

The Interrelationship between Corporate Social Responsibility and Strategic Innovation In Aveiro-based Startups

Julia Cohen

*Department of Economics, Management, Industrial Engineering and Tourism
University of Aveiro
Aveiro, 3810-193, Portugal*

juliacohen@ua.pt

Carina Marques

*Department of Economics, Management, Industrial Engineering and Tourism
University of Aveiro
Aveiro, 3810-193, Portugal*

carina.marques@ua.pt

Joana Lameira

*Department of Economics, Management, Industrial Engineering and Tourism
University of Aveiro
Aveiro, 3810-193, Portugal*

joanalameira@ua.pt

Maria José Sousa

*Business Research Unit, Departamento de Ciência Política e Políticas Públicas
Instituto Universitário de Lisboa
Lisboa, Post code, Portugal*

maria.jose.sousa@iscte-iul.pt

Manuel Au-Yong-Oliveira

*GOVCOPP, Department of Economics, Management, Industrial Engineering and Tourism
University of Aveiro
Aveiro, 3810-193, Portugal*

mao@ua.pt

Abstract

The environmental, social and technological developments of the past few years have increased the research on Corporate Social Responsibility (CSR) and Strategic Innovation. Both influence the company's reputation, its employees' motivation, its customers' perceptions as well as other stakeholder's decisions. However, most academic research is conducted in large firms or small and medium-sized enterprises. This article focuses on the relationship between CSR and strategic innovation in the startup context. As a result, this paper analyses to what extent does CSR influence strategic innovation and how do startup CEOs and founders perceive this interrelation? Furthermore, what effects does CSR have on employees' motivation, company reputation and performance? In a full state of emergency over COVID-19, we conducted 15 semi-structured interviews with founders and CEOs of startups based at the University of Aveiro Incubator. The contacts were established through digital platforms, such as Hangouts and Zoom, and through cellphone calls. All of the interviewees had an idea of what CSR is, namely it is about the idea of contributing to society. Eleven of the interviewees agreed that innovation can be a motivating factor for practicing CSR. If a company combines CSR with innovation, it can differentiate itself and become more competitive, the interviewees revealed. All of the entrepreneurs defended that CSR can indeed improve employee motivation and performance. We also, herein, propose a model and perceive benefits from having startups report on their CSR efforts, which should be measured, including in relation to their innovation impact – and regarding the innovation culture and capacity for innovation of the firm.

Keywords: Corporate Social Responsibility (CSR), Innovation, Startup, Environment, Society, Stakeholders.

1. INTRODUCTION

In recent years, there has been an increasing concern by companies to adopt Corporate Social Responsibility (CSR) practices. It may be assumed that the growing importance of CSR is based on the idea that companies must respond not only to the interests of their shareholders, but also of their stakeholders.

CSR is defined by the European Commission as “the responsibility of enterprises for their impact on society” [1]. Corporations can turn out to be socially responsible by “integrating social, environmental, ethical, consumer, and human rights concerns into their business strategy”, as well as by following the law [1]. Besides the value added to society in general, CSR practices have an impact on enterprises and on the economy. As regards organizations, CSR provides advantages in terms of risk management, customer relationships, human resource management, the ability to innovate, etc.; to the economy, it makes companies more sustainable and more innovative and contributes to an overall economic sustainability [1].

CSR has been comprehensively studied in the last few years. However, most of the research is focused on small and medium-sized companies (SMEs), particularly in developed countries. Although there are papers which seek to fill this literature gap in developing countries, the focus remains on SMEs. When it comes to startups, the literature is almost nonexistent and, considering the importance startups have been assuming in the national economy, we have decided to focus our research on this type of organization.

The European Startup Network, which aims to create a single European startup ecosystem, defines startup as “an independent organisation, which is younger than five years and is aimed at creating, improving and expanding a scalable, innovative, technology-enabled product with high and rapid growth” [2]. The term startup draws on three criteria: age, innovation, and aim to scale [3]. Startups often use opportunities such as new technologies to find efficient solutions that better satisfy customers’ needs [2]. They are born to offer something innovative, whether it is a product, a service, a process or a business model [3].

The startup ecosystem has been growing in Portugal. According to Xinhua (2019) “Portuguese business startups recorded 2.2 billion euros (2.4 billion U.S. dollars) in sales of goods and services in 2018, representing 1.1 percent of the Portuguese GDP” [4]. The Portuguese government has been promoting entrepreneurship with a range of actions and regulations [5]. The Startup Portugal Program was created in 2016 to support entrepreneurship development [6]. Since then, several initiatives have been implemented such as Startup Momentum, Startup Voucher, Incubation Voucher, and more recently, in 2018, the program Startup Portugal+, making available yet more public funds [6]. “Entrepreneurship has become deeply ingrained in the vocabulary of Portuguese policymakers as a way of solving unemployment issues, promoting innovation and driving SME development” [5]. In fact, startups boost economic growth and create jobs [3]. In the 2019 edition of the Global Competitiveness Report (GCR), Portugal ranked 34th (within 141 economies) with a score of 70.4 out of 100 and regarding innovation capability, Portugal ranked 31st and was above the European average [7].

Therefore, the present research is based on CSR and Innovation in Startups. The questions we propose to answer in this paper are: Does innovation act as a motivating factor for startups to have more CSR practices? Does CSR engagement influence innovation in the startup context? How do startup founders and CEOs perceive the interaction between both CSR and innovation?

To accomplish the defined objective, we structured our work as follows: the next section is the literature review, which introduces the concept of CSR, addresses the theme of innovation and organizational ambidexterity, explains CSR practices in the startup context as well as the relationship between innovation and CSR in startups. The literature review is followed by the methodology, which describes our qualitative research. The research process followed was inductive and it involved theory-building following the analysis of the primary (and secondary) data already collected. The next section, about the results, analyses the 15 interviews conducted

with startup founders and CEOs. The last section is the conclusion, in which we discuss the results, the possible limitations of our research as well as future research avenues.

2. LITERATURE REVIEW

2.1 Corporate Social Responsibility (CSR): An Overview

“Recent years have witnessed dramatic environmental, regulatory, and societal developments” [8], which have influenced both the academic research context as well as the business scenario [9]. Due to the increasing ecological concerns combined with pressure from different stakeholders, including consumers who demand “products that help preserve the natural environment” [9], “companies are increasingly placing more focus on their CSR practices” [9].

Each author presents their own definition of Corporate Social Responsibility (CSR). In the words of [10], CSR “occurs when firms engage in an activity that appears to advance a social agenda beyond that which is required by law” [10]. In 2011, the European Commission defined CSR as “the responsibility of enterprises for their impacts on society” [11]. Alvarado et al., defined CSR as “a firm’s commitment to maximize long-term, societal and environmental wellbeing through business practices, policies, and resources” [12]. According to [13], CSR is a “business approach that contributes to sustainable development by delivering economic, social and environmental benefits for all stakeholders” while, at the same time, companies take responsibility for the social and environmental impacts of their operations [13]. As seen by these authors, when a company engages in CSR, it means it “is operating in ways that impact positively on society and the environment, instead of contributing negatively to it” [13].

Although there is not a sole definition of CSR, they all seem to converge to the same idea: this is a multidimensional concept, which seeks to combine environmental, social and economic goals, considering different stakeholders and their interests [14]. While pursuing their goals, companies take responsibility for the impact of their operations on the environment and society [9].

The triple bottom line “refers to companies’ economic, social and environmental performance” [82] and it is related to the multidimensional concept of CSR. The economic dimension refers to the profitability of the company; the social dimension has to do with the company’s relationship with its social and cultural environment and the community; the environmental dimension refers to the adoption of eco-friendly behaviors by the company [15].

According to [16], “engagement in CSR depends on a combination of external pressures and factors internal to the company” [16]. The characteristics as well as the beliefs and values of managers may play an important role for the company to engage in CSR activities [17]. Furthermore, seeing as they take part in the strategic path of the organization, managers play an active role in deciding to implement CSR policies [16]. Therefore, “CSR strategies are the expression of a form of strategic choice or strategic leadership of the manager” [17]. However, companies do not operate “in a vacuum”, they are part of a wider ecosystem and are exposed to outer variables that constitute the external environment [16]. Stakeholder pressure is pointed out as one of the main factors affecting the CSR performance of an organization [14]. Customers are becoming increasingly aware of environmental problems and tend to demand more sustainable behaviors from companies [9]. In addition, the engagement of an organization in CSR activities influences the consumer decision when buying, it being “more likely to purchase goods from more socially responsible firms, or even willing to pay a higher price” [18]. Market pressures allied with institutional pressures from entities such as the government, laws, the media and society as a whole have a strong influence on CSR adoption by organizations [18].

Although playing an important role in influencing a firm’s CSR policy, not all stakeholders have the same interests or demands. In fact, “stakeholder interests are heterogeneous and may conflict with each other” [8]. In this context, managers play a very important role in balancing this aforementioned stakeholder heterogeneity [19]. In order to do that and according to Stakeholder Theory, “management must first articulate various values to engage the various stakeholder groups; and second, create a shared understanding among stakeholders, despite their different

interests, so that they become embedded within the organizational community (Freeman, Wicks, & Parmar, 2004)” [19]. However, the relationship with the external environment, especially with stakeholders may be a way for companies to find new opportunities. In order to engage in CSR activities, firms need to understand their stakeholders’ demands and expectations, which may lead to the establishment of good relationships with its group of stakeholders [20]. From this interaction, firms may be able to identify new market opportunities or even develop new products [14].

“A firm’s CSR activities are usually associated with a favorable reputation” [20]. The organization is perceived as more reliable and credible [20], thus incentivizing stakeholders to invest in the company [18] and attracting “the most talented and innovative workers” [21]. Indeed, CSR plays an important role in attracting and retaining employees [14]. It can increase their “loyalty, thereby improving employee performance” [21], as well as the “sense of belonging to and identifying within the company” [20]. Therefore, CSR activities may enhance employees’ commitment to the organization and their loyalty.

In addition, CSR can also be perceived as a means to differentiate a company from its competitors. Hence, CSR may also be seen as a source of competitive advantage [16]. CSR implies that companies continually evaluate their environment and the relationships they have with stakeholders, thus being more prone to identify and respond to opportunities and threats. This ability “to sense and respond strategically to opportunities and threats enhances competitive advantage (Li & Liu, 2014)” [22].

2.2 Strategic Innovation and Organizational Ambidexterity

Innovation is a long-term process “filled with uncertainty” [14] and can be defined as “the application of new methods and improved existing ideas, procedures, services and processes that when administered bring some financial benefit [13]. As defined by the OECD in 2005, innovation is “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” [23]. However, in order to go beyond inventions, innovations need to achieve economic impact, being successfully placed in the market or implemented [24]. Both definitions converge to the same idea: innovations can be anything completely new or improvements to some existing product or process, but they all must produce financial benefits.

Companies may innovate in order to stay competitive or find new means of achieving competitive advantage in an ever-changing environment [13]. Firms may also innovate to “neutralize the superiority” of a competitor or to adopt new and more profitable methods to operate with [13]. In fact, previous academic research has stated the “positive relationship between innovation and a company’s competitiveness” [13].

Ambidexterity is a concept often associated to innovation and sustainability. Ambidexterity is the “ability of a company to do two things at the same time: on the one hand, to exploit existing business assets for short-term efficiency gains and operational effectiveness” [19]; on the other hand, to explore “ways to invent products and services that can keep pace with the changing demands of the business environment in the long-term” [19]. In other words, exploitative innovations can be linked to incremental innovations, seeking to improve already existing products or markets, whereas exploratory innovations can be associated to radical innovations, which aim to enter or shift new markets [19]. In order to maintain a sustainable performance, companies must combine both types of innovation, thus exploiting “existing processes” and, at the same time, exploring “sustainability innovations for future activities” [19]. Taking the automotive manufacturing industry as an example, firms in this sector must practice “cost control, lower emissions” but “stay profitable in the short-term”, while at the same time “seizing opportunities and producing innovations through research and development on alternative fuel vehicles, autonomous driving” [19].

In a more strategic vision of innovation, we can look at the eco-innovation concept which is a concept that has been growing in interest both for academics and practitioners, since its appearance 20 years ago [25] and is linked with organizations' sustainable practices. The first authors who used the concept were [26]. Since the end of the 2000's the concept has been studied by several researchers [27], and framed by different scientific areas such as innovation, management, engineering, and economics, among others [25]. The Eco-innovation Action Plan [28] defines eco-innovation as "any form of innovation resulting in or aiming at significant and demonstrable progress towards the goal of sustainable development, through reducing impacts on the environment, enhancing resilience to environmental pressures, or achieving more efficient and responsible use of natural resources."

Moreover, other researchers [29, 30] define eco-innovation as all processes, techniques, practices, systems, and products that are new or modified and which avoid or reduce environmental damage. The concept also involves the transformation of products and production processes in order to be environment-friendly (alternative: greener) (waste management, eco-efficiency, the reduction of emissions, recycling, and other environmental factors). Eco-innovation tries to create new ideas according to several ecological principles regarding the increase of sustainability; through resource efficiency (e.g., solid materials, energy, water), and can be applied at three main levels: (a) business strategy; (b) business model; and (c) operations; with the primary goal to minimize the environmental negative impacts.

2.3 CSR Practices In The Startup Context

A startup can be defined as "an entrepreneurial venture in its early stages of operations that is typically aimed at resolving a real-life issue with an innovative product or service" [31]. This type of company is usually "small in nature, new, and funded either by a founding entrepreneur or by a group of investors who believe in the entrepreneurial concept" [31]. Startups tend to have a more informal and flexible organizational structure than other types of companies [31].

Although large firms may have more resources and time to spend on CSR [13], startups also seek a "balance between entrepreneurial ideas and CSR endeavors, meaning that a startup needs to adopt those CSR practices that are relevant to its business and are feasible in relation to the organization's profitability and competitiveness" [31].

The stakeholder theory is often used to determine the relationship between CSR engagement and large firms. However, many argue that the same theory cannot be applied to the case of startups [31]. The stakeholder theory defends that "the role of managers is to satisfy a variety of constituents (e.g., workers, customers, suppliers, the local community, organizations, and the media) who can influence or are influenced by the firm's objectives (Donaldson & Preston, 1995)" [32]. Thus, this theory is difficult to be applied to startups, seeing as these firms have a "lack of real stakeholders, which forces the entrepreneur to think of potential and future ones" [31]. The stakeholder theory should not be, however, discharged from consideration, but should be considered in combination with the social capital theory, which defends that "reputation, trust, and legitimacy become key intangible stock for organizations [...] and that the relationship with stakeholders is closed, unique, highly personalized, and often on a one-on-one basis" [31]. Thus, "startups explore a CSR relationship based on a combination of stakeholders' perspectives and social capital" and "are aware of their environment and their role in the community, and they try to create a collective value with their counterparts" [31].

Startup entrepreneurs play a very important role in their company's CSR strategy. They are a "key driver in engaging in CSR" because it is their beliefs and values, as well as their "vision and commitment to contributing to the community and society" that will determine their CSR practices [31]. In addition, the organizational structure of startups and their characteristics also influence CSR decisions, seeing as CSR activities tend to be "scarcely systematic, are not structured into formalized strategic processes" [31].

2.4 Innovation and CSR

Both innovation and CSR take place within the company scenario and “due to the complex and dynamic nature of both, [...] are likely to be interrelated”, stimulating one another [32]. The integration of environmental and social concerns into the firm’s strategy may lead to the development of new solutions in order to meet those concerns [16, 22]. Therefore, CSR can create opportunities for innovation, be “a driver to develop new products and services” [31] or implement new processes. Not only does CSR influence innovation, but also the latter may be a driver of CSR. Therefore, and according to the research of [16], innovation seems to be the “strongest driver of CSR, compared to other motives” and the second for social CSR, “after the employee satisfaction motive” [16].

Despite accepting the link between the two concepts, some authors find it difficult to find a theory which explains this relationship. Consequently, some researchers have explained the connection between innovation and CSR through a “joint integration of the resource-based view (RBV) and the knowledge-based view (KBV)” [21]. The RBV postulates that the organization is “a unit of resources and capabilities creating competitive advantage” and CSR promotes the development of its intangible resources and capabilities [21]. On the other hand, KBV defends that companies are “able to integrate and distribute knowledge” [21]. Therefore, “CSR allows the inflow of external knowledge to the firm, which broadens the firm’s knowledge base (Luo & Du, 2015), resulting in new ideas (Katila & Ahuja, 2002) and making firms more innovative” [21].

Nonetheless, the link between CSR and innovation may not be homogenous as stated by [21]. As such, the relationship between both may vary according to the type of innovation (product, process and organizational) and the CSR dimension (economic, social and environmental) [21]. The results of a study conducted with Spanish firms suggested that the economic and social dimensions may have a greater influence on product and on organizational innovation, whereas “practices related to the environmental dimension of CSR seem to have a limited effect on innovation” [21].

As stated above, stakeholders influence companies’ CSR decisions. However, the stakeholder orientation of CSR may also impact on innovation and promote it. Companies tend to become more aware of social and market demands and expectations [16], seeing as CSR “requires stakeholder engagement and extensive research to develop a comprehensive view of the problem” [32]. In addition, CSR practices enable companies to “develop strong relationships with their stakeholders (Jansen et. al., 2006), [...] integrate and distribute knowledge (Grant, 1996), facilitating the development of networks and the inflow of external knowledge (Luo & Du, 2015), thereby fostering the development of new ideas (Katila & Ahuja, 2002)” [21]. Hence confirming the knowledge-based view approach and the importance of stakeholders for both CSR engagement and innovation. As CSR practices are a means of attracting and retaining highly qualified employees, this also has an impact on innovation. “CSR will enable companies to attract more intelligent, motivated, experienced, visionary, and committed employees” who are likely to “foster the innovative capability of the firm” [16].

Managers also act as agents for CSR and innovation. Therefore, they may decide to engage in CSR because of their belief that this will lead to innovation and the latter is important to the firm [16]. In addition, in the same research mentioned above, it was suggested that innovation may also be a driver for managers to engage in environmental and social CSR [16].

Having in mind that companies engage in both exploitative and exploratory innovation, a link can also be found to CSR. In fact, exploitative innovation may result in products similar to previous ones but which “have been redesigned to comply with established CSR principles” [32]. On the other hand, CSR is claimed to enhance exploration, seeing as CSR “strengthens the relationship between technology and innovation”, which reflects on the “ability to develop innovation competencies that are new to the firm (exploration)” [32].

In conclusion, CSR stimulates innovation and the relationship between both seems to be positive [21]. While pursuing their CSR strategy, “some organizations have developed innovative products

and services that are beneficial to both society and their own profitability” [19], thus meeting internal and external needs.

3. METHODOLOGY

The purpose of this research was to understand if innovation leads startups to have more CSR practices and vice-versa. We started by collecting secondary data for the literature review. We carried out an in-depth research on the theme and concluded that despite the many research studies on CSR, there were few studies that addressed this topic in the startup context.

We followed a qualitative methodology and used the interview technique. The advantage of doing qualitative research is the ability to acquire complex textual descriptions on how people experience a given issue [33]. Furthermore, the qualitative methods are usually more flexible, which means they allow more spontaneity and adaptation in the interaction between the researcher and the study participant [33]. In order to conduct our research, we have concluded that it was essential to gather data on different people's views, opinions, and experiences. Therefore, we considered that a qualitative methodology was the most appropriate.

We chose the interview technique seeing as it is an optimal way to collect information on individuals' personal experiences. According to [34] “interviewing is the process whereby individuals exchange information”. The open-ended questions gave the participants the opportunity to answer in different ways, and with their own words. The different and complex answers gave us a wide vision of various understandings and applications of CSR, which in this case are more significant than objective factual statements [34].

The interviews were conducted with founders and CEOs of startups based in the University of Aveiro Incubator. We chose to interview startup members from this incubator for two reasons. First, some of the authors are students and two of the authors are lecturers at the University of Aveiro; and, secondly, this is one of the main business incubators in Portugal. We conducted semi-structured interviews and used a previously prepared interview script (please refer to Appendix I). The predefined questions focused on CSR: the CSR concerns and practices the startups might have; to what extent there is a relationship between innovation and CSR; how might startups achieve this relationship; what impact may innovation, combined with CSR, have in terms of competitiveness. We performed fifteen interviews, in what was a purposeful, non-random sample, where the informants were chosen for their knowledge and expertise. The interviews were performed between March 16 and April 8 of 2020. They were conducted through digital platforms, such as Hangouts and Zoom, or by cellphone call and notes were taken. The interviews were between 10 and 30 minutes long.

We decided to maintain the anonymity of all of the interviewees as well as of the startups. Thus, the information collected will not be directly associated with any of the study participants. Table 1 lists some information about the interviewees' positions and the business activity of the startup they belong to. It is relevant to mention that some of the interviewees have already been involved in several entrepreneurship projects and currently have more than one startup. We selected startups from different business sectors in order to have a heterogeneous sample. The research process followed was inductive in so far as it involved theory-building following the analysis of the primary (and secondary) data already collected.

Nº	Interviewees' positions	Startups' business activity
1	Founder & CEO	Agricultural solutions, in the areas of crop monitoring, biofertilizers and substrates.
2	Co-founder & CEO	Electric mobility solutions; operation of charging points for electric vehicles.
3	Co-founder & CEO	Platform that searches, evaluates and connects the best product designers (UX/UI) to digital projects.
4	Founder & CEO	Talent management platform that uses AI and predictive analysis to find future career opportunities for students.

	Strategy Advisor	Blockchain startup that offers incentives to plant and preserve trees.
5	Founder & CEO	Psychiatric diagnosis tool. It will also be an application to monitor the mood and habits of individuals.
		Production of medicinal products derived from plants – Phyto-based medicines.
6	Co-founder & COO	Technological platform that manages and optimizes the way clients and tattoo artists relate.
	Co-founder & CSO	Technological platform that aims to enable companies to offer customized benefits to employees.
7	Co-founder & CEO	Technological platform that allows people to collect, store and deliver travelers' luggage.
8	Founder & CEO	Online learning platform that teaches and certifies people in the finance area.
9	Founder & CEO	Development and commercialization of products and intelligent beehive management systems.
10	Founder & CEO	Consultants in façade design and engineering.
11	Founder & CEO	Community-focused social media platform.
12	Co-founder & CEO	Development and implementation of energy efficiency solutions with artificial intelligence for water supply networks.
13	Co-founder	Production of healthy snacks, meals and cakes, that meet people's nutritional needs.
14	Co-founder & CMO	Technological platform for developing mobile applications that only uses Java.
15	Co-founder & CTO	Development of services for companies in order to optimize/help their production processes.

TABLE 1: Interviewees' positions and startups' business activity.

4. RESULTS

At the beginning of this research, we set as our goal to evaluate how innovation and CSR practices were connected, and to what extent they influence each other in the startup context. In this section, we present the results obtained from the interviews and the conclusions we reached.

The startups involved in this research were founded in different years. The most recent startup has been operating for a few months and the oldest for 5 years. This factor is relevant to evaluate whether the age of the company influences CSR engagement. As presented in figure 1, most of the startups we analyzed were established in 2019.

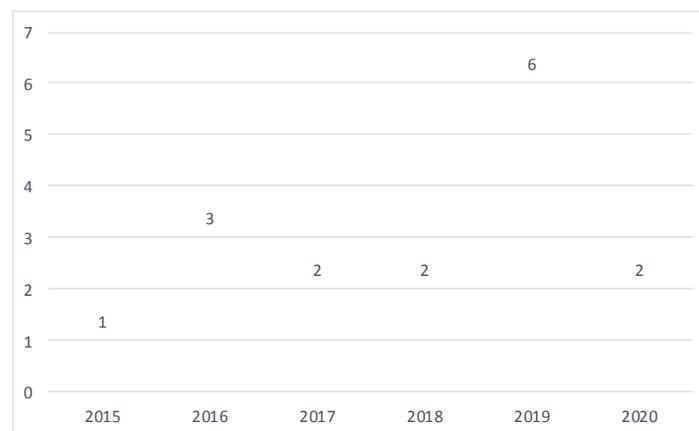


FIGURE 1: Companies established by year.

All the startups analyzed are Portuguese as well as all of the interviewees, except for four Brazilian, one British and one Indian entrepreneur. The size of the startups also differs: the

smallest has only one employee, who is also the founder, and the biggest has 17 employees. Although it was expected that the oldest startups as well as those with more employees would have a greater engagement with CSR, after the interviews we realized that this assumption could not be confirmed. It was possible to conclude that CSR engagement was much more related to the beliefs and values of the company's founders than to the age or dimension of the company.

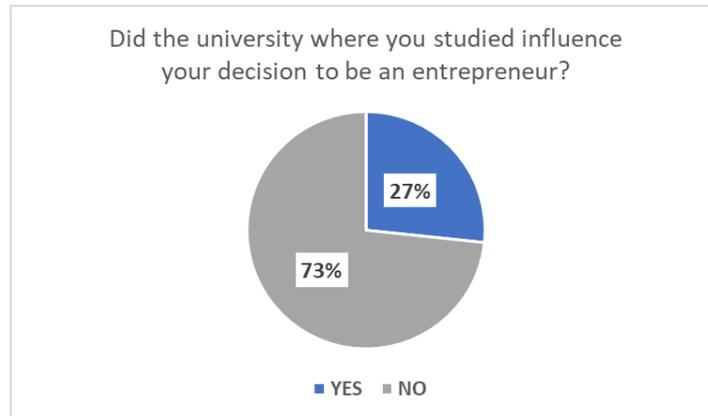


FIGURE 2: Was the decision to become an entrepreneur influenced by the higher education institution where they had studied?

All interviewees had at least a college degree. Therefore, one of the questions pertained to the influence of the university in their decision to become an entrepreneur. As is shown in figure 2, only 27% (four interviewees) agreed that their decision was influenced by the higher education institution where they had studied. Interestingly enough, all the interviewees who answered “yes” had studied at the University of Aveiro (UA), which has its own business incubator. The University of Aveiro Incubator is in a new building, the PCI – the Science Innovation Park, in Ílhavo. In addition, through its technology transfer unit, currently called UACoopera, the university often promotes initiatives such as entrepreneurship contests. As regards the interviewees who answered “no”, the main reason to become an entrepreneur was the desire to have their own business.

All interviewees believed they knew or had at least an idea of what Corporate Social Responsibility is. However, just as each author tends to present their own definition of CSR, the same was observed with each respondent. Nonetheless, all the answers referred the idea of contributing to society. Table 2 includes some definitions of CSR according to the entrepreneurs who were interviewed.

CSR definition
“It is the concern beyond the core business. Trying, from a social point of view, to help society.”
“CSR is about being productive and participating in benefit of society, helping in a holistic matter.”
“It is the concern of bringing something to society beyond the product / service that is developed.”
“To think about the actions the company takes on a day-to-day basis, taking into account how they can contribute to a better society.”
“The set of company practices that give something back to society, in order to overcome some negative externalities.”
“Integrating something into the company that can somehow help people in difficulty, the environment, reduce the ecological footprint, all of these things are a bit of CSR.”

TABLE 2: Definitions of CSR by the interviewees.

Some of the startups, at their core, already have sustainable and social characteristics, such as renewable energy and the promotion of employees' well-being. Others, even with minor practices, prove they are aware of the importance of CSR. In conclusion, all respondents expressed concerns about CSR practices in their companies.

The examples of CSR actions were very different. We present some of them in table 3.

Many founders stated that they would like to be able to promote more CSR actions. However, as startups are companies in the earlier stage of life, their resources are limited, and startups thus strive to engage in CSR with the few resources available. For instance, a good number of interviewees, seven out of fifteen, offer free workshops in different places to children, students, and young entrepreneurs.

Regarding the relationship between innovation and CSR, as is shown in figure 3, 73% of the interviewees agreed that innovation can be a motivating factor for practicing CSR. Two founders did not know whether they considered the question to be correct and another two did not agree. One of those believed that it is CSR that creates innovation, and not the other way around. The same belief was also expressed by another founder, who believed that there is an interrelationship: CSR motivates innovation and vice-versa. Table 4 shows some of the reasons why founders believe innovation may boost CSR actions.

Practices	Area
Not including plant protection products in the market - awareness of the harm they do to the environment and human beings	Environment / Sustainability
Attempting to maintain gender equality among employees	Social
Free training events and workshops	Social
Campaign to support those affected by wildfires	Social
Team building activities to promote personal contact	Social
Flexible working hours to promote better time management balancing family and work	Social
Campaign on the rational use of water	Environment / Sustainability
Use of plastic-free packaging	Environment / Sustainability
Donation of food to hospitals	Environment / Sustainability

TABLE 3: Examples of CSR practices by the startups in the study.

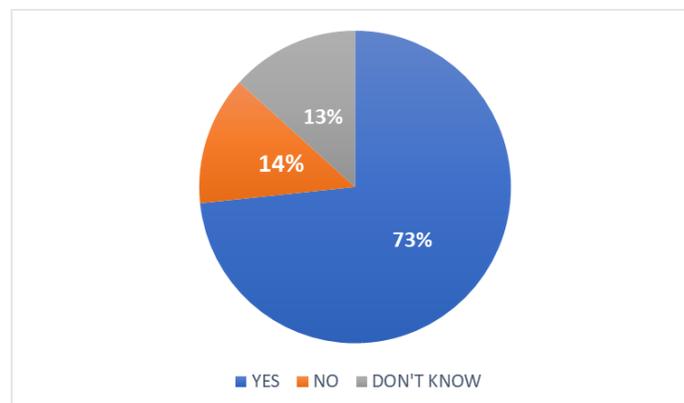


FIGURE 3: Can innovation be a motivating factor for CSR?

Reason
"It is thanks to innovation that we are making processes more transparent, clearer, efficient and effective. If we have innovative methods/technologies that allow us to do something new, so much the better."
"Using technology and new ways of thinking we can, for instance, try to reduce the emission of waste."
"Innovation is motivating for countless benefits, regarding several aspects. It is the basis for improving any sector worldwide."
"Innovation is the engine of any change within organizations."
"Innovation is a factor that creates, promotes and encourages a certain dynamic. Innovating is the differential of any company, project. When innovation is created, it leads people to see the difference and embrace projects."
"Innovation can solve many problems which have an environmental impact and may also solve social issues, giving more conditions to those who lack access to primary products and goods."

TABLE 4: Reasons why the interviewee founders believe innovation can be a motivating factor.

The interviewees provided different examples on how they achieve the combination between innovation and CSR. Regarding sustainability, using technological innovation helps to save water and improve productivity without the need to make use of phytopharmaceuticals. Another startup founder mentioned electric mobility and the use of innovative solutions to enable the transition from combustion to greener energy. Yet another participant mentioned the creation of an algorithm that optimizes the travel routes taken by their drivers, which reduces the carbon footprint. In yet another company, the use of bioplastic allowed the startup to use only recyclable packaging.

As concerns the social dimension of CSR, some of the examples given include: the development of a platform which enables companies to answer their employees' needs more easily; a platform developed by another startup in which employees are able to manage their time and work directly from home; the development of new business models providing free and open-source technology for those who do not have the conditions to make a purchase.

CSR often ends up improving the company's reputation and, as a consequence, ends up attracting more customers. We asked the interviewees whether they perceived CSR practices as a means to improve their reputation. Only one respondent stated that the real reason why CSR was being carried out did not matter as long as the company was engaged in environmentally and socially responsible actions. The other 14 respondents agreed that CSR can improve a firm's reputation, but it should not be the motivating factor for environmental and socially responsible practices. The increase in sales must be a consequence that may or may not happen. However, it was also commented that there are many companies that engage in CSR to achieve pure marketing goals. Table 5 shows some comments made by the interviewees regarding this topic.

Comments
"We must have these concerns about sustainability and society, if it helps to sell more, so much the better."
"There are companies that do this because they understand the importance, others that do it for pure marketing purposes. There are people who spend 10 times more on advertising the business than on the work that was done. There are those who say they do CSR and are using it as marketing or to pay less taxes."
"Companies should do CSR because they believe in its importance. If you are doing it with a redundant objective (to have more clients) it is not CSR, it is a branding campaign, a marketing strategy. CSR may help the branding in an indirect way."
"I do not agree with those who do CSR as marketing, you take advantage of a situation without being aware of it. CSR should be done with the intention of doing CSR and not getting more customers."
"Whoever leads must have the will to do good, without that being the reason to sell the company, but things are connected, one thing will lead to another."
"If it is CSR just to get more customers, it is fraud, it is not true."

“It is a matter of civility, customers may or may not come as an addition, but it should not be the goal.”
“CSR has to be done because everything gets better, it is good for marketing, for those who work inside and for those outside as well.”

TABLE 5: Comments by the interviewees regarding CSR and reputation.

We considered that it was also relevant to understand if the entrepreneurs believed that innovation combined with CSR could have an impact on the company's competitiveness. As is presented in figure 4, 67% of the entrepreneurs do believe that combining CSR and innovation could impact on competitiveness. Most of the interviewees think that clients and markets are very reactive regarding this issue. If the company combines CSR with innovation, it can differentiate the firm to become more competitive.

On the other hand, two interviewees defended that both concepts should not be related. “People should not do CSR to be more competitive in the market. Competitiveness and CSR are different domains. Why would I think about my competitiveness if I am doing something because of my social responsibility? Even if I am not competitive, and independently of what my competitors are doing, CSR is something that I must do without receiving anything back, it is my responsibility”, argued one of the entrepreneurs.

Another three interviewees believed that it depends on the circumstances, the product and the market. For instance, “if you are selling services to the public sector or to low-income people, this can have a positive impact”, said one entrepreneur. However, if by engaging in CSR practices, the price of the product becomes higher, it may have a negative impact on the company. On the other hand, if combined with positioning and a marketing strategy, the same CSR actions may have a positive impact on the company.

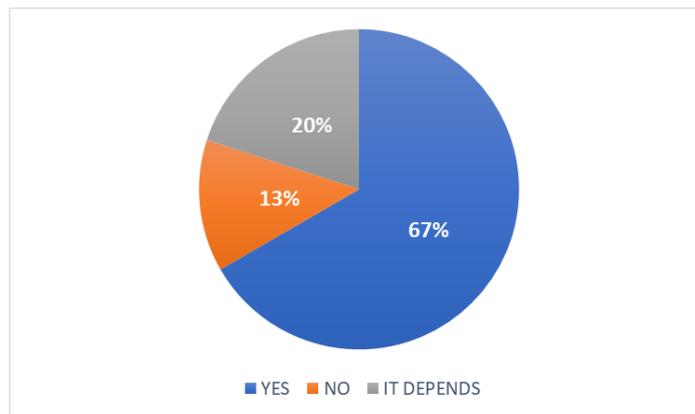


FIGURE 4: Interviewee question: Do the combination of CSR and innovation impact the company's competitiveness?

The last interview question pertained to the connection between CSR and employee performance. We aimed to find out whether entrepreneurs agreed that employees become more motivated and improve their performance in companies that engage in CSR. All interviewees agreed with this assumption. Even in the startups with few employees and CSR practices, all the entrepreneurs defended that CSR can indeed improve motivation and performance. The main positive influences are in terms of the turnover, the engagement, based on values such as being proud of working for the organization, and a real concern about the wellbeing of the workers and also of the consumers. Both the involvement and the commitment increase, and the goals of the company become also the goals of the employee, which is a distinctive intangible factor that increases the workers' satisfaction, and consequently their efficiency and efficacy.

Table 6 has some opinions regarding this question.

Opinions
“CSR can be a tool to decrease turnover, involve employees and keep them in the company. Having a medium/long-term social responsibility policy can be a factor for employees to feel at ease in the company.”
“More and more employees are looking for companies in which they are proud to work and know that the company has a social dimension and actions.”
“Engaging employees in different CSR activities increases their morale, their productivity and their commitment to the company.”
“People are increasingly looking for companies that are aware of how they can contribute more in terms of their work, as well as to the employee and consumer.”
“Employees like to feel that the company supports not only themselves but also society at this difficult time.”
“If we can mobilize people for a cause, we are contributing so that the team can be more united, but also stronger and more motivated.”
“If employees are involved in something that does good/helps society and the world, then they can feel more satisfied and more involved.”

TABLE 6: Interviewee opinions regarding CSR and employee motivation.

5. MODEL PROPOSAL FOR STARTUPS

Startups face several challenges mainly because of their dimension, which conditions their presence in markets. Dimension is linked to a number of resources of all kinds, including people, technology, investment, and infrastructure. However, the startup dimension also gives them flexibility. The relations with the communities where startups are implanted are easier and better understood by the population, being a trigger for the establishment of closer relationships, thus also potentiating the implementation of CSR practices. Strategic Innovation is also a focus considering the perspective of promoting eco-innovation, regarding principles including the preservation of natural resources, using green energy, and also helping communities to have a healthier environment.

In order to help startups, and potentiate the interrelations between CSR and Strategic Innovation, a model was conceived based on this research (table 7).

Context	CSR	Strategic Innovation	Startup resources
Political context	Innovative development	New markets and customers	Innovation culture
Economic Situation	Emotional and spiritual well-being of workers	Organizational innovation	Leadership
Social Development	Quality of life of the community	Competency development	Innovation Capacity
Technology	Vitality and health	Technology adoption and diffusion for innovation	Dynamism, trust, openness

TABLE 7: Dimensions of the conceived Model: potentiating the interrelations between CSR and Strategic Innovation.

In table 7, the relevance of the political, economic, social and technological contexts (PEST) is evident in the model. Each of these contexts relates to specific dimensions of CSR and Strategic Innovation, involving the intervention of different startup resources. Thus, having an innovation

culture (startup resource) will bridge the gap between new markets and customers and innovative community development (Political context); leaders (startup resource) will be responsible for the well-being of workers and for making innovation profitable (Economic situation); the innovation capacity (startup resource) of the startup will improve quality of life for the community and develop internal human resources (Social development); finally, dynamism, trust and openness (a startup resource including openness to technology adoption and diffusion) will be linked to technological innovation and vitality and health (Technology context). Each startup resource will have an outcome in a specific context.

However, doubts may arise as concerns measurement and model implementation, which leads us to table 8. To measure progress and the dimensions of CSR, as well as strategic innovation, a set of indicators emerged from the literature that can potentiate the innovation strategy of the SME (table 8).

CSR indicators	Authors
Percentage of profitability increase	[35]
Compliance with [and even going beyond] relevant regulations	[36]
Number of ethical principles	[37]
Percentage of profits for corporate philanthropy	[38], [39]
Number of environmental procedures	[40], [41], [42]
Strategic Innovation indicators	Authors
Number of new product ideas or suggestions	[43], [44], [46]
Percentage of ideas found viable for commercialization	[46]
Synergy with other products	[47], [48]
Product concept intellectual property rights, in particular patents, citations, applications, licenses	[49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 46, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74]
New product performance / success rate	[75, 76, 46, 71]
Percentage of innovations that met financial profit estimates	
Profitability of newly listed products	
Number of products launched (last three years) / output quantity	
Number of new or improved products within a certain period	[75, 77, 78, 79, 44, 45, 80, 81, 65, 71]

TABLE 8: Indicators to Measure the Model Implementation: To potentiate the innovation strategy.

The aforementioned model incorporates a dashboard of indicators to help analyze the performance and evolution of an SME in terms of CSR strategy related to innovation potential. The conception of new products and services should follow CSR principles, thus aiming to not

only increase the profitability of the company, but also complying with relevant regulations, and even going beyond those (the purest definition of CSR involves going beyond what is expected of us by law). Furthermore, having clear ethical principles in the company, following standards and procedures to avoid unnecessary waste, protecting the environment, while investing in the community – through using a percentage of profits for corporate philanthropy, in order to increase the quality of life of the community – are all of paramount importance. Thus, each of the strategic innovation indicators needs to follow the CSR principles, increasing the awareness of the SME regarding both of these strategic dimensions.

6. CONCLUSION

All of the interviewees had an idea of what CSR is and expressed concerns about CSR practices in their companies. All of the definitions of CSR by the interviewees referred to the idea of contributing to society. Eleven of the interviewees agreed that innovation can be a motivating factor for practicing CSR. If a company combines CSR with innovation, it can differentiate itself and become more competitive, the interviewees revealed. All of the entrepreneurs defended that CSR can indeed improve employee motivation and performance.

Our paper confirms conclusions from the recent literature. After analyzing our interview results, we confirm that there is a positive connection between CSR practices and innovation [32, 21, 16, 31]. Most entrepreneurs believe that engaging in CSR has a positive impact on employee motivation and performance [21, 16, 14].

Despite the positive influence that the implementation of CSR and innovation practices has on a company's competitiveness [16, 22, 13, 31], there are different opinions among the interviewees regarding this issue. Although they have recognized that CSR combined with innovation may positively affect a company's reputation and competitiveness, most interviewees considered that it should be a consequence of engaging in responsible practices and not the reason to do so. The validity of such actions is even questioned – if not fostered by moral motives and the will to contribute to society as a whole. In addition, most companies practice socially responsible activities, in contrast to environmentally responsible actions, and seven out of fifteen offer free workshops on the knowledge they are experts at, to children, students, and young entrepreneurs.

Therefore, we concluded that in spite of the age and dimension of the company, the engagement in CSR activity in the startups studied is influenced by the beliefs and values of their founders and CEOs and the way they perceive the combination of innovation and CSR.

Despite their limited resources, the startups analyzed strive to implement CSR policies and actively contribute to the community. Therefore, future research regarding the barriers and difficulties startups face when implementing CSR may be relevant to the literature. In addition, understanding how firms rationalize the resources they have and create synergies to foster both innovation and business performance and CSR practices is also relevant.

Our research concludes that most entrepreneurs had the desire to have their own business and their motivation to entrepreneurship was intrinsic. Many perceived their degrees as a means to obtain technical competences and a contact network, but not a motivating factor to be an entrepreneur. However, four of the respondents agreed that the university in which they had studied had influenced their decision. All of them had studied in the University of Aveiro. Could this university offer favorable circumstances to innovation and entrepreneurship? Are their students more prone to engage in innovation and CSR? Those are some of the questions that could be studied in future research.

Additionally, “many studies consider organizational culture responsible for successful companies” [83]. It would thus be interesting to study the relationship between CSR, innovation and organizational culture. Furthermore, a new leadership soft skill is seen to exist called immaterial communication [84]. This new leadership construct, which diminishes the rate of disengaged workers [84], could also be linked to CSR and innovation practices within the firm, thus making for

another avenue for future research. Finally, other studies could focus on CSR, innovation and startups in other regions, such as Central and Eastern Europe [85].

We perceive that this paper can contribute to the literature gap concerning CSR and startups. To the best of our knowledge, no previous research, such as that which we have presented here, has been conducted seeking to study CSR and innovation in the startup context in Aveiro. Of note is the perceived benefit of CSR, by the interviewees – both internally and externally. Innovation is seen to leverage even further the benefits of CSR, and vice-versa. Firms of all sizes would do well to exert a special effort as concerns innovation and CSR as a combined strategy.

As a final word to entrepreneurs and policy makers, CSR efforts by startups and SMEs make a lot of economic sense (and not only social or environmental sense), as does a devotion to innovation – be it product, process, marketing or organizational innovation [23]. To show that the firm is serious in such endeavours, senior leadership should take steps towards formally and regularly measuring the impacts and progress achieved (please see tables 7 and 8). This is perhaps new, especially for startups where everything happens very quickly and somewhat informally. The importance of creating an innovation culture, while also promoting dynamism, trust and an openness including towards technology, will also reap benefits over time for firms. What is the price of not being ethical, one might ask? Lower sales and human resource talent leaving the firm are two obvious consequences. How important is achieving synergy with other products? This will be measured in terms of firm sustainability over time, as firms compete in ever smaller niches, but also in a higher number of niches, in an attempt to scale operations in increasingly more self-indulgent markets worldwide. Regulators would do well to require startups to also report on CSR activity, as portrayed in table 8, not only requiring larger firms to do so.

Society is somewhat in a crisis, and capitalism in its truest form has not solved our problems. Perhaps with a greater focus on CSR [including a regulatory and mandatory focus], and on how it leverages innovation, we might achieve a higher level and status for the human element on Earth – a level which has proven to be so difficult to attain.

Limitations of our study include the small sample size of only fifteen interviews in a total of fifteen startup firms. However, given the Covid-19 pandemic situation as well as the limited financial and time-related resources of the research project, this limitation was hard to overcome.

7. ACKNOWLEDGEMENTS

We would like to thank all of the interviewees for kindly having participated in our research and for kindly having answered all of our questions.

8. REFERENCES

- [1] Corporate Social Responsibility & Responsible Business Conduct | Internal Market, Industry, Entrepreneurship and SMEs. 2020. Available at: https://ec.europa.eu/growth/industry/sustainability/corporate-social-responsibility_en.
- [2] Vision - European Startup Network. 2020. Available at: <https://europeanstartupnetwork.eu/vision/>.
- [3] L. Steigertahl, R. Mauer. ESCP Europe Jean-Baptiste Say, & Institute for Entrepreneurship. EU Startup Monitor. 2018. Available at: <http://startupmonitor.eu>
- [4] Portuguese business startups produce 2.2 bln euros in sales in 2018. July 27, 2019. Available at: http://www.xinhuanet.com/english/2019-07/27/c_138261437.htm
- [5] N. Bosma, S. Hill, A. Ionescu-Somers, D. Kelley, J. Levie, A. Tarnawa. 2019/2020 Global Report. In Global Entrepreneurship Monitor. London, 2020.
- [6] About – Startup Portugal. Available at: <https://startupportugal.com/about>

- [7] K. Schwab. Insight Report. 2019. Available at The Global Competitiveness Report website: http://www.cdi.org.pe/pdf/IGC/2019/WEF_TheGlobalCo
- [8] C. Flammer, B. Hong, D. Minor. "Corporate governance and the rise of integrating corporate social responsibility criteria in executive compensation: Effectiveness and implications for firm outcomes". *Strategic Management Journal*, vol. 40(7), pp.1097–1122, 2019.
- [9] D. Choi, T.I. Han. "Green practices among fashion manufacturers: Relationship with cultural innovativeness and perceived benefits". *Social Sciences*, vol. 8(5), 2019.
- [10] D.S. Siegel, D.F. Vitaliano. "An empirical analysis of the strategic use of corporate social responsibility". *Journal of Economics and Management Strategy*, vol. 16(3), pp.773–792, 2007.
- [11] European Commission. A renewed EU strategy 2011-14 for Corporate Social Responsibility, 2011. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52011DC0681&from=EN>
- [12] A. Alvarado-Herrera, E. Bigne, J. Aldas-Manzano, R. Currás-Perez. "A Scale for Measuring Consumer Perceptions of Corporate Social Responsibility Following the Sustainable Development Paradigm". *Journal of Business Ethics*, vol. 140(2), pp.243–262, 2017.
- [13] D. Lončar, J. Paunković, V. Jovanović, V. Krstić. "Environmental and social responsibility of companies cross EU countries – Panel data analysis". *Science of the Total Environment*, vol. 657, pp.287–296, 2019.
- [14] Y. Yuan, L.Y. Lu, G. Tian, Y. Yu. "Business Strategy and Corporate Social Responsibility". *Journal of Business Ethics*, vol. 162(2), pp.359–377, 2018.
- [15] R. Currás-Pérez, C. Dolz-Dolz, M.J. Miquel-Romero, I. Sánchez-García. "How social, environmental, and economic CSR affects consumer-perceived value: Does perceived consumer effectiveness make a difference?" *Corporate Social Responsibility and Environmental Management*, vol. 25(5), pp.733–747, 2018.
- [16] J. Graafland, N. Noorderhaven. "Technological Competition, Innovation Motive and Corporate Social Responsibility: Evidence from Top Managers of European SMEs". *Economist (Netherlands)*, vol. 168, pp.1–22, 2019.
- [17] T.B. Hadj. "Effects of corporate social responsibility towards stakeholders and environmental management on responsible innovation and competitiveness". *Journal of Cleaner Production*, vol. 250, 2020.
- [18] K.S. Bardos, M. Ertugrul, L.S. Gao. "Corporate social responsibility, product market perception, and firm value". *Journal of Corporate Finance*, vol. 62, 2020.
- [19] M.T. Lee, R.L. Raschke. "Innovative sustainability and stakeholders' shared understanding: The secret sauce to "performance with a purpose"". *Journal of Business Research*, vol. 108, pp.20–28, 2020.
- [20] H. Zhou, Q. Wang, X. Zhao. "Corporate social responsibility and innovation: a comparative study". *Industrial Management and Data Systems*, 2020.
- [21] G. García-Piqueres, R. García-Ramos. "Is the corporate social responsibility–innovation link homogeneous?: Looking for sustainable innovation in the Spanish context". *Corporate Social Responsibility and Environmental Management*, vol. 27(2), pp.803–814, 2020.
- [22] M.E.B. Herrera. "Creating competitive advantage by institutionalizing corporate social innovation". *Journal of Business Research*, vol. 68(7), pp.1468–1474, 2015.

- [23] OECD/Eurostat. Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data. 3rd edition, 2005.
- [24] J. Klewitz, E.G. Hansen. "Sustainability-oriented innovation of SMEs: A systematic review". *Journal of Cleaner Production*, vol. 65, pp. 57–75, 2014.
- [25] W. Cai, X. Zhou. "On the drivers of eco-innovation: Empirical evidence from China". *Journal of Cleaner Production*, vol. 79, pp.239–248, 2014.
- [26] C. Fussler, P. James. *Driving Eco-innovation: A Breakthrough Discipline for Innovation and Sustainability*. Pitman Publishing, 1996.
- [27] J.V.V. Azevedo, P.M. Souza, C.A.C. Santos, M.T. Silva, D.A.S. Santos. "Aplicação da análise fatorial para determinação da vulnerabilidade socioeconômica e ambiental nos municípios do Estado da Paraíba". *Revista Ibero-Americana de Ciências Ambientais*, vol.10, n.4, pp.97-111, 2019.
- [28] European Commission. Environment. Eco-innovation action plan. Eco-innovation at the heart of European policies. 2020. Available at: https://ec.europa.eu/environment/ecoap/about-action-plan/objectives-methodology_en
- [29] J. Leitão, A. Nunes, D. Pereira, V. Ramadani (Eds.). "Intrapreneurship and sustainable human capital". *Studies on Entrepreneurship, Structural Change and Industrial Dynamics*, 2020.
- [30] M. Beise, K. Rennings. "Indicators for lead markets of environmental innovations". *Indicator Systems for Sustainable Innovation*, pp.71-94, 2005.
- [31] C.L. Voinea, M. Logger, F. Rauf, N. Roijakkers. "Drivers for sustainable business models in start-ups: Multiple case studies". *Sustainability*, vol. 11(24), 6884, 2019.
- [32] C. Costa, L.F. Lages, P. Hortinha. "The bright and dark side of CSR in export markets: Its impact on innovation and performance". *International Business Review*, vol. 24(5), pp.749–757, 2015.
- [33] N. Mack, C. Woodson, K.M. MacQueen, G. Guest, E. Namey. *Qualitative Research Methods Overview: A Data Collector's Field Guide*. In: *Qualitative Research Methods: A Data Collectors Field Guide*, 2005.
- [34] S.G. Trull. "Strategies of Effective Interviewing". *Harvard Business Review*, vol. 42(1), pp.89–95, 1964.
- [35] J. Surroca, J.A. Tribó, S. Waddock. "Corporate Responsibility and Financial Performance: the Role of Intangible Resources". *Strategic Management Journal*, vol. 31 (5), pp.463-490, 2010.
- [36] M. Socoliuc, C.-G. Cosmulese, M.-S. Ciubotariu, S. Mihaila, I.-D. Arion, V. Grosu. "Sustainability Reporting as a Mixture of CSR and Sustainable Development. A Model for Micro-Enterprises within the Romanian Forestry Sector". *Sustainability*, vol.12, 603, 2020.
- [37] A.B. Carroll, J.A. Brown, A.K. Buchholtz. *Business & Society: Ethics, Sustainability, and Stakeholder Management*. 10th ed. Cengage Learning: Boston, MA, USA, 2018.
- [38] P.L. Finavante. "Corporate Philanthropy: A strategic marketing Consideration". *The Journal of Applied Business and Economics*. Thunder Bay: Vol. II (3) pp.91-97, 2010.
- [39] A. Gan. "The impact of public scrutiny on corporate philanthropy". *Journal of Business Ethics*, vol. 69(3), pp.217-236, 2006.

- [40] C. McPeak, Q. Demi Dai. "Environmental Issues as a part of sustainability and how they impact financial performance". *Journal of Global Business Issues*. Summer/Fall, vol. 5 (2), pp.49-53, 2011.
- [41] I. Jindrichovska, I. Purcarea. "CSR and Environmental Reporting in the Czech Republic and Romania: Country Comparison of Rules and Practices". *Account. Manag. Inf. Syst.*, vol. 10, 202, 2011.
- [42] C. Istrate, I.B. Robu, L. Pavaloaia, I.V. Herghiligiu. "Analysis of companies sustainability under the influence of environmental information disclosure". *Environ. Eng. Manag. J.*, vol. 16, pp.957–967, 2017.
- [43] R.G. Cooper, E.J. Kleinschmidt. "New-product success in the chemical industry". *Indus. Mark. Manag.*, vol. 22, pp.85–99, 1993.
- [44] V. Chiesa, F. Frattini, V. Lazzarotti, R. Manzini. "Performance measurement in R&D: Exploring the interplay between measurement objectives, dimensions of performance and contextual factors". *RD Manag.*, vol. 39 (5), pp.488–519, 2009.
- [45] H. Tohidi, M. Jabbari. "Providing a framework for measuring innovation within companies". *Procedia Technol.*, vol. 1, pp.583–585, 2012.
- [46] V. Dewangan, M. Godse. "Towards a holistic enterprise innovation performance measurement system". *Technovation*, vol. 34 (9), pp.536–545, 2014.
- [47] R.G. Cooper. "An empirically derived new product project selection model". *IEEE Trans. Eng. Manag. EM*, vol. 28 (3), pp.54–61, 1981.
- [48] F. Duhamel, M. Santi. "Degree of innovativeness and new product performance". *Technol. Anal. Strateg. Manag.*, vol. 24 (3), pp.253–266, 2012.
- [49] B. Basberg. "Patents and the measurement of technological change: a survey of the literature". *Research Policy*, vol. 16, pp.131–141, 1987.
- [50] Z.J. Acs, L. Anselin, A. Varga. "Patents and innovation counts as measures of regional production of new knowledge". *Research Policy*, vol. 31 (7), pp.1069–1085, 2002.
- [51] I. Dror. "Technology innovation indicators". *RD Manag.*, vol. 19 (3), pp.243–249, 1989.
- [52] Z. Griliches. "Patent statistics as economic indicators: a survey". *J. Econ. Lit.*, vol. 28 (4), pp.1661–1707, 1990.
- [53] M. Trajtenberg. "A penny for your quotes: patent citations and the value of innovations". *RAND J. Econ.*, vol. 21 (1), pp.172–187, 1990.
- [54] E. Brouwer, A. Kleinknecht. "Innovative output, and a firm's propensity to patent.: An exploration of CIS micro data". *Research Policy*, vol. 28(6), August, pp.615-624, 1999.
- [55] H. Grupp. "The measurement of technical performance of innovations by technometrics and its impact on established technology indicators". *Research Policy*, vol. 23, 175–193, 1992.
- [56] H. Grupp, T. Schubert. "Review and new evidence on composite innovation indicators for evaluating national performance". *Research Policy*, vol. 39, pp.67–78, 2010.
- [57] A. Jaffe, M. Trajtenberg, R. Henderson. "Geographic localization of knowledge spillovers as evidenced by patent citations". *NBER Work. Pap. Ser.*, 3993, pp.1–42, 1992.

- [58] A. Jaffe, M. Trajtenberg, R. Henderson. "Geographic localization of knowledge spillovers as evidenced by patent citations". *Q. J. Econ.*, vol. 108 (3), pp.577–598, 1993.
- [59] S. Shane. "Cultural influences on national rates of innovation". *J. Bus. Ventur.*, vol. 8 (1), pp.59–73, 1993.
- [60] C. Littell. "Innovation in medical technology: reading the indicators". *Health Affairs*, vol. 13 (3), pp.226–235, 1994.
- [61] R. Adams, J. Bessant, R. Phelps. "Innovation management measurement: a review". *Int. J. Manag. Rev.*, vol. 8 (1), pp.21–47, 2006.
- [62] T. Dereli, K. Altun. "A novel approach for assessment of candidate technologies with respect to their innovation potentials: quick innovation intelligence process". *Expert Syst. Appl.*, vol. 40, pp.881–891, 2013.
- [63] M. Karvonen, T. Kässi. "Patent citations as a tool for analysing the early stages of convergence". *Technol. Forecast. Social. Change*, vol. 80, pp.1094–1107, 2013.
- [64] T. Makkonen, R. van der Have. "Benchmarking regional innovative performance: composite measures and direct innovation counts". *Scientometrics*, vol. 94, pp.247–262, 2013.
- [65] S.-K. Kim. "Explicit design of innovation performance metrics by using analytic hierarchy process expansion". *International Journal of Mathematics and Mathematical Science*, pp.1–7, 2014.
- [66] J. Sosnowski. "Precipitating innovations by academia and industry feedback". *Procedia - Social. Behav. Sci.*, vol. 109, pp.113–119, 2014.
- [67] G. Thoma. "Composite value index of patent indicators: factor analysis combining bibliographic and survey datasets". *World Pat. Inf.*, vol. 38, pp.19–26, 2014.
- [68] E. Akis. "Innovation and competitive power". *Procedia - Social. Behav. Sci.*, vol. 195, pp.1311–1320, 2015.
- [69] S.C. Cavdar, A.D. Aydin. "An empirical analysis about technological development and innovation indicators". *World Conference on Technology, Innovation and Entrepreneurship. Procedia - Social and Behavioral Sciences*, vol. 195. pp.1486–1495, 2015.
- [70] J. Dang, K. Motohashi. "Patent statistics: a good indicator for innovation in China? Patent subsidy program impacts on patent quality". *China Econ. Rev.*, vol. 35, pp.137–155, 2015.
- [71] S. Hittmar, M. Varmusa, V. Lendela. "Proposal of evaluation system for successful application of innovation strategy through a set of indicators". *Procedia Econ. Financ.*, vol. 26, pp.17–22, 2015.
- [72] M.W. Raja, S. Wei. "Evaluating innovation performance and quality practices relationship: a review from different industries". *TÉKHNE - Rev. Appl. Manag. Stud.*, vol. 13, pp.25–33, 2015.
- [73] A. Rocha, C. Quintella, E. Torres. "Biodiesel in Brazil: science, technology and innovation indicators". *Int. J. Technol. Manag.*, vol. 69 (3/4), pp.246–260, 2015.
- [74] S. Roper, N. Hewitt-Dundas. "Knowledge stocks, knowledge flows and innovation: evidence from matched patents and innovation panel data". *Research Policy*, vol. 44, pp.1327–1340, 2015.

- [75] A. Grin, A.L. Page. "An interim report on measuring product development success and failure". *J. Product. Innov. Manag.*, vol. 10, pp.291–308, 1993.
- [76] K. Han, J. Kang, M. Song. "Two-stage process analysis using the process-based performance measurement framework and business process simulation". *Expert Syst. Appl.*, vol. 36, pp.7080–7086, 2009.
- [77] P. Therrien, P. Mohnen. (2003). "How innovative are Canadian firms compared to some European firms? A comparative look at innovation surveys". *Technovation*, vol. 23, pp.359–369, 2003.
- [78] C. Hipp, H. Grupp. "Innovation in the service sector: the demand for service-specific innovation measurement concepts and typologies". *Research Policy*, vol. 34 (4), pp.517–535, 2005.
- [79] J. Alcaide-Marzal, E. Tortajada-Esparza. "Innovation assessment in traditional industries. A proposal of aesthetic innovation indicators". *Scientometrics*, vol. 72 (1), pp.33–57, 2007.
- [80] H. Edison, N. bin Ali, R. Torkar. "Towards innovation measurement in the software industry". *J. Syst. Softw.*, vol. 86, pp.1390-1407, 2013.
- [81] C.-I. Ivanova, S. Avasilcăi. "Performance measurement models: an analysis for measuring innovation processes performance". *Procedia – Social. Behav. Sci.*, vol. 124, pp.397-404, 2014.
- [82] C. Bohlmann, L. Krumbholz, H. Zacher. "The triple bottom line and organizational attractiveness ratings: The role of pro-environmental attitude". *Corporate Social Responsibility and Environmental Management*, vol. 25(5), pp.912-919, 2018.
- [83] B. Dorda, E. Shtembari. "A new perspective on organizational culture in emergency situations". *International Journal of Business Research and Management (IJBRM)*, vol. 11(2), pp.16-26, 2020.
- [84] C. Largacha-Martínez. "Human energy and immaterial communication: The missing link for inspirational leadership? A theoretical paper". *International Journal of Business Research and Management (IJBRM)*, vol. 10(4), pp.44-63, 2019.
- [85] H. Hlochova. "The origins of CSR in theory and practice: Chapter from CSR history in the CEE region". *International Journal of Business Research and Management (IJBRM)*, vol. 10(4), pp.84-101, 2019.

APPENDIX I – The interview script

1.	Interviewee name and startup name.
2.	Academic qualifications.
3.	What is your position at the startup?
4.	When was the startup founded?
5.	How many employees does the startup have?
6.	Did the university where you studied influence your decision to be an entrepreneur?
7.	Do you know what Corporate Social Responsibility is? Give us your definition.
8.	Does the startup have concerns about CSR? What practices does it have?
9.	Are the actions more directed towards sustainability or to the social domain? Or to both?
10.	How do you believe that innovation can be a motivating factor for CSR?
11.	How does your startup achieve the combination between innovation and CSR?
12.	To what extent do you see CSR as a way to improve reputation and obtain more customers or market share?
13.	What impacts do you think innovation combined with CSR can have in terms of competitiveness?
14.	Do you believe that CSR can improve an employee's performance and motivation?