of production has been increased in 2017-18 over the year 2016-17. Accordingly, the profit earned from selling the products in 2017-18 over the years 2016-17 (Table-5) is changed. This kind of production has close relation with development of rural handicrafts and cottage industries in which women has a lion share. The profit earned is directly linked with rural economy with the active participation of women therein so far.

Figure 1. State wise distribution of employment (figures in person) made by women
(Source: All India 6th Economic Census 2016, Government of India)

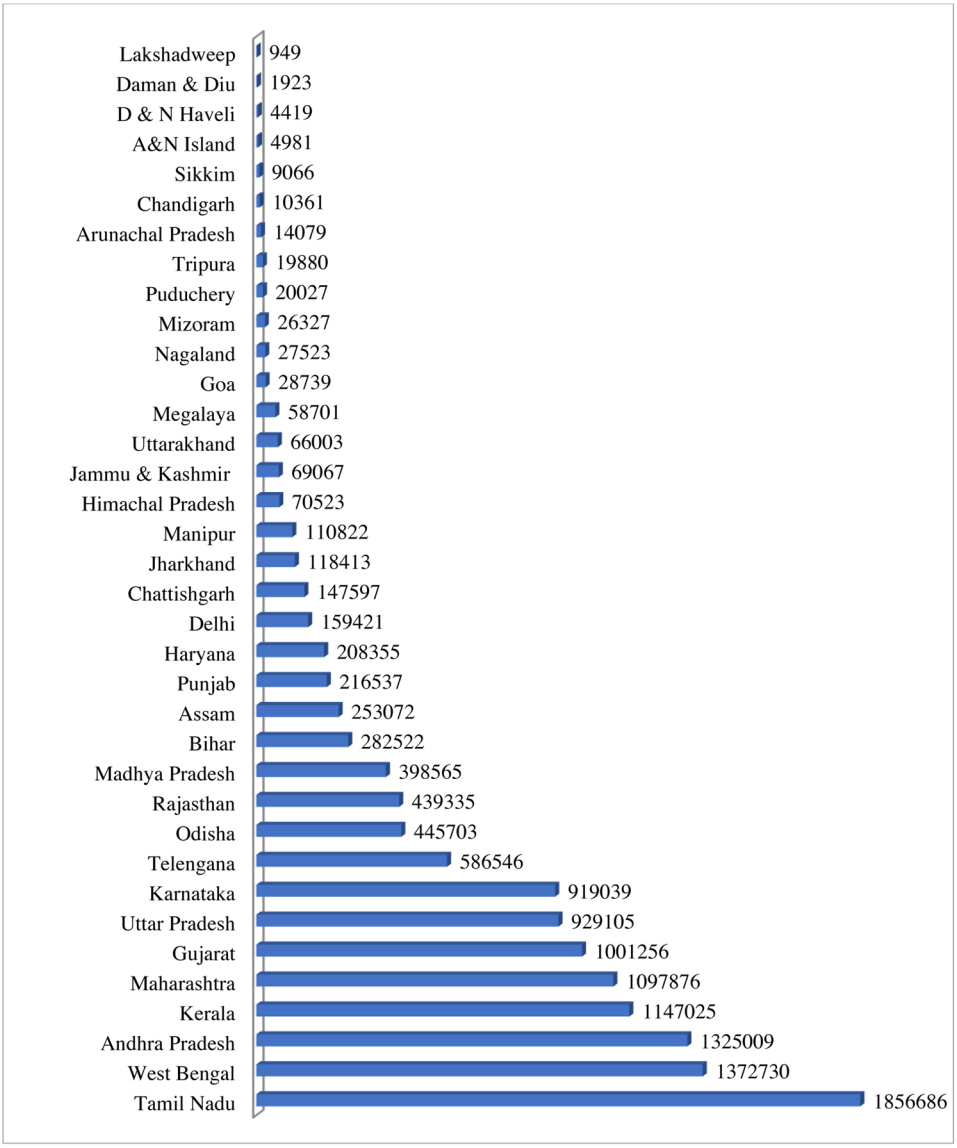

Table 5. Production, sale and profit earned in Khadi & Village Industries of India (INR. in million)

Year	Production	Sale
2014-15	275693.7	331359.0
2015-16	344902.2	418945.6
2016-17	426310.9	521382.1
2017-18	457256.9	557504.0

Source: Adapted from Annual Report of MSME 2017-18, Government of India

Entrepreneurship and Financial Proposition

International Finance Corporation (IFC), a member of the World Bank Group, has released a study report (IFC 2014) that shows financial institutions meet only 27 percent of the financing demand of women-owned micro, small and medium enterprises in India. Jayashree & Priya (2016) have pointed out that women holding only 24% of total operational bank accounts in the country and 28% of total deposits; the participation of women in the banking sector is not at an acceptable level. Especially when it comes to credit supplied, only 12% of individual bank loan accounts belonged to women, which clearly shows a disparity of two genders in access to banking services. Access to financing is an important factor for women-owned businesses to become viable in present economic climate. This is a significant market for banks and financial institutions in India. It has globally been accepted that women entrepreneurs are proven to be excellent clients for banks (IFC-2014) and their repayment rate is quite higher.

It is revealed in the table 6 as above that public sector banks have financed more (38%) to entrepreneurs of small scale industries than that of entrepreneurs under micro credit (30%). There are also private banking sectors which have financed 19% of the total financial support given to entrepreneurs.

It is found in the above table-7 that there is remarkable gap (78%) between financial support demanded and supply in small entrepreneurship sector which is comparatively lower (20%) in case of micro entrepreneurship. The situation may be defined from the start up point of view that entrepreneurs require small amount of loan for starting micro enterprises and it gradually increases since the volume of enterprises moves from micro to small enterprises and in this crucial stage women entrepreneurs are in crisis of financial support as they required.

Table 6. The % share of different sources of finance to women entrepreneurs in India

Sl No	Source of Finance	% Share of Financing
1	Public sector banks through micro credit	30
2	Public sector banks to small scale industries	38
3	Private sector banks	19
4	Foreign banks	5
5	Prime Minister's Rojgar Yojana	2
6	Swarna Jayanti Sahari Rojgar Yojana (SGSY)	1
7	Swarnajayanti Gram Swarojgar Yojana(SJSRY)	4

Source: Report of IFC 2014

Table 7. Status of financing to different types of entrepreneurships in India during 2014.

Type of Entrepreneurship	Demand of Finance (Trillion Rs.)	Supply of Finance (Trillion Rs)	% Share of Gap
Micro	2.05	0.76	20
Small	6.42	1.43	78
Medium	0.21	0.13	2
Total	8.68	2.31	100

Source: Report of IFC 2014

CONCLUSION

The findings of the present study have reflections in the field of women entrepreneurship and sustainable development in rural India. This paper highlights the state-wise expansion and participation of women in entrepreneurship development. The results reveal that state-wise women's entrepreneurship development has been found significant relation with the women's literacy rate, percentage of women's work participation rate and percentage of women in household industry works. The employment generation by women-owned entrepreneurship across the states of India has also direct relation with the income generation made by the women entrepreneurs for their sustainable livelihood. There are other important areas of entrepreneurship development which are still to be covered for understanding overall picture of the role played by women entrepreneurs towards bringing out sustainable development of rural India. The attempt made in this paper is to give a focus on the different initiatives taken up by the women as entrepreneurs. The interesting result observed that percentage of women own establishment is higher in north eastern states like Manipur, Meghalaya, Mizoram and Nagaland. Other than Kerala, there are not so remarkable percentage of women own establishment in Uttar Pradesh, Punjab, Uttarakhand, Jammu & Kashmir, Assam and Tripura. This study has shown the development of entrepreneurship effort made by the women who were once treated as poor, neglected, deprived and weaker section of the society have gradually been becoming resourceful and productive human being since their involvement in the entrepreneurship development. Their rate of success could have been better with faster delivery of micro credit loans by banks and financial institutes. More collective and converging drives among government officials, bankers, officials of line department/agencies and other stakeholders can yield desired result in the field of women entrepreneurship development and sustainable rural development.

REFERENCES

Ahmad, N., & Seymour, R. G. (2008). *Defining Entrepreneurial Activity: Defining Supporting of Framework for Data Collection.* OECD Statistics Working Paper. Retrieved from https://www.oecd-ilibrary.org/docserver/243164686763.pdf

Bama, P. S., & Velmurugan, R. (2018). Factors Influencing Women Entrepreneurs in Coimbatore District. *International Journal of Pure and Applied Mathematics*, *19*(10).

British Council. (2016). *The State of Social Enterprise in India, a study report*. Retrieved from https://www. britishcouncil.org/sites/default/files/bc-report-ch4-india-digital0.pdf

Gobindppa, R. (2006). *Study of Women Entrepreneurship in Mumbai*. Retrieved from www.shodhganga.inflibnet.an.in

Gopinathan, R. (2010). *Impact of Women Entrepreneurship Development on Families: A Study of Women run micro-enterprises in Selected districts of Maharashtra* (PhD thesis). Padmashree Dr. D. Y. Patil University, Department Of Business Management. Retrieved from http://www.dypatil.edu/schools/management/wp-content/uploads/2015/10/Rashmi-Project-Development-of-Entrepreneurship-2010.pdf

Government of India. (2001). *Third Census of SSI Sectors*. Ministry of Micro Small & Medium Enterprise, Government of India. Retrieved from https://www.dcmsme.gov.in/ssiindia /census/ch11.htm

Government of India. (2011). Census of India. Registrar General & Census Commissioner of India, Ministry of Home Affairs, Government of India.

Government of India. (2014). *2014, Reference Manual*. India: Publication Division, Ministry of Information and Broadcasting, Government of India.

Government of India. (2016). *All India Report on 6th Economic Census*. New Delhi: Ministry of Statistics and Programme Implementation, Government of India.

Government of India. (2016). *Economic Characteristics of Unincorporated Non Agricultural Enterprises (Excluding Construction) in India*. NSSO, Ministry of Statistics and Programme Implementation, Government of India. Retrieved from http://www.mospi.gov.in /sites/default/files/publication_reports/NSS_report%20582_73rd_round_10aug18.pdf

Government of India. (2017). *Annual Report.* Ministry of Micro Small & Medium Enterprise, Govt of India.

Hamil, A., Priyadharshini, E., & Santosh, S. S. (2015). *Role of Women Entrepreneurs in Rural Development: with Special Reference to Amba Samudram Area of Tirunelveli District, India*. Retrieved from https://www.researchgate.net/publication/273438879

Jana, S., Das, B. C., Manna, S. S., Payra, T., Maiti, A., & Paul, P. K. (2019). Women Entrepreneurship in Backward Region: A Study in Jhargram district of WB. *Asian Journal of Multidimensional Research, 8*(3). Retrieved from http://www.tarj.in

Jana, S. K., & Das, B. C. (2019). *Women Entrepreneurs in Transitioning Indian Economy. In Approaches to Sustainable Development* (Vol. 59). New Delhi: Renu Publishers.

Jayashree, G., Priya, I. C., & Priya, M. (2016). A Study On Role Of Banking Sector in Women Entrepreneurship Development. *International Journal of Social Relevance & Concern*, *4*(11).

Kyrö, P. (2009, December). Gender Lenses Identify Different Waves and Ways of Understanding Women Entrepreneurship. *Journal of Enterprising Culture*, *17*(4), 393–418. doi:10.1142/S021849580900045X

Malyadri, P., & Gangadhar, S. C. (2015). Impact of Microfinance on Women Empowerment: An Empirical Evidence from Andhra Pradesh. *Journal of Entrepreneurship and Organisation Management*, *4*, 141. doi:10.4172/2169-026X.1000141

Mayoux, L. (2000). *Microfinance and the Empowerment of Women – review of key issues.* Social Finance Programme Working Paper No. 23, ILO, Geneva.

Moore, D. P. & Buttner, E. H. (1997). *Women entrepreneurs: Moving beyond New Generation of Women Entrepreneurs Achieving Business Success*. Academic Press.

Morshed, F., & Haque, M. E. (2015). Impact of Women Entrepreneurship on Women Empowerment in Bangladesh. *Journal of Economics and Sustainable Development, 6*(1). Retrieved from www.iiste.org

NABARD. (2017). Status of Microfinance in India 2016-17. Department of Microcredit Innovation, NABARD.

PHD Research Bureau. (2019). *Women entrepreneurship: Transforming from domestic household to financial independence*. New Delhi, India: PHD Chamber of Commerce and Industries.

Prakash, K. B., & Goodwin, P. D. (2018). *Rural Entrepreneurship in the Sunshine of Andhra Pradesh: A Sustainable Rural Development Strategy*. Retrieved from https://www.researchgate.net/publication/329041776_Rural_Entrepreneurship

Ranbir, S. (2015). *Women Entrepreneurship Study of Current Status, Challenges and Future Perspective*. Retrieved from www.shodhganga.inflibnet.an.in

Report (IFC-2014). (n.d.). *Improving Access to Finance for Women Owned Business in India, A study report of International Finance Corporations*. World Bank Group. Retrieved from http://indiamicrofinance.com/wp-content/uploads/2014/03/ Women-owned-business-in-India.pdf

Singh, S., Mordi, C., Okafor, C., & Simpson, R. (2010, December). Challenges in Female Entrepreneurial Development - A Case Analysis of Nigerian Entrepreneurs. *Journal of Enterprising Culture*, *18*(4), 435–460. doi:10.1142/S0218495810000628

Srinibasan, N. (2011). *Microfinance in India: State of the Sector Report 2011. Sage Publication India (Pvt) Ltd*.

Thyammal, P. R. (2014). *Study on the development of women enterprises in SSI in Thirunleveli District*. Retrieved from www.shodhganga.inflibnet.an.in

UNDP. (2015). *Women's Voices: Employment and Entrepreneurship in India*. Retrieved from http://www.in.undp.org/content/india/en/home/library/poverty/women-s-voices--employment-and-entrepreneurship-in-india

Vaidyanathan, R. (2019). *Caste as Social Capital, the Complex Place of Caste in India Society: Westland Publications Pvt Ltd*.

Varghese, A., & Jesurajan, S. (2013). *A study on women entrepreneurship with special reference to Tirunelveli District*. Retrieved from www.shodhganga.inflibnet.an.in

Venkatesh, V., Shaw, J. D., Sykes, T. A., Wamba, S. F., & Macharia, M. (2017). Networks Technology and Entrepreneurship: A Field Quasi-experiment among Women in Rural India. *Academy of Management Journal*, *60*(5).

Woetzel, J., Madgavkar, A., Gupta, R., Manyika, J., Ellingrud, K., Gupta, S., & Krishnan, M. (2015). *The Power of Parity: Advancing Women's Equality in India*. McKinsey & Company. Retrieved from http://www.mckinsey.com/Global_Locations/Asia/India

Yadav, R., & Rathee, V. (2017). Role of Women Entrepreneurs in Economic Empowerment of Rural Areas. *International Journal of Emerging Research in Management & Technology*, *6*(12).

Chapter 13
Growing Opportunities in Attracting Investments for the Sustainable Socio-Economic Development of the ATU Gagauzia (Republic of Moldova)

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ABSTRACT

This chapter discusses the wide range of created opportunities for stimulating, developing the business area and attracting investments in the region of ATU Gagauzia. The general idea of the chapter is the fact that only developing the economy at the expense of domestic and foreign investments can create jobs, increase budget revenues, and accordingly, develop social infrastructure and living standards in the ATU Gagauzia (Republic of Moldova). The analysis of indicators characterizing the development of entrepreneurial activity in the autonomy was conducted, the dynamics of indicators showing the improvement of the business and investment climate in the region was presented, and the creation of favorable conditions in terms of attracting investment in main sectors of the region's economy was presented. This chapter carries out the qualitative conclusions and presents information on the need to develop the important directions that will enable the achievement of the goals for improving investment clime and increasing of volume in the region ATU Gagauzia.

INTRODUCTION

The Gagauz autonomy has the authority to adopt its own legislation in order to implement economic reforms and to stimulate investment activity. In 2018, on the initiative of the Executive Committee of the ATU Gagauzia, the People's Assembly of Gagauzia adopted a new "Investments Law". Foreign and

DOI: 10.4018/978-1-7998-2704-7.ch013

domestic enterprises that decide for an investment in Gagauzia and open work places may take advantage of the regional law on investment, obtaining grants in-kind, preferences on taxes, investment subsidies for construction and installation works, for the creation of industrial and technical infrastructure as well as for the purchase of equipment. Gagauzia is an integral part of the Republic of Moldova, with functioning preferential trade regimes with the CIS and the European Union (Kurkchu, 2015, pp. 69-76). On 1st November 2016, a comprehensive free trade regime with the Republic of Turkey came into force. Free trade area regimes offer excellent opportunities for investors by expanding their activity to Gagauzia. Investors can profit from trade opportunities in a 360o perspective. It is also important that Gagauzia has a favorable geographical location, natural and climatic conditions, modern logistics and infrastructure, and advanced legislation for the implementation of investment projects. The Authorities of the autonomy and the whole Gagauz nation are open for a mutual beneficial cooperation and efficient development of new opportunities. Due to competitive advantages that the region has some priority sectors for investment: agriculture and agro-processing, manufacturing, and business process outsourcing. However, ehere are many other attractive business fields. The Moldovan market requires investment. The huge potential of rich land resources, skilled workers make it important and necessary to study the investment potential of the region of ATU Gagauzia

BACKGROUND

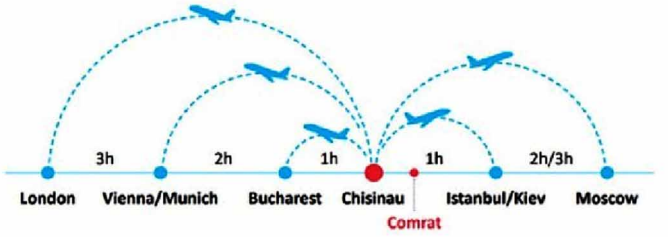
The *research period* will be for 2009-2017 in the development of the social-economic sector in ATU Gagauzia (Republic of Moldova) in order to determine the state, problems, potential and prospects for its development with the aim of increasing its competitiveness in a conditionally export-oriented economy

The *objectives* of the research paper are as follows:

- Study the current situation in the context of development attractiveness investment clime in ATU Gagauzia (Republic of Moldova);
- Identification of the main problems and prospects for the development of the socio-economic sector under investigation in the direction to increase the competitiveness of enterprises in the ATU Gagauzia on the domestic and foreign markets;
- Formulation of conclusions and recommendations for enterprises of the ATU Gagauzia, with a view to subsequent effective strategic development planning, capacity building of the investment policy elements for strengthening of competitive positions

Gagauzia's current manufacturing industry builds on its strong industrial past. The Manufacturing industry of ATU Gagauzia is vibrant and growing, and consists of labor intensive enterprises. They are active in producing apparel, leather goods, furniture, construction materials, equipment and spare parts for agricultural machinery, cosmetics, pharmaceutical products, and refined petroleum. Moreover, several industrial skills are well-preserved. A total of 150 enterprises *(out of which 40 large ones)* represent the current industrial base of Gagauzia. In 2017, the industrial production registered a growth of 23.3% compared to 2016, amounting to 1 587,4 million MDL. The share of the manufacturing sector of ATU Gagauzia accounts for 3% out of its total economy and employs about 6000 people (The strategy of the region of development of the ATU Gagauzia for 2017-2020, 2017)

Figure 1. Destinations and time to reach destinations from the Republic of Moldova by air travel
Source: Compiled by the author according to the data provided by the Informational National Bureau of Statistics of the Republic of Moldova



Why investments should be directed to the socio-economic sector of ATU Gagauzia? First of all its depend of the "Human Capital" (The Sectoral regional program Infrastructure Development regional and local roads of the region of the development of the ATU Gagauzia 2018-2025, Republic of Moldova, 2018):

- Gagauzia is an autonomous region of the Republic of Moldova. The region has a population of 162,000 inhabitants. Comrat (capital of ATU Gagauzia) is municipality is the administrative center of Autonomous Territorial Unit with 23,556 inhabitants. Over 80 percent of the total population speaks Gagauz language which is closely linked to Turkic language family (The strategy of the region development of the ATU Gagauzia for 2017-2020 (Republic of Moldova, 2017, p. 15). That enables Gagauz people to speak and understand Turkish and Azerbaijani languages. Russian and Romanian are second most spoken languages in Gagauzia. English is widely spoken and understood by the youth;
- The work force – the employable population constitutes 104.8 thousand people, which make up for 64.8% of total population The Socio-economic analysis of Gagauzia 2017 (Republic of Moldova, 2017, pp.6-7);
- Yearly, circa 1100 students graduate from the State University of Comrat, two colleges and three vocational schools

The second factor, which show the background of investments should be directed to the socio-economic sector of ATU Gagauzia is it "Location" items:

- Comrat municipality is located at 100 km distance to the capital city of the Republic of Moldova, Chisinau;
- Direct flights to Chisinau from: Vienna, Munich, Frankfurt, Rome, Milano, Paris, London, Istanbul, Moscow, etc.;
- Time compatibility with all European countries and most of the CIS Countries. Central European Time + 1 hour;
- USA, EU, Turkey and CIS citizens can travel visa-free to the Republic of Moldova

The third argument confirming the necessary of implementing investments should be directed to the socio-economic sector in the ATU Gagauzia is the "Cost efficient destination" (The Sectoral Regional

Energy Efficiency Program in Public Buildings of the Development Region of the ATU Gagauzia 2018-2025, Republic of Moldova, 2018):

- Low operational cost – rent prices for offices, utilities;
- Lowest labor costs in Europe;
- Small Tax load – personal and corporate income taxes, social security contributions;
- Corporate Income Tax (CIT) – is as low as 12%, while incentives for the IT sector exempt from most taxes on gross salaries above USD 680;
- One of the best wired Internet connections in the world as well as one of the cheapest in terms of price per Mbit

Another important, fourth, factor determining the willingness and need to implement investments to the socio-economic sector is "Certainty for investors":

- Stable and predictable economic situation in the region;
- Openness and flexibility of regional authorities in regard to the stimulation of investment activity;
- Support provided to investors by the Governor of Gagauzia and her team;
- Well-developed infrastructure of modern means of communication

The fifth factor, which very clear the background which helps to implement the investment of ATU Gagauzia is it " Incentives for investors in Gagauzia":

- Provision of natural grants – transfer of land, buildings, structures, machinery and equipment;
- Tax incentives – refund of Corporate Income Tax every calendar year for a period of 5 years;
- Investment subsidies – reimbursement of up to 30% (not more than 5 million MDL) of the actual costs for construction and installation works, purchase of equipment without VAT;
- reimbursement of up to 50% of the retraining costs of personnel for manufacturing industry;
- One-stop-shop – assistance provided to investors at documents collection and preparation, by reducing the permits issuing time

The Research Methodology

The materials used in this chapter are the normative acts of the European Union and Republic of Moldova, textbooks, monographs and other publications specific to the theme, national and international conference materials that helped the author to understand and explain the statement, aspects and problems of development, identify the priorities of the strengthening competitive positions of the enterprises. The quantitative analysis is performed on selected data and processed by the author based on Eurostat, the results of business negotiations of Gagauzian business forums, the statistical yearbooks and other publications of the National Bureau of Statistics of Moldova, databases of ATU Gagauzia (ATU-Autonomy Territorial Unit) and other official communications of the institutions. The empirical study, analysis of the links provided the meanings and explanations pertinent to the phenomena and processes occurring in the national market of investment

Figure 2. Industrial and agricultural production 2011-2017 years (million EUR)
Source: General Department for Economic Development, ATU Gagauzia

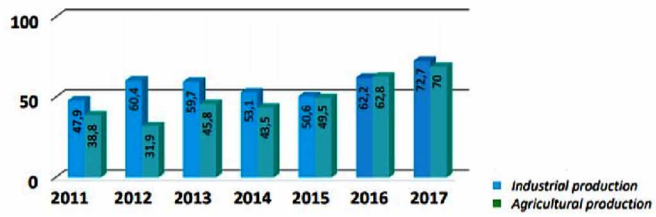
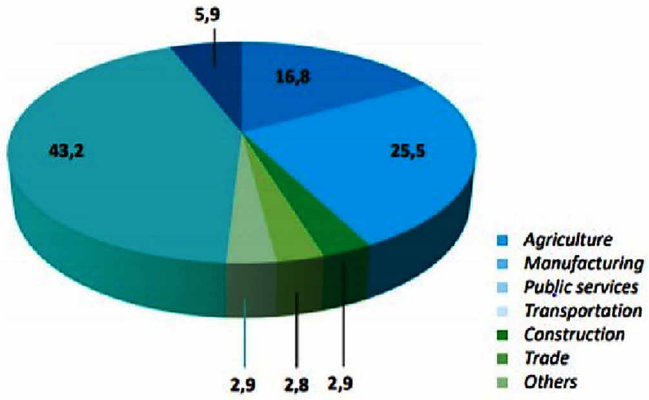


Figure 3. Share of economic sectors, 2017 (%)
Source: General Department for Economic Development, ATU Gagauzia



REVIEW OF MARKETING APPROACHES OF INVESTMENT POLICY

Leading industries in ATU Gagauzia are agriculture and food processing (wine making and production of canned fruits and vegetables), textile, apparel, and footwear. ATU Gagauzia is well known for its agricultural potential and traditions for decades, defined by common multicultural values in the region. A total of 7,134 companies, of which 2, 934 are the companies registered as legal entities, and 3,405 individuals, are registered in all economic sectors of ATU Gagauzia. Circa 215 enterprises with foreign share ownership are registered in ATU Gagauzia. In 2017, 295 economic operators, of which 22 are with foreign ownership, were registered in the Authonomy. Products, works and services amounting to 1598.1 million MDL (in current prices) were produced in 2017, including manufacturing industry –158.74 million MDL, ATU Gagauzia accounting for 3.0% of the total in the Republic of Moldova. The index of industrial production as compared to 2016 made up 122.3%. In 2016, the share of industrial production in Gagauzia increased and amounted to 3.2% of the total volume of industrial production in the Republic of Moldova. In the structure of production, works and services by industrial enterprises of ATU Gagauzia, Comrat district accounts for 28.4% (451.1 million MDL), Ceadir-Lunga district accounts for 40.2% (643.0 million MDL), and Vulcanesti district – 31.4% (501.0 million MDL). The volume of products shipped in 2017 by surveyed industrial enterprises amounted to 1519,7 million MDL, of which 63,6% was exported (1016,3 million MDL), 36,4% was placed on the domestic market of the country.

The gross agricultural output in all economic categories in 2017 made up 1437,7 million MDL (in current prices), which is by 9,1% more than the level of the previous year (Moldova in figures, 2017)

Businesses located in Gagauzia can export duty free to the West (EU), East (CSI) and Southeast (Balkans). 45.4% of Gagauzian exports have as destination the EU market, while 24.5% the CIS market. The Turkish market represents an important niche for Gagauzian products (15.3% of total exports in 2017) (The results of the Socio-economic development of the ATU Gagauzia (Gagauz Yeri, 2018)

TOP REASONS TO INVEST IN ATU GAGAUZIA

Multilingual population: ATU Gagauzia offers a qualified and multilingual workforce, due to three official languages in the region: Romanian, Gagauzian, and Russian. The State University in Comrat registers an average of 520 graduates yearly. The skilled and multilingual workforce available is highly demanded within the trade regimes/relations the Republic of Moldova is involved in. Servicing and exporting to EU, CIS and Turkey can be done smoothly, customs free and without language barriers;

Special Legal status: According to the Special Legal status, ATU Gagauzia is an autonomous territorial unit (ATU) with decision power in the economic and fiscal areas;

Law of ATU Gagauzia: on Investments Adopted on August 9, 2016, the Investment law in Gagauzia establishes incentives for investments from MDL 5 million *(creating at least 10 jobs)*, while guarantying investment protection and support. This law defines the legal and economic framework for investment

Figure 4. Total volume of exports and imports in ATU Gagauzia, 2011-2017 years (thousand EUR)
Source: Customs Service of the Republic of Moldova

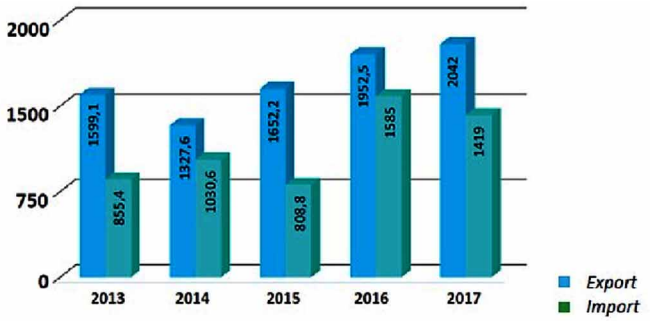
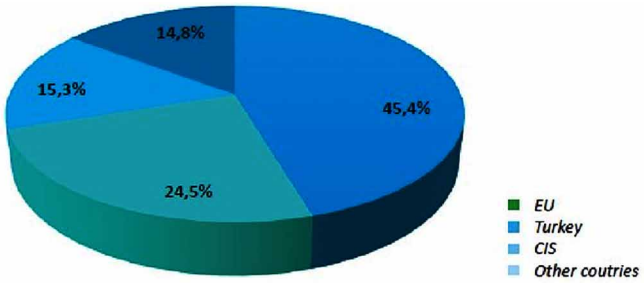


Figure 5. Export of UTA Gagauzia by desitination, 2017 (%)
Source: Customs Service of the Republic of Moldova



preferences, guarantees the protection of investor's rights, defines measures to support investments by public authorities, and provides arbitration of investors involving disputes

Investment incentives:

- Provision of natural grants by local public authorities – transfer of land, buildings, structures, machinery and equipment, and vehicles;
- Tax incentives – refund of Corporate Income Tax every calendar year for a period of 5 years;
- Investment subsidies – reimbursement of up to 30% *(not more than 5 million MDL)* of the actual costs for construction and installation works, purchasing of equipment without VAT, reimbursement of up to 50% of the retraining costs of personnel for the manufacturing production;
- One-stop-shop – assistance provided to investors at documents collection and preparation, by reducing the permits issuing time

Investment preferences are applied in the following areas: Manufacturing, Agricultural sector, Infrastructure, Energy efficiency and Renewable energy sources, Informational Technologies, Tourism and Hotel services

Free Economic Zone: FEZ "Valkanes" and its subzones in the cities of Comrat and Ceadir-Lunga offer further preferences, including a reduced Corporate Income Tax *(CIT)* of 6%, customs office on site operating 24/7, 0% VAT on equipment imported etc. The Free Economic Zone *(FEZ)* represents excellent platform for export-oriented manufacturing companies, which benefit of preferential customs and tax regime. FEZ "Valkanes" was established in 1998. It is located in Vulcanesti city and includes two subzones in municipalities of Comrat and Ceadir-Lunga. The total area of FEZ "Valkanes" is circa 200 hectares, namely in Vulcanesti City – *107 hectares*, Comrat Municipality – *50.3 ha*, and Ceadir-Lunga Municipality – *42 ha*. FEZ "Vaklanes" is located in the proximity of 7 km to the East from the City center of Vulcanesti. The FEZ has immediate connection to European road E584 connecting the cities of Poltava *(UKR)* and Galati *(ROU)*. The subzone is delimited to the East along the railway route connecting Vulcanesti with Chisniau and Black Sea port on Danube River. Out of the total area of the two subzones in Vulcanesti *(107 ha)*, circa *FEZ "Valkanes" in Vulcanesti City* (Guide to the Free Economic Zones of Gagauzia, Comrat, 2014)

SRL "Terra Impex", FEZ "Valkanes"

Residents:

- "DK-Intertrade" SRL (144 jobs, alcohol production);
- "Terra Impex" SRL (231 jobs, construction net products);
- "Industrial Invest" SRL (42 jobs, oil production);
- "Metalmesh-Exim" SRL (25 jobs, processing of non-genetically modified soybeans and the production of soy proteins);
- "MGK-Textil" SRL (15 jobs, socks production, apparel);

Activities that can be carried out in FEZ:

- Industrial production

Table 1. Indicators of the free economic subzone "comrat" (2017)

Organizational Form	FEZ administration
Land Ownership	Public
Land Destination	Construction purposes
Total Land Area	50, 3 ha

Source: Compiled by the author according to the data provided by Economic development Department of the Executive Committee of ATU Gagauzia (The program of activities of the Executive Committee of ATU Gagauzia for 2019-2023, Republic of Moldova)

- Foreign trade activity
- Sorting, packaging, labeling, etc.
- Public services, warehousing, logistic, construction materials and others

Comrat Free Economic Subzone

Comrat subzone is located in the northern part of Comrat Municipality in the proximity of 4 km from the city center. The FEZ has immediate access to European road E584 connecting the cities of Poltava *(UKR)* and Galati *(ROU)*. The land plot area is 50.3 hectares

Land plot with all utilities can be leased with extension option. FEZ "Valkanes" – Subzone Comrat offers a long-term land lease contracts limited to lifetime of FEZ. Adjacent land purchase Land plot under constructions within subzone can be purchased on state norm price (Table 2):

Ceadir-Lunga Free Economic Subzone

Ceadir-Lunga subzone is located in the northern part of Ceadir-Lunga Municipality in the proximity of 3 km from the city center. The greenfield land plot of 42 hectares is situated in immediate proximity to the existing industrial zone of the municipality. The subzone has connection to National roads R36 (Basarabeasca – Ceadir-Lunga –Taraclia) and R37 (Ceadîr-Lunga – Comrat– Cantemir), and railway route connecting the municipality with Basarabeasca (railway customs crossing point with Ukraine) and Blank See port on Danube River

Table 2. Land lease fee of the free economic subzone "comrat" (2017)

Indicator	per 1m2/year
FEZ land plot	0.5-1 EUR
Land (general regime)	0.75-1.5 EUR
Land purchase price	1.5 EUR

Source: Compiled by the author according to the data provided by Economic development Department of the Executive Committee of ATU Gagauzia (The program of activities of the Executive Committee of ATU Gagauzia for 2019-2023, Republic of Moldova)

Table 3. The utility costs of the free economic subzone "comrat" (2017)

Water	2.0 EUR/m3
Electric power	0.085 EUR/kWh
Natural gas	0.274 EUR/m3
Sewerage	2 EUR/m3

Source: Compiled by the author according to the data provided by Economic development Department of the Executive Committee of ATU Gagauzia (The program of activities of the Executive Committee of ATU Gagauzia for 2019-2023, Republic of Moldova)

Table 4. The utilities potential of the free economic subzone "comrat" (2017)

Water supply	artesian wells (50 m3/hour); piplene in development
Electric power	transmission line; substation in development
Natural gas	Medium pressure gas pipeline 0.155 – 0.25 mPa (500 m3/hour)
Sewerage	in development
Available	Master plan

Source: Compiled by the author according to the data provided by Economic development Department of the Executive Committee of ATU Gagauzia (The program of activities of the Executive Committee of ATU Gagauzia for 2019-2023, Republic of Moldova)

Table 5. The Transportation potential of the free economic subzone "comrat" (2017)

Automobile transport	• Immediate access to European route E583 – B classroad connecting the cities Roman *(ROU)* and Zhytomyr *(UKR)*, which is national magistral road M3 Chisinau – Cimislia – Vulcanesti – Giurgiulesti *(MDA)* – border checkpoint with Romania Distances: • 100 km to Chisinau; • 80 km to the nearest border checkpoint with Romania; • 30 km to the nearest border checkpoint with Ukraine
Railway transport	• 30 km to Basarabeasca railway customs crossing point with Ukraine
Air Transport	• 100 km to Chisinau International Airport
Water transport	• GIurgiulesti International Free Port is located at circa 135 km distance from Comrat Municipality. It is the only Danube River and Black Sea port in Moldova with direct access to international waterways

Source: Compiled by the author according to the data provided by Economic development Department of the Executive Committee of ATU Gagauzia (The program of activities of the Executive Committee of ATU Gagauzia for 2019-2023, Republic of Moldova)

Table 6. Indicators of the ceadir-lunga free economic subzone (2017)

Organizational Form	FEZ administration
Land Ownership	Public
Land Destination	Construction purposes
Total Land Area	42,0 ha

Source: Compiled by the author according to the data provided by Economic development

Department of the Executive Committee of ATU Gagauzia (The Program of Activities of the Executive Committee of ATU Gagauzia for 2019-2023, Republic of Moldova)

Land plot with all utilities can be leased with extension option. FEZ "Valkanes" – Ceadir-Lunga Free Economic Subzone offers a long-term land lease contracts limited to lifetime of FEZ. Adjacent land purchase Land plot under constructions within subzone can be purchased on state norm price (Table 20):

Doing Business 2017 Ranking Moldova: is constantly improving its business climate, being well positioned in the Doing Business ranking *(44 / 190 in 2017)*

Communication Infrastructure: Communication infrastructure in Moldova, including Gagauzia, is at high performance level, achieving excellent coverage in both wired and wireless communications. Landline is available in most settlements, nonetheless the amount of mobile subscriptions is growing very fast compared to the landline

Table 7. Land lease fee of the ceadir-lunga free economic subzone (2017)

Indicator	per 1m2/year
FEZ land plot	0.5 EUR
Land (general regime)	0.75 EUR
Land purchase price	0.65 EUR

Source: Compiled by the author according to the data provided by Economic development Department of the Executive Committee of ATU Gagauzia (The program of activities of the Executive Committee of ATU Gagauzia for 2019-2023, Republic of Moldova)

Table 8. The utility costs of the ceadir-lunga free economic subzone (2017)

Water	1.87 EUR/m3
Electric power	0.097 EUR/kWh
Natural gas	0.29 EUR/m3
Sewerage	1.24 EUR/m3

Source: Compiled by the author according to the data provided by Economic development Department of the Executive Committee of ATU Gagauzia (The program of activities of the Executive Committee of ATU Gagauzia for 2019-2023, Republic of Moldova)

Table 9. The utilities potential of the ceadir-lunga free economic subzone (2017)

Water supply	piplene in development
Electric power	close proximity to distribution station of 18 MW capacity
Natural gas	0.2 – 0.3 MPa (Ø 160mm)
Sewerage	in development

Source: Compiled by the author according to the data provided by Economic development Department of the Executive Committee of ATU Gagauzia (The program of activities of the Executive Committee of ATU Gagauzia for 2019-2023, Republic of Moldova)

Table 10. The Transportation potential of the ceadir-lunga free economic subzone (2017)

Automobile transport	• 2 km proximity to National roads R36 (Basarabeasca – Ceadir-Lunga– Taraclia) and R37 (Ceadir-Lunga – Comrat – Cantemir), 20 km to European route E583 – B class road B class road connecting the cities Roman (ROU) and Zhytomyr (UKR), which is national magistral road M3 Chisinau – Cimislia – Vulcanesti – Giurgiulesti (MDA) – border checkpoint with Romania Distances: • 136 km to Chisinau; • 12 km to the nearest border checkpoint with Ukraine; • 75 km to the nearest border checkpoint with Romania
Railway transport	• 2.5 km to railway route connecting Ceadir-Lunga with Chsinau and Black See port on Danube River
Air Transport	• 150 km to Chisinau International Airport
Water transport	• GIurgiulesti International Free Port is located at circa 120 km distance from CeadirLunga City. It is the only Danube river and Black Sea port in Moldova with direct access to international waterways

Source: Compiled by the author according to the data provided by Economic development Department of the Executive Committee of ATU Gagauzia (The program of activities of the Executive Committee of ATU Gagauzia for 2019-2023, Republic of Moldova)

Human resources are one of the most important assets of ATU Gagauzia: ATU Gagauzia's labor force combines competitive cost with high productivity, deriving from the industrial experience and history of the region. While the medium age of the Gagauzian population stands at 34.6 years, companies operating in the region have the possibility to develop their business with the help of qualified professionals with multilingual skills (Table 11; Figure 6):

Table 11. The labor markets indicators of labor market of ATU Gagauzia (2017)

Working age population (15 to 64 years old)	103.8 thousand (64.8% of the total population)
Employment rate (ratio of the employed to the working age population)	32%
Unemployment rate	2,6%
Average net wage	ca. 180 EUR / month
Full load labor cost	ca. 1.85 EUR / hour

Source: Compiled by the author according to the data provided by Economic development Department of the Executive Committee of ATU Gagauzia (The program of activities of the Executive Committee of ATU Gagauzia for 2019-2023, Republic of Moldova)

Figure 6. Available workforce across districts of the ATU Gagauzia
Source: Compiled by the author according to the data provided by Economic development Department of the Executive Committee of ATU Gagauzia (The program of activities of the Executive Committee of ATU Gagauzia for 2019-2023, Republic of Moldova)

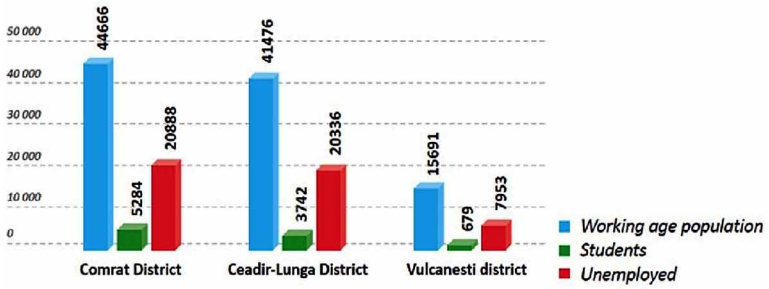
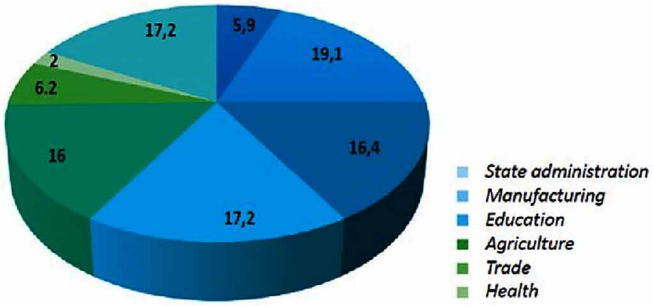


Figure 7. Employment by economic sectors
Source: General Department for Economic Development, ATU Gagauzia



FUTURE RESEARCH DIRECTIONS

Investment policy is one of the key components of an effective development of region ATU Gagauzia (Republic of Moldova). There are many objects in our region that need to be developed, attracting investment resources. These include: the Warehouse and logistics center project "Agro Oguz", the Gas power plant project in Vulcanesti, the Airport project in ATU Gagauzia, the Tourist equestrian health-improving complex (based on the At-Proline horse farm) and others. In view of this, author's future research will be aimed at conducting a qualitative marketing research and analysis of the condition of intern market and possibilities of companies for implementing one of it. At the Gagauzia Investment Forum 2019 (held in November, 2019), the author of this chapter presented the results of the studies carried out on the Investment Project the Tourist equestrian health-improving complex (based on the At-Proline horse farm). Marketing research is aimed to analyzing the competitive environment in the Republic of Moldova, analyzing the potential of clients (B2C, B2B, B2G), developing a high-quality assortment portfolio of the services of this complex. Moreover, further research will be aimed at developing the marketing strategy for promoting the Tourist equestrian health-improving complex in Gagauzia

CONCLUSION

Smmarizing the findings of the studies conducted in the chapter, can be stated that attractive conditions for the development of the socio-economic area are created in the ATU Gagauzia

Advantages of the socio-economic area which can get region ATU Gagauzia is:

- 0% CIT: for a period of 3 (5) years when investing at least 1 (5) million USD;
- 0% VAT: no Excise and Customs duties;
- 10 years: State guarantee on legislation changes;
- 24 / 7: Customs office on site;
- Road and utilities infrastructure;
- EU border green lane (AEO);
- Dual vocational system;
- Great number of available productive labor with competitive cost;

- Ongoing professional support by FEZ Administration

The favorable geographic location of Moldova provides an exceptional investment platform with opportunities to export to EU and CIS countries as well as to Turkey. Many foreign manufacturing companies are interested to extend their production capacities in Moldova. It increases the demand for ready-to-use production halls for quick production start but also demand for development of build-to-suit (BTS) projects. Sites available for commercial, industrial, and logistic real estate projects encompass circa 120 hectares of greenfield. Plots are available in FEZ "Vaklanes", Comrat and Cedir-Lunga subzones

The companies are given legal and consulting support in obtaining licenses, permits and approvals. Consulting services also include project development, personnel recruitment, knowledge management, marketing, etc.

REFERENCES

Guide to the Free Economic Zones of Gagauzia. Comrat. (2014). Retrieved from http://www.gagauzia.md/public/files/publicatii/Ghid_rus_final.pdf

Kurkchu, V. (2015). Features of the investment policy of the ATU Gagauzia. In *Collection of materials of the I National scientific-practical conference "Problems and Challenges regional economies in the context of globalization"*. Comrat State University.

Moldova in figures. National Bureau of Statistics of the Republic of Moldova Statistical pocket-book. (2017). Retrieved from http://www.statistica.md/public/files/publicatii_electronice/Moldova_in_cifre/2017/Moldova_in_figures_en_2017.pdf

The results of the Socio-economic development of the ATU Gagauzia (Gagauz Yeri) in 2018 (Republic of Moldova). (n.d.). Retrieved from http://www.gagauzia.md/newsview.php?l=ru&idc=390&id=7029

The Sectoral Regional Energy Efficiency Program in Public Buildings of the Development Region of the ATU Gagauzia 2018-2025 (Republic of Moldova). (n.d.). Retrieved from http://adrgagauzia.md/public/files/2018_05_07_FINAL__RSP_EE_RDA_UTAG_final_RUS.pdf

The Sectoral regional program Infrastructure Development regional and local roads of the region of the development of the ATU Gagauzia 2018-2025 (Republic of Moldova). (n.d.). Retrieved from http://adrgagauzia.md/public/files/PRS_drumuri_FINAL__RUS_160718.pdf

The Socio-economic analysis of Gagauzia 2017 (Republic of Moldova). (n.d.). Retrieved from http://www.adrgagauzia.md/public/files/analiz_regiona.pdf

Wikipedia. (n.d.). *Special Economic Zone*. Retrieved from https://en.wikipedia.org/wiki/Special_economic_zone

KEY TERMS AND DEFINITIONS

ATU Gagauzia: Autonomous Territorial Unit of Gagauzia (Republic of Moldova).

Economic Sphere: A set of relations of people arising from the creation and movement of material goods.

Free Economic Zones: A class of special economic zone (SEZ) designated by the trade and commerce administrations of various countries (Wikipedia, n.d.).

Human Capital: The skills, knowledge, and experience possessed by an individual or population, viewed in terms of their value or cost to an organization or country.

Investor: A person or organization that puts money into financial schemes, property, etc. with the expectation of achieving a profit.

Social Sphere: A combination of industries serving the basic social needs of the population: education of children and adults, medical support, cultural and sports leisure, socialization of youth, etc.

Chapter 14
Stakeholder Information Flow From Horse Entrepreneurs to Customers:
Preliminary Study of Prevention of Equine Infectious Diseases

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ABSTRACT

This study focuses on emphasizing the instrumental role of stakeholder analysis and the concept of business ecosystem. Specifically, a stakeholder relationship might provide the channel for the particular instrumental targets of a business subset. This kind of stakeholder management is based on a principal-agent relationship between industry actors. However, this example, which focuses on horse entrepreneurs and the infectious diseases of this subset of the equine industry, shows that instead of a simple principal-agent relationship, stakeholder management might yield a chain of principal-agent relationships in the form of a principal-agent/principal-agent relationship (for example, one or more of the stakeholders simultaneously takes on the role of both agent and principal). According to the analysis, horse entrepreneurs have this kind of double role in stakeholder management for the prevention of infectious diseases.

INTRODUCTION: WHY IT IS ESSENTIAL

Equine-related industries are among the fastest growing and the most promising in both the European Union and the Finnish rural context (Rantamäki-Lahtinen & Vihinen, 2004; Häggblom et al., 2012; Leppälä et al., 2015). Members of the European industry can be a professional business, a leisure activity, or an amalgam of both (Henley Centre, 2004; Rantamäki-Lahtinen & Vihinen, 2004; Sigurdardottir &

DOI: 10.4018/978-1-7998-2704-7.ch014

Steinthorsson, 2011; Andersson Cederholm, 2012). In Finland, equine industry has a significant effect on employment, with its 15,000 employees (the Finnish Trotting and Breeding Association, 2017) and 3,000 full- or part-time horse-related enterprises (Pussinen & Thuneberg, 2014). Sometimes a horse business can be a hobby that may grow into a bigger business (Rantamäki-Lahtinen & Vihinen, 2004; Sigurdardottir & Steinthorsson, 2011).

Disease outbreaks are destructive to Finnish equine industry. The critical factor can be resources and how they are divided together with stakeholders (Moore, 1998). It is in the best interests of the horse entrepreneur that one of his or her stakeholder group, customers, follow their instructions, which can reduce the probability of spreading contagious diseases beforehand. Above all, customers' cooperation serves the horse entrepreneurs' financial profit, because obeying the rules can forestall expensive disease eradication measures. In contrast to Moore (1998, 167) resources are not brought to create new value for customers. Compliance and obedience can increase the economic value and success of the horse entrepreneurs' business, which is a value-added business where customers can cooperate. However, also customers can benefit. Based on Finnish legislation horse entrepreneurs have a great responsibility to ensure that their customers are informed about and prepared for the prevention of transmissible diseases and by a good horse health customers' pleasant sporting experiences are promoted.

BACKGROUND: WHAT WE ALREADY KNOW AND WHAT IS MISSING?

It is found that horse entrepreneurs have often rejected a traditional market ethos (Sigurdardottir & Steinthorsson, 2011). Instead, they can create values beyond the economic under the concept of animal disease (the values of animal health and well-being) and cooperate with customers through co-creative processes in which these sustainable values are maintained and respected. In this framework horse entrepreneurs can focus their attention to horse health and the biosecurity of their stables. Biosecurity covers risk assessment and concrete preventive operations, such as vaccination, disinfection, and the quarantine of horses that are sick or from other stables. Previous studies from the US and New Zealand have revealed that these practices are implemented in varying degrees (USDA, 2006; Rosanowski et al., 2012; Rosanowski et al., 2013) but in Finland the horse industry's biosecurity practices have rarely been studied. Recently, it is revealed that the majority of horse owners (85–95%) vaccinate their horses at least for equine influenza (Koskinen, 2014a) and that those horses active in equine sport arenas are mostly vaccinated (Koskinen, 2014a, 2014b). Worm control practices were statistically combined with the occurrence of helminths and were not explicitly reported (Aromaa, et al., 2018).

Entrepreneurs are often very engaged with their horses and so externalize many business functions by contracts with hay farmers, smiths, veterinarians, manure transporters, etc. Thus, horse entrepreneurs are involved in an inspiring project with many external and internal stakeholders. Some studies show how stakeholders such as rural veterinarians and farmers (Hamilton, 2018) or different infection control authorities (Van Woezik et al., 2016) have co-productive potential in their collaborative relationships. Nevertheless, these studies have not approached a unique and co-creative relationship between a private horse entrepreneur and a customer in which the horse entrepreneur is led by other (usually public) stakeholders, but in everyday business situations, the horse entrepreneur leads a stakeholder group (customers).

Several theories about stakeholders and their relationship with organizations have been published. It may be questionable whether all the stakeholder research refers to the same underlying stakeholder theory (Egels-Zandén & Sandberg, 2009). In literature, the concept of "stakeholder" is contested being

variously describable, internally complex and open in character (Miles, 2017). Empirical formulations of stakeholder theory describe how entrepreneurs behave and how people actually address their stakeholder relationships. Instrumental theory shows what would happen if entrepreneurs adhered to stakeholder management principles, and normative theory stresses a moral (what one should do with stakeholders) dimension of behavior (Jones, 1995, 406).

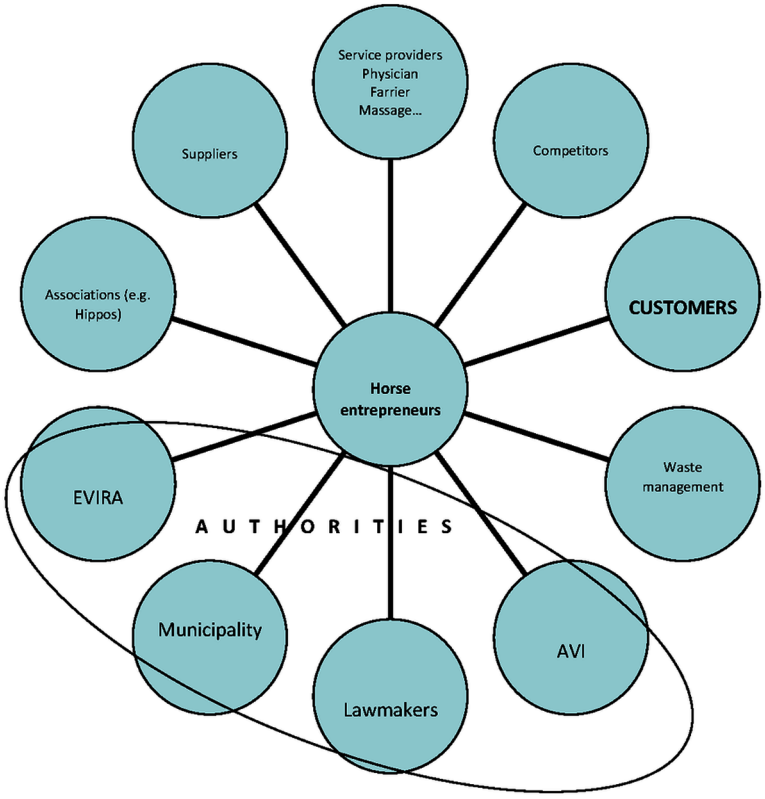
The purpose of stakeholder management was to create methods to strategically manage the different groups and relationships that resulted (Fontaine et al., 2006, 13). A framework for effective stakeholder management has been proposed and empirically validated (Yang et al., 2011). The framework includes the identification of critical success factors, a process of stakeholder management, and the promotion of relationships. It sees the importance of identifying and analyzing stakeholders and their behavior and needs and concludes that communication with stakeholders, clear goal setting, and a context-sensitive flexible process model improve stakeholder management. Taking social responsibilities seriously (such as economic, legal, and ethical issues) is a precondition for management of these relationships and one theoretical study with the integration of sustainability and project stakeholder management by practical tools and frameworks (Silvius & Schipper, 2019) and one empirical study about Corporate Social Responsibility communication of a firm (Carrasco et al., 2019) have recently been published.

In recent literature (Carrasco et al., 2019; Silvius & Schipper, 2019; Zarewa, 2019), however, management frameworks have been connected with old formula of identifying and assessing stakeholders and these studies have concentrated on traditional industries such as product systems (Zarewa, 2019) and banking industry (Carrasco et al., 2019) not suitable for comparison with special values and rural environment met by horse entrepreneurs. In professional business industry without taking care of live humans and animals the economic and ethical influence of disease outbreak is often neglected. Thus, the value of several close stakeholders and the interdisciplinary approach about horse entrepreneurs and their surrounding environment with its threats and potential has previously been missed.

MAIN FOCUS OF THE CHAPTER: PURPOSE OF THE STUDY AND HOW AUTHORS FILL THE GAP?

The sustainable, ethical control of health and well-being of horses can be achieved with or without stakeholders. Usually, it is based on adequate knowledge of horse entrepreneurs and communication with their relevant partners. Main task of this study is to evaluate how knowledge flows from a horse entrepreneur to one important stakeholder group, customers. Because horse entrepreneurs have an expected goal to achieve and maintain a good horse health, the biosecurity of the stables is the context of this study. In a collaborative context it is clear that stakeholders are critical to the success or failure of a biosecurity project. Stakeholder analysis of Finland identifies these stakeholders and categorizes them as public (regulators, veterinary and environmental authorities at the municipality and other administrative levels) and private (veterinarians, horse associations, other horse entrepreneurs, customers, and service providers, such as smiths, horse welfare therapists, feed producers, horse transport services, and manure recipients) (Figure 1). In a case of disease outbreak, these communities of customers, governmental and nongovernmental institutions come together in an intentional manner. Authorities can transmit biosecurity-associated regulations to entrepreneurs whereas private veterinarians and the Finnish Trotting and Breeding Association (Suomen Hippos) can offer instructions, general knowledge, and other

Figure 1. Horse entrepreneurs and their stakeholders
(Hippos = the Finnish Trotting and Breeding Association, EVIRA = the Finnish Food Authority, a central authority, AVI = Regional State Administrative Agency)



information in such a way that horse entrepreneurs could be expected to have some information on how to protect their horses.

The stakeholder theory or management literature offers the concept of "instrumental stakeholder theory" (Jones 1995; Jones, Harrison, & Felps, 2018), which can integrate business and society and which is the synthesis of ethics and economics. It is close to Yang et al's idea of analyzing stakeholders and their needs. This study generally parallels the discussions in the instrumental stakeholder theory, although the main focus is the intentional instrumental and transmission processes of the stakeholder framework in the prevention of transmissible diseases in the equine industry. The theoretical perspectives for this kind of goal-oriented (intentional) transmission process are rare in discussions of stakeholder management. By contrast, these discussions are familiar with the branch of "normative stakeholder management" (Benson & Davidson, 2010), although this is a relatively limited theme. Typically, goal-oriented (normative) stakeholder management is linked with the perspectives of the principal-agent model (see, e.g., Benson & Davidson, 2010) and with managerial Corporate Social Responsibility (CSR) research. The latter denies a paradoxical tension between the ethical case and the business case for CSR; in other words, what is good for society is also good for the company. According to Hoffman (2018, 675), the paradigm of managerial CSR research "lines up with traditional stakeholder theory,

which assumes that a broad, inclusive and responsive stakeholder management also makes a company more successful in financial terms."

This study focuses on the instrumental role of stakeholder management. Stakeholders are defined as those people and organizations that are involved with or have interests in the entrepreneur's biosecurity project. Authors of this chapter understand the term "instrumental" according to the definition from the Cambridge Dictionary (2018):

"If someone or something is instrumental in a process, plan, or system, that person or thing is one of the most important influence in causing it to happen". The equine industry provides an interesting platform to study different forms of relationships and their management. In the special relationship between a horse entrepreneur and a customer, a principal (entrepreneur) and an agent (customer) role is constructed. On the other hand, the variability of the members of the equine industry challenges the robustness of instrumental or normative stakeholder management. For these reasons, this study, which focuses on the modes of the principal-agent relationships in the field of stakeholder management, uses the equine industry as a preliminary study. The principal-agent relationship resembles the rational type of micro-politics that, through agency theory, ascribes different but alignable interests to principals and agents in the agency relationship, such as viewing headquarter-subsidiary relationships as principal-agent relationships (cf. Pedraza-Acosta & Mouritsen, 2018). In particular, this study emphasizes the instrumental and interorganizational role of stakeholder management due to the chosen focal point of disease prevention in the equine industry. The novel contribution of the study relies on the specific characteristics of the equine industry, which might reveal new findings associated with the normative/instrumental stakeholder management (the combination of the principal-agent model and stakeholder management). The specific perspectives of the equine industry, which is a hobby with high engagement from entrepreneurs and customers, especially challenge the typical business perspectives of stakeholder management.

According to Donaldson (1999), academics dealing with instrumental stakeholder theory are usually theorists who question a profit-only definition of the corporation's purpose. Stakeholder management based on instrumental stakeholder theory can be considered as the source of a sustainable competitive advantage (Jones et al., 2018). The current study emphasizes the instrumental role of stakeholder management, but without the focus on competitive advantage or sustainable competitive advantage (cf. Jones, 1995; Jones et al., 2018). In this study, ethics and trust are also important components of the stakeholder management perspective in the branch of the horse economy due to the many noneconomic motives of horse entrepreneurs.

Firstly, the current study adopts Jones' instrumental approach of stakeholder theory in an empirical study design. Secondly, this approach is completed by Moore's business ecosystem lens by seeing business ecosystems analogously with biological perspective (biological ecosystems) and by engaging the customers and considering their behavior as a co-creative part of the entrepreneur's business in order to prevent animal diseases. Stakeholder theories are criticized due to their technique and instrumental nature (Key, 1999) typical for the mechanistic visions of organizations and thus, thirdly, more organic approach to organizational life is introduced. Interorganizational, complex networks between individuals and firms, the key elements of business ecosystems (Peltoniemi & Vuori, 2004; Mäkinen & Dedehayir 2012; Basole et al., 2015), are recognized and much attention is devoted to understanding the immediate task of business environment, defined by the organization's direct interactions with customers, competitors, suppliers, and governmental agencies and matching of these subsystems like in living organism (Morgan, 2006, 39).

Thus, this study shows possibility to consider the stakeholder relationships as an instrument to achieve the certain aim - in this case the aim to prevent equine infectious diseases. This initiative provides contribution both to the discussions of stakeholder management and to the branch of prevention of animal diseases, and an alternative way to study stakeholder management and its environment is business ecosystem. The main focus of this study is on stakeholder management though value co-creation, for example, the typical theme of business ecosystem, is an essential part of the perspective.

MATERIALS AND ANALYSIS

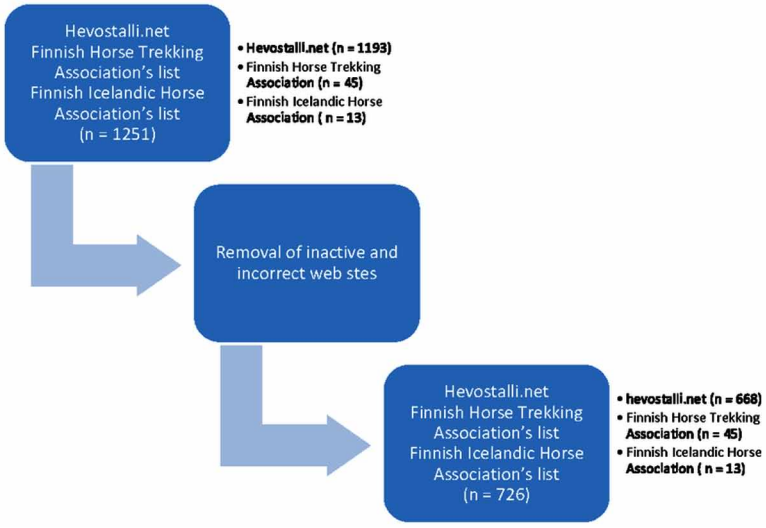
This article leans on the power of social media as an effective source of knowledge. It was a data source containing relevant stakeholder activity information often publicly available (Basole et al., 2015). Through the multiple searches of the hevostalli.net/tallit portal it was determined that Finnish horse entrepreneurs have their own websites. Some of these are free for all (including permanent customers and guests), but in other instances, permanent customers have been invited to closed Facebook groups. Anyone can search for horse-related enterprises at the hevostalli.net portal by region, by the name of enterprise, or in alphabetical order. Further, the Finnish Equestrian Association has a horse-related service search engine at its own website, and the Finnish Horse Trekking Association has the lists of its member enterprises categorized by region and offers a more accurate contact search that relies on the linking capacity of Google Maps. Some special horse breeds, such as the Icelandic horse, have associations of their own (Finnish Icelandic Horse Association), and stables populated by Icelandic horses can regionally be found through these associations' websites.

The aim of material collection was to gain evidence from horse entrepreneurs' websites about their animal disease communication activities. The inclusion criteria were the availability of a website and its information. Thus, closed Facebook groups were excluded, and the open hevostalli.net portal, the Finnish Horse Trekking Association's lists, and the Finnish Icelandic Horse Association's lists were included. This yielded 1,251 websites, which decreased to 726 when inactive and incorrect websites were removed (see Figure 2). All active websites were thoroughly reviewed, and enterprises were divided into two categories: those that offered disease prevention communication and those that did not. For those in the "yes" category, a more detailed website analysis was executed.

For detailed website analysis strategy, a comparison with a biosecurity planning checklist was utilized. A checklist for livestock farm events designed by Kerr (2017) at Washington State University was introduced, with certain modifications to the needs of the equine industry and native conditions in Finland. The original checklist discusses the potential risks that visitors could pose to farms and reviews the factors that increase the risk of spreading disease. In the modified final checklist, six checkpoints were included: 1) the creation of a biosecurity plan with professionals who know the local disease status and best disinfectant solutions, 2) a definition of the proper use of disinfectants, 3) reminders for good hand hygiene, 4) a decision about clean shoes and clothing, 5) a determination of the best location of the parking facilities, and 6) a decision about restrictions, such as banning dogs and forbidding entrance for 48 hours after a return from an international journey.

Further, animal disease communication activities of entrepreneurs were extended to the context of communication in a direct customer relationship. The first author was in personal contact with entrepreneurs who fell in previous yes category by being a potential customer and by sending a Facebook or e-mail message. This data collection method closely resembled the Mystery shopping method, in which

Figure 2. Materials of the study and the number of websites after the removal process



the service quality and the satisfaction of an anonymous, "mysterious" customer is evaluated (Wilson, 1998). In this study researchers favored a structured approach with a predefined fictional profile of horse entrepreneur's customer, who is interested in many equestrian activities in several stables in homeland and has regular horse travelling activities in countries which suffer the epidemics of infectious equine diseases. For building this risky customer profile, recent (year 2018) epidemic situation among horse populations in different countries was first reviewed at World Organization for Animal Health web site (www.oie.int) and our fictional customer's journeys were focused on these destinations.

The analysis is based on websites. This kind of source has restrictions: it will not tell the practices of the target group, but the official observable attitudes of the target group. Furthermore, small enterprises have short of time to develop the content of their websites, which fact might distort the outcomes of the analysis.

RESULTS

Empirical and literature analysis and our experiences with this branch of the equine industry yielded the following stakeholder framework for horse entrepreneurs.

In website analysis a low level of contagious disease communication activity by horse entrepreneurs was observed. Only 22 horse entrepreneurs (3%) gave preventive hygiene instructions to their customers, and one entrepreneur used its front page to remind the customers of the importance of disinfection and changing clothes for each stable because of a recent (but successfully controlled) strangles outbreak. Horse entrepreneurs' activity in these 22 cases can be divided by the business priorities of the enterprises. Preventive disease communication was most commonly found in Icelandic horse enterprises (59%), followed by medium-size riding schools (32%), whereas only 4.5% of the entrepreneurs were active in mixed stables (stables populated by Icelandic horses and other horses; 4.5%) and stables concentrated on the management of customers' leisure horses (4.5%).

The disease communication activity of horse entrepreneurs was observed by combining Icelandic horse stables (n = 13; see Figure 1) and 45 horse trekking enterprises (often populated by Icelandic horses). Activity was found in 17% of these 58 enterprises, and it was quite equally distributed over the Southern (n = 3), Northern (n = 3), and Eastern (n = 4) parts of Finland. Horse entrepreneurs' communication was concentrated on the hygiene of customers' equipment if these customers had participated in horse-related activities in other stables. In these rural enterprises, customers' cars were asked to leave the parking areas (17%) and dogs were not welcomed (10%), but both requirements were due to general consumer safety and entrepreneurs' home privacy rather than the risk of contagious disease.

All of those entrepreneurs who took biosecurity seriously asked their customers to wash their clothes or use different clothes in different stables. Most often, disinfection was seen as an alternative to washing. Not every entrepreneur provided detailed washing and disinfection instructions, and it seemed that it was often left to the customers to learn how to perform either properly. Washing and disinfection were mostly related to clothing, and these did not always include shoes, helmets, or other horses' or riders' equipment. Only three (14%) of entrepreneurs guided customers to wash their hands between different stables or after leaving a stable, two (9%) did not allow the transfer of horses' non-disinfected equipment between stables, and one (4.5%) reminded customers of disinfect their car's rubber mat under dirty shoes.

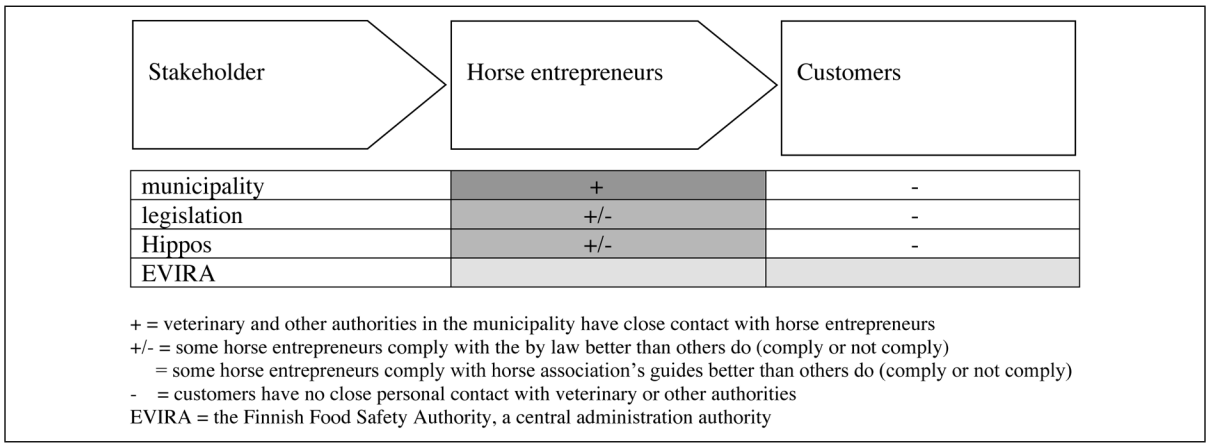
It was mostly Icelandic horse entrepreneurs who offered detailed washing and disinfection instructions, which included Virkon-S disinfection solution and 60°C heat in a washing machine or sauna. One website of Icelandic horse enterprise promised more information to customers on the phone after registration for riding activities. Traditional riding school customers were directed to either visit only one stable or avoid visits to any stables if there were recent outbreaks of contagious diseases. In one riding school, riders were informed to always wait one month before visiting this stable after a visit to another stable. In another riding school, these restrictions could be avoided by careful Virkon-S disinfection of the rider's equipment. In one stable populated by customers' leisure riding horses, disinfection of horse transport vehicles other than the stable's own was required and visitors were advised to avoid unnecessarily touching horses because of security and the possibility of spreading contagious diseases.

In closer customer relationships 14 horse entrepreneurs were met. They were those who emphasized preventive hygiene operations at their websites (n = 22). Based on their communication with a first author they can be divided into two types of horse entrepreneurs. Firstly, they responded to a core question of the customer and nothing more (79%). Or, secondly, they responded to the question and started to direct the customer to their services by referring to their websites (21%). However, none of the respondents referred to hygiene instructions and had no diseases communication activity in a direct relationship with a customer, who had a risky customer profile.

The low level contagious disease communication activity by horse entrepreneurs renders it plausible that their activities to prevent contagious diseases were also generally relatively low. In these cases, horse entrepreneurs have no close contacts with special stakeholders, such as lawmakers and different authorities. They might still have close contact with their association members or private veterinarians. However, they can comply with the law without these close contacts because their own previous experiences with disease outbreaks and information from authorities. These different combinations of close or distant contacts and their influence on stakeholder relationships is illustrated in Table 1.

In two Icelandic horse and horse trekking enterprises, horse entrepreneurs convinced their customers of the up-to-date vaccination status of their horses, but despite the existence of these vaccinations, they wanted to follow general guidelines and good practices and offer arguments for good general hygiene and biosecurity to their customers. The reasons for changing and washing clothes were also presented in

Table 1. The robustness of transmission channels in the biosecurity of the horse industry



several riding schools. A times, it was a horse entrepreneur who asked the customers to report if they had visited a contaminated stable. Equine influenza, herpes virus, and strangles outbreaks were mentioned. In those co-creative circumstances, customers can participate in the maintenance of the biosecurity of the enterprise, and disease information flowed from the customer to the horse entrepreneur. In this specific case, the control activity of the principal-agent relationship was on the side of the agent and the agent (customer) acted as a prosumer (cf. Toffler, 2013).

DISCUSSION

This preliminary study among horse entrepreneurs reveals the importance of some theoretical connections. Classic perspectives, such stakeholder management or analysis and the principal-agent model, are still relevant in management discussions (Pepper, Gosling, & Gore, 2015; Clegg, Geppert, & Hollinshead, 2018), and there can be a need to study relationships between different traditional concepts in order to find new and perhaps more complete perspectives. A new concept over traditional industry concept (business ecosystem by Moore 1998) was included but by respecting the nature and history of Finnish horse economy. Moore suggests that the term "industry" should be replaced since nowadays no-one cannot divide economic activities under specific industries. However, term "industry" could be replaced by term "business ecosystem" only when the involvement of other than equine-related sectors in Finnish context can be first shown. This study adopted a very specific perspective, that approach parallels the target of sustainable competitive advantage and ethics in business, which is not same as to create direct economic value for customers.

The perspective of prevention of contagious diseases differs also from the mainstream discussions of instrumental stakeholder management provided, for example, by Jones (1995) and Jones et al. (2018), where the main aim is a sustainable competitive advantage. Thus, in this case, the perspectives of Hoffmann (2018), where potential CSR paradoxes are primarily disproven, are parallel with the conditions of this study. Usually, CSR studies are focused on work conditions, workplaces, and the general conditions of human beings (see, e.g., Mena & Suddaby, 2016; Helfen, Schüßler, & Sydow, 2018). In contrast, cur-

rent study emphasizes (corporate social) responsibility in the context of animal well-being, although the actors are still human beings. Organizations have multiple stakeholders, such as employees, customers, clients, other organizations (e.g., suppliers), and even the public at large, who may value other measures of organizational performance (Morrow & McElroy, 2007), usually based on business efficiency, but biosecurity operations are the responsibility of the individual horse entrepreneur. According to previous reports (USDA, 2006; Rosanowski et al., 2012; Rosanowski et al., 2013), it is not sure if these responsibilities are fully implemented.

Horse entrepreneurs have the opportunity to manage one of their stakeholder groups, which can be achieved through their website communication. In the framework for effective stakeholder management (Yang et al., 2011), and in a study about banking industry (Carrasco et al., 2019) communication with stakeholders has been emphasized. Authors know that in general, horse owners vaccinate their horses (Koskinen, 2014a) but vaccination decisions are not made according customers' preferences. Prevention of contagious diseases, such as by washing hands, clothes and shoes before the arrival to the stable area, should be seen as a clear goal and a security issue in customer relations. From the horse entrepreneur's perspective, biosecurity and communication about biosecurity can be more important than a detailed analysis of stakeholders and their needs, so this case may challenge the traditional perspective of stakeholder identification and analysis.

In the prevention of contagious diseases, the chain of communication and instructions provides a principal-agent chain not only between public stakeholders, such as regulators and veterinary and environmental authorities at various administrative levels, but also between horse entrepreneurs and customers. This is the first investigation which can show that horse entrepreneurs have a double role as an agent and a principal. From this perspective it remains crucial to identify and analyze stakeholders' behaviors in order to investigate how well the instructions are followed. This is a critical success factor in a process of biosecurity management. Horse entrepreneurs should know whether their customers take their instructions seriously. This monitoring is a moral ("should do") dimension of stakeholder theory (Jones, 1995) and an opportunity to construct a co-creative process of stakeholder management. Based on empirical findings, it appears likely that horse entrepreneurs do not fully understand the idea of co-creation of biosecurity. Thus, the typical problems of principal-agent model, such as the agent's incentives and the level of effort (Barron & Gjerde, 1997), are present in this study. Assessing stakeholder relationships requires measuring the behaviors and attitudes of both the firm and particular stakeholders (Jones et al., 2018). In the future, customers' real actions and the visible actions of horse entrepreneurs when interacting with their customers should be monitored.

Horse entrepreneurs receive multiple instructions from the Finnish Trotting and Breeding Association, Finnish Equestrian Association, and even breeders' associations. Through the lens of stakeholder relationship management and information flow between stakeholders, it can be expected that disease communication activity by Icelandic horse enterprises depends on the Finnish Icelandic Horse Association's active role in the communication about contagious diseases to their member stables. As a further study, the quality of this communication and these instructions should be investigated. It would also be important to know how much these associations influence the behavior of horse entrepreneurs and to identify the agents and the principals in these tripartite association-horse entrepreneur-customer relationships.

In this study design, the power of social media was trusted. This is a limiting factor of current study. This choice restricts the investigation and therefore the generalizability of the findings to those horse enterprises that have websites and active Facebook groups. Control and prevention of infection are suitable

exercises for co-creation activities between stakeholders (Van Woezik et al., 2016) and between horse entrepreneurs and their customers on web-based communication channels, but a co-creative power is not fully realized until a real outbreak situation. In such a situation, there will likely be verbal instructions and more detailed written instructions presented in the physical environment of the infected stable. From the perspective of effective biosecurity practices, these stakeholder communication techniques should then be strongly emphasized. It has been found that firms and their stakeholders have different information interests in social media (Carrasco et al., 2019) and therefore, in the case of disease outbreak it is a big question if it is worthwhile to post strict instructions online.

CONCLUSION

In this research on stakeholder management and information flows, qualitative data from the disease prevention activity of horse entrepreneurs was collected. It can be concluded that it is uncommon for horse entrepreneurs to communicate the threat of contagious diseases to their customers. This shows weaknesses in the chain of principal-agent relationships, which are part of the analyzed normative instrumental stakeholder management in this branch of the equine industry.

However, this lack of communication may be due to the good animal health situation of Finland and the lack of many serious equine diseases or, by contrast, to the non-business nature of many Finnish horse enterprises. Customers' traffic from one stable to another was recognized by some horse entrepreneurs, particularly in Icelandic horse and horse trekking enterprises, and instructions were offered for these situations. Nevertheless, biosecurity plans were not visualized, restrictions after international journeys were not introduced, and customers' hand hygiene was often neglected. The biosecurity operations generally implemented in Finnish farms populated by cows, pigs, and poultry were not seen to contribute economic value to a successful horse enterprise.

This perspective, which combines the principal-agent perspective and stakeholder analysis, is unique. Analysis reveals the general importance of seeking sensible connections between traditional theories about networking and/or multi-level relationships. Furthermore, these two perspectives have connections with CSR both in general and in the specific case of the prevention of diseases in the horse industry. Analysis also reveals the importance of industry-level case studies: specific cases might show new connections between different paradigms, models, perspectives, and discussions.

The biosecurity weakness in a principal-agent relationship between a horse entrepreneur and a customer was identified, perhaps due to a complex and distant principal-agent chain between the entrepreneur and those authorities responsible for communicating about infectious diseases and preventive operations. Horse entrepreneurs should act as an agent in these relationships and follow their principal's instructions. The communication chain can break even before reaching the entrepreneur-customer level, where entrepreneurs act as principals and customers as agents, and therefore it is not able to guarantee biosecurity co-creation opportunities to customers. What is important is a horse entrepreneur's simultaneous role as an agent and a principal. The value of stakeholder management is visible if both roles can be recognized and carefully balanced.

The analysis of the study is based on limited branch, horse industry in Finnish rural context. The results show the main directions in this Finnish context, but are not closely related to the situations in other countries and in other branches of animals and their prevention of diseases. The results might provide some hints for them, however.

This study provides themes for further research. The reasons for the lack of information on contagious disease prevention in horse entrepreneurs' web pages and other platforms require further study. Furthermore, the stakeholder management studies emphasize the simple principal-agent relationship, but they have not taken into account the longer chain of principal-agent relationships and their linkages with (instrumental) stakeholder management, which also calls for future research.

REFERENCES

Andersson Cederholm, E. (2012). Lifestyle enterprising: The 'ambiguity work' of Swedish horse-farmers. *Community Work & Family*, *18*(3), 317–333. doi:10.1080/13668803.2014.933091

Aromaa, M., Hautala, K., Oksanen, A., Sukura, A., & Näreaho, A. (2018). Parasite infections and their risk factors in foals and young horses in Finland. *Veterinary Parasitology: Regional Studies and Reports*, *12*, 35–38. PMID:31014805

Barron, J. M., & Gjerde, K. P. (1997). Peer pressure in an agency relationship. *Journal of Labor Economics*, *15*(2), 234–254. doi:10.1086/209832

Basole, R. C., Russellm, M. G., Huhtamäki, J., Rubens, N., Still, K., & Park, H. (2015). Understanding business ecosystem dynamics: A data-driven approach. *ACM Transactions on Management Information Systems*, *6*(2), 6. doi:10.1145/2724730

Benson, B. W., & Davidson, W. N. (2010). The relation between stakeholder management, firm value, and CEO compensation: A test of enlightened value maximization. *Financial Management*, *39*(3), 929–964. doi:10.1111/j.1755-053X.2010.01100.x

Carrasco, P. G., Saorin, E. G., & Osma, B. G. (2019). *Stakeholder and firm communication in social media: the case of twitter and corporate social responsibility information*. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3414210

Clegg, S., Geppert, M., & Hollinshead, G. (2018). Politicization and political contests in and around contemporary multinational corporations: An introduction. *Human Relations*, *71*(6), 745–765. doi:10.1177/0018726718755880

Donaldson, T. (1999). Making stakeholder theory whole. *Academy of Management Review*, *24*(2), 237–241.

Egels-Zandén, N., & Sandberg, J. (2009). Distinctions in descriptive and instrumental stakeholder theory: A challenge for empirical research. *Business Ethics (Oxford, England)*, *19*(1), 35–49. doi:10.1111/j.1467-8608.2009.01577.x

Finnish Trotting and Breeding Association. (2017). *Hevostalous lukuina 2017*. Retrieved from http://www.hippos.fi/files/21599/Hevostalous_lukuina_2017_lopullinen.pdf

Fontaine, C., Haarman, A., & Schmid, S. (2006). *The Stakeholder Theory*. Retrieved from https://pdfs.semanticscholar.org/606a/828294dafd62aeda92a77bd7e5d0a39af56f.pdf

Häggblom, M., Rantamäki-Lahtinen, L. & Vihinen, H. (2012). *Equine sector comparison between the Netherlands, Sweden and Finland. Equine life report.* MTT Agrifood Research Finland.

Hamilton, L. (2018). Bridging the Divide between Theory and Practice: Taking a Co-Productive Approach to Vet-Farmer Relationships. *Food Ethics*, *1*(3), 221–233. doi:10.100741055-017-0011-7

Helfen, M., Schüßler, E., & Sydow, J. (2018). How can employment relations in global value networks be managed towards social responsibility? *Human Relations*, *71*(12), 1640–1665. doi:10.1177/0018726718757060

Henley Centre. (2004). *A report of research on the horse industry in Great Britain.* Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69259/pb9255-bhic-report-040318.pdf

Hoffmann, J. (2018). Talking into (non) existence: Denying or constituting paradoxes of Corporate Social Responsibility. *Human Relations*, *71*(5), 668–691. doi:10.1177/0018726717721306

Jones, T. M. (1995). Instrumental stakeholder theory: A synthesis of ethics and economics. *Academy of Management Review*, *20*(2), 404–437. doi:10.5465/amr.1995.9507312924

Jones, T. M., Harrison, J. S., & Felps, W. (2018). How applying instrumental stakeholder theory can provide sustainable competitive advantage. *Academy of Management Review*, *43*(3), 371–391. doi:10.5465/amr.2016.0111

Kerr, S. (2017). *Practical biosecurity recommendations for farm tour hosts*. Washington State University. Retrieved from https://research.wsulibs.wsu.edu/xmlui/handle/2376/11919

Key, S. (1999). Toward a new theory of the firm: A critique of stakeholder "theory". *Management Decision*, *37*(4), 317–328. doi:10.1108/00251749910269366

Koskinen, H. I. (2014a). A survey of horse owner's compliance with the Finnish vaccination program. *Journal of Equine Veterinary Science*, *34*(9), 1114–1117. doi:10.1016/j.jevs.2014.06.019

Koskinen, H. I. (2014b). Vaccination statistics and reality: How many horses are really vaccinated against equine influenza? *Journal of Agricultural Science and Technology A*, *4*(5), 443–448.

Leppälä, J., Lunner Kolstrup, C., Pinzke, S., Rautiainen, R., Saastamoinen, M., & Särkijärvi, S. (2015). Development of a Safety Management Web Tool for Horse Stables. *Animals (Basel)*, *5*(4), 1136–1146. doi:10.3390/ani5040402 PMID:26569319

Mäkinen, S., & Dedehayir, O. (2012). Business ecosystem evolution and strategic considerations: a literature review. *18th international ICE conference on engineering, technology and innovation*. Retrieved from https://ieeexplore.ieee.org/abstract/document/6297653

Mena, S., & Suddaby, R. (2016). Theorization as institutional work: The dynamics of roles and practices. *Human Relations*, *69*(8), 1669–1708. doi:10.1177/0018726715622556

Miles, S. (2017). Stakeholder Theory Classification: A Theoretical and Empirical Evaluation of Definitions. *Journal of Business Ethics*, *142*(3), 437–459. doi:10.100710551-015-2741-y

Moore, J. F. (1998). The rise of a new corporate form. *The Washington Quarterly*, *21*(1), 167–181. doi:10.1080/01636609809550301

Morgan, G. (2006). *Images of organization*. Thousand Oaks, CA: Sage.

Morrow, P., & McElroy, J. (2007). Efficiency as a mediator in turnover—Organizational performance relations. *Human Relations*, *60*(6), 827–849. doi:10.1177/0018726707080078

Pedraza-Acosta, I., & Mouritsen, J. (2018). Dynamisms of financialization: Circuits of power in globalized production networks. *Human Relations*, *71*(6), 845–866. doi:10.1177/0018726717751612

Peltoniemi, M., & Vuori, E. (2004). Business ecosystem as the new approach to complex adaptive business environments. *Proceedings of eBusiness Research Forum*.

Pepper, A., Gosling, T., & Gore, J. (2015). Fairness, envy, guilt and greed: Building equity considerations into agency theory. *Human Relations*, *68*(8), 1291–1314. doi:10.1177/0018726714554663

Pussinen, S., & Thuneberg, T. (2014). Hevosala vaikuttaa, työllistää ja liikuttaa. In A. Laitinen & S. Mäki-Tuuri (Eds.), *Hevoset ja kunta – rajapintoja. Ypäjä: Hippolis – Hevosalan osaamiskeskus ry*.

Rantamäki-Lahtinen, L. & Vihinen, H. (2004). *The role of equine industries in Finnish rural development - rural entrepreneurship and policy perspectives*. Paper to be presented in NJF seminar no 367 "Horse management –premises and landscape", Alnarp.

Rosanowski, S. M., Cogger, N., & Rogers, C. W. (2013). An investigation of the movement patterns and biosecurity practices on Thoroughbred and Standardbred stud farms in New Zealand. *Preventive Veterinary Medicine*, *108*(2-3), 178–187. doi:10.1016/j.prevetmed.2012.08.003 PMID:22939775

Rosanowski, S. M., Rogers, C. W., Cogger, N., Benschop, J., & Stevenson, M. A. (2012). The implementation of biosecurity practices and visitor protocols on non-commercial horse properties in New Zealand. *Preventive Veterinary Medicine*, *107*(1-2), 85–94. doi:10.1016/j.prevetmed.2012.05.001 PMID:22703981

Sigurdardottir, I., & Steinthorsson, R. S. (2011). *Entrepreneurs or not - how do owners of a horse farm define themselves?* Paper to be presented at the 21st Nordic Academy of Management Conference, Stockholm, Sweden.

Silvius, G., & Schipper, R. (2019). Planning project stakeholder engagement from a sustainable development perspective. *Administrative Sciences*, *9*(2), 46. doi:10.3390/admsci9020046

Toffler, A. (2013). Revolutionary wealth. *New Perspectives Quarterly*, *30*(4), 122–130. doi:10.1111/npqu.11414

USDA. (2006). *Highlights of equine 2005 Part I: Baseline reference of equine health and management, 2005*. Retrieved from https://www.aphis.usda.gov/animal_health/nahms/equine/downloads/equine05/Equine05_is_PartI_Highlights.pdf

van Woezik, A. F. G., Braakman-Jansen, L. M. A., Kulyk, O., Siemons, L., & van Gemert-Pijnen, J. E. W. C. (2016). Tackling wicked problems in infection prevention and control: A guideline for co-creation with stakeholders. *Antimicrobial Resistance and Infection Control*, *5*(1), 20. doi:10.118613756-016-0119-2 PMID:27213040

Wilson, A. M. (1998). The Use of Mystery Shopping in the Measurement of Service Delivery. *Service Industries Journal*, *18*(3), 148–163. doi:10.1080/02642069800000037

Yang, J., Qiping Shen, G., Ho, M., Drew, D. S., & Xue, X. (2011). Stakeholder management in construction: An empirical study to address research gaps in previous studies. *International Journal of Project Management*, *29*(7), 900–910. doi:10.1016/j.ijproman.2010.07.013

Zarewa, G. A. (2019). Barriers to effective stakeholder management in the delivery of multifarious infrastructure projects (MIPs). *Journal of Engineering, Project, and Production Management*, *9*(2), 85–96. doi:10.2478/jeppm-2019-0010

KEY TERMS AND DEFINITIONS

Biosecurity Weakness: Identified in a principal-agent relationship between a horse entrepreneur and a customer, perhaps due to a complex and distant principal-agent chain between the entrepreneur and those authorities responsible for communicating about infectious diseases and preventive operations.

Communication Chain: Covers horse business with full- or part-time horse-related enterprises.

Double Role: In the context of this chapter, the horse entrepreneurs have a double role as an agent and a principal.

Equine Industry: Covers horse business with full- or part-time horse-related enterprises and workers.

Instrumental Stakeholder Theory: Integrates stakeholders of business and society, and is the synthesis of ethics and economics.

Principal-Agent/Principal-Agent Relationship: The chain of principal-agent relationship, where one (or more) actor has simultaneously both the role of principal and the agent.

Principal-Agent Relationship: An arrangement in which one entity, e.g. legally, appoints another to act on its behalf.

Chapter 15
Mindfulness Approach to Ethical Consumption

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ABSTRACT

Consumer ethics has increasingly attracted attention by academics and practitioners in recent years. Nonetheless, research so far has mostly focused on understanding consumer's ethical judgments and the associations between those ethics-related general attitudes and selected antecedents drawn from Hunt-Vittel Theory of Ethics. Nonetheless, evidence in practice raises more serious doubts about validity of ethical judgments as a measure of consumer ethics, reminding the attitude-behaviour gap that has been long discussed in the literature. On the other hand, as the ethical consumption turns to the mainstream market, there has been a question whether antecedents of consumer ethical behaviour widely investigated in the literature will exert the same influence on mainstream consumer behaviour. This chapter proposes a conceptual framework arguing for new approach to understand and measure ethical consumption. Implications and research directions are also provided.

INTRODUCTION

Amid recent proliferation of research on consumer ethics, a substantial body of consumer ethics research focuses on consumers' judgements of questionable situations and drivers of those beliefs (e.g. Arli & Pekerti, 2016; Lu & Lu, 2010; Vitell, 2003; Vitell, Singh, & Paolillo, 2007). Nonetheless, those studies produce mixed findings, both in terms of the conceptualisation of ethical judgements and the direct associations between these judgements and their antecedents (Vitell et al., 2016). In reality, there exists a disparity between consumers' concern about ethics and their actual behavior, e.g. a Nielsen survey reveals that 26% consumers indicate their desire for but only 10% acknowledge they purchase eco-friendly

DOI: 10.4018/978-1-7998-2704-7.ch015

products (Nielsen, 2015b). Several researchers construe this issue as the attitude-behavior gap and argued consumer ethics had better be measured in terms of behaviors rather than beliefs or judgements (Carrington, Zwick, & Neville, 2016). Drawing on the theory of planned behaviour, Sudbury-Riley and Kohlbacher (2016) note that attitude is just one of predictors of behaviour and may not translate into behaviour, as such, ethical consumption has better be measured in terms of behaviour. Accordingly, the Ethically Minded Consumer Behavior (EMCB) scale has recently been developed in this direction by Sudbury-Riley and Kohlbacher (2016).

Because the EMCB scale conceptualises consumption choices made by consumers, Sudbury-Riley & Kohlbacher, 2016), for consumers to conduct ethically minded behaviour some degree of attention and awareness is required (Carrington, Neville, & Whitwell, 2010). Therefore, the potential impact of an individual's mindfulness as a mechanism that activates an individual's attentiveness to external cues is a plausible possibility. Indeed, Papies (2017) proposes a conceptual framework for behavioural change interventions, which includes mindfulness training as a mechanism to change the consumer habit underpinning the attitude – behaviour gap. Furthermore, recent research finds mainstream ethical consumption is not usually rational and not driven by ethical attitudes and values, which have been well investigated in previous studies (Davies & Gutsche, 2016; Devinney, Auger, & Eckhardt, 2010; Eckhardt, Belk, & Devinney, 2010). For example, the exploratory, qualitative research of Davies and Gutsche (2016) also reveals that consumers buy into ethics out of their absorption of ethical habits, self-perceptions and socio-cultural dynamics, even though they have little knowledge about ethics. Since nearly half of our daily behaviour and most consumption behaviour are habitual (Wood & Neal, 2009), it can be a tough challenge for marketers to break consumers' existing habits and gradually turn those habits into ethical ones. As such, the relationship between an individual's mindfulness and his/her ethical consumption presents an interesting research opportunity, potentially providing a range of theoretical and practical implications. As such, this chapter aims to propose a conceptual framework incorporating mindfulness and ethical consumer behaviour. Theoretical and managerial implications are also discussed, followed by suggestions of empirical research.

BACKGROUND

Over the past decades, in the marketing discipline there has been a considerable attention to ethical issues, but it was not until 1990s that research interest on consumer ethics started to surge (Vitell, Singh, & Paolillo, 2007). Earlier work on consumer ethics from their own perspective often centred around their ethics-related ideologies or general attitudes or traits (Vitell, Lumpkin, & Rawwas, 1991). Some research examined the extent of Machiavellianism among consumers using the Machiavellianism scale, which was initially developed in 1970 and republished in 2013 to measure ethical ideologies of business people (Christie & Geis, 2013). The 20-item Machiavellianism scale, which taps into one's beliefs of deceiving and manipulating for their own interest, relates to the (un)ethical aspect of an individual (Beller & Bosse, 2017; McLarnon & Tarraf, 2017). Extant literature also suggests another scale measuring one's ethical stance that is the Ethics Position Questionnaire (EPQ) developed by Forsyth (1980). The EPQ includes 20 indicators denoting one's relative position between idealism or relativism (Forsyth, 1980; Vitell, Lumpkin, & Rawwas, 1991). Meanwhile, some researchers attempted to investigate consumer's general attitudes relevant to ethics using the New Environmental Paradigm (NEP) scale developed by Dunlap and Van Liere (1978) and updated by Dunlap et al. (2000). The NEP scale identifies one's

worldview about the environment (Dunlap et al., 2000; Steg, Dreijerink, & Abrahamse, 2005). These scales nonetheless capture an individual's general traits or beliefs or philosophy, which are either stable and resistant to change hence pre-empting research on causal mechanisms (Beller & Bosse, 2017). It is well established that general attitudes or personality traits are not strongly related to behaviour or predict behaviour poorly in specific situations (Ajzen, 1989, 1991; Steg, Dreijerink, & Abrahamse, 2005).

A widely-acknowledged milestone in the emergence of consumer ethics research is the work of Muncy and Vitell (1992), introducing the Consumer Ethics Scale (CES). Intersecting business ethics and consumer behaviour literature, Muncy and Vitell (1992, p. 298) defined consumer ethics as 'the moral principles and standards that guide behavior of individuals or groups as they obtain, use, and dispose of goods and services' and operationalised the concept to measure consumers' judgments of certain behaviours across a range of ethically related situations. Originally, the CES included four distinct categories of specific ethical issues/situations, in which consumers' perceptions of actions being wrong are grouped under labels 'actively benefiting' from illegal activities, 'passively benefiting' at the seller's expense, 'deceptive, legal practices', and 'no harm activities' (Muncy & Vitell, 1992; Vitell & Muncy, 1992). This scale has been widely adopted in subsequent research (e.g. Polonsky et al., 2001; Rawwas, 1996; Steenhaut & van Kenhove, 2006). Later, Vitell and Muncy (2005) updated the scale and added a fifth dimension labelled as 'doing good' reflected by positive actions relating to doing good and recycling.

Nonetheless, critiques of the scale are inevitable. One problem of the scale is the mixed evidence on the dimensional structure and measures of the CES scale across studies, even in those that either of the authors of the scale joined, e.g. Vitell et al. (2016). For example it was found that consumers in some cultures are more likely to tolerate ethically questionable behaviour (Rawwas, 1996). Meanwhile, the two dimensions – 'deceptive, legal practices', and 'no harm activities' – turn to become ambiguous because some activities considered acceptable by some consumers perhaps harmful to others (such as burning a CD) (Vitell et al., 2016). These mixed findings have left the validity of the scale in doubt (Le & Kieu, 2019; Sudbury-Riley & Kohlbacher, 2016). Additionally, ethical judgments represent broad abstraction encompassing lower-order beliefs such as behavioural beliefs and normative beliefs, which are distinctively specified in the theory of reasoned action / theory of planned behaviour (Ajzen, 1991; Fishbein & Ajzen, 1975). This causes uncertainties for marketers as to what marketing programs they need to develop to cause changes in consumer attitude and behaviour. Furthermore, the gap between consumers' attitude and behaviour concerning ethical consumption in practice (c.f. Nielsen, 2015a) further jeopardises the prediction of ethical consumer behaviour (De Pelsmacker, Driesen, & Rayp, 2005; Fukukawa & Ennew, 2010). These problems have let some researchers argued ethical judgments are not a reliable measure of ethical consumption (Carrigan, Moraes, & Leek, 2011; Sudbury-Riley & Kohlbacher, 2016).

On the other hand, prior research has also examined the widely-accepted CES dimensions in their associations with selected antecedents drawn from Hunt and Vitell's (1986, 1993) general theory of marketing ethics (e.g. Rawwas, 1996, 2001; Vitell, Lumpkin, & Rawwas, 1991; Vitell, Paolillo, & Singh, 2006). Later, Hunt and Vitell (2006) revised the theory by specifying clearly two broad sets that constitute the general theory and could be relevant to consumption context: cultural factors and personal characteristics. A critical notion of this theory of ethics is that those factors hold the trigger of the psychological processes that lead to consumers' ethically-minded choices. Indeed, the development of CES and subsequent empirical research using this scale focused on explaining ethical judgements (e.g. Arli & Tjiptono, 2014; Vitell et al., 2016), with anticipation that these ethical judgements has impact on ethical intention and ultimately ethical behaviour in with general theories of consumer behaviour

(Hunt & Vitell, 1986). Indeed, the reasoned approach, which encompasses the theory of reasoned action (TRA) and theory of planned behaviour (TPB), posits that attitude toward the behavior, subjective norm, and perceived behavioral control jointly influence behavioral intention and ultimately behaviour (Fishbein & Ajzen, 2010)

The TRA/TPB have been applied in several studies seeking to predict and explain ethics-related behaviour (e.g. Chang, 1998; Lee, Jin, & Shin, 2018; Randall & Gibson, 1991; Vermeir & Verbeke, 2006, 2008). However, TRA/TPB are also subjected to criticism for the sufficiency and subsequently extended by adding more predictors such as self-identity, affect, and past behaviour (Ajzen, 2011; Shaw & Shiu, 2002; Shaw, Shiu, & Clarke, 2000). TRA/TPB are also criticised for its reasoned action assumption, not considering behaviours with limited cognitive efforts (Ajzen & Fishbein, 2005). The apparent attitude – behaviour gap in the ethical consumption context echoes the questions that remain contentious in extant literature. Those questions are concerned with not only behavioral measure but also the ability to inhibit automatic or spontaneous processes involved in habitual behaviour or in situations when people lack motivation or cognitive capacity to retrieve beliefs, attitudes and intentions in an effortful manner (Ajzen, 2011).

ETHICALLY MINDED CONSUMER BEHAVIOUR

Although the general theory of marketing ethics (Hunt & Vitell, 1986), later labeled as Hunt-Vitell Theory of Ethics (Hunt & Vitell, 2006), specifies psychological processes activated by environmental factors and personal characteristics leading to ethical judgments, behavioural intentions and behavior, research into consumer ethics so far has fallen short of considering actual behaviour (Carrigan, Moraes, & Leek, 2011; Sudbury-Riley & Kohlbacher, 2016). Some prior research examined specific type of ethics-related behaviour such as fair-trade products (De Pelsmacker, Driesen, & Rayp, 2005; Shaw, Shiu, & Clarke, 2000) or green purchase (Pepper, Jackson, & Uzzell, 2009; Schlegelmilch, Bohlen, & Diamantopoulos, 1996) or socially conscious purchase (Pepper, Jackson, & Uzzell, 2009). Overtime, researchers argued that such behaviours must be seen in a more holistic ways of living (Gilg, Barr, & Ford, 2005). Accordingly, the notion of ethical consumers has evolved from being used almost exclusively to describe green consumers being mindful of the environmental impact of their consumption to denote a much broader set of matters of conscience, including social concerns (Devinney, Auger, & Eckhardt, 2010). There are various alternative terms describing ethical consumers in the literature and in practice such as 'green', 'responsible'. 'sustainable', 'moral' and so on (Andorfer, 2015; Davies & Gutsche, 2016; Schlegelmilch & Öberseder, 2010). It has been called for a scale to be developed to tap into different consumer reactions of different strands of ethical consumption (Ailawadi et al., 2014). There is indeed one scale, the Socially Responsible Consumer Behaviour (SRCB) scale (Roberts, 1993, 1995) that has been developed to capture ethical consumption with both ecological and social dimensions. While the SRCB scale has the advantage of being behavioural by nature (Roberts, 1995), however the fast-changing world has pose threats to the scale validity (Sudbury-Riley & Kohlbacher, 2016).

As such, Sudbury-Riley and Kohlbacher (2016) recently developed the Ethically Minded Consumer Behavior (EMCB) scale, which captures the degree to which people perceive themselves as ethically minded (ecologically and socially conscious) when making consumption choices. Following Roberts (1993, 1995), Sudbury-Riley and Kohlbacher (2016) designed the scale asking questions pertaining actual ethical consumption across ecological/social dimensions and purchase/boycott behaviours. By

asking questions of actual behaviour, despite potential self-response bias, the scale still has the advantage over attitudinal or intentional scales (Sudbury-Riley & Kohlbacher, 2016). The Sudbury-Riley and Kohlbacher's (2016) EMCB scale comprises five dimensions: ECO-BUY, ECO-BOYCOTT, RECYCLE, CSR-BOYCOTT, and PAY-MORE. ECO-BUY refers to the intentional choice of environment-friendly products over other alternatives (e.g. 'When there is a choice, I always choose the product that contributes to the least amount of environmental damage'). ECO-BOYCOTT captures the refusal to purchase the products that do harm to the environment (e.g. 'If I understand the potential damage to the environment that some products can cause, I do not purchase those products'). RECYCLE is the intentional selection based on recycling (e.g. 'Whenever possible, I buy products packaged in reusable or recyclable containers'). CSR-BOYCOTT refers to the refusal to purchase the products that are not socially responsible (e.g. 'I do not buy products from companies that I know use sweatshop labor, child labor, or other poor working conditions'). PAY-MORE is the willingness to spend more for ethical products (e.g. 'I have paid more for environmentally friendly / socially responsible products when there is a cheaper alternative').

Another advantage of the EMCB scale is that its measures of ethical consumption relates to price, quality and value, just as Carrigan and Attalla (2001) argued that these factors could outweigh ethical criteria.. Differing to Roberts's (1993, 1995) SRCB scale, the EMCB scale includes the last dimension PAY-MORE, taking into account price premium to measure if consumers value the environmental and social aspects of the products they purchase. Price is argued to be one of external factor that may prevent the actualisation of ethical attitudes into behaviour (Davies & Gutsche, 2016). This is important as consumers may be demanded more environmennal and social resposibility from companies, they appear unwilling to pay premium price to bear that responsibility directly (Devinney, Auger, & Eckhardt, 2010). Furthermore, while acknowledging the usefulness of TRA/TRA in explaining ethical consumption in certain specific contexts, Sudbury-Riley and Kohlbacher (2016) sought to ask consumers about their current and past ethical behaviour, rather than intentions. Just as Carrigan *et al.* (2011) suggest that intentions fail to act reliably as a proxy for actual behaviour, thereby avoiding to overinflate the importance of ethics in actual consumption. Therefore, the EMCB scale potentially helps fill the attitude-behaviour gap in ethical consumption. As such, this chapter argues that as ethical consumption becomes mainstream, EMCB rather than ethical judgements should be the focus of future connsumet ethics research.

ETHICAL SOCIAL IDENTITY AND MINDFULNESS

In studying the influences on mainstream ethical consumption, several researchers argued that ethical values deeply held in consumers' mind do not necessarily drive the choice of mainstream ethical consumers (Davies & Gutsche, 2016; Devinney, Auger, & Eckhardt, 2010; Eckhardt, Belk, & Devinney, 2010). Indeed, the Hunt-Vitell Theory of Ethics specifies two groups of factors: cultural environment including religion, legal and political environment; and personal characteristics including value system, moral character and ethical sensitivity (Hunt & Vitell, 2006). Socio-cultural contexts appear to be absent from Hunt-Vitell's model. Davies and Gutsche (2016) criticised some prior research for relying on the assumption that consumers consciously actualise their own social and environmental concerns into actual buying behaviour, and thereby being abstracted from the surrounding context. Davies and Gutsche (2016) among others such as Eckhardt, Belk and Devinney (2010), Carrington, Neville and Whitwell (2010) also noticed some other previous research frames ethical consumers as on the fringe or niche markets seeking ethical products as alternative to mainstream products. In both just-mentioned research strands,

the sole cognitive approach to ethical consumption is argued to be debunked (Davies & Gutsche, 2016). This is because consumption is an experience that cannot be isolated from the socio-cultural context (Arnould & Thompson, 2005). In simplest term, for any consumers to be ethically minded about their behaviour, they need to be conscious of the socio-cultural environment and the potential impact of their behaviour on the environment. Expanding the assertion of Devinney, Auger and Eckhardt (2010) and Davies and Gutsche (2016) that the mainstream consumers are ethically influenced, rather than ethically led by moral beliefs or values, it could be believed that an ethical consumer social identity may be a more important influence on ethical behaviour.

Indeed, there have been several studies seeking to understand the socio-cultural premise of ethical consumption by focusing on ethical social identity, ethical consumption communities and socio-cultural factors (Chatzidakis, Shaw, & Allen, 2019; Davies & Gutsche, 2016). Nonetheless, these studies were mostly qualitative and narrowed to just the socio-cultural context of consumption, failing to integrating both individual and societal perspectives (Chatzidakis, Shaw, & Allen, 2019). For example, Papaoikonomou, Cascon-Pereira and Ryan (2016) charted a process in which consumers move beyond expressing their personal identity and construct a social identity constant social comparison of the in-group and the out-groups. Dholakia and Bagozzi (2002) provided an effortful theory for understanding consumer decision-making. One notion of the theory is that in decision-making situations involving higher monetary value, social identity may come into play in motivating consumer behaviours (Bagozzi, Dholakia, & Basuroy, 2003; Perugini & Bagozzi, 2004). It has also been argued for the distinction of two mechanisms maintaining and bolstering self-esteem concerning social identity (Shavitt 1990), corresponding to social adjustive and affiliation (Ashworth, Dacin, & Thomson, 2009). In the ethical consumption context, ethically social adjustive and ethical affiliation respectively refers to the impression from and sense of belonging/acceptance to the social groups that consumers perceive from their purchase and consumption of ethical products. Based on these discussions, it could be proposed that:

P1: (a) Socio-cultural environment, (b) ethically social adjustive and (c) ethical affiliation is positively related to EMCB

On the other hand, several researchers agreed that for ethical consumption becoming truly mainstream, consumers need to habituate the ethical aspects of consumptions and link that behaviour with other related behaviours (Davies & Gutsche, 2016; Devinney, Auger, & Eckhardt, 2010). Since most consumption behaviour are habitual (Wood & Neal, 2009), it appear to be needed to consider mechanism break consumers' existing habits and gradually turn those habits into ethical ones. While some authors suggested a limited number of deeply held beliefs influence the formation of new ethical consumption habits (Carrington, Neville, & Whitwell, 2014), other researchers argued that mainstream consumers – ethically influenced consumers – make their purchase / consumption choices out of their absorption of habits regardless the extent of ethical knowledge they have (Davies & Gutsche, 2016). For the mainstream markets, one may argue that the focus should be on how socio-cultural aspects may enters mainstream ethical consumers' decision-making. Thus, to include the socio-culture aspect is necessary yet not sufficient, as well as is potentially create an impasse of dual terms: personal values and social values. It Is worth noting that in the TPB model, Ajzen (2011) posited the cognitive influence on behaviour varies on a continuum, implying behavior ranging from reasoned action to spontaneous or habitual behaviour. When consumers lack motivation or cognitive ability to retrieve their beliefs, attitudes and intentions, their behaviours are argued to be spontaneous mode where sufficiently strong attitudes are required for automatically activat-

ing the behaviour (Fazio, 1990). Meanwhile, it is argued that as existing habits formed out of repeated performance, behavioural control is transferred from consciousness to critical external stimuli (Ajzen, 2011). In both cases, the potential impact of an individual's mindfulness as a mechanism that activates an individual's attentiveness to external cues is a plausible possibility. Indeed, Papies (2017) proposes a conceptual framework for behavioural change interventions, which includes mindfulness training as a mechanism to change the consumer habit underpinning the attitude – behaviour gap.

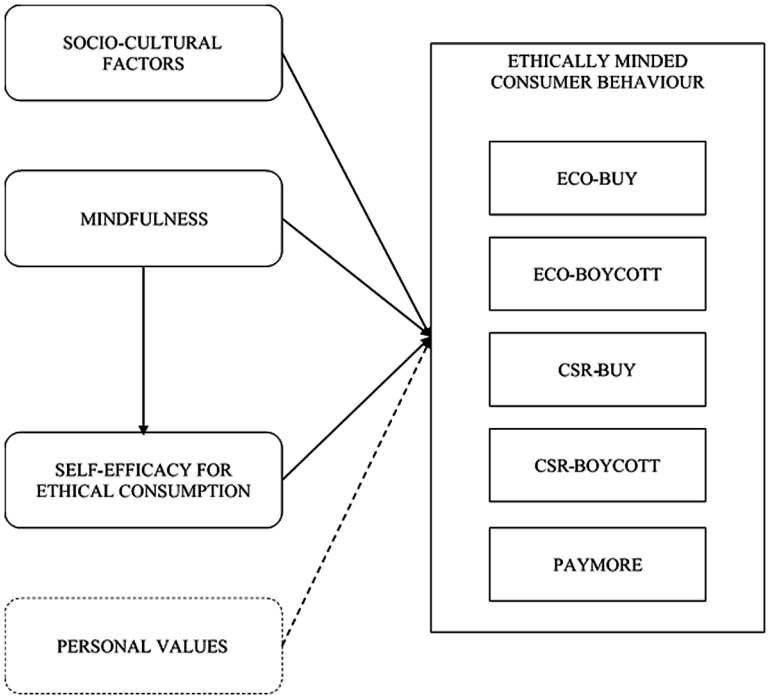
The concept of mindfulness, originated from Buddhism in the East, has emerged as a powerful psychological intervention (Xiao et al., 2017). Mindfulness is defined as 'the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment' (Kabat-Zinn, 2003, p. 145). Several self-report scales have been developed to measure mindfulness, either as a trait or state. Generally, human behaviour can be changed by inducing or changing the level of mindfulness (Langer & Moldoveanu, 2002). When being distracted, facing the complexity of the situation, an individual acts habitually (Wood & Neal, 2009). This can imply that when being mindful, the consumer can respond to ethical cues and make an ethical consumption choice rather than the habitual non-ethical. The current theorizing implies mindfulness can influence behaviour in two ways: (1) when being mindful, people can devote their cognitive ability to external ethical cues, mindful activities and valued outcomes; and then (2) they develop a self-control ability concerning ethics that can override the accessible non-ethical, habitual response in memory (Wood & Neal, 2009). On the one hand, it can be argued that, when being mindful, consumers can be attentive to ethical / social issues such as pollution or sweatshops and engage in non-routine behaviours such as paying premium price for environment-friendly / socially responsible products or services. In fact, prior research also provides evidence suggesting that mindfulness positively affects pro-environmental behaviours (Barbaro & Pickett, 2016). Moreover, much research emphasises that ethical consumption is a conscious choice (Carrigan, Szmigin, & Wright, 2004; Sudbury-Riley & Kohlbacher, 2016). Based on the above discussions, it could be proposed that:

P2: Mindfulness is positively related to EMCB

On the other hand, it is the ability to control over thoughts, feelings and behaviours underpins consumer habits (Wood & Neal, 2009). The concept of self-efficacy, or its compatible concept in Ajzen's (1991) Theory of Planned Behaviour refers to the general beliefs people hold about their capabilities pertaining to a specific domain when they face difficulties in decision making. The self-efficacy theory is consistent with the of planned behaviour in postulating that the strong self-efficacy people have in a specific domain, the more likely they engage in behaviour in that domain (Bandura, 2006). As discussed earlier, for the mainstream ethical consumers to habituate ethically minded behaviour, they would need strong beliefs and these beliefs would in turn lead to new perceptions of control over ethical behaviour in line with TPB (Ajzen, 1991), then the newly perceived control breaks into existing habits before the control is transferred to external ethical cues. Bearing in mind the role of mindfulness in influencing behaviour (Wood & Neal, 2009), it could be predicted that mindfulness can help people develop self-efficacy for ethical consumption (SEEC), which in turn can motivate them motivate them to overcome their resistance and engage in ethical consumption. In other words, SEEC is a potential *intervening mechanism* between mindfulness and ethical consumption behaviour.

P3: SEEC mediates the effects of Mindfulness on EMCB

Figure 1. Conceptual framework for mindfulness approach to ethical consumption



Integrating the above propositions, this chapter conceptualises a research model as in Figure 1 below. The conceptual framework also includes the concept of personal values that has been drawn from Hunt-Vittel Theory of Ethics (Hunt & Vitell, 2006). These values have been widely investigated in several studies such as religiosity (Arli & Pekerti, 2016; Vitell, Paolillo, & Singh, 2006) or moral character or ideology or intensity (Huang et al., 2012; Rawwas, Swaidan, & Oyman, 2005; Singhapakdi, Vitell, & Franke, 1999) or beliefs/values such as love of money (Singhapakdi et al., 2013; Tang & Liu, 2012) or individual-level cultural values (Arli & Tjiptono, 2014; Le & Kieu, 2019).

RESEARCH AGENDA

Given the novel nature of the EMCB scale, the validation of this newly developed ethical consumption scale in a developing market setting is warranted. It should be noted that in the development of the scale, Sudbury-Riley and Kohlbacher (2016) only tested the scale in in developed or quite developed market contexts Germany, Japan, United Kingdom and Hungary. While the authors acknowledged the differences in ethical beliefs across different parts of the Europe (Continental Europe versus United Kingdom; Western versus Eastern Europe) and attempted to include an Asian context (Japan), it should be noted that heterogeneity is also apparent in Asia and across developed and developing markets (Sheth, 2011). Needless to say, previous studies investigating consumer ethics have shown mixed findings across cultures (Rawwas et al., 2005; Vitell et al., 2016), and especially, limited research on consumer ethics has been done in Asian developing markets (Arli et al., 2015). As such, the empirical testing of the proposed model may consider a multicultural study to understand the differential impact of antecedents of EMCB.

Research into consumer ethics so far focuses much on developed markets such as North America and Europe, where currently hold larger share of ethical products (Nielsen, 2015a). Nonetheless, it is worth noting that nowadays consumers in developing markets also become more interested in seeking out and paying more for ethical products (Euromonitor, 2017; Nielsen, 2015). Furthermore, the EMCB was developed to measure the general ethical consumption behaviour. Empirical research may consider to control for product categories or market segments in order to understand ethically minded behaviour in specific contexts. As the EMCB scale has been tested using data collected through survey method (Le & Kieu, 2019; Sudbury-Riley, & Kohlbacher, 2016), future research could secure a behavioural measure in a laboratory setting or use of other methods to record actual behaviour in order to have a more reliable assessment of ethically minded consumer behaviour.

CONCLUSION

This study contributes to the body of knowledge that investigates the impact on consumer ethics. First, the argument for consumer ethics to be measured by behaviour (such as the EMCB scale) presents a novel direction much different to earlier research, focusing on ethical judgements, which perhaps are the active cognition of fringe consumers only. Second, drawing on extant literature, the paper proposes mindfulness represents an effortful approach to change behaviour towards ethical consumption. Mindfulness is argued to have both direct and indirect effects on SEEC, which in turn positively affects ethically minded consumer behaviours. This argument is consistent with Bandura's (2006) self-efficacy theory and Ajzen's (1991) theory of planned behaviour with regard to the role of self-efficacy or its compatible concept – perceived behaviour control in impacting behaviour. No published research has attempted to examine SEEC as the intervening mechanism in which mindfulness turns consumers' non-routine ethical responses into habitual ethical consumption behaviour. Third, the investigation of the EMCB scale in a nomological net includes antecedents in more market contexts also add validation for the scale. From a practical perspective, policy makers, academics and marketers can derive findings from empirical study understand the formation of ethical consumer behaviour. While one's personal values may be socio-culturally inherent their mindfulness can be trained (Papies, 2017; Vitell, Singh, & Paolillo, 2007). Once being trained mindfulness, mindful consumers can learn to change the habituated non-ethical behaviour that can cause negative outcomes; as well as they can become more attentive and aware of their experiences with socio-cultural situations, are not distracted with negative events and accept experiences without judgements. Policy makers and marketers can provide training for consumers to purchase or consume ethically.

ACKNOWLEDGMENT

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

REFERENCES

Ailawadi, K. L., Neslin, S. A., Luan, Y. J., & Taylor, G. A. (2014). Does retailer CSR enhance behavioral loyalty? A case for benefit segmentation. *International Journal of Research in Marketing*, *31*(2), 156–167. doi:10.1016/j.ijresmar.2013.09.003

Ajzen, I. (1989). Attitude structure and behavior. In A. R. Pratkanis, S. J. Breckler, & A. G. Greenwald (Eds.), Attitude Structure and Function (pp. 241–274). Academic Press.

Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179–211. doi:10.1016/0749-5978(91)90020-T

Ajzen, I. (2011). The theory of planned behaviour: Reactions and reflections. *Psychology & Health*, *26*(9), 1113–1127. doi:10.1080/08870446.2011.613995 PMID:21929476

Ajzen, I., & Fishbein, M. (2005). The influence of attitudes on behavior. In D. Albarracín, B. T. Johnson, & M. P. Zanna (Eds.), *The handbook of attitudes* (pp. 173–221). Mahwah, NJ: Lawrence Erlbaum Associates.

Andorfer, V. A. (2015). Ethical consumers. In J. D. Wright (Ed.), *International Encyclopedia of the Social & Behavioral Sciences* (2nd ed.; pp. 25–30). Oxford, UK: Elsevier. doi:10.1016/B978-0-08-097086-8.64139-9

Arli, D., & Pekerti, A. (2016). Investigating the influence of religion, ethical ideologies and generational cohorts toward consumer ethics: Which one matters? *Social Responsibility Journal*, *12*(4), 770–785. doi:10.1108/SRJ-08-2015-0112

Arli, D., & Tjiptono, F. (2014). The End of Religion? Examining the role of religiousness, materialism, and long-term orientation on consumer ethics in Indonesia. *Journal of Business Ethics*, *123*(3), 385–400. doi:10.100710551-013-1846-4

Arnould, E. J., & Thompson, C. J. (2005). Consumer Culture Theory (CCT): Twenty Years of Research. *The Journal of Consumer Research*, *31*(4), 868–882. doi:10.1086/426626

Ashworth, L., Dacin, P., & Thomson, M. (2009). Why on earth do consumers have relationships with marketers? Toward understanding the functions of brand relationships. In D. J. MacInnis, C. W. Park, & J. R. Priester (Eds.), *Handbook of brand relationships* (pp. 82–106). Armonk, NY: M. E. Sharpe.

Bagozzi, R. P., Dholakia, U. M., & Basuroy, S. (2003). How effortful decisions get enacted: The motivating role of decision processes, desires, and anticipated emotions. *Journal of Behavioral Decision Making*, *16*(4), 273–295. doi:10.1002/bdm.446

Bandura, A. (2006). Guide for constructing self-efficacy scales. In F. Pajares & T. Urdan (Eds.), *Self-Efficacy Beliefs of Adolescents* (Vol. 5, pp. 307–337). Greenwich, CT: Information Age Publishing.

Barbaro, N., & Pickett, S. M. (2016). Mindfully green: Examining the effect of connectedness to nature on the relationship between mindfulness and engagement in pro-environmental behavior. *Personality and Individual Differences*, *93*(Sup C), 137-142.

Beller, J., & Bosse, S. (2017). Machiavellianism has a dimensional latent structure: Results from taxometric analyses. *Personality and Individual Differences*, *113*(Sup C), 57-62.

Carrigan, M., & Attalla, A. (2001). The myth of the ethical consumer – do ethics matter in purchase behaviour? *Journal of Consumer Marketing*, *18*(7), 560–578. doi:10.1108/07363760110410263

Carrigan, M., Moraes, C., & Leek, S. (2011). Fostering Responsible communities: A community social marketing approach to sustainable living. *Journal of Business Ethics*, *100*(3), 515–534. doi:10.100710551-010-0694-8

Carrigan, M., Szmigin, I., & Wright, J. (2004). Shopping for a better world? An interpretive study of the potential for ethical consumption within the older market. *Journal of Consumer Marketing*, *21*(6), 401–417. doi:10.1108/07363760410558672

Carrington, M. J., Neville, B. A., & Whitwell, G. J. (2010). Why Ethical Consumers Don't Walk Their Talk: Towards a Framework for Understanding the Gap Between the Ethical Purchase Intentions and Actual Buying Behaviour of Ethically Minded Consumers. *Journal of Business Ethics*, *97*(1), 139–158. doi:10.100710551-010-0501-6

Carrington, M. J., Neville, B. A., & Whitwell, G. J. (2014). Lost in translation: Exploring the ethical consumer intention–behavior gap. *Journal of Business Research*, *67*(1), 2759–2767. doi:10.1016/j.jbusres.2012.09.022

Carrington, M. J., Zwick, D., & Neville, B. (2016). The ideology of the ethical consumption gap. *Marketing Theory*, *16*(1), 21–38. doi:10.1177/1470593115595674

Chang, M. K. (1998). Predicting unethical behavior: A comparison of the theory of reasoned action and the theory of planned behavior. *Journal of Business Ethics*, *17*(16), 1825–1834. doi:10.1023/A:1005721401993

Chatzidakis, A., Shaw, D., & Allen, M. (2019). A psycho-social approach to consumer ethics. *Journal of Consumer Culture*. doi:10.1177/1469540518773815

Christie, R., & Geis, F. L. (2013). *Studies in Machiavellianism*, Academic Press. Davies, I. A., & Gutsche, S. (2016). Consumer motivations for mainstream "ethical" consumption. *European Journal of Marketing*, *50*(7/8), 1326–1347.

De Pelsmacker, P., Driesen, L., & Rayp, G. (2005). Do consumers care about ethics? Willingness to pay for fair-trade coffee. *The Journal of Consumer Affairs*, *39*(2), 363–385. doi:10.1111/j.1745-6606.2005.00019.x

Devinney, T. M., Auger, P., & Eckhardt, G. M. (2010). *The Myth of the Ethical Consumer*. Cambridge, UK: Cambridge University Press.

Dholakia, U. M., & Bagozzi, R. P. (2002). Mustering motivation to enact decisions: How decision process characteristics influence goal realization. *Journal of Behavioral Decision Making*, *15*(3), 167–188. doi:10.1002/bdm.408

Dunlap, R. E., & Van Liere, K. D. (1978). The "new environmental paradigm". *The Journal of Environmental Education*, *9*(4), 10–19. doi:10.1080/00958964.1978.10801875

Dunlap, R. E., Van Liere, K. D., Mertig, A. G., & Jones, R. E. (2000). New trends in measuring environmental attitudes: measuring endorsement of the new ecological paradigm: a revised NEP scale. *The Journal of Social Issues*, *56*(3), 425–442. doi:10.1111/0022-4537.00176

Eckhardt, G. M., Belk, R., & Devinney, T. M. (2010). Why don't consumers consume ethically? *Journal of Consumer Behaviour*, *9*(6), 426–436. doi:10.1002/cb.332

Fazio, R. H. 1990). Multiple processes by which attitudes guide behavior: The MODE model as an integrative framework. Advances in Experimental Social Psychology, 23, 75-109.

Fishbein, M., & Ajzen, I. (1975). *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*. Reading, MA: Addison-Wesley Pub.

Fishbein, M., & Ajzen, I. (2010). *Predicting and Changing Behavior: The Reasoned Action Approach, New York*. New York: Psychology Press.

Forsyth, D. R. (1980). A taxonomy of ethical ideologies. *Journal of Personality and Social Psychology*, *39*(1), 175–184. doi:10.1037/0022-3514.39.1.175

Fukukawa, K., & Ennew, C. (2010). What we believe is not always what we do: An empirical investigation into ethically questionable behavior in consumption. *Journal of Business Ethics*, *91*(Sup 1), 49-60.

Gilg, A., Barr, S., & Ford, N. (2005). Green consumption or sustainable lifestyles? Identifying the sustainable consumer. *Futures*, *37*(6), 481–504. doi:10.1016/j.futures.2004.10.016

Huang, C.-C., Lu, L.-C., You, C.-S., & Yen, S.-W. (2012). The impacts of ethical ideology, materialism, and selected demographics on consumer ethics: An empirical study in China. *Ethics & Behavior*, *22*(4), 315–331. doi:10.1080/10508422.2012.677627

Hunt, S. D., & Vitell, S. J. (1986). A general theory of marketing ethics. *Journal of Macromarketing*, *6*(1), 5–16. doi:10.1177/027614678600600103

Hunt, S. D., & Vitell, S. J. (1993). The general theory of marketing ethics: A retrospective and revision. In N. C. Smith & J. A. Quelch (Eds.), *Ethics in Marketing, JSTOR* (pp. 775–784). Homewood, IL: Irwin Inc.

Hunt, S. D., & Vitell, S. J. (2006). The general theory of marketing ethics: A revision and three questions. *Journal of Macromarketing*, *26*(2), 143–153. doi:10.1177/0276146706290923

Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science and Practice*, *10*(2), 144–156. doi:10.1093/clipsy.bpg016

Langer, E. J., & Moldoveanu, M. (2002). Mindfulness research and the future. *The Journal of Social Issues*, *56*(1), 129–139. doi:10.1111/0022-4537.00155

Le, T. D., & Kieu, T. A. (2019). Ethically minded consumer behaviour in Vietnam: An analysis of cultural values, personal values, attitudinal factors and demographics. *Asia Pacific Journal of Marketing and Logistics*, *31*(3), 609–626. doi:10.1108/APJML-12-2017-0344

Lee, H., Jin, Y., & Shin, H. (2018). Cosmopolitanism and ethical consumption: An extended theory of planned behavior and modeling for fair trade coffee consumers in South Korea. *Sustainable Development*, *26*(6), 822–834. doi:10.1002d.1851

Lu, L.-C., & Lu, C.-J. (2010). Moral philosophy, materialism, and consumer ethics: An exploratory study in Indonesia. *Journal of Business Ethics*, *94*(2), 193–210. doi:10.100710551-009-0256-0

McLarnon, M., & Tarraf, R. (2017). The dark triad: Specific or general sources of variance? A bifactor exploratory structural equation modeling approach. *Personality and Individual Differences*, *112*(Sup C), 67-73.

Muncy, J. A., & Vitell, S. J. (1992). Consumer ethics: An investigation of the ethical beliefs of the final consumer. *Journal of Business Research*, *24*(4), 297–311. doi:10.1016/0148-2963(92)90036-B

Nielsen. (2015a). *The sustainability imperative: New insights on consumer expectations*. Retrieved from https://www.nielsen.com/content/dam/nielsenglobal/dk/docs/global-sustainability-report-oct-2015.pdf

Nielsen. (2015b). *Sustainability influences purchase intent of Vietnamese consumers*. Retrieved from http://www.nielsen.com/content/dam/nielsenglobal/vn/docs/PR_EN/Vietnam_CSR%20release_EN.pdf

Papaoikonomou, E., Cascon-Pereira, R., & Ryan, G. (2016). Constructing and communicating an ethical consumer identity: A social identity approach. *Journal of Consumer Culture*, *16*(1), 209–231. doi:10.1177/1469540514521080

Papies, E. K. (2017). Situating interventions to bridge the intention–behaviour gap: A framework for recruiting nonconscious processes for behaviour change. *Social and Personality Psychology Compass*, *11*(7), e12323. doi:10.1111pc3.12323

Pepper, M., Jackson, T., & Uzzell, D. (2009). An examination of the values that motivate socially conscious and frugal consumer behaviours. *International Journal of Consumer Studies*, *33*(2), 126–136. doi:10.1111/j.1470-6431.2009.00753.x

Perugini, M., & Bagozzi, R. P. (2004). The distinction between desires and intentions. *European Journal of Social Psychology*, *34*(1), 69–84. doi:10.1002/ejsp.186

Polonsky, M. J., Brito, P. Q., Pinto, J., & Higgs-Kleyn, N. (2001). Consumer ethics in the European Union: A comparison of Northern and Southern views. *Journal of Business Ethics*, *31*(2), 117–130. doi:10.1023/A:1010780526643

Randall, D. M., & Gibson, A. M. (1991). Ethical decision making in the medical profession: An application of the theory of planned behavior. *Journal of Business Ethics*, *10*(2), 111–212. doi:10.1007/BF00383614

Rawwas, M., Swaidan, Z., & Oyman, M. (2005). Consumer ethics: A cross-cultural study of the ethical beliefs of Turkish and American consumers. *Journal of Business Ethics*, *57*(2), 183–195. doi:10.100710551-004-5092-7

Rawwas, M. Y. (1996). Consumer Ethics: An empirical investigation of the ethical beliefs of Austrian consumers. *Journal of Business Ethics*, *15*(9), 1009–1019. doi:10.1007/BF00705579

Rawwas, M. Y. (2001). Culture, personality and morality: A typology of international consumers' ethical beliefs. *International Marketing Review*, *18*(2), 188–211. doi:10.1108/02651330110390006

Roberts, J. A. (1993). Sex differences in socially responsible consumers' behavior. *Psychological Reports*, *73*(1), 139–148. doi:10.2466/pr0.1993.73.1.139

Roberts, J. A. (1995). Profiling levels of socially responsible consumer behavior: A cluster analytic approach and its implications for marketing. *Journal of Marketing Theory and Practice*, *3*(4), 97–117. doi:10.1080/10696679.1995.11501709

Schlegelmilch, B. B., Bohlen, G. M., & Diamantopoulos, A. (1996). The link between green purchasing decisions and measures of environmental consciousness. *European Journal of Marketing*, *30*(5), 35–55. doi:10.1108/03090569610118740

Schlegelmilch, B. B., & Öberseder, M. (2010). Half a century of marketing ethics: Shifting perspectives and emerging trends. *Journal of Business Ethics*, *93*(1), 1–19. doi:10.100710551-009-0182-1

Shavitt, S. (1990). The role of attitude objects in attitude functions. *Journal of Experimental Social Psychology*, *26*(2), 124–148. doi:10.1016/0022-1031(90)90072-T

Shaw, D., & Shiu, E. (2002). The role of ethical obligation and self-identity in ethical consumer choice. *International Journal of Consumer Studies*, *26*(2), 109–116. doi:10.1046/j.1470-6431.2002.00214.x

Shaw, D., Shiu, E., & Clarke, I. (2000). The contribution of ethical obligation and self-identity to the theory of planned behaviour: An exploration of ethical consumers. *Journal of Marketing Management*, *16*(8), 879–894. doi:10.1362/026725700784683672

Sheth, J. N. (2011). Impact of emerging markets on marketing: Rethinking existing perspectives and practices. *Journal of Marketing*, *75*(4), 166–182. doi:10.1509/jmkg.75.4.166

Singhapakdi, A., Vitell, S., Lee, D.-J., Nisius, A., & Yu, G. (2013). The influence of love of money and religiosity on ethical decision-making in marketing. *Journal of Business Ethics*, *114*(1), 183–191. doi:10.100710551-012-1334-2

Singhapakdi, A., Vitell, S. J., & Franke, G. R. (1999). Antecedents, consequences, and mediating effects of perceived moral intensity and personal moral philosophies. *Journal of the Academy of Marketing Science*, *27*(1), 19–36. doi:10.1177/0092070399271002

Steenhaut, S., & van Kenhove, P. (2006). An empirical investigation of the relationships among a consumer's personal values, ethical ideology and ethical beliefs. *Journal of Business Ethics*, *64*(2), 137–155. doi:10.100710551-005-5905-3

Steg, L., Dreijerink, L., & Abrahamse, W. (2005). Factors influencing the acceptability of energy policies: A test of VBN theory. *Journal of Environmental Psychology*, *25*(4), 415–425. doi:10.1016/j.jenvp.2005.08.003

Sudbury-Riley, L., & Kohlbacher, F. (2016). Ethically minded consumer behavior: Scale review, development, and validation. *Journal of Business Research*, *69*(8), 2697–2710. doi:10.1016/j.jbusres.2015.11.005

Tang, T., & Liu, H. (2012). Love of money and unethical behavior intention: Does an authentic supervisor's personal integrity and character (ASPIRE) make a difference? *Journal of Business Ethics*, *107*(3), 295–312. doi:10.100710551-011-1040-5

Vermeir, I., & Verbeke, W. (2006). Sustainable food consumption: Exploring the Consumer "attitude – behavioral intention" gap. *Journal of Agricultural & Environmental Ethics*, *19*(2), 169–194. doi:10.100710806-005-5485-3

Vermeir, I., & Verbeke, W. (2006). (2008). Sustainable food consumption among young adults in Belgium: Theory of planned behaviour and the role of confidence and values. *Ecological Economics*, *64*(3), 542–553. doi:10.1016/j.ecolecon.2007.03.007

Vitell, S. J. (2003). Consumer Ethics Research: Review, Synthesis and Suggestions for the Future. *Journal of Business Ethics*, *43*(1/2), 33–47. doi:10.1023/A:1022907014295

Vitell, S. J., King, R. A., Howie, K., Toti, J.-F., Albert, L., Hidalgo, E. R., & Yacout, O. (2016). Spirituality, moral identity, and consumer ethics: A multi-cultural study. *Journal of Business Ethics*, *139*(1), 147–160. doi:10.100710551-015-2626-0

Vitell, S. J., Lumpkin, J. R., & Rawwas, M. (1991). Consumer ethics: An investigation of the ethical beliefs of elderly consumers. *Journal of Business Ethics*, *10*(5), 365–375. doi:10.1007/BF00383238

Vitell, S. J., & Muncy, J. (1992). Consumer ethics: An empirical investigation of factors influencing ethical judgments of the final consumer. *Journal of Business Ethics*, *11*(8), 585–597. doi:10.1007/BF00872270

Vitell, S. J., & Muncy, J. (2005). The Muncy-Vitell consumer ethics scale: A modification and application. *Journal of Business Ethics*, *62*(3), 267–275. doi:10.100710551-005-7058-9

Vitell, S. J., Paolillo, J., & Singh, J. (2006). The Role of money and religiosity in determining consumers' ethical beliefs. *Journal of Business Ethics*, *64*(2), 117-24.

Vitell, S. J., Singh, J. J., & Paolillo, J. (2007). Consumers' ethical beliefs: The roles of money, religiosity and attitude toward business. *Journal of Business Ethics*, *73*(4), 369–379. doi:10.100710551-006-9212-4

Wood, W., & Neal, D. T. (2009). The habitual consumer. *Journal of Consumer Psychology*, *19*(4), 579–592. doi:10.1016/j.jcps.2009.08.003

Xiao, Q., Yue, C., He, W., & Yu, J.-Y. (2017). The Mindful Self: A Mindfulness-Enlightened Self-view. *Frontiers in Psychology*, *8*, 1752. doi:10.3389/fpsyg.2017.01752 PMID:29081754

ADDITIONAL READING

Hunt, S. D., & Vitell, S. J. (1986). A General theory of marketing ethics. *Journal of Macromarketing*, *6*(1), 5–16. doi:10.1177/027614678600600103

Hunt, S. D., & Vitell, S. J. (2006). The general theory of marketing ethics: A revision and three questions. *Journal of Macromarketing*, *26*(2), 143–153. doi:10.1177/0276146706290923

Sudbury-Riley, L., & Kohlbacher, F. (2016). Ethically minded consumer behavior: Scale review, development, and validation. *Journal of Business Research*, *69*(8), 2697–2710. doi:10.1016/j.jbusres.2015.11.005

Vitell, S. J., & Muncy, J. (1992). Consumer ethics: An empirical investigation of factors influencing ethical judgments of the final consumer. *Journal of Business Ethics*, *11*(8), 585–597. doi:10.1007/BF00872270

Wood, W., & Neal, D. T. (2009). The habitual consumer. *Journal of Consumer Psychology*, *19*(4), 579–592. doi:10.1016/j.jcps.2009.08.003

KEY TERMS AND DEFINITIONS

Ethically-Minded Consumer Behaviour (EMCB): Captures the degree to which an individual perceives themselves as ethically minded when making consumption choices.

Mindfulness: Refers to the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment

Self-Efficacy for Ethical Consumption: Self-control that draws on ethical domain-specific and can override the accessible non-ethical, habitual response in memory.

Compilation of References

Abate, G. T., Borzaga, C., & Getnet, K. (2014). Cost-Efficiency and Outreach of Microfinance Institutions: Trade-Offs and the Role of Ownership. *Journal of International Development*, *26*(6), 923–932. doi:10.1002/jid.2981

Abdulai, A., & Tewari, D. D. (2017). Trade-off between outreach and sustainability of microfinance institutions: Evidence from sub-Saharan Africa. *Enterprise Development & Microfinance*, *28*(3), 162–181. doi:10.3362/1755-1986.16-00014

Abernathy, W. J. (1978). *The Productivih Dilemma*. Baltimore, MD: Johns Hopkins Univ. Press.

Abrahamsson, A. (2007). *Researching Sustainopreneurship-conditions, concepts, approaches, arenas and questions An invitation to authentic sustainability business forces. In 13th International Sustainable Development Research Conference* (pp. 10–12). Västerås: Mälardalens Högskola. Retrieved from https://andersabrahamsson.typepad.com/blog/files/researchingsustainopreneurship-abrahamsson.pdf

Acheampong, G. (2018). Microfinance, gender and entrepreneurial behaviour of families in Ghana. *Journal of Family Business Management*, *8*(1), 38–57. doi:10.1108/JFBM-09-2017-0028

Acosta, L., Magcale-Macandog, D., Kumar, K., Cui, X., Eugenio, E., Macandog, P., & Salvacion, A. (2016). The Role of Bioenergy in Enhancing Energy, Food and Ecosystem Sustainability Based on Societal Perceptions and Preferences in Asia. *Agriculture, 6*(2), 19. doi:10.3390/agriculture6020019

Adams, W. (2006). *The future of sustainability, re-thinking environment and development in the twentyfirst century*. The World Conservation Union.

Adema, W., Ali, N., Frey, V., Kim, H., Lunati, M., Piacentini, M., & Queisser, M. (2014). *Enhancing Women's Economic Empowerment through Entrepreneurship and Business Leadership in OECD Countries*. Academic Press.

Aghelie, A., Sorooshian, S., & Azizan, N. A. (2016). Research gap in sustainopreneurship. *Indian Journal of Science and Technology*, *9*(12). doi:10.17485/ijst/2016/v9i12/77648

Aherna, J., Cilliers, S., & Niemeläc, J. (2014). The concept of ecosystem services in adaptive urban planning and design: A framework for supporting innovation. *Landscape and Urban Planning*, *125*, 254–259. doi:10.1016/j.landurbplan.2014.01.020

Ahern, J. (2011). From fail-safe to safe-to-fail: Sustainability and resilience in the new urban world. *Landscape and Urban Planning*, *100*(4), 341–343. doi:10.1016/j.landurbplan.2011.02.021

Ahern, J. (2013). Urban landscape sustainability and resilience: The promise and challenges of integrating ecology with urban planning and design. *Landscape Ecology*, *28*(6), 1203–1212. doi:10.100710980-012-9799-z

Ahmad, N., & Seymour, R. G. (2008). *Defining Entrepreneurial Activity: Defining Supporting of Framework for Data Collection.* OECD Statistics Working Paper. Retrieved from https://www.oecd-ilibrary.org/docserver/243164686763.pdf

Aho, E., Cornu, J., Georghiou, L., & Subirá, A. (2006). *Creating an Innovative Europe*. Academic Press.

Ailawadi, K. L., Neslin, S. A., Luan, Y. J., & Taylor, G. A. (2014). Does retailer CSR enhance behavioral loyalty? A case for benefit segmentation. *International Journal of Research in Marketing*, *31*(2), 156–167. doi:10.1016/j.ijresmar.2013.09.003

Ajzen, I. (1989). Attitude structure and behavior. In A. R. Pratkanis, S. J. Breckler, & A. G. Greenwald (Eds.), Attitude Structure and Function (pp. 241–274). Academic Press.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179–211. doi:10.1016/0749-5978(91)90020-T

Ajzen, I. (2011). The theory of planned behaviour: Reactions and reflections. *Psychology & Health*, *26*(9), 1113–1127. doi:10.1080/08870446.2011.613995

Ajzen, I., & Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behavior*. Pearson.

Ajzen, I., & Fishbein, M. (2005). The influence of attitudes on behavior. In D. Albarracín, B. T. Johnson, & M. P. Zanna (Eds.), *The handbook of attitudes* (pp. 173–221). Mahwah, NJ: Lawrence Erlbaum Associates.

Al Omoush, K. S., Al-Qirem, R. M., & Al Hawatmah, Z. M. (2018). The degree of e-business entrepreneurship and long-term sustainability: An institutional perspective. *Information Systems and e-Business Management*, *16*(1), 29–56. doi:10.100710257-017-0340-4

Albors-Garrigos, J., de Miguel Molina, B., & de Miguel Molina, M. (2014). Positioning in the Global Value Chain as a Sustainable Strategy: A Case Study in a Mature Industry. *Administrative Sciences, 4*(2), 155–172. doi:10.3390/admsci4020155

Aldieri, L., & Vinci, C. (2018). Green Economy and Sustainable Development: The Economic Impact of Innovation on Employment. *Sustainability, 10*(10), 3541. doi:10.3390u10103541

Aldieri, L., & Vinci, C. P. (2019). Firm Size and Sustainable Innovation: A Theoretical and Empirical Analysis. *Sustainability*, *11*(10), 2775. doi:10.3390u11102775

Almor, T., & Hashai, N. (2004). The competitive advantage and strategic configuration of knowledge-intensive, small- and medium-sized multinationals: A modified resource-based view. *Journal of International Management*, *10*(4), 479–500. doi:10.1016/j.intman.2004.08.002

Alvarez, S. A., & Barney, J. B. (2007). Discovery and creation: Alternative theories of entrepreneurial action. *Strategic Entrepreneurship Journal*, *1*(1−2), 11–26. doi:10.1002ej.4

Alvarez, S. A., Barney, J. B., & Anderson, P. (2013). Forming and exploiting opportunities: The implications of discovery and creation processes for entrepreneurial and organizational research. *Organization Science*, *24*(1), 301–317. doi:10.1287/orsc.1110.0727

Alvarez, S. A., Young, S. L., & Woolley, J. L. (2015). Opportunities and institutions: A co-creation story of the king crab industry. *Journal of Business Venturing*, *30*(1), 95–112. doi:10.1016/j.jbusvent.2014.07.011

Ambec, S., & Lanoie, P. (2008). Does it pay to be green? A systematic overview. *The Academy of Management Perspectives*, *22*(4), 45–62. doi:10.5465/amp.2008.35590353

Amit, R., & Zott, C. (2001). Value creation in e-business. *Strategic Management Journal*, *22*(6-7), 493–520. doi:10.1002mj.187

Amran, A., Nabiha Abdul Khalid, S., Abdul Razak, D., & Haron, H. (2010). Development of MBA with specialisation in sustainable development: The experience of Universiti Sains Malaysia. *International Journal of Sustainability in Higher Education*, *11*(3), 260–273. doi:10.1108/14676371011058550

Anbarasan, P., & Sushil. (2018). Stakeholder engagement in sustainable enterprise: Evolving a conceptual framework, and a case study of ITC. *Business Strategy and the Environment*, *27*(3), 282–299. doi:10.1002/bse.1999

Andereck, K. L. (2009). Tourists' perceptions of environmentally responsible innovations at tourism businesses. *Journal of Sustainable Tourism*, *17*(4), 489–499. doi:10.1080/09669580802495790

Andersen, J. (2011). Strategic resources and firm performance. *Management Decision*, *49*(1), 87–98. doi:10.1108/00251741111094455

Andersen, P. D., Johnston, R., & Saritas, O. (2017). FTA and Innovation Systems. *Technological Forecasting and Social Change*, *115*, 236–239. doi:10.1016/j.techfore.2016.12.012

Andersson Cederholm, E. (2012). Lifestyle enterprising: The 'ambiguity work' of Swedish horse-farmers. *Community Work & Family*, *18*(3), 317–333. doi:10.1080/13668803.2014.933091

Andorfer, V. A. (2015). Ethical consumers. In J. D. Wright (Ed.), *International Encyclopedia of the Social & Behavioral Sciences* (2nd ed.; pp. 25–30). Oxford, UK: Elsevier. doi:10.1016/B978-0-08-097086-8.64139-9

Annim, S. K. (2012). Microfinance Efficiency: Trade-Offs and Complementarities between the Objectives of Microfinance Institutions and Their Performance Perspectives. *European Journal of Development Research*, *24*(5), 788–807. doi:10.1057/ejdr.2011.60

Arbolino, R., Boffardi, R., Lanuzza, F., & Ioppolo, G. (2018). Monitoring and evaluation of regional industrial sustainability: Evidence from Italian regions. *Land Use Policy*, *75*, 420–428. doi:10.1016/j.landusepol.2018.04.007

Arli, D., & Pekerti, A. (2016). Investigating the influence of religion, ethical ideologies and generational cohorts toward consumer ethics: Which one matters? *Social Responsibility Journal*, *12*(4), 770–785. doi:10.1108/SRJ-08-2015-0112

Arli, D., & Tjiptono, F. (2014). The End of Religion? Examining the role of religiousness, materialism, and long-term orientation on consumer ethics in Indonesia. *Journal of Business Ethics*, *123*(3), 385–400. doi:10.100710551-013-1846-4

Armendáriz, B., & Morduch, J. (2010). *The economics of microfinance* (2nd ed.). Cambridge, MA: MIT Press.

Arnould, E. J., & Thompson, C. J. (2005). Consumer Culture Theory (CCT): Twenty Years of Research. *The Journal of Consumer Research*, *31*(4), 868–882. doi:10.1086/426626

Aromaa, M., Hautala, K., Oksanen, A., Sukura, A., & Näreaho, A. (2018). Parasite infections and their risk factors in foals and young horses in Finland. *Veterinary Parasitology: Regional Studies and Reports*, *12*, 35–38. PMID:31014805

Arru, B., Furesi, R., Madau, F., & Pulina, P. (2019). Recreational Services Provision and Farm Diversification: A Technical Efficiency Analysis on Italian Agritourism. *Agriculture, 9*(2), 42. doi:10.3390/agriculture9020042

Arshed, N., Carter, S., & Mason, C. (2014). The ineffectiveness of entrepreneurship policy: Is policy formulation to blame? *Small Business Economics*, *43*(3), 639–659. doi:10.100711187-014-9554-8

Arzubiaga Orueta, U., Iturralde Jainaga, T., & Maseda García, A. (2012). The measurement of the entrepreneurial orientation in family firms: A critical review of the literature. [in Spanish]. *Revista de Empresa Familiar*, *2*(2), 57–71.

Ashworth, L., Dacin, P., & Thomson, M. (2009). Why on earth do consumers have relationships with marketers? Toward understanding the functions of brand relationships. In D. J. MacInnis, C. W. Park, & J. R. Priester (Eds.), *Handbook of brand relationships* (pp. 82–106). Armonk, NY: M. E. Sharpe.

Asia Development Bank. (2012). *The sustainable developmente timeline*. Asia Development Bank.

Atkinson, R., & Castro, D. (2008). *Digital quality of life*. The Information Technology and Innovation Foundation. Retrieved from https://www.itif.org/files/DQOL.pdf

Audretsch, D. B. (2009). Capital emprendedor y crecimiento económico. *Investigaciones Regionales*, *15*, 27–45.

Audretsch, D. B., & Stephan, P. (1996). Company-scientist Locational Links: The Case of Biotechnology. *The American Economic Review*, *86*(3), 641–652.

Awaworyi Churchill, S. (2018). Sustainability and depth of outreach: Evidence from microfinance institutions in sub-Saharan Africa. *Development Policy Review*, *36*(52), 676–695. doi:10.1111/dpr.12362

Bachtler, J., & Begg, I. (2018). Beyond Brexit: Reshaping policies for regional development in Europe. *Papers in Regional Science*, *97*(1), 151–170. doi:10.1111/pirs.12351

Bacic, K., & Aralica, Z. (2017). Regional competitiveness in the context of "New industrial policy" - the case of Croatia. *Zbornik Radova Ekonomskog Fakulteta U Rijeci-Proceedings of Rijeka Faculty of Economics, 35*(2), 551-582.

Backman, C. A., Verbeke, A., & Schulz, R. A. (2017). The Drivers of Corporate Climate Change Strategies and Public Policy: A New Resource-Based View Perspective. *Business & Society*, *56*(4), 545–575. doi:10.1177/0007650315578450

Bagozzi, R. P., Dholakia, U. M., & Basuroy, S. (2003). How effortful decisions get enacted: The motivating role of decision processes, desires, and anticipated emotions. *Journal of Behavioral Decision Making*, *16*(4), 273–295. doi:10.1002/bdm.446

Bailey, R. (2013). *Ecoregions*. New York: Springer.

Baines, C., & Smart, J. (1991). *A Guide to Habitat Creation*. London Ecology Unit.

Baker, T., & Nelson, R. E. (2005). Creating something from nothing: Resource construction through entrepreneurial bricolage. *Administrative Science Quarterly*, *50*(3), 329–366. doi:10.2189/asqu.2005.50.3.329

Bama, P. S., & Velmurugan, R. (2018). Factors Influencing Women Entrepreneurs in Coimbatore District. *International Journal of Pure and Applied Mathematics*, *19*(10).

Bandura, A. (2006). Guide for constructing self-efficacy scales. In F. Pajares & T. Urdan (Eds.), *Self-Efficacy Beliefs of Adolescents* (Vol. 5, pp. 307–337). Greenwich, CT: Information Age Publishing.

Barbaro, N., & Pickett, S. M. (2016). Mindfully green: Examining the effect of connectedness to nature on the relationship between mindfulness and engagement in pro-environmental behavior. *Personality and Individual Differences*, *93*(Sup C), 137-142.

Barbieri, J., Vasconcelos, I., Andreassi, T., & Vasconcelos, F. (2010). Inovação e sustentabilidade: Novos modelos e proposições. *Revista de Administração de Empresas*, *50*(2), 146–154. doi:10.1590/S0034-75902010000200002

Barcelona. (2011). *Smart city 22*. Retrieved from http://www.22barcelona.com

Barley, S. R., & Tolbert, P. S. (1997). Institutionalization and structuration: Studying the links between action and institution. *Organization Studies*, *18*(1), 93–117. doi:10.1177/017084069701800106

Barnett, M. (2007). Stakeholder Influence Capacity and the Variability of Financial Returns to Corporate Social Responsibility. *Academy of Management Review*, *32*(3), 794–816. doi:10.5465/amr.2007.25275520

Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, *17*(1), 99–120. doi:10.1177/014920639101700108

Barney, J. B., & Hesterly, W. S. (2007). *Administração estratégica e vantagem competitiva*. São Paulo: Pearson Prentice Hall.

Barney, J. B., & Wright, P. M. (1998). On becoming a strategic partner: The role of human resources in gaining competitive advantage. *Human Resource Management*, *37*(1), 31–46. doi:10.1002/(SICI)1099-050X(199821)37:1<31::AID-HRM4>3.0.CO;2-W

Baron, R. A. (2006). Opportunity recognition as pattern recognition: How entrepreneurs 'connect the dots' to identify new business opportunities. *The Academy of Management Perspectives*, *20*(1), 104–119. doi:10.5465/amp.2006.19873412

Barron, J. M., & Gjerde, K. P. (1997). Peer pressure in an agency relationship. *Journal of Labor Economics*, *15*(2), 234–254. doi:10.1086/209832

Barucic, A., & Umihanic, B. (2016). Entrepreneurship education as a factor of entrepreneurial opportunity recognition for starting a new business. *Management*, *2*(2), 27–44.

Basole, R. C., Russellm, M. G., Huhtamäki, J., Rubens, N., Still, K., & Park, H. (2015). Understanding business ecosystem dynamics: A data-driven approach. *ACM Transactions on Management Information Systems*, *6*(2), 6. doi:10.1145/2724730

Batchelor, C., & Butterworth, J. (2008). *Learning Alliance Briefing Note 9: Visioning* (draft). Retrieved from http://www.switchurbanwater.eu/la_guidance.php

Batista, N., Pereira, J., Moreira Carrizo, A., & Matos, N. (2019). Exploring the meaning of social innovation: A categorisation scheme based on the level of policy intervention, profit orientation and geographical scale. *Innovation*, 1–19. doi:10.1080/14479338.2019.1585188

Battilana, J., & Lee, M. (2014). Advancing research on hybrid organizing–Insights from the study of social enterprises. *The Academy of Management Annals*, *8*(1), 397–441. doi:10.1080/19416520.2014.893615

Batty, M. (2008). The size, scale, and shape of cities. *Science*, *319*(5864), 769–771. doi:10.1126cience.1151419 PMID:18258906

Becic, E., & Svarc, J. (2015). Smart Specialisation in Croatia: Between the Cluster and Technological Specialisation. *Journal of the Knowledge Economy*, *6*(2), 270–295. doi:10.100713132-015-0238-7

Belisent, J. (2010). *Getting clever about smart cities: new opportunities require new business models*. Forester for Ventor Strategy Professionals.

Bell, R., Jung, J., & Zacharilla, L. (2009). *Broadband economies: creating the community of the 21st century.* Intelligent Community Forum.

Beller, J., & Bosse, S. (2017). Machiavellianism has a dimensional latent structure: Results from taxometric analyses. *Personality and Individual Differences*, *113*(Sup C), 57-62.

Bellini, N., Grillo, F., Lazzeri, G., & Pasquinelli, C. (2017). Tourism and regional economic resilience from a policy perspective: Lessons from smart specialization strategies in Europe. *European Planning Studies*, *25*(1), 140–153. doi:10.1080/09654313.2016.1273323

Bell, S., & Morse, S. (2008). *Sustainability indicators: Measuring the immesurable.* Sterling.

Benner, M. (2014). From smart specialisation to smart experimentation Building a new theoretical framework for regional policy of the European Union. *Zeitschrift für Wirtschaftsgeographie*, *58*(1), 33–49. doi:10.1515/zfw.2014.0003

Benson, B. W., & Davidson, W. N. (2010). The relation between stakeholder management, firm value, and CEO compensation: A test of enlightened value maximization. *Financial Management*, *39*(3), 929–964. doi:10.1111/j.1755-053X.2010.01100.x

Berchicci, L., & Bodewes, W. (2005). Bridging environmental issues with new product development. *Business Strategy and the Environment*, *14*(5), 272–285. doi:10.1002/bse.488

Berger, I. E., Cunningham, P. H., & Drumwright, M. E. (2007). Mainstreaming corporate social responsibility: Developing markets for virtue. *California Management Review*, *49*(4), 132–157. doi:10.2307/41166409

Bergin-Seers, S., Breen, J., & Frew, E. (2008). The determinants and barriers affecting innovation management in SMTEs in the tourist park sector. *Tourism Recreation Research*, *33*(3), 245–253. doi:10.1080/02508281.2008.11081548

Berglund, H. (2007). Opportunities as existing and created: A study of entrepreneurs in the Swedish mobile internet industry. *Journal of Enterprising Culture*, *15*(03), 243–273. doi:10.1142/S0218495807000149

Bergset, L. (2015). The Rationality and Irrationality of Financing Green Start-Ups. *Administrative Sciences, 5*(4), 260–285. doi:10.3390/admsci5040260

Best, M. N., & Thapa, B. (2011). Environmental management in the Caribbean accommodations sector. *Tourism (Zagreb)*, *59*(2), 145–168.

Bhardwaj, G., Camillus, J. C., & Hounshell, D. A. (2006). Continual corporate entrepreneurial search for long-term growth. *Management Science*, *52*(2), 248–261. doi:10.1287/mnsc.1050.0477

Bhatti, W. A., Khan, M. N., Ahmad, A., Hussain, N., & Rehman, K. (2011). Sustaining Competitive Advantage through effective knowledge management. *African Journal of Business Management*, *5*(8), 3297–3301.

Bhatti, W. A., & Zaheer, A. (2014). The Role of Intellectual Capital in Creating and Adding Value to Organizational Performance: A Conceptual Analysis. *Electronic Journal of Knowledge Management*, *12*(3), 187–194. Retrieved from https://www.researchgate.net/publication/270505923_The_Role_of_Intellectual_Capital_in_Creating_and_Adding_Value_to_Organizational_Performance_A_conceptual_study

Birley, S., & Cromie, S. (1988). Social networks and entrepreneurial in Northern Ireland. *Proceedings of Action Conference*.

Bizer, C., Heath, T., & Berners-Lee, T. (2009). Linked data – the story so far. Special Issue on Linked Data. *International Journal on Semantic Web and Information Systems*. Retrieved from http://linkeddata.org/docs/ijswis-special-issue

Blanc, S., Massaglia, S., Brun, F., Peano, C., Mosso, A., & Giuggioli, N. R. (2019). Use of Bio-Based Plastics in the Fruit Supply Chain: An Integrated Approach to Assess Environmental, Economic, and Social Sustainability. *Sustainability, 11*(9), 2475. doi:10.3390u11092475

Blesa, A., Ripollés, M., & Monferrer, D. (2009). The influence of entrepreneurial and market orientations in the performance of Belgian and Spanish international new ventures. [in Spanish]. *Revista Española de Investigación de Marketing ESIC*, *13*(2), 7–29.

Blewitt, J. (2008). *Understanding sustainable development*. London: Earthscan.

Blomstermo, A., Eriksson, K., & Sharma, D. (2004). Domestic activity and knowledge development in the internationalization process of firms. *Journal of International Entrepreneurship*, *2*(3), 239–258. doi:10.1023/B:JIEN.0000032775.53005.59

Bocken, N. M. P. (2015). Sustainable venture capital - Catalyst for sustainable start-up success? *Journal of Cleaner Production*, *108*, 647–658. doi:10.1016/j.jclepro.2015.05.079

Bolton, S. C., Kim, R. C., & O'Gorman, K. D. (2011). Corporate Social Responsibility as a Dynamic Internal Organizational Process: A Case Study. *Journal of Business Ethics*, *101*(1), 61–74. doi:10.100710551-010-0709-5

Bolund, P., & Hunhammar, S. (1999). Ecosystem services in urban areas. *Ecological Economics*, *29*(2), 293–301. doi:10.1016/S0921-8009(99)00013-0

Boonyabancha, S. (2003). A decade of change: From the Urban Community Development Office (UCDO) to the Community Organizations Development Institute (CODI) in Thailand. Poverty Reduction in Urban Areas working paper 12. International Institute for Environment and Development.

Borras, S., & Jordana, J. (2016). When regional innovation policies meet policy rationales and evidence: A plea for policy analysis. *European Planning Studies*, *24*(12), 2133–2153. doi:10.1080/09654313.2016.1236074

Borrego, M., Foster, M. J., & Froyd, J. E. (2014). Systematic literature reviews in engineering education and other developing interdisciplinary fields. *Journal of Engineering Education*, *103*(1), 45–76. doi:10.1002/jee.20038

Borsekova, K., Vanova, A., & Vitalisova, K. (2017). Smart Specialization for Smart Spatial Development: Innovative Strategies for Building Competitive Advantages in Tourism in Slovakia. *Socio-Economic Planning Sciences*, *58*, 39–50. doi:10.1016/j.seps.2016.10.004

Bosma, N., & Kelley, D. (2019). *Global Entrepreneurship Monitor: 2018/2019 Global Report*. Academic Press.

Boyd, B., Henning, N., Reyna, E., Wang, D., Welch, M., & Hoffman, A. J. (2017). *Hybrid organizations: new business models for environmental leadership*. London, UK: Routledge. doi:10.4324/9781351279246

Bramwell, B., & Lane, B. (2012). Towards innovation in sustainable tourism research? *Journal of Sustainable Tourism*, *20*(1), 1–7. doi:10.1080/09669582.2011.641559

Brandão, F., & Costa, C. (2013). Inovação em turismo: uma abordagem sistémica e territorial. In C. Costa, F. Brandão, R. Costa, & Z. Breda (Eds.), *Produtos e Competitividade do Turismo na Lusofonia* (Vol. 2, pp. 69–90). Lisbon: Escolar Editora.

Brezovec, A. (2013). Communicating sustainability-led innovation in tourism: Challenges and potentials. *Tourism and Innovation Journal*, *6*(2), 57–76.

British Council. (2016). *The State of Social Enterprise in India, a study report*. Retrieved from https://www.britishcouncil.org/sites/default/files/bc-report-ch4-india-digital0.pdf

Broadus, R. N. (1987). Toward a Definition of Bibliometrics. *Scientometrics*, *12*(5-6), 373–379. doi:10.1007/BF02016680

Brockhoff, K. (1994). *Forschung und Entwicklung: Planung und Kontrolle*. München: De Gruyter Oldenbourg.

Brooks, C. (2019). *Introductory Econometrics for Finance* (4th ed.). Cambridge, UK: Cambridge University Press. doi:10.1017/9781108524872

Brumen, B., Gorenak, M., Rosi, M., & Rangus, M. (2016). Regional Tourism Indicators and Smart Specialization Strategy. *Lex Localis-Journal of Local Self-Government*, *14*(3), 419–430. doi:10.4335/14.3.419-430(2016)

Bruyat, C., & Julien, P. A. (2001). Defining the field of research in entrepreneurship. *Journal of Business Venturing*, *16*(2), 165–180. doi:10.1016/S0883-9026(99)00043-9

Bryant, P., Akinleye, A., & Durrant, A. (2013). Educating the early career arts professional using a hybrid model of work based learning. *Higher Education, Skills and Work-based Learning*, *3*(1), 17–29. doi:10.1108/20423891311294957

Buckley, P. J., Pass, G., & Prescott, K. (1990). Measures of international competitiveness: Empirical findings from British manufacturing companies. *Journal of Marketing Management*, *6*(1), 1–13. doi:10.1080/0267257X.1990.9964112

Buenstorf, G. (2007). Creation and pursuit of entrepreneurial opportunities: An evolutionary economics perspective. *Small Business Economics*, *28*(4), 323–337. doi:10.100711187-006-9039-5

Buesa, M., Heijs, J., & Baumert, T. (2010). The determinants of regional innovation in Europe: A combined factorial and regression knowledge production function approach. *Research Policy*, *39*(6), 722–735. doi:10.1016/j.respol.2010.02.016

Burkart, K. (2009). *How do you define the 'green' economy*. Mother Nature Network, Research & Innovation Section, Economics Subsection. Retrieved from https://www.mnn.com/green-tech/research-innovations/blogs/how-do-you-definethe-green-economy

Burra, S., & Patel, S. (2002). Community toilets in Pune and other Indian Cities. *PLA Notes, 44*, 43-45.

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

Calic, G., & Mosakowki, E. (2016). Kicking off Social Entrepreneurship: How a Sustainability Orientation influences Crowddunding success. *Journal of Management Studies*, *53*(5), 738–767. doi:10.1111/joms.12201

Camagni, R., & Capello, R. (2013). Regional Innovation Patterns and the EU Regional Policy Reform: Toward Smart Innovation Policies. *Growth and Change*, *44*(2), 355–389. doi:10.1111/grow.12012

Camisón, C., & Monfort-Mir, V. M. (2012). Measuring innovation in tourism from the Schumpeterian and the dynamic-capabilities perspectives. *Tourism Management*, *33*(4), 776–789. doi:10.1016/j.tourman.2011.08.012

Capello, R. (2017). Towards a New Conceptualization of Innovation in Space: Territorial Patterns of Innovation. *International Journal of Urban and Regional Research*, *41*(6), 976–996. doi:10.1111/1468-2427.12556

Capello, R., & Kroll, H. (2016). From theory to practice in smart specialization strategy: Emerging limits and possible future trajectories. *European Planning Studies*, *24*(8), 1393–1406. doi:10.1080/09654313.2016.1156058

Capello, R., & Lenzi, C. (2016a). Persistence in regional learning paradigms and trajectories: Consequences for innovation policy design. *European Planning Studies*, *24*(9), 1587–1604. doi:10.1080/09654313.2016.1177493

Capello, R., & Lenzi, C. (2016b). Relevance and utility of European Union research, technological development and innovation policies for a smart growth. *Environment and Planning. C, Government & Policy*, *34*(1), 52–72. doi:10.1177/0263774X15614655

Caragliu, A., Del Bo, C., & Nijkamp, P. (2009). Smart cities in Europe. *3rd Central European Conference in Regional Science*. Retrieved from https://inta-aivn.org/images/cc/Urbanism/background%20documents/01_03_Nijkamp.pdf

Caragliu, A., & Del Bo, C. (2018). Much Ado About Something? An Appraisal of the Relationship Between Smart City and Smart Specialisation Policies. *Tijdschrift voor Economische en Sociale Geografie*, *109*(1), 129–143. doi:10.1111/tesg.12272

Carayannis, E. G., & Campbell, D. F. (2009). 'Mode 3'and'Quadruple Helix': Toward a 21st century fractal innovation ecosystem. *International Journal of Technology Management*, *46*(3-4), 201–234. doi:10.1504/IJTM.2009.023374

Carayannis, E. G., Grigoroudis, E., Campbell, D. F., Meissner, D., & Stamati, D. (2018). The ecosystem as helix: An exploratory theory-building study of regional co-opetitive entrepreneurial ecosystems as Quadruple/Quintuple Helix Innovation Models. *R & D Management*, *48*(1), 148–162. doi:10.1111/radm.12300

Carayannis, E. G., Meissner, D., & Edelkina, A. (2017). Targeted innovation policy and practice intelligence (TIP2E): Concepts and implications for theory, policy and practice. *The Journal of Technology Transfer*, *42*(3), 460–484. doi:10.100710961-015-9433-8

Cardon, M. S., Gregoire, D. A., Stevens, C. E., & Patel, P. C. (2013). Measuring entrepreneurial passion: Conceptual foundations and scale validation. *Journal of Business Venturing*, *28*(3), 373–396. doi:10.1016/j.jbusvent.2012.03.003

Cardon, M. S., Zietsma, C., Saparito, P., Matherne, B., & Davis, C. (2005). A tale of passion: New insights into entrepreneurship from a parenthood metaphor. *Journal of Business Venturing*, *20*(1), 23–45. doi:10.1016/j.jbusvent.2004.01.002

Carrasco, P. G., Saorin, E. G., & Osma, B. G. (2019). *Stakeholder and firm communication in social media: the case of twitter and corporate social responsibility information*. Available at SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3414210

Carrigan, M., & Attalla, A. (2001). The myth of the ethical consumer – do ethics matter in purchase behaviour? *Journal of Consumer Marketing*, *18*(7), 560–578. doi:10.1108/07363760110410263

Carrigan, M., Moraes, C., & Leek, S. (2011). Fostering Responsible communities: A community social marketing approach to sustainable living. *Journal of Business Ethics*, *100*(3), 515–534. doi:10.100710551-010-0694-8

Carrigan, M., Szmigin, I., & Wright, J. (2004). Shopping for a better world? An interpretive study of the potential for ethical consumption within the older market. *Journal of Consumer Marketing*, *21*(6), 401–417. doi:10.1108/07363760410558672

Carrington, M. J., Neville, B. A., & Whitwell, G. J. (2010). Why Ethical Consumers Don't Walk Their Talk: Towards a Framework for Understanding the Gap Between the Ethical Purchase Intentions and Actual Buying Behaviour of Ethically Minded Consumers. *Journal of Business Ethics*, *97*(1), 139–158. doi:10.100710551-010-0501-6

Carrington, M. J., Neville, B. A., & Whitwell, G. J. (2014). Lost in translation: Exploring the ethical consumer intention–behavior gap. *Journal of Business Research*, *67*(1), 2759–2767. doi:10.1016/j.jbusres.2012.09.022

Carrington, M. J., Zwick, D., & Neville, B. (2016). The ideology of the ethical consumption gap. *Marketing Theory*, *16*(1), 21–38. doi:10.1177/1470593115595674

Carroll, A. N., & Bucholtz, A. K. (2003). *Business and Society: Ethics and Stakeholder Management*. Mason, OH: South-Western Thomson Learning.

Carroll, A. B. (1979). A Three-Dimensional Conceptual Model of Corporate Social Performance. *Academy of Management Review*, *4*(4), 497–505. doi:10.5465/amr.1979.4498296

Carter, N., Gartner, W., Shaver, K., & Gatewood, E. (2003). The career reasons of nascent entrepreneurs. *Journal of Business Venturing*, *18*(1), 13–39. doi:10.1016/S0883-9026(02)00078-2

Carvalho, L., & Winden, W. V. (2018). Making waves: The valuation of innovations in San Sebastian's surf economy. *European Planning Studies*, *26*(1), 75–93. doi:10.1080/09654313.2017.1372369

Casaramona, A., Sapia, A., & Soraci, A. (2015). How TOI and the quadruple and quintuple helix innovation system can support the development of a new model of international cooperation. *Journal of the Knowledge Economy*, *6*(3), 505–521. doi:10.100713132-015-0253-8

Chandler, G. N., DeTienne, D. R., McKelvie, A., & Mumford, T. V. (2011). Causation and effectuation processes: A validation study. *Journal of Business Venturing*, *26*(3), 375–390. doi:10.1016/j.jbusvent.2009.10.006

Chang, M. K. (1998). Predicting unethical behavior: A comparison of the theory of reasoned action and the theory of planned behavior. *Journal of Business Ethics*, *17*(16), 1825–1834. doi:10.1023/A:1005721401993

Chan, W. W. (2009). Environmental measures for hotels' environmental management systems: ISO 14001. *International Journal of Contemporary Hospitality Management*, *21*(5), 542–560. doi:10.1108/09596110910967791

Chatzidakis, A., Shaw, D., & Allen, M. (2019). A psycho-social approach to consumer ethics. *Journal of Consumer Culture*. doi:10.1177/1469540518773815

Chavan, P., & Ramakumar, R. (2005). Interest Rates on Micro-Credit. In V. K. Ramachandran & M. Swaminathan (Eds.), *Financial Liberalization and Rural Credit in India* (pp. 147–156). New Delhi: Tulika Books.

Chea Hooi, H., Ahmad, N. H., Amran, A., & Abidur Rahman, S. (2016). The functional role of entrepreneurial orientation and entrepreneurial bricolage in ensuring sustainable entrepreneurship. *Management Research Review*, *39*(12), 1616–1638. doi:10.1108/MRR-06-2015-0144

Chee-Yee, C., & Kumar, S. (2003). Sensor networks: Evolution, opportunities, and challenges. *Proceedings of the IEEE*, *91*(8), 1247–1256. doi:10.1109/JPROC.2003.814918

Chen, L. (2013). A Study of Green Purchase Intention Comparing with Collectivistic (Chinese) and Individualistic (American) Consumers in Shanghai, China. *Information Management and Business Review*, *5*(7), 342–346.

Chen, Y. S., Lai, S. B., & Wen, C. T. (2006). The influence of green innovation performance on corporate advantage in Taiwan. *Journal of Business Ethics*, *67*(4), 331–339. doi:10.100710551-006-9025-5

Chesbrough, H. (2012). Open innovation: Where we've been and where we're going. *Research Technology Management*, *55*(4), 20–27. doi:10.5437/08956308X5504085

Chesbrough, H., & Bogers, M. (2014). *Explicating open innovation: Clarifying an emerging paradigm for understanding innovation. In New Frontiers in Open Innovation* (pp. 3–28). Oxford, UK: Oxford University Press. doi:10.1093/acprof:oso/9780199682461.003.0001

Chie, B.-T., & Chen, S.-H. (2014). Competition in a New Industrial Economy: Toward an Agent-Based Economic Model of Modularity. *Administrative Sciences, 4*(3), 192–218. doi:10.3390/admsci4030192

Choi & Qi. (2019). Is South Korea's Emission Trading Scheme Effective? An Analysis Based on the Marginal Abatement Cost of Coal-Fueled Power Plants. *Sustainability, 11*(9), 2504. doi:10.3390u11092504

Choi, D. Y., & Gray, E. R. (2008). The venture development processes of "sustainable" entrepreneurs. *Management Research News*, *31*(8), 558–569. doi:10.1108/01409170810892127

Choi, H., & Sirakaya, E. (2006). Sustainability indicators for managing community tourism. *Tourism Management*, *27*(6), 1274–1289. doi:10.1016/j.tourman.2005.05.018

Chou, C. J., Chen, K. S., & Wang, Y. Y. (2012). Green practices in the restaurant industry from an innovation adoption perspective: Evidence from Taiwan. *International Journal of Hospitality Management*, *31*(3), 703–711. doi:10.1016/j.ijhm.2011.09.006

Chou, S.-F., Horng, J.-S., Liuc, C.-H., & Gan, B. (2018). Explicating restaurant performance: The nature and foundations of sustainable service and organizational environment. *International Journal of Hospitality Management*, *72*, 56–66. doi:10.1016/j.ijhm.2018.01.004

Chowdhry, D. G., Verma, R., & Mathur, M. (2019). *The Evolution of Business in the Cyber - Age: Digital Transformation, Threats, and Security. Apple Academic Press*.

Christen, R. P., Rhyne, E., Vogel, R. C., & McKean, C. (1995). *Maximizing the outreach of microenterprise finance: An analysis of successful microfinance programs*. Washington, DC: USAID.

Christie, R., & Geis, F. L. (2013). *Studies in Machiavellianism*, Academic Press. Davies, I. A., & Gutsche, S. (2016). Consumer motivations for mainstream "ethical" consumption. *European Journal of Marketing*, *50*(7/8), 1326–1347.

Chrysomallidis, C., & Tsakanikas, A. (2017). The implementation of smart specialization strategy in Greece: Rebalancing governance between the central state and the regions. *Regional Science Policy and Practice*, *9*(3), 183–200. doi:10.1111/rsp3.12095

Clegg, S., Geppert, M., & Hollinshead, G. (2018). Politicization and political contests in and around contemporary multinational corporations: An introduction. *Human Relations*, *71*(6), 745–765. doi:10.1177/0018726718755880

Clement, C. (2013). *Rudolf Steiner: Schriftenüber Mystik, Mysterienwesen und Religionsgeschichte. Frommann - holzboog Verlag*. Stuttgart: Bad Cannstatt.

Coe, A., Paquet, G., & Roy, J. (2001). *E-Governance and Smart Communities: A Social Learning Challenge*. Retrieved from http://www.gouvernance.ca/publications/00-53.pdf

Cohen, B., Smith, B., & Mitchell, R. (2008). Toward a sustainable conceptualization of dependent variables in entrepreneurship research. *Business Strategy and the Environment*, *17*(2), 107–119. doi:10.1002/bse.505

Cohen, B., & Winn, M. I. (2007). Market imperfections, opportunity and sustainable entrepreneurship. *Journal of Business Venturing*, *22*(1), 29–49. doi:10.1016/j.jbusvent.2004.12.001

Conning, J. (1999). Outreach, sustainability and leverage in monitored and peer-monitored lending. *Journal of Development Economics*, *60*(1), 51–77. doi:10.1016/S0304-3878(99)00036-X

Convention on Biological Diversity. (2018). Retrieved from https://www.cbd.int/history

Cook, D., Mulrow, C., & Haynes, R. (1997). Systematic reviews: Synthesis of best evidence for clinical decisions. *Annals of Internal Medicine*, *126*(5), 376–380. doi:10.7326/0003-4819-126-5-199703010-00006 PMID:9054282

Cooke, P. (2016). Four minutes to four years: The advantage of recombinant over specialized innovation-RIS3 versus "smartspec'. *European Planning Studies*, *24*(8), 1494–1510. doi:10.1080/09654313.2016.1151482

Cooke, P., Uranga, M. G., & Etxebarria, G. (1998). Regional systems of innovation: An evolutionary perspective. *Environment & Planning A*, *30*(9), 1563–1584. doi:10.1068/a301563

Cooney, S. (2009). *Build a green small business : profitable ways to become an ecopreneur*. New York: McGraw-Hill.

Corner, P. D., & Ho, M. (2010). How opportunities develop in social entrepreneurship. *Entrepreneurship Theory and Practice*, *34*(4), 635–659. doi:10.1111/j.1540-6520.2010.00382.x

Costanza, R., d'Arge, R., De Groot, R., Farber, S., Grasso, M., Hannon, B., ... Paruelo, J. (1998). The value of the world's ecosystem services and natural capital. *Ecological Economics*, *25*(1), 3–15. doi:10.1016/S0921-8009(98)00020-2

Coviello, N. E., Ghauri, P. N., & Martin, K. A. M. (1998). International competitiveness: Empirical findings from SME service firms. *Journal of International Marketing*, *6*(2), 8–27. doi:10.1177/1069031X9800600206

Coviello, N., & Munro, H. (1997). Network relationships and the internationalization process of small software firms. *International Business Review*, *6*(4), 361–386. doi:10.1016/S0969-5931(97)00010-3

Covin, J. G., & Slevin, D. P. (1991). A conceptual model of entrepreneurship as firm behavior. *Entrepreneurship Theory and Practice*, *16*(1), 7–26. doi:10.1177/104225879101600102

Cozens, M. (2008). New urbanism, crime and the suburbs: A review of the evidence. *Urban Policy and Research*, *26*(4), 429–444. doi:10.1080/08111140802084759

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage.

Criado-Gomis, A., Cervera-Taulet, A., & Iniesta-Bonillo, M.-A. (2017). Sustainable entrepreneurial orientation: A business strategic approach for sustainable development. *Sustainability*, *9*(9), 1667. doi:10.3390u9091667

Crnogaj, K., Rebernik, M., Hojnik, B. B., & Gomezelj, D. O. (2014). Building a model of researching the sustainable entrepreneurship in the tourism sector. *Kybernetes*, *43*(3), 377–393. doi:10.1108/K-07-2013-0155

Croasmun, J. T., & Ostrom, L. (2011). Using Likert-Type Scales in the Social Sciences. *Journal of Adult Education*, *40*(1), 19–22.

Crombrugghe, A. D., Tenikue, M., & Sureda, J. (2008). Performance Analysis for a Sample of Microfinance Institutions in India. *Annals of Public and Cooperative Economics*, *79*(2), 269–299. doi:10.1111/j.1467-8292.2008.00362.x

Crossan, M. M., & Apaydin, M. (2010). A multi-dimensional framework of organizational innovation: A systematic review of the literature. *Journal of Management Studies*, *47*(6), 1154–1191. doi:10.1111/j.1467-6486.2009.00880.x

Cull, R., Demirgu¨ç-Kunt, A., & Morduch, J. (2007). Financial performance and outreach: A global analysis of leading microbanks. *Economic Journal (London)*, *117*(517), F107–F133. doi:10.1111/j.1468-0297.2007.02017.x

Cull, R., Demirgüç–Kunt, A., & Morduch, J. (2009). Microfinance Meets the Market. *The Journal of Economic Perspectives*, *23*(1), 167–192. doi:10.1257/jep.23.1.167

D'Espallier, B., Guerin, I., & Mersland, R. (2011). Women and repayment in microfinance: A global analysis. *World Development*, *39*(5), 758–772. doi:10.1016/j.worlddev.2010.10.008

Dacin, M. T., Dacin, P. A., & Tracey, P. (2011). Social entrepreneurship: A critique and future directions. *Organization Science*, *22*(5), 1203–1213. doi:10.1287/orsc.1100.0620

Dacin, P. A., Dacin, M. T., & Matear, M. (2010). Social entrepreneurship: Why we don't need a new theory and how we move forward from here. *The Academy of Management Perspectives*, *24*(3), 37–57.

Daft, R. L., & Becker, S. W. (1978). *The Innovative Organization*. New York: Elsevier.

Dahlmann, F., Brammer, S., & Millington, A. (2008). Barriers to proactive environmental management in the United Kingdom: Implications for business and public policy. *Journal of General Management*, *33*(3), 1–20. doi:10.1177/030630700803300301

Damanpour, F. (1991). Organizational innovation: A meta-analysis of effects of determinants and moderators. *Academy of Management Journal*, *34*(3), 555–590.

Das, T. K., & Teng, B. S. (2000). A resource-based theory of strategic alliances. *Journal of Management*, *26*(1), 31–61. doi:10.1177/014920630002600105

David, R. J., & Han, S.-K. (2004). A systematic assessment of the empirical support for transaction cost economics. *Strategic Management Journal*, *25*(1), 39–58. doi:10.1002mj.359

Davies, I. A., & Chambers, L. (2018). Integrating hybridity and business model theory in sustainable entrepreneurship. *Journal of Cleaner Production*, *177*, 378–386. doi:10.1016/j.jclepro.2017.12.196

De Clercq, D., & Voronov, M. (2011). Sustainability in entrepreneurship: A tale of two logics. *International Small Business Journal*, *29*(4), 322–344. doi:10.1177/0266242610372460

de Lange, D. E. (2016). A social capital paradox: Entrepreneurial dynamism in a small world clean technology cluster. *Journal of Cleaner Production*, *139*, 576–585. doi:10.1016/j.jclepro.2016.08.080

de Lange, D. E. (2017). Start-up sustainability: An insurmountable cost or a life-giving investment? *Journal of Cleaner Production*, *156*, 838–854. doi:10.1016/j.jclepro.2017.04.108

De Massis, A., Frattini, F., Majocchi, A., & Piscitello, L. (2018). Family firms in the global economy: Toward a deeper understand of internationalization determinants, processes, and outcomes. *Global Strategy Journal*, *8*(1), 3–21. doi:10.1002/gsj.1199

De Oliveira, M. L., Santos, J. L. S., Becker, G. V., & Hansen, P. B. (2016). A bibliometric analysis of International literatura on collaboration in supply chain. *Revista Base (Administraçao e Contabilidade) de UNISINOS, 13*(1), 32-52.

De Palma, R., & Dobes, V. (2010). An integrated approach towards sustainable entrepreneurship—Experience from the TEST project in transitional economies. *Journal of Cleaner Production*, *18*(18), 1807–1821. doi:10.1016/j.jclepro.2010.07.025

De Pelsmacker, P., Driesen, L., & Rayp, G. (2005). Do consumers care about ethics? Willingness to pay for fair-trade coffee. *The Journal of Consumer Affairs*, *39*(2), 363–385. doi:10.1111/j.1745-6606.2005.00019.x

Dean, T. J., & McMullen, J. S. (2007). Toward a theory of sustainable entrepreneurship: Reducing environmental degradation through entrepreneurial action. *Journal of Business Venturing*, *22*(1), 50–76. doi:10.1016/j.jbusvent.2005.09.003

Dees, J. G., & Elias, J. (1998). The challenges of combining social and commercial enterprise. *Business Ethics Quarterly*, *8*(1), 165–178.

Del Vecchio, P., & Passiante, G. (2017). Is tourism a driver for smart specialization? Evidence from Apulia, an Italian region with a tourism vocation. *Journal of Destination Marketing & Management*, *6*(3), 163–165. doi:10.1016/j.jdmm.2016.09.005

Deng-Westphal, M., Beeton, S., & Anderson, A. (2015). The paradox of adopting tourism ecolabels. In D. Weaver, M. Hughes, & C. Pforr (Eds.), *The Practice of Sustainable Tourism: Resolving the Paradox*. London: Routledge.

Denyer, D., & Tranfield, D. (2009). Producing a systematic review. In D. Buchanan & A. Bryman (Eds.), *The Sage Handbook of Organizational Research Methods*. London: Sage Publications.

Devinney, T. M., Auger, P., & Eckhardt, G. M. (2010). *The Myth of the Ethical Consumer*. Cambridge, UK: Cambridge University Press.

Devuyst, D., & Hens, L. (2000). Introducing and measuring sustainable development initiatives by local authorities in Canada and Flanders (Belgium) a comparative study. *Environment, Development and Sustainability*, *2*(2), 81–105. doi:10.1023/A:1011466019809

Dewar, R. D., & Dutton, J. E. (1986). The adoption of radical and incremental innovations: An empirical analysis. *Management Science*, *32*(11), 1422–1433. doi:10.1287/mnsc.32.11.1422

Dew, N., Read, S., Sarasvathy, S. D., & Wiltbank, R. (2011). On the entrepreneurial genesis of new markets: Effectual transformations versus causal search and selection. *Journal of Evolutionary Economics*, *21*(2), 231–253. doi:10.100700191-010-0185-1

Dew, N., Sarasvathy, S. D., & Venkataraman, S. (2004). The economic implications of exaptation. *Journal of Evolutionary Economics*, *14*(1), 69–84. doi:10.100700191-003-0180-x

Dholakia, U. M., & Bagozzi, R. P. (2002). Mustering motivation to enact decisions: How decision process characteristics influence goal realization. *Journal of Behavioral Decision Making*, *15*(3), 167–188. doi:10.1002/bdm.408

Di Berardino, C., Mauro, G., Quaglione, D., & Sarra, A. (2017). Structural change and the sustainability of regional convergence: Evidence from the Italian regions. *Environment and Planning C-Politics and Space*, *35*(2), 289–311. doi:10.1177/0263774X16655800

Di Domenico, M., Haugh, H., & Tracey, P. (2010). Social bricolage: Theorizing social value creation in social enterprises. *Entrepreneurship Theory and Practice*, *34*(4), 681–703. doi:10.1111/j.1540-6520.2010.00370.x

Dibra, M. (2015). Rogers theory on diffusion of innovation-The most appropriate theoretical model in the study of factors influencing the integration of sustainability in tourism businesses. *Procedia: Social and Behavioral Sciences*, *195*, 1453–1462. doi:10.1016/j.sbspro.2015.06.443

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

Dimitratos, P., Plakoyiannaki, E., Pitsoulaki, A., & Tüselmann, H. J. (2010). The global smaller firm in international entrepreneurship. *International Business Review*, *19*(6), 589–606. doi:10.1016/j.ibusrev.2010.03.005

Dixon-Fowler, H., Slater, D., Johnson, J., Ellstrand, A., & Romi, A. (2012). Beyond 'Does it pay to be green?' A meta-analysis of moderators of the CEP– CFP relationship. *Journal of Business Ethics*, *112*(2), 353–366. doi:10.100710551-012-1268-8

Djupdal, K., & Westhead, P. (2015). Environmental certification as a buffer against the liabilities of newness and smallness: Firm performance benefits. *International Small Business Journal: Researching Entrepreneurship*, *33*(2), 148–168. doi:10.1177/0266242613486688

Dodd, T., Orlitzky, M., & Nelson, T. (2018). What stalls a renewable energy industry? Industry outlook of the aviation biofuels industry in Australia, Germany, and the USA. *Energy Policy*, *123*, 92–103. doi:10.1016/j.enpol.2018.08.048

Dogaru, V. (2016). The Expanding of Constructal Law in Economics - a Justification for Crossed Flows of Similar Macro Goods. *International Journal of Heat and Technology*, *34*(S1), S59–S74. doi:10.18280/ijht.34S108

Domínguez-Escrig, E., Mallén-Broch, F. F., Lapiedra-Alcamí, R., & Chiva-Gómez, R. (2018). The influence of leaders' stewardship behavior on innovation success: The mediating effect of radical innovation. *Journal of Business Ethics*, 1–14.

Donaldson, T. (1999). Making stakeholder theory whole. *Academy of Management Review*, *24*(2), 237–241.

Doran, J., McCarthy, N., & O'Connor, M. (2017). The employment-population nexus and implications for sustainable economic development: Insights from Irish regions using a partial adjustment model. *International Review of Applied Economics*, *31*(4), 508–526. doi:10.1080/02692171.2016.1263608

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

Doyle, P., & Wong, V. (1998). Marketing and competitive performance: An empirical study. *European Journal of Marketing*, *32*(5/6), 514–535. doi:10.1108/03090569810216145

Driscoll, J. C., & Kraay, A. C. (1998). Consistent covariance matrix estimation with spatially dependent panel data. *The Review of Economics and Statistics*, *80*(4), 549–560. doi:10.1162/003465398557825

Drucker, P. (1986). *Innovation and Entrepreneurship*. New York: Routledge.

Dubois, A., Kristensen, I., & Teras, J. (2017). Outsmarting geography: Implementing territorial innovation strategies in sparsely populated regions. *European Planning Studies*, *25*(8), 1316–1333. doi:10.1080/09654313.2017.1320355

Dudek, M., & Wrzochalska, A. (2017). Making Development More Sustainable? The EU Cohesion Policy and Socio-Economic Growth of Rural Regions in Poland. *European Journal of Sustainable Development*, *6*(3), 189–200. doi:10.14207/ejsd.2017.v6n3p189

Dunlap, R. E., & Van Liere, K. D. (1978). The "new environmental paradigm". *The Journal of Environmental Education*, *9*(4), 10–19. doi:10.1080/00958964.1978.10801875

Dunlap, R. E., Van Liere, K. D., Mertig, A. G., & Jones, R. E. (2000). New trends in measuring environmental attitudes: measuring endorsement of the new ecological paradigm: a revised NEP scale. *The Journal of Social Issues*, *56*(3), 425–442. doi:10.1111/0022-4537.00176

Dunning, J. (1988). The eclectic paradigm of international production: A restatement and some possible extensions. *Journal of International Business Studies*, *19*(1), 1–31. doi:10.1057/palgrave.jibs.8490372

Duque Oliva, E. J., Cervera Taulet, A., & Rodríguez Romero, C. (2006). A bibliometric analysis of models measuring the concept of perceived quality inproviding internet service. *Innovar (Universidad Nacional de Colombia)*, *16*(28), 223–243.

Dutta, A., & Banerjee, S. (2018). Does microfinance impede sustainable entrepreneurial initiatives among women borrowers? Evidence from rural Bangladesh. *Journal of Rural Studies*, *60*(March), 70–81. doi:10.1016/j.jrurstud.2018.03.007

Dyba, W., Loewen, B., Looga, J., & Zdražil, P. (2018). Regional Development in Central-Eastern European Countries at the Beginning of the 21st Century: Path Dependence and Effects of EU Cohesion Policy. *Quaestiones Geographicae*, *37*(2), 77–92. doi:10.2478/quageo-2018-0017

Eckhardt, G. M., Belk, R., & Devinney, T. M. (2010). Why don't consumers consume ethically? *Journal of Consumer Behaviour*, *9*(6), 426–436. doi:10.1002/cb.332

Edelman, L., & Yli-Renko, H. (2010). The impact of environment and entrepreneurial perceptions on venture-creation efforts: Bridging the discovery and creation views of entrepreneurship. *Entrepreneurship Theory and Practice*, *34*(5), 833–856. doi:10.1111/j.1540-6520.2010.00395.x

Edgell, D., Allen, M., Smith, G., & Swanson, J. (2008). *Tourism policy and planning*. Amsterdam: Routledge. doi:10.4324/9780080942506

Egels-Zandén, N., & Sandberg, J. (2009). Distinctions in descriptive and instrumental stakeholder theory: A challenge for empirical research. *Business Ethics (Oxford, England)*, *19*(1), 35–49. doi:10.1111/j.1467-8608.2009.01577.x

El Bilali, H. (2019). The Multi-Level Perspective in Research on Sustainability Transitions in Agriculture and Food Systems: A Systematic Review. *Agriculture, 9*(4), 74. doi:10.3390/agriculture9040074

Elkington, J. (1994). Towards the sustainable corporation: Win-win-win business strategies for sustainable development. *California Management Review*, *36*(2), 90–100. doi:10.2307/41165746

Elmqvist, T., Colding, J., Barthel, S., Borgström, S., Duit, A., Lundberg, J., ... Bengtsson, J. (2004). The dynamics of social–ecological systems in urban landscapes: Stockholm and the National Urban Park, Sweden. *Annals of the New York Academy of Sciences*, *1023*(1), 308–322. doi:10.1196/annals.1319.017 PMID:15253913

Emerson, J. (2003). The blended value proposition: Integrating social and financial returns. *California Management Review*, *45*(4), 35–51. doi:10.2307/41166187

Ennis, C. A. (2018). The Gendered Complexities of Promoting Female Entrepreneurship in the Gulf. *New Political Economy*, *24*(3), 1–20.

Erdogan, N., & Baris, E. (2007). Environmental protection programs and conservation practices of hotels in Ankara, Turkey. *Tourism Management*, *28*(2), 604–614. doi:10.1016/j.tourman.2006.07.003

Ergen, M. (2009). *Mobile broadband—including WiMAX and LTE*. Springer.

Ernstson, H., Sörlin, S., & Elmqvist, T. (2008). Social movements and ecosystem services–the role of social network structure in protecting and managing urban green areas in Stockholm. *Ecology and Society*, *13*(2), 39. doi:10.5751/ES-02589-130239

Esparon, M., Gyuris, E., & Stoeckl, N. (2014). Does ECO certification deliver benefits? An empirical investigation of visitors' perceptions of the importance of ECO certification's attributes and of operators' performance. *Journal of Sustainable Tourism*, *22*(1), 148–169. doi:10.1080/09669582.2013.802325

Estensoro, M., & Larrea, M. (2016). Overcoming policy making problems in smart specialization strategies: Engaging subregional governments. *European Planning Studies*, *24*(7), 1319–1335. doi:10.1080/09654313.2016.1174670

Ettlie, J., Bridges, W., & O'Keefe, E. (1984). Organization strategy and structural differences for radical versus incremental innovation. *Management Science*, *30*(6), 682–695. doi:10.1287/mnsc.30.6.682

Ettlie, J., & Rubenstein, A. (1987). Firm size and product innovation. *Journal of Product Innovation Management*, *4*(2), 89–108. doi:10.1111/1540-5885.420089

Etzkowitz, H. (2003). Innovation in innovation: The Triple Helix of university-industry-government relations. *Social Science Information Sur Les Sciences Sociales*, *42*(3), 293–337. doi:10.1177/05390184030423002

Etzkowitz, H., & Leydesdorff, L. (2000). The dynamics of innovation: From National Systems and "Mode 2" to a Triple Helix of university-industry-government relations. *Research Policy*, *29*(2), 109–123. doi:10.1016/S0048-7333(99)00055-4

Etzkowitz, H., Webster, A., Gebhardt, C., & Terra, B. R. C. (2000). The future of the university and the university of the future: Evolution of ivory tower to entrepreneurial paradigm. *Research Policy*, *29*(2), 313–330. doi:10.1016/S0048-7333(99)00069-4

European Commission (EC). (2001). *Green Book. Promote a European Framework for Corporate Social Responsibility. Document COM (2001) 366 Final*. Luxembourg: Publications Office of the European Communities.

European Commission (EC). (2010). *Europa 2020 Strategy. A strategy for smart, sustainable and inclusive growth*. Retrieved from http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:2020:FIN:ES:PDF

European Commission (EC). (2011). *Renewed Strategy of the European Union 2011-2014 for the Social Responsibility of Companies*. Available at: http://eur-lex.europa.eu

European Commission. (1995). *Green paper of Innovation*. Brussels: European Commission.

European Commission. (2015). *Towards a circular economy*. Retrieved from https://ec.europa.eu/commission/priorities/jobs-growth-and-investment/towards-circular-economy_en

European Commission. (2019). *Circular Economy: Implementation of the Circular Economy Action Plan – Final Circular Economy Package*. Retrieved from https://ec.europa.eu/environment/circular-economy/

Eurostat. (2018a). *EURONA - Eurostat Review on National Accounts and Macroeconomic Indicators - Issue No 2*. Retrieved from https://ec.europa.eu/eurostat/web/products-statistical-books/-/KS-GP-18002?inheritRedirect=true&redirect=%2Feurostat%2Fpublications%2Fstatistical-books

Eurostat. (2018b). *The EU in the world*. doi:10.2785/990579

Eurostat. (2019a). *Sustainable development in the European Union — Monitoring report on progress towards the SDGs in an EU context*. doi:10.2785/44964

Eurostat. (2019b). *The European Union and the African Union — A statistical portrait*. doi:10.2785/396145

Evangelista, R., Meliciani, V., & Vezzani, A. (2018). Specialisation in key enabling technologies and regional growth in Europe. *Economics of Innovation and New Technology*, *27*(3), 273–289. doi:10.1080/10438599.2017.1338392

Evans, R. G., & Stoddart, G. L. (1990). Producing health, consuming health care. *Social Science & Medicine*, *31*(12), 1347–1363. doi:10.1016/0277-9536(90)90074-3 PMID:2126895

Faché, W. (2000). Methodologies for innovation and improvement of services in tourism. *Managing Service Quality*, *10*(6), 356–366. doi:10.1108/09604520010351185

Fagerberg, J. (2005). *The Oxford handbook of innovation*. Oxford, UK: Oxford University Press.

Farina, A. (2000). The cultural landscape as a model for the integration of ecology and economics. *Bioscience*, *50*(4), 313–321. doi:10.1641/0006-3568(2000)050[0313:TCLAAM]2.3.CO;2

Farinha, L., & Ferreira, J. J. (2016). Measuring innovative and entrepreneurial networks performance. *World Academy of Science, Engineering and Technology, International Journal of Social, Behavioral, Educational, Economic*. *Business and Industrial Engineering*, *10*(8), 2765–2774.

Farinha, L., Ferreira, J., & Gouveia, B. (2016). Networks of innovation and competitiveness: A triple helix case study. *Journal of the Knowledge Economy*, *7*(1), 259–275. doi:10.100713132-014-0218-3

Fazio, R. H. 1990). Multiple processes by which attitudes guide behavior: The MODE model as an integrative framework. Advances in Experimental Social Psychology, 23, 75-109.

Fellnhofer, K. (2017). Drivers of innovation success in sustainable businesses. *Journal of Cleaner Production*, *167*, 1534–1545. doi:10.1016/j.jclepro.2017.08.197

Fellnhofer, K. (2017a). Evidence revisited: Literature on smart specialisation calls for more mixed research designs. *International Journal of Knowledge-Based Development*, *8*(3), 229–248. doi:10.1504/IJKBD.2017.086407

Fellnhofer, K. (2017b). Facilitating entrepreneurial discovery in smart specialisation via stakeholder participation within online mechanisms for knowledge-based policy advice. *Cogent Business & Management*, *4*(1), 14. doi:10.1080/23311975.2017.1296802

Fellnhofer, K. (2018). Visualised bibliometric mapping on smart specialisation: A co-citation analysis. *International Journal of Knowledge-Based Development*, *9*(1), 76–99. doi:10.1504/IJKBD.2018.090502

Fellnhofer, K., & Puumalainen, K. (2017). Can role models boost entrepreneurial attitudes? *International Journal of Entrepreneurship and Innovation Management*, *21*(3), 274–290. doi:10.1504/IJEIM.2017.083476 PMID:28458611

Ferdousi, F. (2015). Impact of microfinance on sustainable entrepreneurship development. *Development Studies Research*, *2*(1), 51–63. doi:10.1080/21665095.2015.1058718

Fernández Laviada, A., & Sánchez Ruiz, L. (2014). The current state of entrepreneurship education and training in GEM countries and Spanish regions. [in Spanish]. *Revista de Estudios Empresariales*, *2*, 41–62.

Ferreira Gregorio, V., Pié, L., & Terceño, A. (2018). A Systematic Literature Review of Bio, Green and Circular Economy Trends in Publications in the Field of Economics and Business Management. *Sustainability, 10*(11), 4232. doi:10.3390u10114232

Ferreira, L., Moreira Carrizo, A., & Zimmermann, R. (2019). Strategic fit between innovation strategies and supply chain strategies: A conceptual study. *International Journal of Value Chain Management.*, *10*(258). doi:10.1504/IJVCM.2019.10022071

Ferreira, M. P., Li, D., Reis, N. R., & Serra, F. R. (2014). Culture in international business research: A bibliometric study in four top IB journals. *Management Research: The Journal of the Iberoamerican Academy of Management*, *12*(1), 68–91.

Finnish Trotting and Breeding Association. (2017). *Hevostalous lukuina 2017*. Retrieved from http://www.hippos.fi/files/21599/Hevostalous_lukuina_2017_lopullinen.pdf

Fishbein, M., & Ajzen, I. (1975). *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*. Reading, MA: Addison-Wesley Pub.

Fishbein, M., & Ajzen, I. (2010). *Predicting and Changing Behavior: The Reasoned Action Approach, New York*. New York: Psychology Press.

Fisher, G. (2012). Effectuation, causation, and bricolage: A behavioral comparison of emerging theories in entrepreneurship research. *Entrepreneurship Theory and Practice*, *36*(5), 1019–1051. doi:10.1111/j.1540-6520.2012.00537.x

Fisscher, O., Frenkel, D., Lurie, Y., & Nijhof, A. (2005). Stretching the frontiers: Exploring the relationships between entrepreneurship and ethics. *Journal of Business Ethics*, *60*(3), 207–209. doi:10.100710551-005-0128-1

Fitzsimmons, J., & Douglas, E. (2011). Interaction between feasibility and desirability in the formation of entrepreneurial intentions. *Journal of Business Venturing*, *26*(4), 431–440. doi:10.1016/j.jbusvent.2010.01.001

Florida, R. (2003). *The rise of the creative class and how it's transforming work, leisure, community and everyday life*. Perseus Books Group.

Florido, C., Jacob, M., & Payeras, M. (2019). How to Carry out the Transition towards a More Circular Tourist Activity in the Hotel Sector. The Role of Innovation. *Administrative Sciences, 9*(2), 47. doi:10.3390/admsci9020047

Fontaine, C., Haarman, A., & Schmid, S. (2006). *The Stakeholder Theory*. Retrieved from https://pdfs.semanticscholar.org/606a/828294dafd62aeda92a77bd7e5d0a39af56f.pdf

Foray, D., David, P. A., & Hall, B. (2009). *Smart specialisation–the concept*. Retrieved from:http://ec.europa.eu/invest-in-research/pdf/download_en/kfg_policy_brief_no9.pdf

Foray, D. (2014). *Smart specialisation: opportunities and challenges for regional innovation policy* (Vol. 79). London: Routledge. doi:10.4324/9781315773063

Foray, D. (2016). On the policy space of smart specialization strategies. *European Planning Studies*, *24*(8), 1428–1437. doi:10.1080/09654313.2016.1176126

Foray, D., Goddard, J., Beldarrain, X. G., Landabaso, M., McCann, P., Morgan, K., & Ortega-Argilés, R. (2012). *Guide to research and innovation strategies for smart specialisation (RIS3)*. Luxembourg: Publications Office of the European Union.

Forsyth, D. R. (1980). A taxonomy of ethical ideologies. *Journal of Personality and Social Psychology*, *39*(1), 175–184. doi:10.1037/0022-3514.39.1.175

Foschi, E., & Bonoli, A. (2019). The Commitment of Packaging Industry in the Framework of the European Strategy for Plastics in a Circular Economy. *Administrative Sciences, 9*(1), 18. doi:10.3390/admsci9010018

Freeman, R. E. (1984). *Strategic Management: A Stakeholder Approach*. Boston: Pitman Publishing.

Freeman, R. E., Harrison, J. S., Wicks, A. C., Parmar, B. L., & De Colle, S. (2010). *Stakeholder theory: the state of the art*. New York, NY: Cambridge University Press. doi:10.1017/CBO9780511815768

Fukukawa, K., & Ennew, C. (2010). What we believe is not always what we do: An empirical investigation into ethically questionable behavior in consumption. *Journal of Business Ethics*, *91*(Sup 1), 49-60.

Fuller, T., & Tian, Y. (2006). Social and symbolic capital and responsible entrepreneurship: An empirical investigation of SME narratives. *Journal of Business Ethics*, *67*(3), 287–304. doi:10.100710551-006-9185-3

Gallardo-Vázquez, D., Sánchez-Hernández, M. I., & Corchuelo Martínez-Azúa, M. B. (2013). Validación de un instrumento de medida para la relación entre la orientación a la responsabilidad social corporativa y otras variables estratégicas de la empresa. *Revista de Contabilidad*, *16*(1), 11–23. doi:10.1016/S1138-4891(13)70002-5

García-Castro, R., Ariño, M. A., & Canela, M. A. (2010). Does social performance really lead to financial performance? Accounting for endogeneity. *Journal of Business Ethics*, *92*(1), 107–126. doi:10.100710551-009-0143-8

García-Pozo, A., Sánchez-Ollero, J., & Ons-Cappa, M. (2016). Eco-innovation and economic crisis: A comparative analysis of environmental good practices and labour productivity in the Spanish hotel industry. *Journal of Cleaner Production*, *138*, 131–138. doi:10.1016/j.jclepro.2016.01.011

Gasbarro, F., Rizzi, F., & Frey, M. (2017). Sustainable institutional entrepreneurship in practice Insights from SMEs in the clean energy sector energy sector. *International Journal of Entrepreneurial Behaviour & Research*, *24*(2), 476–498. doi:10.1108/IJEBR-11-2015-0259

Gast, J., Gundolf, K., & Cesinger, B. (2017). Doing business in a green way: A systematic review of the ecological sustainability entrepreneurship literature and future research directions. *Journal of Cleaner Production*, *147*, 44–56. doi:10.1016/j.jclepro.2017.01.065

Gauthier, C. (2005). Measuring corporate social and environmental performance: The extended life-cycle assessment. *Journal of Business Ethics*, *59*(1/2), 199–206. doi:10.100710551-005-3416-x

Ge, B., Jiang, D., Gao, Y., & Tsai, S. (2016). The Influence of Legitimacy on a Proactive Green Orientation and Green Performance: A Study Based on Transitional Economy Scenarios in China. *Sustainability*, *8*(12), 1344. doi:10.3390u8121344

Geels, F. W., & Schot, J. (2007). Typology of sociotechnical transition pathways. *Research Policy*, *36*(3), 399–417. doi:10.1016/j.respol.2007.01.003

Geipele, I., Staube, T., Ciemleja, G., Zeltins, N., & Ekmanis, Y. (2015). Identity of Innovative Multifunctional Material Manufacturing Business in Latvia. *Latvian Journal of Physics and Technical Sciences*, *52*(4), 3–17.

Gemma, S., & Bulderberga, Z. (2017a). Smart specialisation strategy assessment in Baltic States. In S. Treija & S. Skujeniece (Eds.), Research for Rural Development 2017 (vol. 2, pp. 135-141). Jelgava: Latvia Univ Agriculture. doi:10.22616/rrd.23.2017.060

Gemma, S., & Bulderberga, Z. (2017b). Smart specialization strategy in Latvia, Estonia and Lithuania. In A. Auzina (Ed.), Integrated and Sustainable Regional Development Marketing and Sustainable Consumption (pp. 71-78). Jelgava: Latvia Univ Agriculture.

Genc, E., Dayan, M., & Genc, O. F. (2019). The impact of SME internationalization on innovation: The mediating role of market and entrepreneurial orientation. *Industrial Marketing Management*, *82*, 253–264. doi:10.1016/j.indmarman.2019.01.008

Genovese, D., Culasso, F., Giacosa, E., & Battaglini, L. (2017). Can livestock farming and tourism coexist in mountain regions? A new business model for sustainability. *Sustainability*, *9*(11), 1–21. doi:10.3390u9112021

Gerlach, A. (2003). Sustainable entrepreneurship and innovation. *Conference Proceedings of Corporate Social Responsibility and Environmental Management Conference*.

Ghauri, P. N., Tasavori, M., & Zaefarian, R. (2014). Internationalisation of service firms through corporate social entrepreneurship and networking. *International Marketing Review*, *31*(6), 576–600. doi:10.1108/IMR-09-2013-0196

Gheorghiu, R., Andreescu, L., & Curaj, A. (2016). A foresight toolkit for smart specialization and entrepreneurial discovery. *Futures*, *80*, 33–44. doi:10.1016/j.futures.2016.04.001

Ghosh, S., & Tassel, E. V. (2008). *A Model of Mission Drift in Microfinance Institutions* (Working Papers No. 08003). Florida: Florida Atlantic University.

Ghoshal, S. (2005). Bad management theories are destroying good management practices. *Academy of Management Learning & Education*, *4*(1), 75–91. doi:10.5465/amle.2005.16132558

Gibb, A. A. (1993). Enterprise culture and education: Understanding enterprise education and its links with small business, entrepreneurship and wider educational goals. *International Small Business Journal*, *11*(3), 11–34. doi:10.1177/026624269301100301

Gibbs, D. (2009). Sustainability Entrepreneurs, Ecopreneurs and the Development of a Sustainable Economy. *Greener Management International*, *55*, 63–78. doi:10.9774/gleaf.3062.2006.au.00007

Giffinger, R., Fertner, C., Kramar, H., Kalasek, R., Pichler-Milanović, N., & Meijers, E. (2007). *Smart cities Ranking of European medium-sized cities*. Vienna: Centre of Regional Science. Retrieved from http://www.smart-cities.eu/download/smart_cities_final_report.pdf

Gilg, A., Barr, S., & Ford, N. (2005). Green consumption or sustainable lifestyles? Identifying the sustainable consumer. *Futures*, *37*(6), 481–504. doi:10.1016/j.futures.2004.10.016

Gillett, E., Lehr, H., & Osorio, C. (2004). Local government broadband initiatives. *Telecommunications Policy*, *28*(7/8), 537–558. doi:10.1016/j.telpol.2004.05.001

Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2012). Seeking qualitative rigor in inductive research: Notes on the Gioia Methodology. *Organizational Research Methods*, *16*(1), 15–31. doi:10.1177/1094428112452151

Gjelsvik, M. (2018). Universities, innovation and competitiveness in regional economies. *International Journal of Technology Management*, *76*(1-2), 10–31. doi:10.1504/IJTM.2018.088704

Glaeser, E., & Gottlieb, J. D. (2006). Urban resurgence and the consumer city. *Urban Studies (Edinburgh, Scotland)*, *43*(8), 1275–1299. doi:10.1080/00420980600775683

Gobindppa, R. (2006). *Study of Women Entrepreneurship in Mumbai*. Retrieved from www.shodhganga.inflibnet.an.in

González, J. A., & Rossi, A. (2011). *New Trends for Smart Cities. Open Innovation Mechanism in Smart Cities*. Retrieved from https://cordis.europa.eu/docs/projects/cnect/6/270896/080/deliverables/001-D2221NewtrendsforSmartCities.pdf

Gonzalez, A. V., Mack, E. A., & Flores, M. (2017). Industrial complexes in Mexico: Implications for regional industrial policy based on related variety and smart specialization. *Regional Studies*, *51*(4), 537–547. doi:10.1080/00343404.2015.1114174

González, M., & León, C. (2001). The adoption of environmental innovations in the hotel industry of Gran Canaria. *Tourism Economics*, *7*(2), 177–190. doi:10.5367/000000001101297801

Goodman, A. (2000). Implementing sustainability in service operations at Scandic hotels. *Interfaces*, *30*(3), 202–214. doi:10.1287/inte.30.3.202.11653

Gopinathan, R. (2010). *Impact of Women Entrepreneurship Development on Families: A Study of Women run micro-enterprises in Selected districts of Maharashtra* (PhD thesis). Padmashree Dr. D. Y. Patil University, Department Of Business Management. Retrieved from http://www.dypatil.edu/schools/ management/wp-content/uploads/2015/10/ Rashmi-Project-Development-of-Entrepreneurship-2010.pdf

Government of India. (2001). *Third Census of SSI Sectors*. Ministry of Micro Small & Medium Enterprise, Government of India. Retrieved from https://www.dcmsme.gov.in/ssiindia /census/ch11.htm

Government of India. (2011). Census of India. Registrar General & Census Commissioner of India, Ministry of Home Affairs, Government of India.

Government of India. (2014). *2014, Reference Manual*. India: Publication Division, Ministry of Information and Broadcasting, Government of India.

Government of India. (2016). *All India Report on 6th Economic Census*. New Delhi: Ministry of Statistics and Programme Implementation, Government of India.

Government of India. (2016). *Economic Characteristics of Unincorporated Non Agricultural Enterprises (Excluding Construction) in India*. NSSO, Ministry of Statistics and Programme Implementation, Government of India. Retrieved from http://www.mospi.gov.in /sites/default/files/publication_reports/NSS_report%20582_73rd_round_10aug18.pdf

Government of India. (2017). *Annual Report.* Ministry of Micro Small & Medium Enterprise, Govt of India.

Grant, R. M. (1991). The Resource-Based Theory of Competitive Advantage - Implications for Strategy Formulation. *California Management Review*, *33*(3), 114–135. doi:10.2307/41166664

Grillitsch, M. (2016). Institutions, smart specialisation dynamics and policy. *Environment and Planning. C, Government & Policy*, *34*(1), 22–37. doi:10.1177/0263774X15614694

Grillitsch, M., & Asheim, B. (2018). Place-based innovation policy for industrial diversification in regions. *European Planning Studies*, *26*(8), 1638–1662. doi:10.1080/09654313.2018.1484892

Grosbois, D. (2012). Corporate social responsibility reporting by the global hotel industry: Commitment, initiatives and performance. *International Journal of Hospitality Management*, *31*(3), 896–905. doi:10.1016/j.ijhm.2011.10.008

Grundmann, R. (1989). *Marxism and ecology: a study of the relationship between nature, society and technology*. Florence: European University Institute. doi:10.2870/564570

Guercini, S., & Cova, B. (2018). Unconventional entrepreneurship. *Journal of Business Research*, *92*, 385–392. doi:10.1016/j.jbusres.2018.06.021

Guide to the Free Economic Zones of Gagauzia. Comrat. (2014). Retrieved from http://www.gagauzia.md/public/files/ publicatii/Ghid_rus_final.pdf

Gujarati, D. (2004). Basic Econometrics (4th ed.). New York: The McGraw− Hill Companies.

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

Gundry, L. K., & Welsch, H. P. (2001). The ambitious entrepreneur: Ig growt strategies of women-owned enterprises. *Journal of Business Venturing*, *9026*(312), 453–455. doi:10.1016/S0883-9026(99)00059-2

Gupta, V. K., & Bhawe, N. M. (2007). The Influence of Proactive Personality and Stereotype Threat on Women's Entrepreneurial Intentions. *Journal of Leadership & Organizational Studies*, *13*(4), 73–85. doi:10.1177/10717919070130040901

Gurtner, S., & Soyez, K. (2016). How to catch the generation Y: Identifying consumers of ecological innovations among youngsters. *Technological Forecasting and Social Change*, *106*, 101–107. doi:10.1016/j.techfore.2016.02.015

Gutiérrez-Nieto, B., Serrano-Cinca, C., & Mar Molinero, C. (2009). Social efficiency in microfinance institutions. *The Journal of the Operational Research Society*, *60*(1), 104–119. doi:10.1057/palgrave.jors.2602527

Hage, J. (1980). *Theories of Organization: Form, Process and Transformation*. New York: Wiley.

Häggblom, M., Rantamäki-Lahtinen, L. & Vihinen, H. (2012). *Equine sector comparison between the Netherlands, Sweden and Finland. Equine life report.* MTT Agrifood Research Finland.

Hahn, R., Spieth, P., & Ince, I. (2018). Business model design in sustainable entrepreneurship: Illuminating the commercial logic of hybrid businesses. *Journal of Cleaner Production*, *176*, 439–451. doi:10.1016/j.jclepro.2017.12.167

Hahn, T., Pinkse, J., Preuss, L., & Figge, F. (2015). Tensions in corporate sustainability: Towards an integrative framework. *Journal of Business Ethics*, *127*(2), 97–316. doi:10.100710551-014-2047-5

Haigh, N., & Hoffman, A. J. (2012). Hybrid organizations: The next chapter of sustainable business. *Organizational Dynamics*, *41*(2), 126–134. doi:10.1016/j.orgdyn.2012.01.006

Haigh, N., Walker, J., Bacq, S., & Kickul, J. (2015). Hybrid organizations: Origins, strategies, impacts, and implications. *California Management Review*, *57*(3), 5–12. doi:10.1525/cmr.2015.57.3.5

Haldar, S. (2019). Towards a conceptual understanding of sustainability driven entrepreneurship. *Corporate Social Responsibility and Envorinmental Management,* 1–14. doi:10.1002/csr.1763

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, C. M. (2009). Innovation and tourism policy in Australia and New Zealand: Never the twain shall meet? *Journal of Policy Research in Tourism, Leisure & Events*, *1*(1), 2–18. doi:10.1080/19407960802703466

Hallenga-Brink, S. C., & Brezet, J. C. (2005). The sustainable innovation design diamond for micro-sized enterprises in tourism. *Journal of Cleaner Production*, *13*(2), 141–149. doi:10.1016/j.jclepro.2003.12.021

Hallinger, P., & Kovačević, J. (2019). A bibliometric review of research on educational administration: Science mapping the literature, 1960 to 2018. *Review of Educational Research*, *89*(3), 335–369. doi:10.3102/0034654319830380

Hall, J., & Vredenburg, H. (2003). The challenges of innovating for sustainable development. *Sloan Management Review*, *45*(1), 61–68.

Hall, J., & Wagner, M. (2012). Integrating sustainability into firms' processes: Performance effects and the moderating role of business models and innovation. *Business Strategy and the Environment*, *21*(3), 183–196. doi:10.1002/bse.728

Hamil, A., Priyadharshini, E., & Santosh, S. S. (2015). *Role of Women Entrepreneurs in Rural Development: with Special Reference to Amba Samudram Area of Tirunelveli District, India*. Retrieved from https://www.researchgate.net/publication/273438879

Hamilton, L. (2018). Bridging the Divide between Theory and Practice: Taking a Co-Productive Approach to Vet-Farmer Relationships. *Food Ethics*, *1*(3), 221–233. doi:10.100741055-017-0011-7

Hansen, E. G., & Schaltegger, S. (2013). 100 per cent organic? A sustainable entrepreneurship perspective on the diffusion of organic clothing. *Corporate Governance*, *13*(5), 583–598. doi:10.1108/CG-06-2013-0074

Hansen, J. D., Deitz, G. D., Tokman, M., Marino, L. D., & Weaver, K. M. (2011). Cross-national invariance of the entrepreneurial orientation scale. *Journal of Business Venturing*, *26*(1), 61–78. doi:10.1016/j.jbusvent.2009.05.003

Hansen, J., Sato, M., Ruedy, R., Lacis, A., & Oinas, V. (2000). Global warming in the twenty-first century: An alternative scenario. *Proceedings of the National Academy of Sciences of the United States of America*, *97*(18), 9875–9880. doi:10.1073/pnas.170278997 PMID:10944197

Hao, Y., Yang, D., Yin, J., Chen, X., Bao, A., Wu, M., & Zhang, X. (2019). The Effects of Ecological Policy of Kyrgyzstan Based on Data Envelope Analysis. *Sustainability, 11*(7), 1922. doi:10.3390u11071922

Hapenciuc, C. V., Pînzaru, F., Vătămănescu, E.-M., & Stanciu, P. (2015). Converging sustainable entrepreneurship and the contemporary marketing practices. An insight into Romanian start-ups. *Amfiteatru Economic*, *17*(40), 938–954. Retrieved from https://www.scopus.com/inward/record.uri?eid=2-s2.0-84937692888&partnerID=40&md5=bee1b4e11d5849db056e7c8dbe356035

Harmeling, S. (2011). Contingency as an entrepreneurial resource: How private obsession fulfills public need. *Journal of Business Venturing*, *26*(3), 293–305. doi:10.1016/j.jbusvent.2009.10.003

Harmeling, S. S., & Sarasvathy, S. D. (2013). When contingency is a resource: Educating entrepreneurs in the Balkans, the Bronx, and beyond. *Entrepreneurship Theory and Practice*, *37*(4), 713–744. doi:10.1111/j.1540-6520.2011.00489.x

Harmer, R. (1999). *Creating New Native Woodlands: Turning Ideas into Reality*. Edinburgh, UK: Forestry Commission Information.

Hartarska, V., & Nadolnyak, D. (2007). Do regulated microfinance institutions achieve better sustainability and outreach? Cross-country evidence. *Applied Economics*, *39*(10), 1207–1222. doi:10.1080/00036840500461840

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

Hasan, A. (1997). *Working with Government: The Story of OPP's Collaboration with State Agencies for Replicating its Low Cost Sanitation Programme*. Karachi, Pakistan: City Press.

Hashimoto, A. (2000). Environmental perception and sense of responsibility of the tourism industry in Mainland China, Taiwan and Japan. *Journal of Sustainable Tourism*, *8*(2), 131–146. doi:10.1080/09669580008667353

Hassan, S. U., Haddawy, P., & Zhu, J. (2014). A bibliometric study of the world's research activity in sustainable development and its sub-areas using scientific literature. *Scientometrics*, *99*(2), 549–579. doi:10.100711192-013-1193-3

Hauschildt, J. (2004). *Innovationsmanagement*. München-Schwabing: Verlag Vahlen.

Healy, A. (2017). Innovation in Circumpolar Regions: New Challenges for Smart Specialization. *Northern Review,* (45), 11-32.

Healy, A. (2016). Smart specialization in a centralized state: Strengthening the regional contribution in North East Romania. *European Planning Studies*, *24*(8), 1527–1543. doi:10.1080/09654313.2016.1184233

Hechavarría, D. M. (2016). Mother nature's son? The impact of gender socialization and culture on environmental venturing. *International Journal of Gender and Entrepreneurship*, *8*(2), 137–172. doi:10.1108/IJGE-10-2015-0038

Heilman, M. E. (2001). Description and Prescription: How Gender Stereotypes Prevent Women's Ascent Up the Organizational Ladder. *The Journal of Social Issues*, *57*(4), 657–674. doi:10.1111/0022-4537.00234

Heimeriks, G., & Balland, P. A. (2016). How smart is specialisation? An analysis of specialisation patterns in knowledge production. *Science & Public Policy*, *43*(4), 562–574. doi:10.1093cipolcv061

Helfen, M., Schüßler, E., & Sydow, J. (2018). How can employment relations in global value networks be managed towards social responsibility? *Human Relations*, *71*(12), 1640–1665. doi:10.1177/0018726718757060

Hellström, T. (2007). Dimensions of environmentally sustainable innovation: The structure of eco-innovation concepts. *Sustainable Development*, *15*(3), 148–159. doi:10.1002d.309

Henley Centre. (2004). *A report of research on the horse industry in Great Britain.* Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69259/pb9255-bhic-report-040318.pdf

Hermes, N., & Hudon, M. (2018). *Determinants of the Performance of Microfinance Institutions: A Systematic Review* (Working Paper No. 2018008-EEF; p. 70). Groningen, The Netherlands: University of Groningen.

Hermes, N., & Lensink, R. (2011). Microfinance: Its Impact, Outreach, and Sustainability. *World Development*, *39*(6), 875–881. doi:10.1016/j.worlddev.2009.10.021

Hermes, N., Lensink, R., & Meesters, A. (2011). Outreach and Efficiency of Microfinance Institutions. *World Development*, *39*(6), 938–948. doi:10.1016/j.worlddev.2009.10.018

Hernández-Perlines, F., & Ibarra-Cisneros, M. (2018). The Role of Environment in Sustainable Entrepreneurial Orientation. The Case of Family Firms. *Sustainability*, *10*(6), 2037. doi:10.3390u10062037

Hernández-Sánchez, B. R., Sánchez-García, J. C., & Mayens, A. W. (2019). Impact of Entrepreneurial Education Programs on Total Entrepreneurial Activity: The Case of Spain. *Administrative Sciences, 9*(1), 25. doi:10.3390/admsci9010025

Higgins, J., & Green, S. (2011). *Cochrane Handbook for Systematic Reviews of Interventions Version 5.1.0* [updated March 2011]. Available from http://handbook.cochrane.org

Hitt, M., Ireland, D., Sirmon, D., & Trahms, C. (2011). Strategic entrepreneurship: Creating value for individuals, organizations, and society. *The Academy of Management Perspectives*, *25*(2), 57–75.

Hjalager, A. M. (1997). Innovation patterns in sustainable tourism: An analytical typology. *Tourism Management*, *18*(1), 35–41. doi:10.1016/S0261-5177(96)00096-9

Hjalager, A. M. (2002). Repairing innovation defectiveness in tourism. *Tourism Management*, *23*(5), 465–474. doi:10.1016/S0261-5177(02)00013-4

Hjalager, A.-M. (2010). A review of innovation research in tourism. *Tourism Management*, *31*(1), 1–12. doi:10.1016/j.tourman.2009.08.012

Hockerts, K. (2015). How hybrid organizations turn antagonistic assets into complementarities. *California Management Review*, *57*(3), 83–106. doi:10.1525/cmr.2015.57.3.83

Hockerts, K., & Wüstenhagen, R. (2010). Greening Goliaths versus emerging Davids - Theorizing about the role of incumbents and new entrants in sustainable entrepreneurship. *Journal of Business Venturing*, *25*(5), 481–492. doi:10.1016/j.jbusvent.2009.07.005

Hoechle, D. (2007). Robust standard errors for panel regressions with cross-sectional dependence. *The Stata Journal*, *7*(3), 281–312. doi:10.1177/1536867X0700700301

Hoffman, A. J., Badiane, K. K., & Haigh, N. (2012). Hybrid organizations as agents of positive social change: bridging the for-profit and non-profit divide. In *Using a positive lens to explore social change and organizations* (pp. 152–174). London, UK: Routledge.

Hoffmann, J. (2018). Talking into (non) existence: Denying or constituting paradoxes of Corporate Social Responsibility. *Human Relations*, *71*(5), 668–691. doi:10.1177/0018726717721306

Hoglund, L., & Linton, G. (2018). Smart specialization in regional innovation systems: A quadruple helix perspective. *R & D Management*, *48*(1), 60–72. doi:10.1111/radm.12306

Holban, E., Diacu, E., Matei, M., Ghita, G., Raischi, M., Fronescu, S., ... Gh. Popescu, C. R. (2017). Assessment of atmospheric pollution in a cement factory area situated in the eastern part of Romania. *Journal of Environmental Protection and Ecology*, *18*(3), 819–830.

Holling, C. S. (1978). *Adaptive Environmental Assessment and Management*. New York: John Wiley.

Holt, D., & Littlewood, D. (2015). Identifying, mapping, and monitoring the impact of hybrid firms. *California Management Review*, *57*(3), 107–125. doi:10.1525/cmr.2015.57.3.107

Horbach, J., Rammer, C., & Rennings, K. (2012). Determinants of eco-innovations by type of environmental impact—The role of regulatory push/pull, technology push and market pull. *Ecological Economics*, *78*, 112–122. doi:10.1016/j.ecolecon.2012.04.005

Hörisch, J. (2018). How business actors can contribute to sustainability transitions: A case study on the ongoing animal welfare transition in the German egg industry. *Journal of Cleaner Production*, *201*, 1155–1165. doi:10.1016/j.jclepro.2018.08.031

Hörisch, J., Freeman, R. E., & Schaltegger, S. (2014). Applying stakeholder theory in sustainability management links, similarities, dissimilarities, and a conceptual framework. *Organization & Environment*, *27*(4), 328–346. doi:10.1177/1086026614535786

Hörisch, J., Kollat, J., & Brieger, S. (2017). What influences environmental entrepreneurship? A multilevel analysis of the determinants of entrepreneurs' environmental orientation. *Small Business Economics*, *48*(1), 47–69. doi:10.100711187-016-9765-2

Horng, J. S., Liu, C. H., Chou, S. F., Tsai, C. Y., & Chung, Y. C. (2017). From innovation to sustainability: Sustainability innovations of eco friendly hotels in Taiwan. *International Journal of Hospitality Management*, *63*, 44–52. doi:10.1016/j.ijhm.2017.02.005

Horng, J. S., Wang, C. J., Liu, C. H., Chou, S. F., & Tsai, C. Y. (2016). The role of sustainable service innovation in crafting the vision of the hospitality industry. *Sustainability*, *8*(3), 1–18. doi:10.3390u8030223

Hossain, A., & Zaman, K. N. (2009). Factors influencing women business development in the developing countries. *The International Journal of Organizational Analysis*, *17*(3), 202–224. doi:10.1108/19348830910974923

Huang, C.-C., Lu, L.-C., You, C.-S., & Yen, S.-W. (2012). The impacts of ethical ideology, materialism, and selected demographics on consumer ethics: An empirical study in China. *Ethics & Behavior*, *22*(4), 315–331. doi:10.1080/10508422.2012.677627

Hull, C. E., Hung, Y. T. C., Hair, N., Perotti, V., & DeMartino, R. (2007). Taking advantage of digital opportunities: A typology of digital entrepreneurship. *International Journal of Networking and Virtual Organisations*, *4*(3), 290–303. doi:10.1504/IJNVO.2007.015166

Hult, G. T. M., Snow, C. C., & Kandemir, D. (2003). The role of entrepreneurship in building cultural competitiveness in different organizational types. *Journal of Management*, *29*(3), 401–442. doi:10.1016/S0149-2063(03)00017-5

Hunter, C. (1997). Sustainable tourism as an adaptive paradigm. *Annals of Tourism Research*, *24*(4), 850–867. doi:10.1016/S0160-7383(97)00036-4

Hunt, S. D., & Vitell, S. J. (1986). A general theory of marketing ethics. *Journal of Macromarketing*, *6*(1), 5–16. doi:10.1177/027614678600600103

Hunt, S. D., & Vitell, S. J. (1993). The general theory of marketing ethics: A retrospective and revision. In N. C. Smith & J. A. Quelch (Eds.), *Ethics in Marketing, JSTOR* (pp. 775–784). Homewood, IL: Irwin Inc.

Hunt, S. D., & Vitell, S. J. (2006). The general theory of marketing ethics: A revision and three questions. *Journal of Macromarketing*, *26*(2), 143–153. doi:10.1177/0276146706290923

Huq, B. I. A., Azad, M. A. K., Masum, A. K. M., Wanke, P., & Rahman, M. A. (2017). Examining the Trade-off Between Social Outreach and Financial Efficiency: Evidence from Micro-finance Institutions in South Asia. *Global Business Review*, *18*(3), 617–628. doi:10.1177/0972150917692169

Hymer, S. (1976). *International Operations of National Firms: A Study of Direct Foreign Investment*. Cambridge, MA: The MIT Press.

Iacobucci, D., & Guzzini, E. (2016). Relatedness and connectivity in technological domains: Missing links in S3 design and implementation. *European Planning Studies*, *24*(8), 1511–1526. doi:10.1080/09654313.2016.1170108

Im, J., & Sun, S. L. (2015). Profits and outreach to the poor: The institutional logics of microfinance institutions. *Asia Pacific Journal of Management*, *32*(1), 95–117. doi:10.100710490-014-9398-4

International Institute for Sustainable Development. (2012). *Sustainable development timeline.* Retrieved from https://www.iisd.org/pdf/2012/sd_timeline_2012.pdf

Ioannides, D., & Petersen, T. (2003). Tourism 'non-entrepreneurship' in peripheral destinations: A case study of small and medium tourism enterprises on Bornholm, Denmark. *Tourism Geographies*, *5*(4), 408–435. doi:10.1080/1461668032000129146

Ireland, R. D., Covin, J. G., & Kuratko, D. F. (2009). *Conceptualizing Corporate Entrepreneurship Strategy. E, T & P*. Baylor University.

Isaak, R. (2002). The making of the ecopreneur. *Greener Management International*, *38*(38), 81–91. doi:10.9774/GLEAF.3062.2002.su.00009

Islam, M. (2017). Sustainability through the Lens of Environmental Sociology: An Introduction. *Sustainability, 9*(3), 474. doi:10.3390u9030474

Jana, S., Das, B. C., Manna, S. S., Payra, T., Maiti, A., & Paul, P. K. (2019). Women Entrepreneurship in Backward Region: A Study in Jhargram district of WB. *Asian Journal of Multidimensional Research, 8*(3). Retrieved from http://www.tarj.in

Jana, S. K., & Das, B. C. (2019). *Women Entrepreneurs in Transitioning Indian Economy. In Approaches to Sustainable Development* (Vol. 59). New Delhi: Renu Publishers.

Januškaitė, V., & Užienė, L. (2018). Intellectual Capital as a Factor of Sustainable Regional Competitiveness. *Sustainability, 10*(12), 4848. doi:10.3390u10124848

Jayashree, G., Priya, I. C., & Priya, M. (2016). A Study On Role Of Banking Sector in Women Entrepreneurship Development. *International Journal of Social Relevance & Concern*, *4*(11).

Jenkins, H. (2006). Small business champions for corporate social responsibility. *Journal of Business Ethics*, *67*(3), 241–256. doi:10.100710551-006-9182-6

Jianzhong, X., Assenova, A., & Erokhin, V. (2018). Renewable Energy and Sustainable Development in a Resource-Abundant Country: Challenges of Wind Power Generation in Kazakhstan. *Sustainability, 10*(9), 3315. doi:10.3390u10093315

Johannesson, 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

Johanson, J., & Vahlne, J. E. (1977). The internationalization process of the firm – a model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies*, *8*(1), 23–32. doi:10.1057/palgrave.jibs.8490676

Jones, B., & Iredale, N. (2010). Enterprise education as pedagogy. *Education + Training*, *52*(1), 7–19. doi:10.1108/00400911011017654

Jones, M. (2003). The concept of cultural landscape: discourse and narratives. In H. Palang & G. Fry (Eds.), *Landscape Interfaces* (pp. 21–51). Dordrecht, The Netherlands: Springer. doi:10.1007/978-94-017-0189-1_3

Jones, T. M. (1995). Instrumental stakeholder theory: A synthesis of ethics and economics. *Academy of Management Review*, *20*(2), 404–437. doi:10.5465/amr.1995.9507312924

Jones, T. M., Harrison, J. S., & Felps, W. (2018). How applying instrumental stakeholder theory can provide sustainable competitive advantage. *Academy of Management Review*, *43*(3), 371–391. doi:10.5465/amr.2016.0111

Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science and Practice*, *10*(2), 144–156. doi:10.1093/clipsy.bpg016

Kanter, R. M. (1983). *The Change Masters: Innovation and Entrepreneurship in the American Corporation*. New York: Simon and Shuster.

Kant, M. (2018). Corrigendum: Overcoming Barriers to Successfully Commercializing Carbon Dioxide Utilization. *Frontiers in Energy Research*, *6*(September), 1–19.

Kaplan, S. (1999). Discontinuous innovation and the growth paradox. *Strategy and Leadership*, *27*(2), 16–21. doi:10.1108/eb054631

Kar, A. K. (2011). Microfinance Institutions: A Cross-Country Empirical Investigation of Outreach and Sustainability. *Journal of Small Business and Entrepreneurship*, *24*(3), 427–446. doi:10.1080/08276331.2011.10593547

Karo, E., & Kattel, R. (2015). Economic development and evolving state capacities in Central and Eastern Europe: Can "smart specialization" make a difference? *Journal of Economic Policy Reform*, *18*(2), 172–187. doi:10.1080/17487870.2015.1009068

Kasim, A. (2004). Socio-environmentally responsible hotel business: Do tourists to Penang Island, Malaysia care? *Journal of Hospitality & Leisure Marketing*, *11*(4), 5–28. doi:10.1300/J150v11n04_02

Kasim, A. (2009). Managerial attitudes towards environmental management among small and medium hotels in Kuala Lumpur. *Journal of Sustainable Tourism*, *17*(6), 709–725. doi:10.1080/09669580902928468

Kato, S., & Ahern, J. (2008). Learning by doing: Adaptive planning as a strategy to address uncertainty in planning. *Environment & Planning*, *51*(4), 543–559.

Katsikis, I.N., & Kyrgidou, L.P. (2007). The concept of sustainable entrepreneurship: A conceptual Framework and empirical analysis. *Academy of Management Proceedings*, *2007*(1), 1-6.

Kattara, H. S., & Zeid, A. W. (2002). Current environmental issues: A study of Sinai and Red Sea hotels. *Food Service Technology*, *2*(4), 155–161. doi:10.1046/j.1471-5740.2002.00051.x

Kaur, P. (2016). Efficiency of Microfinance Institutions in India: Are They Reaching the Poorest of the Poor? *Vision: The Journal of Business Perspective*, *20*(1), 54–65. doi:10.1177/0972262916628988

Kelley, D. J., Baumer, B. S., Brush, C., Greene, P. G., Mahdavi, M., Majbouri, M., … Heavlow, R. (2017). *Global Entrepreneurship Monitor: Women ' s Entrepreneurship 2016 / 2017 Report*. Academic Press.

Kerlin, J. A. (2006). Social enterprise in the United States and Europe: Understanding and learning from the differences. *Voluntas*, *17*(3), 246–263. doi:10.100711266-006-9016-2

Kerr, S. (2017). *Practical biosecurity recommendations for farm tour hosts*. Washington State University. Retrieved from https://research.wsulibs.wsu.edu/xmlui/handle/2376/11919

Key, S. (1999). Toward a new theory of the firm: A critique of stakeholder "theory". *Management Decision*, *37*(4), 317–328. doi:10.1108/00251749910269366

Khan, K. H., Kunz, R., Kleiinen, J., & Antes, G. (2003). Five steps to conducting a systematic review. *Journal of the Royal Society of Medicine*, *96*(3), 118–121. doi:10.1177/014107680309600304 PMID:12612111

Kirchhoff, B. A. (1991). Entrepreneurship's contribution to economics. *Entrepreneurship Theory and Practice*, *16*(2), 93–112. doi:10.1177/104225879201600207

Kirkwood, J., & Walton, S. (2010). What motivates ecopreneurs to start businesses? *International Journal of Entrepreneurial Behaviour & Research*, *16*(3), 204–228. doi:10.1108/13552551011042799

Kirzner, I. M. (1973). *Competition and entrepreneurship*. Chicago, IL: University of Chicago Press.

Kittilaksanawong, W., & Zhao, H. (2018). Does lending to women lower sustainability of microfinance institutions? Moderating role of national cultures. *Gender in Management*, *33*(3), 187–202. doi:10.1108/GM-11-2015-0098

Kleibrink, A., Gianelle, C., & Doussineau, M. (2016). Monitoring innovation and territorial development in Europe: Emergent strategic management. *European Planning Studies*, *24*(8), 1438–1458. doi:10.1080/09654313.2016.1181717

Klein, P. G. (2008). Opportunity discovery, entrepreneurial action, and economic organization. *Strategic Entrepreneurship Journal*, *2*(3), 175–190. doi:10.1002ej.50

Klewitz, J. (2017). Grazing, exploring and networking for sustainability-oriented innovations in learning-action networks: An SME perspective. *Innovation*, *30*(4), 476–503. doi:10.1080/13511610.2015.1070090

Klewitz, J., & Hansen, E. G. (2013). Sustainability-oriented innovation of SMEs : A systematic review. *Journal of Cleaner Production*, *65*, 57–75. doi:10.1016/j.jclepro.2013.07.017

Klofsten, M., & Jones-Evans, D. (2000). Comparing academic entrepreneurship in Europe–the case of Sweden and Ireland. *Small Business Economics*, *14*(4), 299–309. doi:10.1023/A:1008184601282

Kluczek, A. (2017). Quick Green Scan: A Methodology for Improving Green Performance in Terms of Manufacturing Processes. *Sustainability, 9*(1), 88. doi:10.3390u9010088

Klyver, K., Nielsen, S. L., & Evald, M. R. (2013). Women ' s self-employment : An act of institutional (dis) integration? A multilevel, cross-country study. *Journal of Business Venturing*, *28*(4), 474–488. doi:10.1016/j.jbusvent.2012.07.002

Knight, K. E. (1967). A descriptive model of the intra-firm innovation process. *The Journal of Business*, *40*(4), 478–496. doi:10.1086/295013

Knowles, T., Macmillan, S., Palmer, J., Grabowski, P., & Hashimoto, A. (1999). The development of environmental initiatives in tourism: Responses form the London hotel sector. *International Journal of Tourism Research*, *1*(4), 255–265. doi:10.1002/(SICI)1522-1970(199907/08)1:4<255::AID-JTR170>3.0.CO;2-8

Knox, P. L. (1994). *Urbanization: Introduction to Urban Geography*. Prentice Hall.

Koe, W., Omar, R., & Rizal, J. (2020). Factors Influencing Propensity to Sustainable Entrepreneurship of SMEs in Malaysia. *Procedia: Social and Behavioral Sciences*, *172*, 570–577. doi:10.1016/j.sbspro.2015.01.404

Kolk, A., & Lenfant, F. (2016). Hybrid business models for peace and reconciliation. *Business Horizons*, *59*(5), 503–524. doi:10.1016/j.bushor.2016.03.014

Komninos, N. (2008). *Intelligent Cities and Globalisation of Innovation Networks*. London: Routledge. doi:10.4324/9780203894491

Komninos, N., & Sefertzi, E. (2009). *Intelligent cities: R&D offshoring, web 2.0 product development and globalization of innovation systems*. Shenzhen, China: Second Knowledge Cities.

Konstantynova, A., & Lehmann, T. (2017). Cluster Activities in Different Institutional Environments. Case Studies of ICT-Clusters from Austria, Germany, Ukraine and Serbia. *Administrative Sciences*, *7*(2), 11. doi:10.3390/admsci7020011

Korhonen, J., Honkasalo, A., & Seppälä, J. (2018). Circular Economy: The Concept and its Limitations. *Ecological Economics*, *143*, 37–46. doi:10.1016/j.ecolecon.2017.06.041

Koskinen, H. I. (2014a). A survey of horse owner's compliance with the Finnish vaccination program. *Journal of Equine Veterinary Science*, *34*(9), 1114–1117. doi:10.1016/j.jevs.2014.06.019

Koskinen, H. I. (2014b). Vaccination statistics and reality: How many horses are really vaccinated against equine influenza? *Journal of Agricultural Science and Technology A*, *4*(5), 443–448.

Kourtit, K., & Nijkamp, P. (2018). Smart Cities in Smart Space: A Regional Science Perspective. *Scienze Regionali*, *17*(1), 105–114. doi:10.3280/SCRE2015-001008

Krammer, S. M. S. (2017). Science, technology, and innovation for economic competitiveness: The role of smart specialization in less-developed countries. *Technological Forecasting and Social Change*, *123*, 95–107. doi:10.1016/j.techfore.2017.06.028

Kraus, S., Burtscher, J., Niemand, T., Roig-Tierno, N., & Syrjä, P. (2017). Configurational paths to social performance in SMEs: The interplay of innovation, sustainability, resources and achievement motivation. *Sustainability*, *9*(10), 1828. doi:10.3390u9101828

Kraus, S., Burtscher, J., Vallaster, C., & Angerer, M. (2018). Sustainable entrepreneurship orientation: A reflection on status-quo research on factors facilitating responsible managerial practices. *Sustainability*, *10*(2), 444. doi:10.3390u10020444

Kroll, H. (2015). Efforts to Implement Smart Specialization in Practice-Leading Unlike Horses to the Water. *European Planning Studies*, *23*(10), 2079–2098. doi:10.1080/09654313.2014.1003036

Kroll, H., Boke, I., Schiller, D., & Stahlecker, T. (2016). Bringing owls to Athens? The transformative potential of RIS3 for innovation policy in Germany's Federal States. *European Planning Studies*, *24*(8), 1459–1477. doi:10.1080/09654313.2016.1159666

Krozer, Y., Lordkipanidze, M., Bijma, T., & van den Akker, F. (2007). Income generation from tourism in national parks: European experience. *WIT Transactions on Ecology and the Environment*, *102*(2), 1019–1028.

Krueger, N. Jr, Reilly, M., & Carsrud, A. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, *15*(5), 411–432. doi:10.1016/S0883-9026(98)00033-0

Kuckertz, A., & Wagner, M. (2010). The influence of sustainability orientattion on entrepreneurial intentions. Investigating the role of business experience. *Journal of Business Venturing*, *25*(5), 524–539. doi:10.1016/j.jbusvent.2009.09.001

Kuhn, E. P., Colberg, P. J., Schnoor, J. L., Wanner, O., Zehnder, A., & Schwarzenbach, R. P. (1985). Microbial transformation of substitute benzenes during infiltration of river water to groundwater: Laboratory column studies. *Environmental Science & Technology*, *19*(10), 961–967. doi:10.1021/es00140a013

Kuivalainen, O., Sundqvist, S., Saarenketo, S., McNaughton, R. B., D'Angelo, A., Majocchi, A., ... Buck, T. (2013). Geographical pathways for SME internationalization: Insights from an Italian sample. *International Marketing Review*, *30*(2), 80–105. doi:10.1108/02651331311314538

Kuratko, D. F., Hornsby, J. S., & Goldsby, M. G. (2007). The relationship of stakeholder salience, organizational posture, and entrepreneurial intensity to Corporate Entrepreneurship. *Journal of Leadership & Organizational Studies*, *13*(4), 56–72. doi:10.1177/10717919070130040801

Kuratko, D. F., Ireland, R. D., & Hornsby, J. (2001). Improving firm performance through entrepreneurial actions: Acordia's corporate entrepreneurship strategy. *The Academy of Management Executive*, *15*(4), 60–67. doi:10.5465/ame.2001.5897658

Kurkchu, V. (2015). Features of the investment policy of the ATU Gagauzia. In *Collection of materials of the I National scientific-practical conference "Problems and Challenges regional economies in the context of globalization"*. Comrat State University.

Kurtz, D. J., Santos, J. L. S., & Steil, A. V. (2013). Capacidade de absorção do conhecimento e capacidades dinâmicas no contexto de ambientes turbulentos: uma análise da literatura. In *Encontro de Administração da Informação (EnADI), IV, Bento Gonçalves, 2013* (Vol. 4, pp. 1–16). Bento Gonçalves: Anais.

Kutsenko, E., Islankina, E., & Kindras, A. (2018). Smart by Oneself? An Analysis of Russian Regional Innovation Strategies within the RIS3 Framework. *Foresight and Sti Governance*, *12*(1), 25–45. doi:10.17323/2500-2597.2018.1.25.45

Kyrö, P. (2009, December). Gender Lenses Identify Different Waves and Ways of Understanding Women Entrepreneurship. *Journal of Enterprising Culture*, *17*(4), 393–418. doi:10.1142/S021849580900045X

Laasonen, V., & Kolehmainen, J. (2017). Capabilities in knowledge-based regional development - towards a dynamic framework. *European Planning Studies*, *25*(10), 1673–1692. doi:10.1080/09654313.2017.1337727

Laghzaoui, S. (2011). SMEs' internationalization: An analysis with the concept of resources and competencies. *Journal of Innovation Economics Management*, *1*(4), 181–196. doi:10.3917/jie.007.0181

Landika, M., Sredojevic, V., & Jakupovic, S. (2018). Matric Aspects of Predictions of Business Efficiency of Small and Medium Enterprises as Precondition of International Competitiveness. *Casopis Za Ekonomiju I Trzisne Komunikacije, 8*(1), 108-117.

Langer, E. J., & Moldoveanu, M. (2002). Mindfulness research and the future. *The Journal of Social Issues*, *56*(1), 129–139. doi:10.1111/0022-4537.00155

Lanoie, P., & Rochon-Fabien, A. (2012). Promoting pollution prevention in small businesses: Costs and benefits of the "enviroclub" initiative. *Canadian Public Policy*, *38*(2), 217–232. doi:10.3138/cpp.38.2.217

Lans, T., Blok, V., & Wesselink, R. (2014). Learning apart and together: Towards an integrated competence framework for sustainable entrepreneurship in higher education. *Journal of Cleaner Production*, *62*, 37–47. doi:10.1016/j.jclepro.2013.03.036

Laredo, P. (2007). Revisiting the third mission of universities: Toward a renewed categorization of university activities? *Higher Education Policy*, *20*(4), 441–456. doi:10.1057/palgrave.hep.8300169

Larsson, M., Milestad, R., Hahn, T., & von Oelreich, J. (2016). The Resilience of a Sustainability Entrepreneur in the Swedish Food System. *Sustainability*, *8*(6), 550. doi:10.3390u8060550

Lawton, L., & Weaver, D. (2010). Normative and innovative sustainable resource management at birding festivals. *Tourism Management*, *31*(4), 527–536. doi:10.1016/j.tourman.2009.06.004

Lee, C., Hallak, R., & Sardeshmukh, S. (2012). Antecedents of business performance in small tourism firms : A conceptual framework and research propositions. *Proceedings of World Business and Economics Research Conference 2012*. 10.2139srn.2184136

Lee, H., Jin, Y., & Shin, H. (2018). Cosmopolitanism and ethical consumption: An extended theory of planned behavior and modeling for fair trade coffee consumers in South Korea. *Sustainable Development*, *26*(6), 822–834. doi:10.1002d.1851

Lee, M., & Jay, J. (2015). Strategic responses to hybrid social ventures. *California Management Review*, *57*(3), 126–147. doi:10.1525/cmr.2015.57.3.126

Leiserowitz, A., Kates, R., & Parris, T. (2006). Sustainability values, attitudes, and behaviors: A review of multinational and global trends. *Annual Review of Environment and Resources*, *31*(1), 413–444. doi:10.1146/annurev.energy.31.102505.133552

Lengyel, B., & Lesko, M. (2016). International Collaboration and Spatial Dynamics of US Patenting in Central and Eastern Europe 1981-2010. *PLoS One*, *11*(11), e0166034. doi:10.1371/journal.pone.0166034

Leonidou, L. C., Katsikeas, C. S., & Piercy, N. F. (1998). Identifying managerial influences on exporting: Past research and future directions. *Journal of International Marketing*, *6*(2), 74–102. doi:10.1177/1069031X9800600209

Leon, N. (2006). *The well connected city. A report on municipal networks Supported by The Cloud*. Imperial College London.

Leppälä, J., Lunner Kolstrup, C., Pinzke, S., Rautiainen, R., Saastamoinen, M., & Särkijärvi, S. (2015). Development of a Safety Management Web Tool for Horse Stables. *Animals (Basel)*, *5*(4), 1136–1146. doi:10.3390/ani5040402 PMID:26569319

Le, T. D., & Kieu, T. A. (2019). Ethically minded consumer behaviour in Vietnam: An analysis of cultural values, personal values, attitudinal factors and demographics. *Asia Pacific Journal of Marketing and Logistics*, *31*(3), 609–626. doi:10.1108/APJML-12-2017-0344

Le, Y., Hollenhorst, S., Harris, C., McLaughlin, W., & Shook, S. (2006). Environmental management: A study of Vietnamese hotels. *Annals of Tourism Research*, *33*(2), 545–567. doi:10.1016/j.annals.2006.01.002

Leydesdorff, L. (2012). The triple helix, quadruple helix,…, and an N-tuple of helices: Explanatory models for analyzing the knowledge-based economy? *Journal of the Knowledge Economy*, *3*(1), 25–35. doi:10.100713132-011-0049-4

Li, X., Du, J., & Long, H. (2018). A Comparative Study of Chinese and Foreign Green Development from the Perspective of Mapping Knowledge Domains. *Sustainability, 10*(12), 4357. doi:10.3390u10124357

Liburd, J. (2007). Sustainable tourism and innovation in the mobile tourism services. *Tourism Review International*, *9*(1), 107–118. doi:10.3727/154427205774791771

Ligthelm, A. A. (2010). Entrepreneurship and small business sustainability. *Southern African Business Review*, *14*(3), 131–153.

Liñán, F. (2008). Skill and value perceptions: How do they affect entrepreneurial intentions? *The International Entrepreneurship and Management Journal*, *4*(3), 257–272. doi:10.100711365-008-0093-0

Lister, N. M. (2007). Sustainable large parks: Ecological design or designer ecology? In G. Hargreaves & J. Czerniak (Eds.), *Large parks* (pp. 35–54). New York: Architectural Press.

Lopatta, K., Tchikov, M., Jaeschke, R., & Lodhia, S. (2017). Sustainable Development and Microfinance: The Effect of Outreach and Profitability on Microfinance Institutions' Development Mission. *Sustainable Development*, *25*(5), 386–399. doi:10.1002d.1663

Lopes, J., & Franco, M. (2017). Review About Regional Development Networks: an Ecosystem Model Proposal. *Journal of the Knowledge Economy*, 1-23.

Lopes, J., Farinha, L., & Ferreira, J. J. (2018). Value Creation and Commercialization in Insular Ecosystems. *International Journal of Social Ecology and Sustainable Development*, *9*(3), 92–102. doi:10.4018/IJSESD.2018070107

Lopes, J., Ferreira, J. J., & Farinha, L. (2019). Innovation strategies for smart specialisation (RIS3): Past, present and future research. *Growth and Change*, *50*(1), 38–68. doi:10.1111/grow.12268

Lopes, J., Ferreira, J. J., Farinha, L., & Raposo, M. (2018). Emerging Perspectives on Regional Academic Entrepreneurship. *Higher Education Policy*, 1–29.

Lordkipanidze, M., Krozer, Y., Kadiman, T., Crul, M., & Brezet, H. (2008). Impacts from tourism in protected areas. *Georginal International Journal of Science*. *Techology and Medicine*, *1*(1), 11–47.

Lorentzen, J., Muller, L., Manamela, A., & Gastrow, M. (2011). Smart specialisation and global competitiveness: Multinational enterprises and location-specific assets in Cape Town. *African Journal of Business Management*, *5*(12), 4782–4791.

Louis, P., Seret, A., & Baesens, B. (2013). Financial Efficiency and Social Impact of Microfinance Institutions Using Self-Organizing Maps. *World Development*, *46*, 197–210. doi:10.1016/j.worlddev.2013.02.006

Lu, L.-C., & Lu, C.-J. (2010). Moral philosophy, materialism, and consumer ethics: An exploratory study in Indonesia. *Journal of Business Ethics*, *94*(2), 193–210. doi:10.100710551-009-0256-0

Lumpkin, G. R., & Dess, G. G. (1996b). Enriching the entrepreneurial orientation construct – a reply to entrepreneurial orientation or pioneer advantage. *Academy of Management Journal*, *21*(3), 605–607.

Lumpkin, G. T., & Bacq, S. (2019). Civic wealth creation: A new view of stakeholder engagement and societal impact. *The Academy of Management Perspectives*, 1.

Lumpkin, G. T., & Dess, G. G. (1996a). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review*, *21*(1), 135–172. doi:10.5465/amr.1996.9602161568

Lumpkin, G. T., Moss, T. W., Gras, D. M., Kato, S., & Amezcua, A. S. (2013). Entrepreneurial processes in social contexts: How are they different, if at all? *Small Business Economics*, *40*(3), 761–783. doi:10.100711187-011-9399-3

Lundstrom, N., & Maenpaa, A. (2017). Wicked game of smart specialization: A player's handbook. *European Planning Studies*, *25*(8), 1357–1374. doi:10.1080/09654313.2017.1307328

Lundvall, B.-A. (1999). Technology policy in the learning economy. *Innovation Policy in a Global Economy*, 19-34.

Maier, D., Maftei, M., Maier, A., & Bitan, G. E. (2019). A Review of Product Innovation Management Literature in the Context of Organization Sustainable Development. *Amfiteatru Economic*, *21*(Special 13), 816–829. doi:10.24818/EA/2019/S13/816

Mair, J. (2010). Social entrepreneurship: taking stock and looking ahead. In A. Fayolle & H. Matlay (Eds.), *Handbook of Research and Social Entrepreneurship* (pp. 15–28). Cheltenham, UK: Edward Elgar Publishing Limited. doi:10.4337/9781849804684.00007

Mair, J., & Marti, I. (2006). Social entrepreneurship research: A source of explanation, prediction, and delight. *Journal of World Business*, *41*(1), 36–44. doi:10.1016/j.jwb.2005.09.002

Mäkinen, S., & Dedehayir, O. (2012). Business ecosystem evolution and strategic considerations: a literature review. *18th international ICE conference on engineering, technology and innovation*. Retrieved from https://ieeexplore.ieee.org/abstract/document/6297653

Malyadri, P., & Gangadhar, S. C. (2015). Impact of Microfinance on Women Empowerment: An Empirical Evidence from Andhra Pradesh. *Journal of Entrepreneurship and Organisation Management*, *4*, 141. doi:10.4172/2169-026X.1000141

Mani, M. (2015). Entrepreneurship education: A student's perspective. *International Journal of E-Entrepreneurship and Innovation*, *5*(1), 1–14. doi:10.4018/ijeei.2015010101

Markkula, M., & Kune, H. (2015). Making Smart Regions Smarter: Smart Specialization and the Role of Universities in Regional Innovation Ecosystems. *Technology Innovation Management Review*, *5*(10), 7–15. doi:10.22215/timreview/932

Marlow, D., & Richardson, K. (2016). How smart is England's approach to smart specialization? A policy paper. *European Planning Studies*, *24*(8), 1478–1493. doi:10.1080/09654313.2016.1179267

Marques, C. S., Gerry, C., Marques, C. P., Susana, C., Gerry, C., Peixeira, C., ... Gerry, C. (2018). The long road from one-size-fits-all SME promotion to bespoke business start-ups bespoke business start-ups. *European Planning Studies*, *26*(11), 2216–2236. doi:10.1080/09654313.2018.1530145

Marques, T., Reis, N., & Gomes, J. F. S. (2018). Responsible Leadership Research: A Bibliometric Review. *BAR - Brazilian Administration Review*, *15*(1), e170112. doi:10.1590/1807-7692bar2018170112

Martin, S. (2013). *A surf resource sustainability index for surf site conservation and tourism management* (Unpublished Doctoral Thesis). University Prince of Songkla, Hat Yai, Thailand.

Martin, W., & Lumpkin, G. T. (2003). *From entrepreneurial orientation to family orientation: generational differences in the management of family businesses*. Paper presented at the Babson College Entrepreneurship Research Conference, Babson Collegue, Wellesley, MA.

Martínez-López, D., & Palazuelos-Martínez, M. (2014). Breaking with the past in smart specialisation: A new model of selection of business stakeholders within the entrepreneurial process of discovery. *Journal of the Knowledge Economy*, 1-14.

Martínez-Pérez, Á., García-Villaverde, P. M., & Elche, D. (2015). Eco-innovation antecedents in cultural tourism clusters: External relationships and explorative knowledge. *Innovation*, *17*(1), 41–57. doi:10.1080/14479338.2015.1011058

Martins, J. T. (2016). Relational capabilities to leverage new knowledge Managing directors' perceptions in UK and Portugal old industrial regions. *The Learning Organization*, *23*(6), 398–414. doi:10.1108/TLO-03-2016-0022

Mattera, M., & Melgarejo, A. M. (2012). Strategic implications of corporate social responsibility in hotel industry: A comparative research between NH Hotels and Meliá Hotels. *International Higher Learning Research Communications*, *2*(4), 37–53. doi:10.18870/hlrc.v2i4.85

Maximova, N., Kantamaneni, K., Morkovkin, G., Arnaut, D., & Rice, L. (2019). The Transformation of Agro-Climatic Resources of the Altai Region under Changing Climate Conditions. *Agriculture, 9*(4), 68. doi:10.3390/agriculture9040068

Mayoux, L. (2000). *Microfinance and the Empowerment of Women – review of key issues.* Social Finance Programme Working Paper No. 23, ILO, Geneva.

McCann, P., & Ortega-Argiles, R. (2016c). Smart Specialisation: Insights from the EU Experience and Implications for Other Economies. *Investigaciones Regionales,* (36), 279-293.

McCann, P., & Ortega-Argiles, R. (2013a). Modern regional innovation policy. *Cambridge Journal of Regions, Economy and Society*, *6*(2), 187–216. doi:10.1093/cjres/rst007

McCann, P., & Ortega-Argiles, R. (2013b). Transforming European regional policy: A results-driven agenda and smart specialization. *Oxford Review of Economic Policy*, *29*(2), 405–431. doi:10.1093/oxrep/grt021

Mccann, P., & Ortega-Argiles, R. (2015). Smart Specialization, Regional Growth and Applications to European Union Cohesion Policy. *Regional Studies*, *49*(8), 1291–1302. doi:10.1080/00343404.2013.799769

McCann, P., & Ortega-Argiles, R. (2016a). The early experience of smart specialization implementation in EU cohesion policy. *European Planning Studies*, *24*(8), 1407–1427. doi:10.1080/09654313.2016.1166177

McCann, P., & Ortega-Argiles, R. (2016b). Smart specialisation, entrepreneurship and SMEs: Issues and challenges for a results-oriented EU regional policy. *Small Business Economics*, *46*(4), 537–552. doi:10.100711187-016-9707-z

McDougall, P., & Oviatt, B. (2005). Defining international entrepreneurship and modeling the speed of internationalization. *Entrepreneurship Theory and Practice*, *29*(5), 537–554. doi:10.1111/j.1540-6520.2005.00097.x

McGeough, U., & Newman, D. (2004). *Model for sustainable urban design with expanded sections on distributed energy resources.* Sustainable Energy Planning Office Gas Technology Institute and Oak Ridge National Laboratory GTI Project # 30803-23/88018/65952.

McLarnon, M., & Tarraf, R. (2017). The dark triad: Specific or general sources of variance? A bifactor exploratory structural equation modeling approach. *Personality and Individual Differences*, *112*(Sup C), 67-73.

McMullen, J. S., & Warnick, B. J. (2016). Should we require every new venture to be a hybrid organization? *Journal of Management Studies*, *53*(4), 630–662. doi:10.1111/joms.12150

McWilliams, A., & Siegel, D. (2000). Corporate social responsibility and financial performance: Correlation or misspecification? *Strategic Management Journal*, *21*(5), 603–609. doi:10.1002/(SICI)1097-0266(200005)21:5<603::AID-SMJ101>3.0.CO;2-3

McWilliams, A., & Siegel, D. (2001). Corporate social responsibility: A theory of the firm perspective. *Academy of Management Review*, *26*(1), 117–127. doi:10.5465/amr.2001.4011987

Medeiros, A. R., & Russo, S. L. (2018). Trademarks as an indicator: Systematic review and bibliometric analysis of literature. *Biblios-Revista De Bibliotecologia Y. Ciencias de la Información*, (71), 50–67.

Meek, W. R., Pacheco, D. F., & York, J. G. (2010). The impact of social norms on entrepreneurial action: Evidence from the environmental entrepreneurship context. *Journal of Business Venturing*, *25*(5), 493–509. doi:10.1016/j.jbusvent.2009.09.007

Mena, S., & Suddaby, R. (2016). Theorization as institutional work: The dynamics of roles and practices. *Human Relations*, *69*(8), 1669–1708. doi:10.1177/0018726715622556

Mensah, I. (2007). Environmental management and sustainable tourism development: The case of hotels in Greater Accra Region (GAR) of Ghana. *Journal of Retail & Leisure Property*, *6*(1), 15–22. doi:10.1057/palgrave.rlp.5100039

Meyer, M. H., & Roberts, E. B. (1986). New product strategy in small technology-based firms A pilot study. *Management Science*, *32*(7), 773–907. doi:10.1287/mnsc.32.7.806

Mfune, O., Chisola, M., & Ziba, I. (2016). How Can Multifunctional Agriculture Support a Transition to a Green Economy in Africa? Lessons from the COMACO Model in Zambia. *Agriculture, 6*(3), 48. doi:10.3390/agriculture6030048

Michie, J., & Oughton, C. (2001). Regional innovation strategies: Integrating regional, industrial and innovation policy. *New Economy*, *8*(3), 164–169. doi:10.1111/1468-0041.00209

Mieszkowski, K., & Kardas, M. (2015). Facilitating an Entrepreneurial Discovery Process for Smart Specialisation. The Case of Poland. *Journal of the Knowledge Economy*, *6*(2), 357–384. doi:10.100713132-015-0242-y

Miles, S. (2017). Stakeholder Theory Classification: A Theoretical and Empirical Evaluation of Definitions. *Journal of Business Ethics*, *142*(3), 437–459. doi:10.100710551-015-2741-y

Millenium Ecosystem Assessment. (2005). Ecosystems and human well-being: synthesis; Mukul A. Lack of funds hampers social science research. *Times of India*. Retrieved from http://timesofindia.indiatimes.com/india/Lack-of-funds-hamperssocial-science-research/articleshow/10237494.cms

Miller, D. (1983). The correlates of entrepreneurship in three types of firms. *Management Science*, *29*(7), 770–791. doi:10.1287/mnsc.29.7.770

Minniti, M., & Nardone, C. (2007). Being in Someone Else's Shoes : The Role of Gender in Nascent Entrepreneurship. *Small Business Economics*, *28*(2-3), 223–238. doi:10.100711187-006-9017-y

Miret-Pastor, L., Segarra-Oña, M. V., & Peiró-Signes, A. (2011). How to rate ecoinnovation? A tourism sector indicator's analysis. *TEC Empresarial*, *5*(2), 15–25.

Moldova in figures. National Bureau of Statistics of the Republic of Moldova Statistical pocket-book. (2017). Retrieved from http://www.statistica.md/public/files/publicatii_electronice/Moldova_in_cifre/2017/Moldova_in_figures_en_2017.pdf

Moniz, A. I. (2006). *A sustentabilidade do turismo em ilhas de pequena dimensão: O caso dos Açores* (Unpublished Doctoral Thesis). University of the Azores, Ponta Delgada, Portugal.

Montgomery, D. B., & Ramus, C. A. (2011). Calibrating MBA Job Preferences for the 21st Century. *Academy of Management Learning & Education*, *10*(1), 9–26.

Montresor, S., & Quatraro, F. (2017). Regional Branching and Key Enabling Technologies: Evidence from European Patent Data. *Economic Geography, 93*(4), 367-396.

Moodysson, J., Trippl, M., & Zukauskaite, E. (2017). Policy learning and smart specialization: Balancing policy change and continuity for new regional industrial paths. *Science & Public Policy*, *44*(3), 382–391.

Moon, B. E. (2009). The great divide in microfinance: Political economy in microcosm. In T. A. Watkins & K. Hicks (Eds.), *Contemporary Studies in Economic and Financial Analysis* (Vol. 92, pp. 109–144). doi:10.1108/S1569-3759(2009)0000092007

Moore, D. P. & Buttner, E. H. (1997). *Women entrepreneurs: Moving beyond New Generation of Women Entrepreneurs Achieving Business Success*. Academic Press.

Moore, J. F. (1998). The rise of a new corporate form. *The Washington Quarterly*, *21*(1), 167–181. doi:10.1080/01636609809550301

Morgan, G. (2006). *Images of organization*. Thousand Oaks, CA: Sage.

Morgan, K. (2016). Collective entrepreneurship: The Basque model of innovation. *European Planning Studies*, *24*(8), 1544–1560. doi:10.1080/09654313.2016.1151483

Morgan, K. (2017). Nurturing novelty: Regional innovation policy in the age of smart specialisation. *Environment and Planning C-Politics and Space*, *35*(4), 569–583. doi:10.1177/0263774X16645106

Morrish, S. C., Miles, M. P., & Polonsky, M. J. (2011). An exploratory study of Sustainability as a stimulus for Corporate Entrepreneurship. *Corporate Social Responsibility and Environmental Management*, *18*(3), 162–171. doi:10.1002/csr.271

Morrow, P., & McElroy, J. (2007). Efficiency as a mediator in turnover—Organizational performance relations. *Human Relations*, *60*(6), 827–849. doi:10.1177/0018726707080078

Morshed, F., & Haque, M. E. (2015). Impact of Women Entrepreneurship on Women Empowerment in Bangladesh. *Journal of Economics and Sustainable Development, 6*(1). Retrieved from www.iiste.org

Moscardo, G. (2008). Sustainable tourism innovation: Challenging basic assumptions. *Tourism and Hospitality Research*, *8*(1), 4–13. doi:10.1057/thr.2008.7

Moss, T. W., Lumpkin, G. T., & Short, J. C. (2010). Social entrepreneurship: a historical review and research agenda. *Historical Foundations of Entrepreneurial Research,* 318.

Moss, T. W., Short, J. C., Payne, G. T., & Lumpkin, G. T. (2011). Dual identities in social ventures: An exploratory study. *Entrepreneurship Theory and Practice*, *35*(4), 805–830. doi:10.1111/j.1540-6520.2010.00372.x

Mota, F. B., Pinto, C. D., Paranhos, J., & Hasenclever, L. (2017). Mapping the 'dynamic capabilities' scientific landscape, 1990-2015: A bibliometric analysis. *COLLNET Journal of Scientometrics and Information Management*, *11*(2), 309–324. doi:10.1080/09737766.2017.1306181

Muller, E., Zenker, A., Hufnagl, M., Heraud, J. A., Schnabl, E., Makkonen, T., & Kroll, H. (2017). Smart specialisation strategies and cross-border integration of regional innovation systems: Policy dynamics and challenges for the Upper Rhine. *Environment and Planning C-Politics and Space*, *35*(4), 684–702. doi:10.1177/0263774X16688472

Muller, E., Zenker, A., Hufnagl, M., Héraud, J.-A., Schnabl, E., Makkonen, T., & Kroll, H. (2017). Smart specialisation strategies and cross-border integration of regional innovation systems: Policy dynamics and challenges for the Upper Rhine. *Environment and Planning C. Politics and Space*, *35*(4), 684–702.

Muncy, J. A., & Vitell, S. J. (1992). Consumer ethics: An investigation of the ethical beliefs of the final consumer. *Journal of Business Research*, *24*(4), 297–311. doi:10.1016/0148-2963(92)90036-B

Muñoz, P., & Cohen, B. (2017). Towards a social-ecological understanding of sustainable venturing. *Journal of Business Venturing Insights*, *7*, 1–8. doi:10.1016/j.jbvi.2016.12.001

Muñoz, P., & Cohen, B. (2018). Sustainable entrepreneurship research: Taking stock and looking ahead. *Business Strategy and the Environment*, *27*(3), 300–322. doi:10.1002/bse.2000

Muñoz, P., & Dimov, D. (2017). Moral intensity as catalyst for opportunities for sustainable development. In *The World Scientific Reference on Entrepreneurship* (Vol. 3, pp. 225–247). Sustainability, Ethics, and Entrepreneurship. doi:10.1142/9789813220614_0009

Muscio, A., & Ciffolilli, A. (2018). Technological diversity in Europe: Empirical evidence from agri-food research projects. *Regional Studies*, *52*(3), 374–387. doi:10.1080/00343404.2017.1301662

Muscio, A., Reid, A., & Leon, L. R. (2015). An empirical test of the regional innovation paradox: Can smart specialisation overcome the paradox in Central and Eastern Europe? *Journal of Economic Policy Reform*, *18*(2), 153–171. doi:10.1080/17487870.2015.1013545

Mustra, V., Simundi, B., & Kulis, Z. (2017). Effects of smart specialization on regional economic resilience in EU. *Revista De Estudios Regionales,* (110), 175-195.

NABARD. (2017). Status of Microfinance in India 2016-17. Department of Microcredit Innovation, NABARD.

Naidoo, V., & Verma, R. (2019). *Green Marketing as a Positive Driver toward Business Sustainability*. Hershey, PA: IGI Global. doi:10.4018/978-1-5225-9558-8

Naldi, L., Nilsson, P., Westlund, H., & Wixe, S. (2015). What is smart rural development? *Journal of Rural Studies*, *40*, 90–101. doi:10.1016/j.jrurstud.2015.06.006

Navarro, M., Valdaliso, J. M., Aranguren, M. J., & Magro, E. (2014). A holistic approach to regional strategies: The case of the Basque Country. *Science & Public Policy*, *41*(4), 532–547. doi:10.1093cipolct080

Nazarczuk, J. M., Uminski, S., & Gawlikowska-Hueckel, K. (2018). The Role of Specialisation in the Export Success of Polish Counties in 2004-2015. *Entrepreneurial Business and Economics Review*, *6*(2), 91–109. doi:10.15678/EBER.2018.060205

Nicholls, A. (2010). The legitimacy of social entrepreneurship: Reflexive isomorphism in a pre-paradigmatic field. *Entrepreneurship Theory and Practice*, *34*(4), 611–633. doi:10.1111/j.1540-6520.2010.00397.x

Nicholls, S., & Kang, S. (2012). Going green: The adoption of environmental initiatives in Michigan's lodging sector. *Journal of Sustainable Tourism*, *20*(7), 953–974. doi:10.1080/09669582.2011.645577

Nidumolu, R., Prahalad, C., & Rangaswami, M. (2009). Why sustainability is now the key driver of innovation. *Harvard Business Review*, *87*(9), 56–64.

Nielsen. (2015a). *The sustainability imperative: New insights on consumer expectations*. Retrieved from https://www.nielsen.com/content/dam/nielsenglobal/dk/docs/global-sustainability-report-oct-2015.pdf

Nielsen. (2015b). *Sustainability influences purchase intent of Vietnamese consumers*. Retrieved from http://www.nielsen.com/content/dam/nielsenglobal/vn/docs/PR_EN/Vietnam_CSR%20release_EN.pdf

Niemelä, J., Saarela, S.-R., Söderman, T., Kopperoinen, L., Yli-Pelkonen, V., Väre, S., & Kotze, D. (2010). Using the ecosystem services approach for better planning and conservation of urban green spaces: A Finland case study. *Biodiversity and Conservation*, *19*(11), 3225–3243. doi:10.100710531-010-9888-8

Nikolaou, I. E., Tasopoulou, K., & Tsagarakis, K. (2018). A Typology of Green Entrepreneurs Based on Institutional and Resource-based Views. *The Journal of Entrepreneurship*, *27*(1), 111–132. doi:10.1177/0971355717738601

Njite, D., Hancer, M., & Slevitch, L. (2011). Exploring corporate social responsibility: A managers' perspective on how and why small independent hotels engage with their communities. *Journal of Quality Assurance in Hospitality & Tourism*, *12*(3), 177–201. doi:10.1080/1528008X.2011.541833

Nonaka, I., & Takeuchi, H. (1995). *The Knowledge-Creating Company*. Oxford, UK: Oxford University Press.

Nordberg, K. (2015). Enabling Regional Growth in Peripheral Non-University Regions-The Impact of a Quadruple Helix Intermediate Organisation. *Journal of the Knowledge Economy*, *6*(2), 334–356. doi:10.100713132-015-0241-z

Nordqvist, M., Habbershon, T. G., & Melin, L. (2008). Trangenerational entrepreneurship: Exploring entrepreneurial orientation in family firms. In H. Landstrom, D. Smallbone, H. Crijns, & E. Laveren (Eds.), *Entrepreneurship, sustainable growth and performance: Frontiers in European entrepreneurship research*. London: Edward Elgar. doi:10.4337/9781848443952.00014

Nurmakhanova, M., Kretzschmar, G., & Fedhila, H. (2015). Trade-off between financial sustainability and outreach of microfinance institutions. *Eurasian Economic Review*, *5*(2), 231–250. doi:10.100740822-015-0016-7

Nybakk, E., & Hansen, E. (2008). Entrepreneurial attitude, innovation and performance among Norwegian nature-based tourism enterprises. *Forest Policy and Economics*, *10*(7), 473–479. doi:10.1016/j.forpol.2008.04.004

O'Neill, G. D. Jr, Hershauer, J. C., & Golden, J. S. (2006). The cultural context of sustainability entrepreneurship. *Greener Management International*, *55*(55), 33–46. doi:10.9774/GLEAF.3062.2006.au.00005

OCDE. (2009). *Eco-innovation in industry: Enabling green growth*. Paris: OECD.

OECD & Statistical Office of the European Communities. (2005). *OECD Glossary of Statistical Terms - Innovation Definition*. Retrieved from https://stats.oecd.org/glossary/detail.asp?ID=6865

OECD. (2013). *Green Innovation in Tourism Services, OECD Tourism Papers, 2013/01*. OECD Publishing; doi:10.1787/5k4bxkt1cjd2-

Oh, H., Chung, M. H., & Labianca, G. (2004). Group social capital and group effectiveness: The role of informal socializing ties. *Academy of Management Journal*, *47*(6), 860–875. doi:10.5465/20159627

Olivares-Polanco, F. (2005). Commercializing Microfinance and Deepening Outreach? Empirical Evidence from Latin America. *Journal of Microfinance/ESR Review, 7*(2), 47–69.

Olive-Tomas, A. (2014). El Rec.0 i les teories sobre la creació de negocis. *Revista d'Igualada*, *48*, 39–46.

Oort, F. V., Geus, S., & Dogaru, T. (2015). Related Variety and Regional Economic Growth in a Cross-Section of European Urban Regions. *European Planning Studies*, *23*(6), 1110–1127. doi:10.1080/09654313.2014.905003

Ortega-Reyes, A., Hernández Gress, E., & Robles-Acosta, C. (2018). Case Study Based Model to Propose the Integration of Suppliers in a Central State in Mexico. *Administrative Sciences, 8*(2), 10. doi:10.3390/admsci8020010

Oshun, M., Ardoin, N., & Ryan, S. (2011). Use of the planning outreach liaison model in the neighborhood planning process: A case study in Seattle's Rainier Valley neighborhood. *Urban Studies Research. Article ID*, *687834*. doi:10.1155/2011/687834

Ottman, J. A., Stafford, E. R., & Hartman, C. L. (2006). Green marketing myopia. *Environment*, *48*(5), 22–36. doi:10.3200/ENVT.48.5.22-36

Otto, U. (1998). Innovative Qualität statt neues Etikett: Erste Erfahrungen mit einer konsequenten Programmatik Bürgerschaftlichen Engagements. In J. Braun & O. Klemmert (Eds.). ISAB-Schriftenreihe: Vol. 54. Selbsthilfeförderung und bürgerschaftliches Engagement in Städten und Kreisen. Fachtagung des Bundesministeriums für Familie, Senioren, Frauen und Jugend am 16./17. Februar 1998 in Bonn (pp. 215–235). Academic Press.

Özçelik, E., & Taymaz, E. (2004). Does innovativeness matter for international competitiveness in developing countries?: The case of Turkish manufacturing industries. *Research Policy*, *33*(3), 409–424. doi:10.1016/j.respol.2003.09.011

Pace, L. A. (2016). How do tourism firms innovate for sustainable energy consumption? A capabilities perspective on the adoption of energy efficiency in tourism accommodation establishments. *Journal of Cleaner Production, 111*(Part B), 409–420.

Pahl-Wostl, C., Craps, M., Dewulf, A., Mostert, E., Tabara, D., & Taillieu, T. (2007). Social learning and water resources management. *Ecology and Society, 12*(2), 5. Retrieved from http://www.ecologyandsociety.org/vol12/iss2/art5/

Paliokaite, A., Martinaitis, Z., & Reimeris, R. (2015). Foresight methods for smart specialisation strategy development in Lithuania. *Technological Forecasting and Social Change*, *101*, 185–199. doi:10.1016/j.techfore.2015.04.008

Paliokaite, A., Martinaitis, Z., & Sarpong, D. (2016). Implementing smart specialisation roadmaps in Lithuania: Lost in translation? *Technological Forecasting and Social Change*, *110*, 143–152. doi:10.1016/j.techfore.2016.01.005

Pandza K, Thorpe R. (2009). Creative search and strategic sense-making: missing dimensions in the concept of dynamic capabilities. *British Journal of Management, 20*(SI), S118-S131.

Panori, A., Komninos, N., Kakderi, C., & Fellnhofer, K. (2017). *Smart Specialisation Strategies: An Online Platform for Strategy Design and Assessment.* Paper presented at the International Conference on Reliability and Statistics in Transportation and Communication.

Papaoikonomou, E., Cascon-Pereira, R., & Ryan, G. (2016). Constructing and communicating an ethical consumer identity: A social identity approach. *Journal of Consumer Culture*, *16*(1), 209–231. doi:10.1177/1469540514521080

Papies, E. K. (2017). Situating interventions to bridge the intention–behaviour gap: A framework for recruiting nonconscious processes for behaviour change. *Social and Personality Psychology Compass*, *11*(7), e12323. doi:10.1111pc3.12323

Park, S.-B. (2018). Multinationals and sustainable development: Does internationalization develop corporate sustainability of emerging market multinationals? *Business Strategy and the Environment*, *27*(8), 1514–1524. doi:10.1002/bse.2209

Parmar, B. L., Freeman, R. E., Harrison, J. S., Wicks, A. C., Purnell, L., & De Colle, S. (2010). Stakeholder theory: The state of the art. *The Academy of Management Annals*, *4*(1), 403–445. doi:10.5465/19416520.2010.495581

Parrish, B., & Foxon, T. (2009). Sustainability entrepreneurship and equitable transitions to a low-carbon economy. *Greener Management International*, *55*, 47–62.

Patra, S. K., Bhattacharya, P., & Verma, N. (2006). Bibliometric study of literature on bibliometrics. *DESIDOC Journal of Library and Information Technology*, *26*(1), 27–32. doi:10.14429/dbit.26.1.3672

Patzelt, H., & Shepherd, D. (2010). Recognizing opportunities for sustainable development. *Entrepreneurship Theory and Practice*, *35*(4), 631–652. doi:10.1111/j.1540-6520.2010.00386.x

Paxton, J. (2002). Depth of Outreach and its Relation to the Sustainability of Microfinance Institutions. *Savings and Development*, *26*(1), 69–86.

Pedraza-Acosta, I., & Mouritsen, J. (2018). Dynamisms of financialization: Circuits of power in globalized production networks. *Human Relations*, *71*(6), 845–866. doi:10.1177/0018726717751612

Pedrini, M., & Ferri, L. M. (2016). Doing Well by Returning to the Origin. Mission Drift, Outreach and Financial Performance of Microfinance Institutions. *Voluntas*, *27*(6), 2576–2594. doi:10.100711266-016-9707-2

Peeters, P., Gossling, S., & Becken, S. (2006). Innovation towards tourism sustainability: Climate change and aviation. *International Journal of Innovation and Sustainable Development*, *1*(3), 184–200. doi:10.1504/IJISD.2006.012421

Peltoniemi, M., & Vuori, E. (2004). Business ecosystem as the new approach to complex adaptive business environments. *Proceedings of eBusiness Research Forum*.

Pepper, A., Gosling, T., & Gore, J. (2015). Fairness, envy, guilt and greed: Building equity considerations into agency theory. *Human Relations*, *68*(8), 1291–1314. doi:10.1177/0018726714554663

Pepper, M., Jackson, T., & Uzzell, D. (2009). An examination of the values that motivate socially conscious and frugal consumer behaviours. *International Journal of Consumer Studies*, *33*(2), 126–136. doi:10.1111/j.1470-6431.2009.00753.x

Perannagari, K. T., & Chakrabarti, S. (2019). Analysis of the literature on political marketing using a bibliometric approach. *Journal of Public Affairs*, 13.

Peris-Ortiz, M., Ferreira, J. J., Farinha, L., & Fernandes, N. O. (2016). *Introduction to Multiple Helix Ecosystems for Sustainable Competitiveness. In Multiple Helix Ecosystems for Sustainable Competitiveness* (pp. 1–13). Springer. doi:10.1007/978-3-319-29677-7

Perugini, M., & Bagozzi, R. P. (2004). The distinction between desires and intentions. *European Journal of Social Psychology*, *34*(1), 69–84. doi:10.1002/ejsp.186

Pervan, S., Al-Ansaari, Y., & Xu, J. (2015). Environmental determinants of open innovation in Dubai SMEs. *Industrial Marketing Management*, *50*, 60–68. doi:10.1016/j.indmarman.2015.05.029

Pesaran, M. H. (2015). Testing Weak Cross-Sectional Dependence in Large Panels. *Econometric Reviews*, *34*(6–10), 1089–1117. doi:10.1080/07474938.2014.956623

PHD Research Bureau. (2019). *Women entrepreneurship: Transforming from domestic household to financial independence*. New Delhi, India: PHD Chamber of Commerce and Industries.

Phillips, W., Lee, H., Ghobadian, A., O'Regan, N., & James, P. (2014). Social innovation and social entrepreneurship : A systematic review. *Organization Management*, *40*(3), 428–461. doi:10.1177/1059601114560063

Piirainen, K. A., Tanner, A. N., & Alkaersig, L. (2017). Regional foresight and dynamics of smart specialization: A typology of regional diversification patterns. *Technological Forecasting and Social Change*, *115*, 289–300. doi:10.1016/j.techfore.2016.06.027

Pilotti, L. (2018). Cultural Economy for the Environmental Preservation of the Landscape as a Key Resource in Historic Territories. *Agriculture, 8*(10), 161. doi:10.3390/agriculture8100161

Pines, A. M., Lerner, M., & Schwartz, D. (2010). Gender differences in entrepreneursip: Equality, diversity and inclusion in times of global crises. *Equality, Diversity and Inclusion. International Journal (Toronto, Ont.)*, *29*(2), 2186–2198.

Pischke, J. D. V. (1996). Measuring the trade-off between outreach and sustainability of microenterprise lenders. *Journal of International Development*, *8*(2), 225–239. doi:10.1002/(SICI)1099-1328(199603)8:2<225::AID-JID370>3.0.CO;2-6

Plieninger, T., & Bieling, C. (2012). Connecting cultural landscapes to resilience. In T. Plieninger & C. Bieling (Eds.), *Resilience and the cultural landscape: understanding and managing change in human-shaped environments* (pp. 3–26). New York, NY: Cambridge University Press. doi:10.1017/CBO9781139107778.003

Podsakoff, P. M., Mackenzie, S. B., Bachrach, D. G., & Podsakoff, N. P. (2005). The influence of management journals the 1980s and 1990s. *Strategic Management Journal*, *26*(5), 473–488. doi:10.1002mj.454

Polonsky, M. J., Brito, P. Q., Pinto, J., & Higgs-Kleyn, N. (2001). Consumer ethics in the European Union: A comparison of Northern and Southern views. *Journal of Business Ethics*, *31*(2), 117–130. doi:10.1023/A:1010780526643

Popescu, C. R. (2017). The Role of Total Quality Management in Developing the Concept of Social Responsibility to Protect Public Interest in Associations of Liberal Professions. *Amfiteatru Economic, 19*(Special No. 11), 1091-1106, Retrieved from http://www.amfiteatrueconomic.ro/temp/Article_2685.pdf

Popescu, C. R. (2018a). "Intellectual Capital" – Role, Importance, Components and Influences on the Performance of Organizations – A Theoretical Approach. *Proceedings of the 32nd International Business Information Management Association Conference*.

Popescu, C. R. (2019a). Evaluating intellectual capital and its influence on companies' performance – a Case Study on Romania's Experience. *INTED2019 Proceedings*. doi: 10.21125/inted.2019

Popescu, C. R., & Banța, V. C. (2019). Performance Evaluation of the Implementation of the 2013/34/EU Directive in Romania on the Basis of Corporate Social Responsibility Reports. *Sustainability*, *11*(9), 2531. Retrieved from https://www.mdpi.com/2071-1050/11/9/2531

Popescu, C. R., Popescu, G. N., & Popescu, V. A. (2017a). Assessment of the State of Implementation of Excellence Model Common Assessment Framework (CAF) 2013 by the National Institutes of Research – Development – Innovation in Romania. *Amfiteatru Economic*, *19*(44), 41-60. Retrieved from http://www.amfiteatrueconomic.ro/temp/Articol_2593.pdf

Popescu, C. R., Popescu, V. A., & Popescu, G. N. (2015). The entrepreneur's role in the performance growth of the financial audit activity in Romania. *Amfiteatru Economic*, *17*(38), 232-251. Retrieved from http://www.amfiteatrueconomic.ro/temp/Article_2382.pdf

Popescu, C.R. & Popescu, G.N. (2018a). Risks of cyber attacks on financial audit activity. *Audit Financiar*, *16*(149), 140-147. Doi:10.20869/AUDITF/2018/149/006

Popescu, G. N., Popescu, V. A., & Popescu, C. R. (2015). Chapter title: Corporate Governance in Romania: Theories, Practices and Future Perspectives. In Sabri Corporate Governance and Corporate Social Responsibility. Emerging Markets Focus (pp. 375 – 401). World Scientific Publishing House.

Popescu, V. A., & Popescu, G.N. (2002). Manualul inspectorului de salarii. Bucureşti: Editura Gestiunea.

Popescu, C. R. (2011a). *Competitivitate în complexitatea noii economii: studiu de caz pe situaţia economică la nivel naţional şi global*. Bucureşti: Editura Mustang.

Popescu, C. R. (2011b). *Competitivitatea în noua economie globală: să învăţăm din criza actuală*. Bucureşti: Editura Mustang.

Popescu, C. R. (2016a). *Teaching and learning the discipline "European business environment": proposal for an interactive approach*. Bucureşti: Editura C.H. Beck.

Popescu, C. R. (2016b). *Contributions Regarding the Study and Evaluation of Interdependencies Between Key Factors in Increasing the Competitiveness*. Bucureşti: Editura Mustang.

Popescu, C. R. (2019c). "Intellectual Capital": Major Role, Key Importance and Decisive Influences on Organizations' Performance. *Journal of Human Resources Management Research*, *2019*. doi:10.5171/2019.509857

Popescu, C. R. (2019d). Addressing Intellectual Capital in the Context of Integrated Strategy and Performance: Emphasizing the Role of Companies' Unique Value Creation Mechanism, While Targeting Better Organizational Reporting In Romania: The Case of Green Marketing and Green Marketing Strategies. *Journal of Marketing Research & Case Studies*, *2019*. doi:10.5171/2019.672821

Popescu, C. R. (2019e). Business development opportunities: Demonstrating present and future performance, auditing intellectual capital – a case study on Romanian organizations. *Proceedings of the 33nd International Business Information Management Association Conference*.

Popescu, C. R. (2019f). Intellectual capital, integrated strategy and performance: focusing on companies' unique value creation mechanism and promoting better organizational reporting in Romania – a framework dominated by the impact of green marketing and green marketing strategies. *Proceedings of the 33nd International Business Information Management Association Conference*.

Popescu, C. R., & Banța, V. C. (2019). Performance Evaluation of the Implementation of the 2013/34/EU Directive in Romania on the Basis of Corporate Social Responsibility Reports. *Sustainability*, *11*(9), 2531. doi:10.3390u11092531

Popescu, C. R., & Popescu, G. N. (2018b). Methods of Evaluating "Intellectual capital" of an Organization and Ways of Enhancing Performance in the Knowledge-based Economy – A Synthetically Approach. *Proceedings of the 32nd International Business Information Management Association Conference*.

Popescu, C. R., & Popescu, G. N. (2019). The Social, Economic, and Environmental Impact of Ecological Beekeeping in Romania. In G. Popescu (Ed.), *Agrifood Economics and Sustainable Development in Contemporary Society* (pp. 75–96). Hershey, PA: IGI Global. doi:10.4018/978-1-5225-5739-5.ch004

Popescu, C. R., Popescu, G. N., & Popescu, V. A. (2017b). Sustainability Leadership, the Key to a Better World – A Case Study on Romania's Situation. *Proceedings of the 29th International Business Information Management Association Conference*.

Popescu, C. R., Popescu, V. A., & Popescu, G. N. (2015). The Entrepreneur's Role in the Performance Growth of the Financial Audit Activity in Romania. *Amfiteatru Economic*, *17*(38), 228–246.

Popescu, G. N. (1997). *Procedurile controlului intern şi auditul financiar*. Bucureşti: Editura Gestiunea.

Popescu, G. N., & Popescu, V. A. (2000). *Impozitul pe venit şi contabilitatea în partidă simplă*. Bucureşti: Editura Gestiunea.

Porter, M. (1990). *The Competitive Advantage of Nations*. New York: Free Press. doi:10.1007/978-1-349-11336-1

Porter, M. E. (1980). *Competitive strategy*. New York: The Free Press.

Porter, M. E. (2006). What is strategy? In M. Mazzucato (Ed.), *Strategy for Business* (pp. 10–31). London: SAGE Publications Ltd.

Porter, M. E., & van der Linde, C. (1995). Toward a new conception of the environment-competitiveness relationship. *The Journal of Economic Perspectives*, *9*(4), 97–118. doi:10.1257/jep.9.4.97

Porter, M., & Kramer, M. R. (2002). The Competitive Advantage of Corporate Philanthropy. *Harvard Business Review*, *80*(12), 57–68. PMID:12510538

Porter, M., & Kramer, M. R. (2006). Strategy & Society: The Link Between Competitive Advantage and Corporate Social Responsibility. *Harvard Business Review*, *84*(12), 78–92. PMID:17183795

Porter, M., & Reinhardt, F. L. (2007). A strategic approach to climate. *Harvard Business Review*, *85*(10), 22–26.

Prakash, K. B., & Goodwin, P. D. (2018). *Rural Entrepreneurship in the Sunshine of Andhra Pradesh: A Sustainable Rural Development Strategy*. Retrieved from https://www.researchgate.net/publication/329041776_Rural_Entrepreneurship

Price, A. (2004). *Institute for Enterprise CETL Stage 2 Bid, HEFCE*. Leeds, UK: Leeds Metropolitan University.

Pugh, R. (2018). Questioning the implementation of smart specialisation: Regional innovation policy and semi-autonomous regions. *Environment and Planning C-Politics and Space*, *36*(3), 530–547. doi:10.1177/2399654417717069

Pussinen, S., & Thuneberg, T. (2014). Hevosala vaikuttaa, työllistää ja liikuttaa. In A. Laitinen & S. Mäki-Tuuri (Eds.), *Hevoset ja kunta – rajapintoja. Ypäjä: Hippolis – Hevosalan osaamiskeskus ry*.

Quayes, S. (2012). Depth of outreach and financial sustainability of microfinance institutions. *Applied Economics*, *44*(26), 3421–3433. doi:10.1080/00036846.2011.577016

Quayes, S. (2015). Outreach and performance of microfinance institutions: A panel analysis. *Applied Economics*, *47*(18), 1909–1925. doi:10.1080/00036846.2014.1002891

Quayes, S. (2019). Probability of Sustainability and Social Outreach of Microfinance Institutions. *Economic Bulletin*, *39*(2), 1047–1056.

Quidt, J. D., & Ghatak, M. (2018). Is the Credit Worth It? For-Profit Lenders in Microfinance with Rational and Behavioral Borrowers. *Annals of Public and Cooperative Economics*, *89*(1), 175–199. doi:10.1111/apce.12189

Radosevic, S., & Stancova, K. C. (2018). Internationalising Smart Specialisation: Assessment and Issues in the Case of EU New Member States. *Journal of the Knowledge Economy*, *9*(1), 263–293. doi:10.100713132-015-0339-3

Raghuvanshi, J., Agrawal, R., & Ghosh, P. K. (2017). Analysis of Barriers to Women Entrepreneurship : The DEMATEL Approach. *The Journal of Entrepreneurship*, *26*(2), 220–238. doi:10.1177/0971355717708848

Rajiani, I., & Kot, S. (2018). The Prospective Consumers of the Indonesian Green Aviation Initiative for Sustainable Development in Air Transportation. *Sustainability*, *10*(6), 1772. doi:10.3390u10061772

Rajnoha, R., Lesnikova, P., Stefko, R., Schmidtova, J., & Formanek, I. (2019). Transformations in Strategic Business Planning in the Context of Sustainability and Business Goals Setting. *Transformations in Business & Economics*, *18*(2), 44-66.

Ranbir, S. (2015). *Women Entrepreneurship Study of Current Status, Challenges and Future Perspective*. Retrieved from www.shodhganga.inflibnet.an.in

Randall, D. M., & Gibson, A. M. (1991). Ethical decision making in the medical profession: An application of the theory of planned behavior. *Journal of Business Ethics*, *10*(2), 111–212. doi:10.1007/BF00383614

Rantamäki-Lahtinen, L. & Vihinen, H. (2004). *The role of equine industries in Finnish rural development - rural entrepreneurship and policy perspectives*. Paper to be presented in NJF seminar no 367 "Horse management –premises and landscape", Alnarp.

Ratten, V., Ramadani, V., Dana, L. P., Hoy, F., & Ferreira, J. (2017). Family entrepreneurship and internationalization strategies. *Review of International Business and Strategy*, *27*(2), 150–160. doi:10.1108/RIBS-01-2017-0007

Raudeliuniene, J., Tvaronavičiene, M., & Dzemyda, I. (2014). Towards economic security and sustainability: Key success factors of sustainable entrepreneurship in conditions of global economy. *Journal of Security and Sustainability Issues*, *3*(4), 71–79. doi:10.9770/jssi.2014.3.4(7)

Rauf, A., Liu, X., Amin, W., Ozturk, I., Rehman, O., & Sarwar, S. (2018). Energy and Ecological Sustainability: Challenges and Panoramas in Belt and Road Initiative Countries. *Sustainability, 10*(8), 2743. doi:10.3390u10082743

Rawwas, M. Y. (1996). Consumer Ethics: An empirical investigation of the ethical beliefs of Austrian consumers. *Journal of Business Ethics*, *15*(9), 1009–1019. doi:10.1007/BF00705579

Rawwas, M. Y. (2001). Culture, personality and morality: A typology of international consumers' ethical beliefs. *International Marketing Review*, *18*(2), 188–211. doi:10.1108/02651330110390006

Rawwas, M., Swaidan, Z., & Oyman, M. (2005). Consumer ethics: A cross-cultural study of the ethical beliefs of Turkish and American consumers. *Journal of Business Ethics*, *57*(2), 183–195. doi:10.100710551-004-5092-7

Raymond, L., Bergeron, F., Croteau, A. M., & St-Pierre, J. (2015, January). Entrepreneurial orientation and e-business capabilities of manufacturing SMEs: an absorptive capacity lens. In *2015 48th Hawaii International Conference on System Sciences* (pp. 3740–3749). IEEE. 10.1109/HICSS.2015.450

Read, S., Sarasvathy, S. D., Dew, N., & Wiltbank, R. (2016). Response to Arend, Sarooghi, and Burkemper (2015): Co-creating effectual entrepreneurship research. *Academy of Management Review*, *41*(3), 528–536. doi:10.5465/amr.2015.0180

Read, S., Song, M., & Smit, W. (2009). A meta-analytic review of effectuation and venture performance. *Journal of Business Venturing*, *24*(6), 573–587. doi:10.1016/j.jbusvent.2008.02.005

Reichert, P. (2018). A meta-analysis examining the nature of trade-offs in microfinance. *Oxford Development Studies*, 1–23. doi:10.1080/13600818.2018.1427223

Reimeris, R. (2016). New rules, same game: The case of Lithuanian Smart specialization. *European Planning Studies*, *24*(8), 1561–1583. doi:10.1080/09654313.2016.1179722

Rennings, K. (2000). Redefining innovation – eco-innovation research and the contribution from ecological economics. *Ecological Economics*, *32*(2), 319–332. doi:10.1016/S0921-8009(99)00112-3

Rennings, K., & Rammer, C. (2011). The impact of regulation-driven environmental innovation on innovation success and firm performance. *Industry and Innovation*, *18*(03), 255–283. doi:10.1080/13662716.2011.561027

Report (IFC-2014). (n.d.). *Improving Access to Finance for Women Owned Business in India, A study report of International Finance Corporations*. World Bank Group. Retrieved from http://indiamicrofinance.com/wp-content/uploads/2014/03/Women-owned-business-in-India.pdf

Reyes-Santiago, M. R., Sánchez-Medina, P. S., & René, D. P. (2017). Eco-innovation and organizational culture in the hotel industry. *International Journal of Hospitality Management*, *65*, 71–80. doi:10.1016/j.ijhm.2017.06.001

Rinaldi, C., Cavicchi, A., Spigarelli, F., Lacche, L., & Rubens, A. (2018). Universities and smart specialisation strategy From third mission to sustainable development co-creation. *International Journal of Sustainability in Higher Education*, *19*(1), 67–84. doi:10.1108/IJSHE-04-2016-0070

Roberts, E. B., & Berry, C. A. (1985). Entering new businesses: Selecting strategies for success. *Sloan Management Review*, *26*, 3–17.

Roberts, E. B., & Hauptman, O. (1987). The financing threshold effect on success and failure of biomedical and pharmaceutical star-ups. *Management Science*, *33*(3), 381–394. doi:10.1287/mnsc.33.3.381

Roberts, J. A. (1993). Sex differences in socially responsible consumers' behavior. *Psychological Reports*, *73*(1), 139–148. doi:10.2466/pr0.1993.73.1.139

Roberts, J. A. (1995). Profiling levels of socially responsible consumer behavior: A cluster analytic approach and its implications for marketing. *Journal of Marketing Theory and Practice*, *3*(4), 97–117. doi:10.1080/10696679.1995.11501709

Robinson, M. S. (2001). *The microfinance revolution.* New York: The World Bank. doi:10.1596/0-8213-4524-9

Rogers, E. M. (2003). *Diffusion of innovations*. New York, NY: Free Press.

Romao, J., & Neuts, B. (2017). Territorial capital, smart tourism specialization and sustainable regional development: Experiences from Europe. *Habitat International*, *68*, 64–74. doi:10.1016/j.habitatint.2017.04.006

Rosanowski, S. M., Cogger, N., & Rogers, C. W. (2013). An investigation of the movement patterns and biosecurity practices on Thoroughbred and Standardbred stud farms in New Zealand. *Preventive Veterinary Medicine*, *108*(2-3), 178–187. doi:10.1016/j.prevetmed.2012.08.003 PMID:22939775

Rosanowski, S. M., Rogers, C. W., Cogger, N., Benschop, J., & Stevenson, M. A. (2012). The implementation of biosecurity practices and visitor protocols on non-commercial horse properties in New Zealand. *Preventive Veterinary Medicine*, *107*(1-2), 85–94. doi:10.1016/j.prevetmed.2012.05.001 PMID:22703981

Rottle, N., & Yocom, K. (2010). *Ecological design*. Lausanne: AVA Publishing.

Roy, P., & Pati, A. P. (2019). Double bottom line commitments of microfinance: Evidence from Indian institutions. *International Journal of Social Economics*, *46*(1), 116–131. doi:10.1108/IJSE-08-2016-0240

Roy, R., Wield, D., Gardiner, J. P., & Potter, S. (1996). *Innovative Product Development*. Milton Keynes, UK: The Open University.

Rugman, A. M., & Verbeke, A. (2004). A perspective on regional and global strategies of multinational enterprises. *Journal of International Business Studies*, *35*(1), 3–18. doi:10.1057/palgrave.jibs.8400073

Ruijs, A., & van Egmond, P. (2017). Natural capital in practice: How to include its value in Dutch decision-making processes. *Ecosystem Services*, *25*, 106–116. doi:10.1016/j.ecoser.2017.03.025

Šabasevičienė, V., & Grybaitė, V. (2014). Main foreign direct investment factors as precondition of sustainable. *Entrenreneruship and Sustainaibility Issues*, *1*(4), 230–238. doi:10.9770/jesi.2014.1.4(5)

Sabaté, J. (2012). Paisatges culturals al Rec d'Igualada. *Revista d'Igualada*, *42*, 49–53.

Sacco, P. L. (2017). The essence of smart specialization: Local economies as computational platforms. *Regional Studies*, *51*(5), 814–816. doi:10.1080/00343404.2016.1265239

Sahlman, W. A. (1996). Some thoughts on business plans. In V. Sahlman, H. Stevenson, M. Roberts, & A. Bhide (Eds.), *Entrepreneurial Venture* (pp. 138–176). Boston, MA: Harvard Business School Oress.

Salas Herrero, F., Rossi, N., Best, M., Kolbe, K., Wilkes, R., & Scanlan, C. (2018). *Coastal and transitional waters North East Atlantic geographic intercalibration group: Opportunistic macroalgae ecological assessment methods - Study*. Joint Research Centre (European Commission). Retrieved from https://publications.europa.eu/en/publication-detail/-/publication/34aea23a-0fe8-11e9-81b4-01aa75ed71a1/language-en/format-PDF/source-102340421

Salmones, M. G., Crespo, A. H., & Bosque, I. (2005). Influence of corporate socialresponsibility on loyalty and valuation of services. *Journal of Business Ethics*, *61*(4), 369–385. doi:10.100710551-005-5841-2

Sánchez-Hernández, M. I., & Gallardo-Vázquez, D. (2012). Market information on corporate social responsibility issues as antecedent of the orientation to environmental responsibility in SMEs: An empirical Study. In J. Janicki & R. Barcik (Eds.), *Marketing Management. Selected Issues* (pp. 29–46). University of Bielsko-Biala.

Sanchez-Moral, S. (2015). Territory, Economic Change, Equity and Networks. *Revista De Estudios Andaluces*, *32*(1), 49–75.

Santini, C., Marinelli, E., Boden, M., Cavicchi, A., & Haegeman, K. (2016). Reducing the distance between thinkers and doers in the entrepreneurial discovery process: An exploratory study. *Journal of Business Research*, *69*(5), 1840–1844. doi:10.1016/j.jbusres.2015.10.066

Santos, R. N. M. d. (2003). Scientific production: Why to measure it? What to measure? *Revista digital de Biblioteconomia e Ciência da Informação, 1*(1).

Santos, B. (2007). *Crítica da razão indolente: contra o desperdício da experiência*. São Paulo: Cortez.

Santos, F., Pache, A. C., & Birkholz, C. (2015). Making hybrids work: Aligning business models and organizational design for social enterprises. *California Management Review*, *57*(3), 36–58. doi:10.1525/cmr.2015.57.3.36

Santos, J. L. S., Maldonado, M. U., & Santos, R. N. M. (2011). Inovação e conhecimento organizacional: Um mapeamento bibliométrico das publicações científicas até 2009. *Organizações em Contexto*, *7*(13), 31–58. doi:10.15603/1982-8756/roc.v7n13p31-58

Sarango-Lalangui, P., Santos, J. L. S., & Hormiga, E. (2018). The development of sustainable entrepreneurship research field. *Sustainability (Switzerland)*, *10*(6), 1–19.

Sarango-Lalangui, P., Santos, J. L. S., & Hormiga, E. (2018). The development of sustainable entrepreneurship research field. *Sustainability*, *10*(6), 2005. doi:10.3390u10062005

Sarason, Y., Dean, T., & Dillard, J. F. (2006). Entrepreneurship as the nexus of individual and opportunity: A structuration view. *Journal of Business Venturing*, *21*(3), 286–305. doi:10.1016/j.jbusvent.2005.02.007

Sarasvathy, S. D. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review*, *26*(2), 243–263. doi:10.5465/amr.2001.4378020

Sarasvathy, S. D., & Dew, N. (2005). New market creation through transformation. *Journal of Evolutionary Economics*, *15*(5), 533–565. doi:10.100700191-005-0264-x

Sarasvathy, S. D., Dew, N., Read, S., & Wiltbank, R. (2008). Designing organizations that design environments: Lessons from entrepreneurial expertise. *Organization Studies*, *29*(3), 331–350. doi:10.1177/0170840607088017

Sarasvathy, S. D., Dew, N., Velamuri, R., & Venkataraman, S. (2003). Three views of entrepreneurial opportunity. In Z. J. Acs & D. B. Audretsch (Eds.), *Handbook of Entrepreneurship Research: An Interdisciplinary Survey and Introduction* (pp. 77–98). New York, NY: Springer.

Sarka, P., & Ipsen, C. (2017). Knowledge sharing via social media in software development: A systematic literature review. *Knowledge Management Research and Practice*, *15*(4), 594–609. doi:10.105741275-017-0075-5

Sarkodie, S. A., & Strezov, V. (2019). Effect of foreign direct investments, economic development and energy consumption on greenhouse gas emissions in developing countries. *The Science of the Total Environment*, *646*, 862–871. doi:10.1016/j.scitotenv.2018.07.365 PMID:30064112

Schaefer, K., Corner, P. D., & Kearins, K. (2015). Social, environmental and sustainable entrepreneurship research: What is needed for sustainability-as-flourishing? *Organization & Environment*, *28*(4), 394–413. doi:10.1177/1086026615621111

Schaffers, H., Garcia-Guzmán, J., Navarro, M., & Merz, C. (2010). *Living Labs for Rural Development*. Madrid: TRAGSA.

Schaltegger, S. (2002). A framework for ecopreneurship. *Greener Management International*, *38*(38), 45–58. doi:10.9774/GLEAF.3062.2002.su.00006

Schaltegger, S., Beckmann, M., & Hockerts, K. (2018). Collaborative entrepreneurship for sustainability. Creating solutions in light of the UN sustainable development goals. *International Journal of Entrepreneurial Venturing*, *10*(2), 131–152. doi:10.1504/IJEV.2018.092709

Schaltegger, S., Lüdeke-Freund, F., & Hansen, E. G. (2016). Business models for sustainability: A co-evolutionary analysis of sustainable entrepreneurship, innovation, and transformation. *Organization & Environment*, *29*(3), 264–289. doi:10.1177/1086026616633272

Schaltegger, S., & Wagner, M. (2008). *Types of sustainable entrepreneurship and conditions for sustainability innovation: from the administration of a technical challenge to the management of an entrepreneurial opportunity. In Sustainable Innovation and Entrepreneurship* (pp. 27–48). Cheltenham, UK: Edward Elgar.

Schaltegger, S., & Wagner, M. (2011). Sustainable entrepreneurship and sustainability innovation: Categories and interactions. *Business Strategy and the Environment*, *20*(4), 222–237. doi:10.1002/bse.682

Schaper, M. (2002). The essence of ecopreneurship. *Greener Management International*, *38*(38), 26–30. doi:10.9774/GLEAF.3062.2002.su.00004

Scheepers, M. J., Hough, J., & Bloom, J. Z. (2007). Entrepreneurial intensity: A comparative analysis of established companies in South Africa. *South African Journal of Economic and Management Sciences*, *10*(2), 238–255. doi:10.4102ajems.v10i2.585

Scheffer, M., & Westley, F. (2007). The evolutionary basis of rigidity: Locks in cells, minds, and society. *Ecology and Society*, *12*(2), 36. doi:10.5751/ES-02275-120236

Schlange, L. E. (2006). Stakeholder identification in sustainability entrepreneurship: The role of managerial and organisational cognition. *Greener Management International*, *55*(55), 13–32. doi:10.9774/GLEAF.3062.2006.au.00004

Schlange, L. E. (2009). Stakeholder identification in sustainability entrepreneurship. *Greener Management International*, *55*, 13–32.

Schlegelmilch, B. B., Bohlen, G. M., & Diamantopoulos, A. (1996). The link between green purchasing decisions and measures of environmental consciousness. *European Journal of Marketing*, *30*(5), 35–55. doi:10.1108/03090569610118740

Schlegelmilch, B. B., & Öberseder, M. (2010). Half a century of marketing ethics: Shifting perspectives and emerging trends. *Journal of Business Ethics*, *93*(1), 1–19. doi:10.100710551-009-0182-1

Schoonhaven, C. B., Eisenhardt, K. M., & Lyman, K. (1990). Speeding degrees in organizational studies from the Univerproducts to market waiting time to first product introductions in new sity of San Francisco firms. *Admininstration Science Quarterly*, *35*, 177–207. doi:10.2307/2393555

Schor, J. B. (2005). Prices and quantities: Unsustainable consumption and the global economy. *Ecological Economics*, *55*(3), 309–320. doi:10.1016/j.ecolecon.2005.07.030

Schueffel, P., Baldegger, R., & Amann, W. (2014). Behavioral patterns in born-again global firms Towards a conceptual framework of the internationalization activities of mature SMEs. *Multinational Business Review*, *22*(4), 418–441. doi:10.1108/MBR-06-2014-0029

Schumpeter, J. (2003). Theorie der wirtschaftlichen Entwicklung. In *Joseph Alois Schumpeter* (pp. 5–59). Boston, MA: Springer. doi:10.1007/0-306-48082-4_2

Schumpeter, J. A. (1950). *Capitalism, Socialism, and Democracy* (3rd ed.). New York: Harper.

Science Communication Unit & Directorate-General for Environment (European Commission). (2017). *Persistent organic pollutants: Towards a POPs-free future*. doi:10.2779/170269

Scott, E., Govender, T., & van der Merwe, N. (2016). The X-factor of cultivating successful entrepreneurial technology-enabled start-ups. *Informing Science*, *19*(1), 303–324. doi:10.28945/3580

Scott, N., & Cooper, C. (2010). Innovation for sustainable urban tourism: Some thoughts on best practice. *Revista de Administração Pública*, *44*(5), 1171–1190. doi:10.1590/S0034-76122010000500008

Sebestova, J., & Krejčí, P. (2018). Social innovation ties: A dilemma of product and employee orientation. *Polish Journal of Management Studies*, *17*(2), 123–133. doi:10.17512/pjms.2018.17.2.11

Sebestova, J., Krejčí, P., & Šiška, P. (2018c). "Be or Not To Be": A Dilemma of Business Policy Support on a Regional Level. *Central European Business Review*, *7*, 3–13. doi:10.18267/j.cebr.192

Sebestova, J., Rylková, Ž., Krejčí, P., & Lejková, M. (2018b). *Different strategic goals in the same business environment: Competent entrepreneurs or just luck? In New Trends in Management: Regional and Cross-border Perspectives*. London Scientific.

Sebestova, J., Rylková, Ž., & Lejková, M. (2018a). Satisfied or Competent: Business Environment Quality and Entrepreneurial Reaction. *Proceedings of 18th International Conference Economic Policy in the European Union Member Countries*.

Secundo, G., Perez, S. E., Martinaitis, Z., & Leitner, K. H. (2017). An Intellectual Capital framework to measure universities' third mission activities. *Technological Forecasting and Social Change*, *123*, 229–239. doi:10.1016/j.techfore.2016.12.013

Segal, G., Borgia, D., & Schoenfeld, J. (2005). The motivation to become an entrepreneur. *International Journal of Entrepreneurial Behaviour & Research*, *11*(1), 42–57. doi:10.1108/13552550510580834

Segarra-Oña, M., Peiró-Signes, Á., Verma, R., & Miret-Pastor, L. (2012). Does environmental certification help the economic performance of hotels? Evidence from the Spanish hotel industry. *Cornell Hospitality Quarterly*, *53*(3), 242–256. doi:10.1177/1938965512446417

Sen, S., & Bhattacharya, C. B. (2001). Does doing good always lead to doing better? Consumer reactions to corporate social responsibility. *JMR, Journal of Marketing Research*, *38*(2), 225–244. doi:10.1509/jmkr.38.2.225.18838

Shane, S. A., Locke, E. A., & Collins, C. J. (2003). Environmental motivation. *Human Resource Management Review*, *12*(2), 257–279. doi:10.1016/S1053-4822(03)00017-2

Shanmugam, S., Dalal, R., Joosten, H., Raison, R., & Joo, G. (2018). SOC Stock Changes and Greenhouse Gas Emissions Following Tropical Land Use Conversions to Plantation Crops on Mineral Soils, with a Special Focus on Oil Palm and Rubber Plantations. *Agriculture, 8*(9), 133. doi:10.3390/agriculture8090133

Shapiro, J. (2003). *Smart Cities: Explaining the Relationship between City growth and Human Capital*. Harvard University. doi:10.2139srn.480172

Sharpley, R. (2000). Tourism and sustainable development: Exploring the theoretical divide. *Journal of Sustainable Tourism*, *8*(1), 1–19. doi:10.1080/09669580008667346

Shavitt, S. (1990). The role of attitude objects in attitude functions. *Journal of Experimental Social Psychology*, *26*(2), 124–148. doi:10.1016/0022-1031(90)90072-T

Shaw, D., & Shiu, E. (2002). The role of ethical obligation and self-identity in ethical consumer choice. *International Journal of Consumer Studies*, *26*(2), 109–116. doi:10.1046/j.1470-6431.2002.00214.x

Shaw, D., Shiu, E., & Clarke, I. (2000). The contribution of ethical obligation and self-identity to the theory of planned behaviour: An exploration of ethical consumers. *Journal of Marketing Management*, *16*(8), 879–894. doi:10.1362/026725700784683672

Shekh, M. N. I. (2006). Microfinance and Poverty Reduction: Is there a Trade-Off? A Case Study from Rural Bangladesh. *Forum for Development Studies*, *33*(2), 367–385. doi:10.1080/08039410.2006.9666355

Shepherd, D. A., & Patzelt, H. (2011). The new field of sustainable entrepreneurship: Studying entrepreneurial action linking "what is to be sustained" with "what is to be developed". *Entrepreneurship Theory and Practice*, *35*(1), 137–163. doi:10.1111/j.1540-6520.2010.00426.x

Sheth, J. N. (2011). Impact of emerging markets on marketing: Rethinking existing perspectives and practices. *Journal of Marketing*, *75*(4), 166–182. doi:10.1509/jmkg.75.4.166

Shinnar, R. S., Giacomin, O., & Janssen, F. (2012). Entrepreneurial perceptions and intentions: The role of gender and culture. *Entrepreneurship Theory and Practice*, *36*(3), 465–493. doi:10.1111/j.1540-6520.2012.00509.x

Short, J. C., Broberg, J. C., Cogliser, C. C., & Brigham, K. H. (2009). Construct validation using computer-aided text analysis (CATA): An illustration using entrepreneurial orientation. *Organizational Research Methods*, *12*, 1–28.

Short, J. C., Moss, T. W., & Lumpkin, G. T. (2009). Research in social entrepreneurship: Past contributions and future opportunities. *Strategic Entrepreneurship Journal*, *3*(2), 161–194. doi:10.1002ej.69

Short, S. W., Bocken, N. M. P., Barlow, C. Y., & Chertow, M. R. (2014). From refining sugar to growing tomatoes. *Journal of Industrial Ecology*, *18*(5), 603–618. doi:10.1111/jiec.12171

Siegel, D., & Vitaliano, D. (2007). An empirical analysis of the strategic use of corporate social responsibility. *Journal of Economics & Management Strategy*, *17*(3), 773–792. doi:10.1111/j.1530-9134.2007.00157.x

Sigurdardottir, I., & Steinthorsson, R. S. (2011). *Entrepreneurs or not - how do owners of a horse farm define themselves?* Paper to be presented at the 21st Nordic Academy of Management Conference, Stockholm, Sweden.

Silajdžić, I., Kurtagić, S. M., & Vučijak, B. (2015). Green entrepreneurship in transition economies: A case study of Bosnia and Herzegovina. *Journal of Cleaner Production*, *88*, 376–384. doi:10.1016/j.jclepro.2014.07.004

Silvius, G., & Schipper, R. (2019). Planning project stakeholder engagement from a sustainable development perspective. *Administrative Sciences*, *9*(2), 46. doi:10.3390/admsci9020046

Simonen, J., Svento, R., & Juutinen, A. (2015). Specialization and diversity as drivers of economic growth: Evidence from High-Tech industries. *Papers in Regional Science*, *94*(2), 229–247.

Sine, W. D., & Lee, B. H. (2009). Tilting at Windmills? The Environmental Movement and the Emergence of the U.S. Wind Energy Sector. *Administrative Science Quarterly*, *54*(1), 123–155. doi:10.2189/asqu.2009.54.1.123

Singhapakdi, A., Vitell, S. J., & Franke, G. R. (1999). Antecedents, consequences, and mediating effects of perceived moral intensity and personal moral philosophies. *Journal of the Academy of Marketing Science*, *27*(1), 19–36. doi:10.1177/0092070399271002

Singhapakdi, A., Vitell, S., Lee, D.-J., Nisius, A., & Yu, G. (2013). The influence of love of money and religiosity on ethical decision-making in marketing. *Journal of Business Ethics*, *114*(1), 183–191. doi:10.100710551-012-1334-2

Singh, S., Mordi, C., Okafor, C., & Simpson, R. (2010, December). Challenges in Female Entrepreneurial Development - A Case Analysis of Nigerian Entrepreneurs. *Journal of Enterprising Culture*, *18*(4), 435–460. doi:10.1142/S0218495810000628

Sinkovics, N. (2016). Enhancing the foundations for theorising through bibliometric mapping. *International Marketing Review*, *33*(3), 327–350. doi:10.1108/IMR-10-2014-0341

Smart Cities Council. (2019). Retrieved from https://smartcitiescouncil.com/smart-cities-information-center/definitions-and-overviews

Smart city Edinburgh. (2011). Retrieved from http://www.edinburgh.gov.uk

Smerecnik, K. R., & Andersen, P. A. (2011). The diffusion of environmental sustainability innovations in North American hotels and ski resorts. *Journal of Sustainable Tourism*, *19*(2), 171–196. doi:10.1080/09669582.2010.517316

Śmigielska, G., & Oczkowska, R. (2017). Retailers' Responsibility towards Consumers and Key Drivers of Their Development in Poland. *Administrative Sciences, 7*(1), 3. doi:10.3390/admsci7010003

Smith, A., Voss, J. P., & Grin, J. (2010). Innovation studies and sustainability transitions: The allure of the multi-level perspective and its challenges. *Research Policy*, *39*(4), 435–448. doi:10.1016/j.respol.2010.01.023

Smith, V., Devane, D., Begley, C. M., & Clarke, M. (2011). Methodology in conducting a systematic review of systematic reviews of healthcare interventions. *BMC Medical Research Methodology*, *11*(1), 15. doi:10.1186/1471-2288-11-15 PMID:21291558

Smith, W. K., Gonin, M., & Besharov, M. L. (2013). Managing social-business tensions: A review and research agenda for social enterprise. *Business Ethics Quarterly*, *23*(3), 407–442. doi:10.5840/beq201323327

Souder, W. (1987). *Managing New Product Innovation*. Lexington, MA: Lex.

Spence, M., Gherib, J. B. B., & Biwolé, V. O. (2011). Sustainable entrepreneurship: Is entrepreneurial will enough? A north–south comparison. *Journal of Business Ethics*, *99*(3), 335–367. doi:10.100710551-010-0656-1

Spigel, B. (2017). The Relational Organization of Entrepreneurial Ecosystems. *Entrepreneurship Theory and Practice*, *41*(1), 49–72. doi:10.1111/etap.12167

Spigel, B., & Harrison, R. (2018). Toward a process theory of entrepreneurial ecosystems. *Strategic Entrepreneurship Journal*, *12*(1), 151–168. doi:10.1002ej.1268

Srinibasan, N. (2011). *Microfinance in India: State of the Sector Report 2011. Sage Publication India (Pvt) Ltd.*

Starik, M., & Kanashiro, P. (2013). Toward a theory of sustainability management: Uncovering and integrating the nearly obvious. *Organization & Environment*, *26*(1), 7–30. doi:10.1177/1086026612474958

Steenhaut, S., & van Kenhove, P. (2006). An empirical investigation of the relationships among a consumer's personal values, ethical ideology and ethical beliefs. *Journal of Business Ethics*, *64*(2), 137–155. doi:10.100710551-005-5905-3

Steg, L., Dreijerink, L., & Abrahamse, W. (2005). Factors influencing the acceptability of energy policies: A test of VBN theory. *Journal of Environmental Psychology*, *25*(4), 415–425. doi:10.1016/j.jenvp.2005.08.003

Stein, A. (2001). *Participation and sustainability in social projects: The experience of the Local Development Programme (PRODEL) in Nicaragua*. IIED working paper 3 on poverty reduction in urban areas. International Institute for Environment and Development.

Steinz, H. J., Van Rijnsoever, F. J., & Nauta, F. (2016). How to Green the red Dragon: A Start-ups' Little Helper for Sustainable Development in China. *Business Strategy and the Environment*, *25*(8), 593–608. doi:10.1002/bse.1899

Stevenson, H. H., & Gumpert, D. E. (1985). The heart of entrepreneurship. *Harvard Business Review*, *63*(2), 85–95.

Strambach, S., & Surmeier, A. (2013). Knowledge dynamics in setting sustainable standards in tourism–the case of 'Fair Trade in Tourism South Africa'. *Current Issues in Tourism*, *16*(7/8), 736–752. doi:10.1080/13683500.2013.785485

Stubbs, W. (2017). Sustainable entrepreneurship and B Corps. *Business Strategy and the Environment*, *26*(3), 331–344. doi:10.1002/bse.1920

Sudbury-Riley, L., & Kohlbacher, F. (2016). Ethically minded consumer behavior: Scale review, development, and validation. *Journal of Business Research*, *69*(8), 2697–2710. doi:10.1016/j.jbusres.2015.11.005

Suddaby, R., Bruton, G. D., & Si, S. X. (2015). Entrepreneurship through a qualitative lens: Insights on the construction and/or discovery of entrepreneurial opportunity. *Journal of Business Venturing*, *30*(1), 1–10. doi:10.1016/j.jbusvent.2014.09.003

Sundbo, J. (1998). *The theory of innovation: enterpreneurs, technology and strategy*. Northampton, MA: Edward Elgar Publishing.

Suwala, L., & Micek, G. (2018). Beyond clusters? Field configuration and regional platforming: The Aviation Valley initiative in the Polish Podkarpackie region. *Cambridge Journal of Regions, Economy and Society*, *11*(2), 353–372. doi:10.1093/cjres/rsy010

Swanson, K. K., & DeVereaux, C. (2017). A theoretical framework for sustaining culture: Culturally sustainable entrepreneurship. *Annals of Tourism Research*, *62*, 78–88. doi:10.1016/j.annals.2016.12.003

Talbot, S. (2016). Creating a smart rural economy through smart specialisation: The microsphere model. *Local Economy*, *31*(8), 892–919. doi:10.1177/0269094216678601

Tang, T., & Liu, H. (2012). Love of money and unethical behavior intention: Does an authentic supervisor's personal integrity and character (ASPIRE) make a difference? *Journal of Business Ethics*, *107*(3), 295–312. doi:10.100710551-011-1040-5

Tata, J., & Prasad, S. (2015). CSR communication: An impression management perspective. *Journal of Business Ethics*, *132*(4), 765–778. doi:10.100710551-014-2328-z

Teixeira, M. L. A., Iwamoto, H. M., & Medeiros, A. L. (2013). Bibliometric studies (?) In Administration: Discussing the transposition of purpose. *Administração: Ensino e Pesquisa*, *14*(3), 423–452.

Tepelus, C. M. (2008). Social responsibility and innovation on trafficking and child sex tourism: Morphing of practice into sustainable tourism policies? *Tourism and Hospitality Research*, *8*(2), 98–115. doi:10.1057/thr.2008.10

Terán-Yépez, E., & Guerrero-Mora, A. (2019). Factores determinantes de la motivación emprendedora. *Mikarimin. Revista Científica Multidisciplinaria*, *5*(1), 49–58.

The results of the Socio-economic development of the ATU Gagauzia (Gagauz Yeri) in 2018 (Republic of Moldova). (n.d.). Retrieved from http://www.gagauzia.md/newsview.php?l=ru&idc=390&id=7029

The Sectoral Regional Energy Efficiency Program in Public Buildings of the Development Region of the ATU Gagauzia 2018-2025 (Republic of Moldova). (n.d.). Retrieved from http://adrgagauzia.md/public/files/2018_05_07_FINAL__RSP_EE_RDA_UTAG_final_RUS.pdf

The Sectoral regional program Infrastructure Development regional and local roads of the region of the development of the ATU Gagauzia 2018-2025 (Republic of Moldova). (n.d.). Retrieved from http://adrgagauzia.md/public/files/PRS_drumuri_FINAL__RUS_160718.pdf

The Socio-economic analysis of Gagauzia 2017 (Republic of Moldova). (n.d.). Retrieved from http://www.adrgagauzia.md/public/files/analiz_regiona.pdf

Thyammal, P. R. (2014). *Study on the development of women enterprises in SSI in Thirunleveli District*. Retrieved from www.shodhganga.inflibnet.an.in

Tidball, K. G., & Krasny, M. E. (2009). *From risk to resilience: What role for community greening and civic ecology in cities?* Wageningen: Wageningen Academic Publishers.

Tiits, M., Kalvet, T., & Murk, I. (2015). Smart Specialisation in Cohesion Economies. *Journal of the Knowledge Economy*, *6*(2), 296–319. doi:10.100713132-015-0239-6

Tilley, F., & Young, W. (2009). Sustainability Entrepreneurs: Could They Be the True Wealth Generators of the Future? *Greener Management International*, *55*, 79–92.

Tilloy, S., Binkowski-Machut, C., Menuel, S., Bricout, H., & Monflier, E. (2012). Phosphane-Based Cyclodextrins as Mass Transfer Agents and Ligands for Aqueous Organometallic Catalysis. *Molecules, 17*(11), 13062–13072. doi:10.3390/molecules171113062

Tociu, C., Szep, R., Anghel, A. M., Marinescu, F., Ilie, M., Holban, E., ... Gh. Popescu, C. R. (2017). Possibilities For Efficient Use Of Valuable Materials From Aluminium Slag To Remove Specific Pollutants In Wastewater. *Journal of Environmental Protection and Ecology*, *18*(3), 842–852.

Todeva, E. (2015). Market-Driven Clusters as Prerequisites and Consequences of Smart Specialisation. *Journal of the Knowledge Economy*, *6*(2), 250–269. doi:10.100713132-014-0221-8

Toffler, A. (2013). Revolutionary wealth. *New Perspectives Quarterly*, *30*(4), 122–130. doi:10.1111/npqu.11414

Torfing, J. & Sørensen, E. (2019). Interactive Political Leadership in Theory and Practice: How Elected Politicians May Benefit from Co-Creating Public Value Outcomes. *Administrative Sciences, 9*(3), 51. doi:10.3390/admsci9030051

Toutain, O., Fayolle, A., Pittaway, L., & Politis, D. (2017). Role and impact of the environment on entrepreneurial learning. *Entrepreneurship and Regional Development*, *29*(9–10), 869–888. doi:10.1080/08985626.2017.1376517

Traill, B., & Da Silva, J. G. (1996). Measuring international competitiveness: The case of the European food industry. *International Business Review*, *5*(2), 151–166. doi:10.1016/0969-5931(96)00003-0

Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British Journal of Management*, *14*(3), 207–222. doi:10.1111/1467-8551.00375

Tseng, M. L., Chiu, A. S. F., Tan, R. R., & Siriban-Manalang, A. B. (2013). Sustainable consumption and production for Asia: Sustainability through green design and practice. *Journal of Cleaner Production*, *40*, 1–5. doi:10.1016/j.jclepro.2012.07.015

Tyre, M. J., & Hauptman, O. (1992). Effectiveness of organizational responses to technological change in the production process. *Organization Science*, *3*(3), 301–320. doi:10.1287/orsc.3.3.301

UNDP. (2015). *Women's Voices: Employment and Entrepreneurship in India*. Retrieved from http://www.in.undp.org/content/india/en/home/library/poverty/women-s-voices--employment-and-entrepreneurship-in-india

UN-Habitat. (2003). *Water and Sanitation in the World's Cities: Local Action for Global Goals*. London: Earthscan.

United Nations Environmental Programme. (2005). *Making tourism more sustainable: A guide for policy makers*. Madrid: World Tourism Organization Publications.

United Nations Environmental Programme. (2009). *Sustainable coastal tourism: An integrated planning and management approach*. Paris: United Nations Environmental Programme.

Urbaniec, M. (2018). Sustainable entrepreneurship: Innovation-related activities in European enterprises. *Polish Journal of Environmental Studies*, *27*(4), 1773–1779. doi:10.15244/pjoes/78155

USDA. (2006). *Highlights of equine 2005 Part I: Baseline reference of equine health and management, 2005*. Retrieved from https://www.aphis.usda.gov/animal_health/nahms/equine/downloads/equine05/Equine05_is_PartI_Highlights.pdf

Vaghely, I. P., & Julien, P. A. (2010). Are opportunities recognized or constructed? An information perspective on entrepreneurial opportunity identification. *Journal of Business Venturing*, *25*(1), 73–86. doi:10.1016/j.jbusvent.2008.06.004

Vaidyanathan, R. (2019). *Caste as Social Capital, the Complex Place of Caste in India Society: Westland Publications Pvt Ltd*.

Vallance, P., Blazek, J., Edwards, J., & Kveton, V. (2018). Smart specialisation in regions with less-developed research and innovation systems: A changing role for universities? *Environment and Planning C-Politics and Space*, *36*(2), 219–238. doi:10.1177/2399654417705137

Vallaster, C., Kraus, S., Kailer, N., & Baldwin, B. (2019). Responsible entrepreneurship: Outlining the contingencies. *International Journal of Entrepreneurial Behaviour & Research*, *25*(3), 538–553. doi:10.1108/IJEBR-04-2018-0206

Van de Ven, A. H., Polley, D. E., Garud, R., & Venkataraman, S. (1999). *The Innovation Journey*. New York: Oxford University Press.

Van Herk, S., Zevenbergen, C., Rijke, J., & Ashley, R. (2011). Collaborative research to support transition towards integrating flood risk management in urban development. *Journal of Flood Risk Management*, *4*(4), 306–317. doi:10.1111/j.1753-318X.2011.01113.x

van Woezik, A. F. G., Braakman-Jansen, L. M. A., Kulyk, O., Siemons, L., & van Gemert-Pijnen, J. E. W. C. (2016). Tackling wicked problems in infection prevention and control: A guideline for co-creation with stakeholders. *Antimicrobial Resistance and Infection Control*, *5*(1), 20. doi:10.118613756-016-0119-2 PMID:27213040

Varga, A. (2017). Place-based, Spatially Blind, or Both? Challenges in Estimating the Impacts of Modern Development Policies: The Case of the GMR Policy Impact Modeling Approach. *International Regional Science Review*, *40*(1), 12–37. doi:10.1177/0160017615571587

Varghese, A., & Jesurajan, S. (2013). *A study on women entrepreneurship with special reference to Tirunelveli District*. Retrieved from www.shodhganga.inflibnet.an.in

Varis, M., & Littunen, H. (2010). Types of innovation, sources of information and performance in entrepreneurial SMEs. *European Journal of Innovation Management*, *13*(2), 128–154. doi:10.1108/14601061011040221

Vélez-Ocampo, J., Govindan, K., & González-Pérez, M. A. M. A. (2017). Internationalization of Mexican family firms: The cases of Xignux and Grupo Alfa. *Review of International Business and Strategy*, *27*(2), 180–198. doi:10.1108/RIBS-10-2016-0058

Vence, X., Sanchez, M. D., & Rodil, O. (2013). Targeting biomed cluster from a mature pharma industry: The Medicon Valley experience. *Technology Analysis and Strategic Management*, *25*(7), 871–889. doi:10.1080/09537325.2013.815716

Venkatesh, V., Shaw, J. D., Sykes, T. A., Wamba, S. F., & Macharia, M. (2017). Networks Technology and Entrepreneurship: A Field Quasi-experiment among Women in Rural India. *Academy of Management Journal*, *60*(5).

Verbong, G., Geels, F., & Raven, R. (2008). Multi-niche analysis ofdynamics and policies in Dutch renewable energy innovation journeys (1970–2006): Hype-cycles, closed networks and technology-focused learning. *Technology Analysis and Strategic Management*, *20*(5), 555–573. doi:10.1080/09537320802292719

Verma, R., & Chowdhry, D. G. (2018). *The Green Era: Indians have Increased Knowledge, Decreased Confusion and a Tempering of Individual Expectations*. *VSRD International Journal Of Technical And Non - Technical Research*.

Verma, R., & Chowdhry, D. G. (2019). *The Green Era: Influencing Positive Behavior Change Is Possible*. *VSRD International Journal Of Technical And Non - Technical Research*.

Vermeir, I., & Verbeke, W. (2006). (2008). Sustainable food consumption among young adults in Belgium: Theory of planned behaviour and the role of confidence and values. *Ecological Economics*, *64*(3), 542–553. doi:10.1016/j.ecolecon.2007.03.007

Vermeir, I., & Verbeke, W. (2006). Sustainable food consumption: Exploring the Consumer "attitude – behavioral intention" gap. *Journal of Agricultural & Environmental Ethics*, *19*(2), 169–194. doi:10.100710806-005-5485-3

Virkkala, S., Maenpaa, A., & Mariussen, A. (2017). A connectivity model as a potential tool for smart specialization strategies. *European Planning Studies*, *25*(4), 661–679. doi:10.1080/09654313.2017.1283391

Vitell, S. J., Paolillo, J., & Singh, J. (2006). The Role of money and religiosity in determining consumers' ethical beliefs. *Journal of Business Ethics*, *64*(2), 117-24.

Vitell, S. J. (2003). Consumer Ethics Research: Review, Synthesis and Suggestions for the Future. *Journal of Business Ethics*, *43*(1/2), 33–47. doi:10.1023/A:1022907014295

Vitell, S. J., King, R. A., Howie, K., Toti, J.-F., Albert, L., Hidalgo, E. R., & Yacout, O. (2016). Spirituality, moral identity, and consumer ethics: A multi-cultural study. *Journal of Business Ethics*, *139*(1), 147–160. doi:10.100710551-015-2626-0

Vitell, S. J., Lumpkin, J. R., & Rawwas, M. (1991). Consumer ethics: An investigation of the ethical beliefs of elderly consumers. *Journal of Business Ethics*, *10*(5), 365–375. doi:10.1007/BF00383238

Vitell, S. J., & Muncy, J. (1992). Consumer ethics: An empirical investigation of factors influencing ethical judgments of the final consumer. *Journal of Business Ethics*, *11*(8), 585–597. doi:10.1007/BF00872270

Vitell, S. J., & Muncy, J. (2005). The Muncy-Vitell consumer ethics scale: A modification and application. *Journal of Business Ethics*, *62*(3), 267–275. doi:10.100710551-005-7058-9

Vitell, S. J., Singh, J. J., & Paolillo, J. (2007). Consumers' ethical beliefs: The roles of money, religiosity and attitude toward business. *Journal of Business Ethics*, *73*(4), 369–379. doi:10.100710551-006-9212-4

Vlasov, M., Bonnedahl, K. J., & Vincze, Z. (2018). Entrepreneurship for resilience : Embeddedness in place and in trans-local grassroots networks. *Journal of Enterprising Communities: People and Places in the Global Economy*, *12*(3), 374–394. doi:10.1108/JEC-12-2017-0100

Vlckova, J., Kasprikova, N., & Vlckova, M. (2018). Technological relatedness, knowledge space and smart specialisation: The case of Germany. *Moravian Geographical Reports*, *26*(2), 95–108. doi:10.2478/mgr-2018-0008

Vollenbroek, F. A. (2002). Sustainable development and the challenge of innovation. *Journal of Cleaner Production*, *10*(3), 215–223. doi:10.1016/S0959-6526(01)00048-8

Voss, Z. G., Voss, G. B., & Moorman, C. (2005). An empirical examination of the complex relationships between entrepreneurial orientation and stakeholder support. *European Journal of Marketing*, *39*(9/10), 1132–1222. doi:10.1108/03090560510610761

Vos, W., & Meekes, H. (1999). Trends in European cultural landscape development: Perspectives for a sustainable future. *Landscape and Urban Planning*, *46*(1−3), 3–14. doi:10.1016/S0169-2046(99)00043-2

Wahga, A. I., Blundel, R., & Schaefer, A. (2018). Understanding the drivers of sustainable entrepreneurial practices in Pakistan's leather industry: A multi-level approach. *International Journal of Entrepreneurial Behaviour & Research*, *24*(2), 382–407. doi:10.1108/IJEBR-11-2015-0263

Walley, E. E., & Taylor, D. W. (2002). Opportunists, Champions, Mavericks . . .? A Typology of Green Entrepreneurs. *Greener Management International*, *38*(38), 31–43. doi:10.9774/GLEAF.3062.2002.su.00005

Wang, M., Zhao, X., Gong, Q., & Ji, Z. (2019). Measurement of Regional Green Economy Sustainable Development Ability Based on Entropy Weight-Topsis-Coupling Coordination Degree—A Case Study in Shandong Province, China. *Sustainability, 11*(1), 280. doi:10.3390u11010280

Ward, A., Hernández-Sánchez, B., & Sánchez-García, J. C. (2019). Entrepreneurial Intentions in Students from a Trans-National Perspective. *Administrative Sciences, 9*(2), 37. doi:10.3390/admsci9020037

Weber, M. (2008). The business case for corporate social responsibility: A company-level measurement approach for CSR. *European Management Journal*, *26*(4), 247–261. doi:10.1016/j.emj.2008.01.006

Weidenfeld, A. (2018). Tourism Diversification and Its Implications for Smart Specialisation. *Sustainability*, *10*(2), 319. doi:10.3390u10020319

Welter, C., Mauer, R., & Wuebker, R. J. (2016). Bridging behavioral models and theoretical concepts: Effectuation and bricolage in the opportunity creation framework. *Strategic Entrepreneurship Journal*, *10*(1), 5–20. doi:10.1002ej.1215

Welter, F. (2011). Contextualizing Entrepreneurship. Conceptual Challenges and Ways Forward. *Entrepreneurship Theory and Practice*, *35*(1), 165–184. doi:10.1111/j.1540-6520.2010.00427.x

Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, *5*(2), 171–180. doi:10.1002mj.4250050207

White, P. (2009). Building a sustainability strategy into the business. *Corporate Governance: The International Journal of Business in Society, 9*(4), 386–394.

Wiek, A., Ness, B., Schweizer-Ries, P., Brand, F., & Farioli, F. (2012). From complex systems analysis to transformational change: A comparative appraisal of sustainability science projects. *Sustainability Science*, *7*(1), 5–24. doi:10.100711625-011-0148-y

Wikipedia. (n.d.). *Special Economic Zone*. Retrieved from https://en.wikipedia.org/wiki/Special_economic_zone

Williams, B. C., & Plouffe, C. R. (2007). Assessing the evolution of sales knowledge: A 20-year content analysis. *Industrial Marketing Management*, *36*(4), 408–419. doi:10.1016/j.indmarman.2005.11.003

Williamson, O. (1975). *Markets and hierarchies: Analysis and antitrust implications*. New York: Free Press.

Wilson, A. M. (1998). The Use of Mystery Shopping in the Measurement of Service Delivery. *Service Industries Journal*, *18*(3), 148–163. doi:10.1080/02642069800000037

Wilson, B., Hogan, A., Cuthill, M., Baker, D., Buys, L., & Burton, L. (2015). Someone else's boom but always our bust: Australia as a derivative economy, implications for regions. *Regional Science Policy and Practice*, *7*(2), 75–87. doi:10.1111/rsp3.12057

Wiltbank, R., Dew, N., Read, S., & Sarasvathy, S. D. (2006). What to do next? The case for non-predictive strategy. *Strategic Management Journal*, *27*(10), 981–998. doi:10.1002mj.555

Wiltbank, R., Read, S., Dew, N., & Sarasvathy, S. D. (2009). Prediction and control under uncertainty: Outcomes in angel investing. *Journal of Business Venturing*, *24*(2), 116–133. doi:10.1016/j.jbusvent.2007.11.004

Woetzel, J., Madgavkar, A., Gupta, R., Manyika, J., Ellingrud, K., Gupta, S., & Krishnan, M. (2015). *The Power of Parity: Advancing Women's Equality in India*. McKinsey & Company. Retrieved from http://www.mckinsey.com/Global_Locations/Asia/India

Wolff, J. A., & Pett, T. L. (2006). Small-firm performance: Modeling the role of product and process improvements. *Journal of Small Business Management*, *44*(2), 268–284. doi:10.1111/j.1540-627X.2006.00167.x

Wong, W. P., Feng, J., Pwee, K. H., & Lim, J. (2012). A systematic review of economic evaluations of cardiac rehabilitation. *BMC Health Services Research*, *12*(1), 243. doi:10.1186/1472-6963-12-243 PMID:22873828

Wood, M. S., & McKinley, W. (2010). The production of entrepreneurial opportunity: A constructivist perspective. *Strategic Entrepreneurship Journal*, *4*(1), 66–84. doi:10.1002ej.83

Wood, W., & Neal, D. T. (2009). The habitual consumer. *Journal of Consumer Psychology*, *19*(4), 579–592. doi:10.1016/j.jcps.2009.08.003

Woolthuis, R. J. K. (2010). Sustainable entrepreneurship in the Dutch construction industry. *Sustainability*, *2*(2), 505–523. doi:10.3390u2020505

World Commission on Environment and Development. (1987). *Our Common Future: From One Earth to One World*. Oxford, UK: Oxford University Press.

World Economic Forum. (2009). *Educating the Next Wave of Entrepreneurs: Unlocking Entrepreneurial Capabilities to Meet the Global Challenges of the 21st Century: A Report of the Global Education Initiative.* Author.

Xiao, Q., Yue, C., He, W., & Yu, J.-Y. (2017). The Mindful Self: A Mindfulness-Enlightened Self-view. *Frontiers in Psychology*, *8*, 1752. doi:10.3389/fpsyg.2017.01752 PMID:29081754

Xie, X., Lu, Y., & Gou, Z. (2017). Green Building Pro-Environment Behaviors: Are Green Users Also Green Buyers? *Sustainability, 9*(10), 1703. doi:10.3390u9101703

Xu, X., & Gursoy, D. (2015). Influence of sustainable hospitality supply chain management on customers' attitudes and behaviors. *International Journal of Hospitality Management*, *49*, 105–116. doi:10.1016/j.ijhm.2015.06.003

Yadav, R., & Rathee, V. (2017). Role of Women Entrepreneurs in Economic Empowerment of Rural Areas. *International Journal of Emerging Research in Management & Technology*, *6*(12).

Yang, J., Qiping Shen, G., Ho, M., Drew, D. S., & Xue, X. (2011). Stakeholder management in construction: An empirical study to address research gaps in previous studies. *International Journal of Project Management*, *29*(7), 900–910. doi:10.1016/j.ijproman.2010.07.013

Yaw, F. Jr. (2005). Cleaner technologies for sustainable tourism: Caribbean case studies. *Journal of Cleaner Production*, *13*(2), 117–134. doi:10.1016/j.jclepro.2003.12.019

Yin, R. K. (2017). *Case study research and applications: design and methods*. Thousand Oaks, CA: Sage.

York, J. G., & Venkataraman, S. (2010). The entrepreneur-environment nexus: Uncertainty, innovation, and allocation. *Journal of Business Venturing*, *25*(5), 449–463. doi:10.1016/j.jbusvent.2009.07.007

Zahra, S. A. (2015). Corporate entrepreneurship as knowledge creation and conversion: The role of entrepreneurial hubs. *Small Business Economics*, *44*(4), 727–735. doi:10.100711187-015-9650-4

Zainuddin, M., & Yasin, I. M. (2019). The trade-off debate in microfinance: A review of the theoretical and empirical literature. *Enterprise Development & Microfinance*, *30*(1), 36–54. doi:10.3362/1755-1986.18-00027

Zarewa, G. A. (2019). Barriers to effective stakeholder management in the delivery of multifarious infrastructure projects (MIPs). *Journal of Engineering, Project, and Production Management*, *9*(2), 85–96. doi:10.2478/jeppm-2019-0010

Zellweger, T. W., & Sieger, P. (2012). Entrepreneurial orientation in long-lived family firms. *Small Business Economics*, *38*(1), 67–84. doi:10.100711187-010-9267-6

Zemtsov, S., & Barinova, V. (2016). The paradigm changing of regional innovation policy in Russia: From equalization to smart specialization. *Voprosy Ekonomiki*, (10): 65–81. doi:10.32609/0042-8736-2016-10-65-81

Zhang, C., & Dhaliwal, J. (2009). An investigation of resource-based and institutional theoretic factors in technology adoption for operations and supply chain management. *International Journal of Production Economics*, *120*(1), 252–269. doi:10.1016/j.ijpe.2008.07.023

Zolfaghari Ejlal Manesh, S. M., & Rialp-Criado, A. (2017). Internationalization to survive; the case of renewable energy companies in Spain. *Competitiveness Review*, *27*(4), 306–334. doi:10.1108/CR-09-2015-0076

Zolfaghari Ejlal Manesh, S. M., & Rialp-Criado, A. (2019). International ecopreneurs: The case of eco-entrepreneurial new ventures in the renewable energy industry. *Journal of International Entrepreneurship*, *17*(1), 103–126. doi:10.100710843-017-0222-3

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