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**Benefits, challenges
 and opportunities
 of corporate sustainability**

1. Introduction

Although the term ‘sustainable development’ is just over thirty years old, it should be noted that its meaning dates back to prehistory. We only need to recall the full development of *homo sapiens* approximately 35,000 years ago, which included the ability to design and preserve cultural systems and to interact with the environment and peers (Simons, 1989, cited by Kohler, 1992). We might say that the most significant root concept of sustainability lies in ecology. Indeed, for a long time, the concept of sustainability was applied in the context of interaction between humans and nature. Environmentalists have highlighted how so-called “development” fails to consider of long-term effects, which could lead to the destruction of the planet (Kidd, 1992). The same author states that all reports relating to ecology address the ability to coexist, which is linked to the disposition of land, population levels, growth rates, environmental degradation, etc. Recently, the author has addressed issues such as the equity of economic systems, social and cultural traits affecting life-carrying capacity and the influence of technology. Other areas

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originating with the concept of sustainability include climate change science, politics and social activism (Kajikawa, 2008).

In recent decades, several economic and political factors have influenced society and blurred the line between the public and private spheres. Globalization has increased the volume and intensity of international trade and investment, leading to the unprecedented growth of corporate power. Moreover, the post-war Keynesian welfare state has been replaced by a neoliberal paradigm that has thrived via privatization and liberalization policies (Crouch, 2009, quoted by Kudlak & Low, 2015). In the late twentieth century, companies regarded the issue of corporate sustainability as justification for projects that could provide a commercial benefit. The concept of corporate sustainability was used not only by the business sector but also by environmental organizations and business consulting firms, among others, to create sustainability strategies within organizations (Salzmann, Ionescu-Somers, & Steger, 2005).

Corporate sustainability is a multifaceted and diverse topic (Renukappa, Egbu, Akintoye, & Goulding, 2012). It is challenging to understand what it means, and the various perspectives that it has generated make it even more complex.

The main objective of this article is to analyse concepts and models related to corporate sustainability and to emphasize the most representative recent findings regarding the benefits, challenges, and opportunities of this important topic. To develop this research, a review of literature was conducted according to Creswell's methodology (Creswell, 2009). Firstly, key factors were identified to start searching in academic databases as Springer, Willey, Elsevier, Emerald, Redalyc, among others. Then, relevant articles were selected to start reading and identified the main topics related to this research. As a third step, there were identified benefits, challenges and opportunities of corporate sustainability and finally there was developed every element of the article considering the established objective.

2. Sustainable development

A number of events in the US and in other parts of the world drove recognition of the need for sustainability. For instance, regulation was enacted in the early nineteenth century in the US to protect various tree species used in shipbuilding (Morris, 2012). Thomas Malthus has been described as a visionary because he highlighted concerns regarding global overpopulation in the context of increasingly scarce natural resources. The Club of Rome expressed

similar concerns 200 years later. Subsequently, the Brundtland Commission and the Rio Declaration called upon representatives of all nations to contribute to sustainable development. Other significant events are listed below (see table 1).

Table 1. Sustainability in the US and the rest of the world

Colonial period in the US	In 1822, several regulations were approved to protect certain tree species used in warship construction.
Thomas Malthus - <i>An Essay on the Principle of Population</i>	One of the first scholars to consider sustainable development. In his book, he stressed that the human population is growing faster than the Earth's capacity to meet its needs.
Arthur Pigou - <i>Wealth and Welfare</i>	In his book, he noted that the government can correct market failures through taxes and subsidies. He stated that human beings are the source of pollution.
Rachel Carson - <i>Silent Spring</i>	Her work aimed to raise awareness regarding DDT (<i>Dichlorodiphenyltrichloroethane</i>) and other synthetic chemicals used to control pests in crops, as there were scientific doubts regarding their impact on nature.
Paul Ehrlich - <i>The Population Explosion</i>	In his work, he claimed that between the 1970s and 1980s, global hunger would become widespread due to overpopulation. He therefore called for a reduction of fertility.
Club of Rome - <i>The Limits to Growth</i>	In 1972, this document noted that it is not possible to continue growing at the same exponential rate as in the last three centuries.
Brundtland Commission	In 1987, sustainable development was defined for the first time.
Rio Declaration	In 1992, a declaration was presented, consisting of 27 principles intended to provide guidelines for the future of sustainable development globally.
The Hannover Principles	These are a group of declarations regarding how the design of buildings and objects should take into account environmental impact and its effect on sustainable development and society in general.
US Environmental Protection Agency - Smart Growth	The US Environmental Protection Agency (US EPA) defines smart growth as development that serves the economy, the community and the environment.
The role of corporations in achieving ecological sustainability	The concept of stakeholders has become popular among multinationals. According to Professor Dr Shrivastava, corporate activities must be connected to all elements of sustainability.

Sustainability - Vague and numerous definitions	It is challenging to explain what sustainability is, despite the large number of existing definitions.
Anticipating future needs	Sustainable development seeks to meet the needs of the future through the reduction to zero of the use of natural resources, which is impossible.

Source: Compiled based on Morris (2012)

The Brundtland Commission and the report from the World Commission on Environment and Development (WCED), *Our Common Future*, define sustainable development as meeting the needs of the present without compromising the ability of future generations to meet their own needs (WCED, 1987). This concept holds political significance and has established the content and structure of the current debate (Kirkby 1995, cited by Mebratu, 1998). The Commission underlines the strong connection between poverty reduction and improved environmental and social equity through sustainable economic growth (Mebratu, 1998). Although the interpretation of sustainability is undoubtedly driven by political interests, it is a promising concept that fosters philosophical unity (Thompson, 1992). Brundtland's definition has redefined the general lexicon on this topic. However, there is no agreement on a specific process for addressing a subject about which almost everyone's thinking departs from the recommendations (Redclift, 2005, quoted by Zavattaro, 2014).

3. Corporate sustainability

Within two years of the creation and dissemination of the sustainable development concept through the United Nations' Brundtland Report, 140 alternative definitions had appeared. Currently, it is estimated that there are more than 300 definitions of sustainability and sustainable development (see Table 2). These terms should therefore, be recognized as ambiguous, although the four principles proposed by The Natural Step (concentration of substances extracted from the Earth's crust, concentration of substances produced by society, degradation and capacity to meet the needs of human beings) may help to identify suggested ethical rules. Ethical behaviour in the economy and global governance may also contribute to durable solutions that can be implemented by applying sustainability principles (Johnston, Everard, Santillo and Robert, 2007). According to Dunphy and Benveniste

(2012), sustainable development is the result of activities that, for example, ensure that the planet maintains and renews its biosphere and protects every living species; improving the ability of society to solve its most pressing issues; maintain an acceptable standard of living for present and future generations; extend organizations' productive lives; and support high levels of organizational performance.

In the context of business, Vildåsen and Havenvid (2018) mention that in the last thirty years there has been an accelerated increase in interest in social and environmental effects that can be generated by entrepreneurs' activities. Accordingly, knowledge about corporate sustainability has gained more a) form and content, b) structure, c) consistency, d) credibility and e) recognition (Ogrean & Herciu, 2018).

On the other hand, the theory of voluntary disclosure states that companies are willing to disclose good news to distinguish themselves from competitors due to a commonly recognized positive correlation between financial performance and sustainability. In contrast, stakeholder theory and legitimacy theory consider disclosure to be a response to social and political pressures, in which case, disclosure can be called reactive. As it is not possible to clearly determine whether companies are being proactive or reactive, it can be noted that they prefer to disclose environmental events when they feel threatened by stakeholders and when they want to defend their behaviour in order to maintain or restore legitimacy (Bonilla- Priego, Font, & Pacheco-Olivares, 2014).

Based on various knowledge disciplines, sustainability favours the achievement of organizational objectives while also achieving a balance for society, the economy and the environment. As mentioned by Elkington (1997), companies should consider the Triple Bottom Line by including social, economic and environmental dimensions in order to generate indicators and different ways to account for these types of results. Another peculiarity is time, given that it extends the current activities of entities into an undetermined future that favours the wellbeing of future generations by offering them the same development opportunities as today. Finally, the holistic view not only includes the implications for business but also invites other stakeholders to hold an open dialogue and build consensus to ensure the safety, stability and prosperity of the general public (see table 2).

Table 2. Definitions of sustainability according to different schools of thought

School of thought	Lead authors	Definition
Economics	Verboncu, 2008, cited by Ionescu, 2009	A sustainable organization takes an approach to economic, environmental and social balance that values a higher level of knowledge and other resources that are available and are attracted by the organization, creating long periods of efficiency and multidimensional performance that are validated by the market and society.
Environmental economics	Lorenz and Lützkendorf, 2008	Corporate sustainability is generally interpreted today as the overall objective of achieving a lasting balance between the economy, the environment and society. Sustainable development involves a continuous process directed towards the achievement of this goal. In this context, taking responsibility by considering society and the environment may be seen as a prior condition and measure when applying principles of sustainable development. Socially responsible investment represents a key instrument in this regard.
Green economics	Costanza, 1991, cited by Oswald, 2008	Sustainability is defined as a relationship between human economic systems and ecological systems in which (1) human life can continue indefinitely, (2) human individuals can flourish, and (3) human cultures can be developed, but also where (4) the effects of human activities remain circumscribed, to avoid destroying diversity, complexity and the function of the ecological life-support system.
Finance	Dow Jones quoted by Jayne, 2015	A business approach that creates long-term shareholder value by seizing opportunities and managing the risk deriving from economic, social and environmental development.
Civil engineering	Mega and Pederson, 1998, cited by Oswald, 2008	Sustainability is forward-looking equity and harmony, a careful journey without an end point, a continuous effort towards the harmonious co-evolution of environmental, economic and sociocultural objectives.
Industrial engineering	Chardine-Baumann and Botta-Genoulaz, 2014, p. 139	Conducting a practice derived from the combination of economic, social and environmental results corresponding to a holistic approach designed to indicate the integration of types of performance.
	Hassini et al., 2012, cited by Formentini and Taticchi, 2015, p. 4	The ability to conduct business with a long-term goal by maintaining the health of the economy, the environment and society.

Marketing	Ottman, 2000, cited by Fava and Thome, 2008, p. 50	It has three components: environment, economic development and fair distribution of resources for all.
Politics	The Brundtland Commission or Report from the WCED, 1987	Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.
Politics and economics	United Nations (UN), quoted by Fava and Thomé, 2008	Sustainable development means improving humankind's quality of life by respecting the carrying capacity (sustainability) of ecosystems. A sustainable economy is the product of sustainable development, including the conservation of the production base of natural resources, and a sustainable society is one that can continue to develop by adapting and increasing knowledge, organization, technical efficiency and wisdom.

Source: Prepared by the author. Sources included

Corporate sustainability performance is a newly emerging term in the debate surrounding business, the environment and corporate social responsibility. Its aim is to examine performance in terms of its social, environmental and economic aspects: these are the three pillars of sustainable development (Takala & Pallab, 2000, cited by Wagner, 2010). This issue is not a buzzword. For many industry leaders and businesses, corporate sustainability performance is a valuable tool for reducing costs, managing risk, creating new products and fostering change; however, building a sustainability practice within an organizational structure requires vision, commitment and leadership (Azapagic, 2003).

As already mentioned, sustainability in organizations has three dimensions that can be measured by various indicators. For example, the social dimension includes workers' health and safety, noise and job creation. The economic dimension includes the quality of products and services offered to the community, the efficiency of measures aimed at reducing costs and increasing profit margins, and responsibility, namely, accepting the official regulations in force. Finally, the environmental dimension addresses the pollutant emissions generated by the company and the need to reduce or eliminate them, the exploitation of natural resources, acknowledging moderation to avoid destroying the ecological balance, reducing waste and implementing recycling measures for the abovementioned purposes (see figure 1).

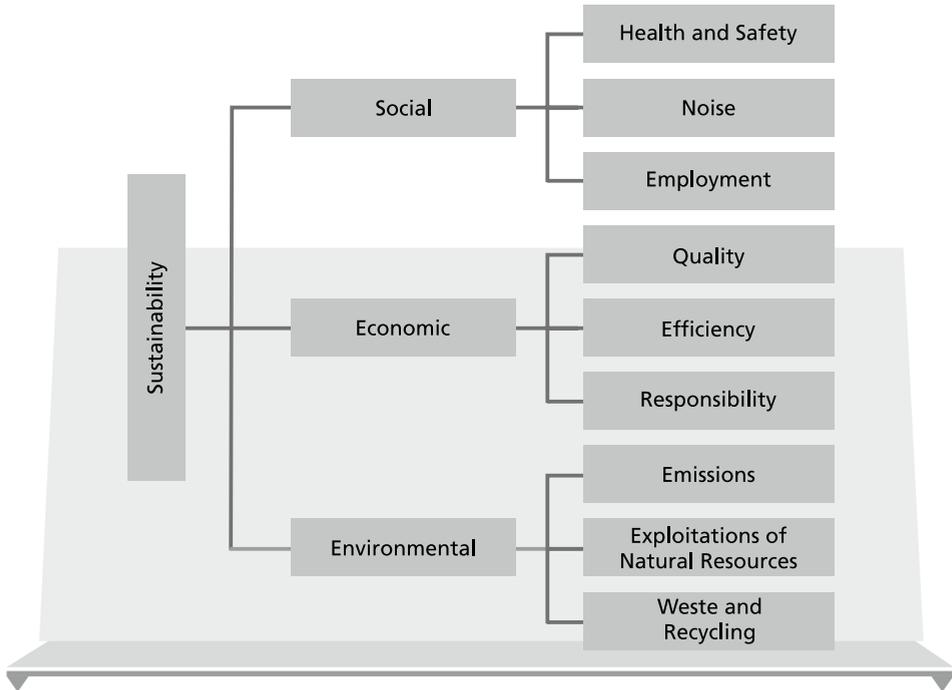


Figure 1. Metric dimensions and sub-dimensions

Source: own calculations based on Cetinkaya et al., 2011

A more modern view of the dimensions of corporate sustainability holds that it is composed of an open system approach, input focus and prospective orientation (Ivory and Brooks, 2017).

Statistics New Zealand (2008), which is cited by Hunt (2013), mentions a series of principles that each dimension must incorporate. The environmental dimension aims to protect biodiversity and maintain and restore ecosystems; in addition, consideration should be given to setting limits on resource consumption (renewable and non-renewable) and on waste and toxins, along with managing biosecurity risks. Finally, the time required to develop natural processes, foster access to the environment for recreation and tourism and protect the use of the environment must be taken into account. Considering the social dimension, the knowledge and abilities of individuals must be developed, their needs met and their health looked after. In parallel, one aim

should be to offer them satisfaction and happiness, and beyond the individual, to foster social participation, assist vulnerable groups, defend political and civil rights and demand greater government effectiveness by collaborating with it. Another objective should be to protect and disseminate the historical heritage of the towns where people live and to ensure that cultural diversity is freely expressed, respected and valued. Concerning the economic dimension, the needs of society must be met to maintain an optimal financial position, encourage investment in innovation and achieve greater economic efficiency. In the same vein, knowledge and skill development must be allowed to meet the needs of economic development and match the pace of change in society (see table 3).

Table 3. Dimensions and sub-dimensions of sustainability

Dimension	Sub-dimension
Environmental	Ecosystem and diversity
	Resource consumption
	Materials and waste
	Risk
	Pace of change
	Access and value to the environment
Social	Knowledge and skills
	Objective living conditions
	Subjective living conditions
	Social participation
	Governance
	Culture and identity
	Equal opportunities and access to resources
Economic	Economic system
	Efficiency and innovation
	International connection
	Pace of change

Source: Compilation based on Statistics New Zealand (2008), cited by Hunt (2013)

4. Benefits

The benefits of incorporating sustainability into organizational management are considerable. Chen (2015) conducted a case study over one year in 2013-2014. The case study involved the application of a survey to 1,200 guests of hotels in the south-eastern US. He verified that the sustainability efforts of these hotels were positively correlated with guests' accommodation preferences. In line with the above, Rocha-Vencato, Maffini-Gomes, Scherer, Marques-Kneipp and Schoproni-Bichueti (2014) showed that a number of export companies in Brazil benefited from the implementation of sustainable management through higher sales. A case study carried out by Dhanda (2013) on the evolution of sustainability at the healthcare company Baxter International Inc. showed that the company received rewards for its sustainability efforts and improved its image. In addition, Haywood, Hartley-Trotter, Faccar and Colin-Brent (2013) investigated the diversity of sustainable practices in South Africa, showing that organizations use these practices to improve their reputation, save costs, ensure long-term profitability and achieve competitive advantage.

The above was also proven by Maffini-Gomes, Marques-Kneipp, Kruglianskasb, Barbieri da Rosaa and Schoproni-Bichuetiaa (2015), who showed through a case study that the adoption of sustainable practices was positively correlated with the performance of companies belonging to the Brazilian Mining Association and that the adoption of such practices was related to company size. Furthermore, Schacht, Leal Filho, Koppe, Struksnaes and Busch-Stockfish (2010) showed that the elements of sustainability may be applied to aquaculture as a means of improving quality and promoting salmon consumption. Finally, Windolph, Schaltegger and Herzig (2014) found a correlation of the same type between knowledge and sustainable management (see Table 4).

Customer loyalty to certain hotels is due to three factors - technology, innovation and sustainability efforts (e.g., water and waste recycling, energy conservation, avoiding discarding material goods, donating items, combating pollution and offering organic food) - that impact the different phases of the accommodation service, ranging from fostering specific perceptions, choice of location, the customer experience and after-sales service (Chen, 2015). Such sustainability efforts should be developed according to what Guetat, Jarboui and Boujelbene (2015) called hotel efficiency, which consists of its financial, human, organizational, commercial and overall performance. To that end, several tools must be integrated into sustainability management that are applicable beyond a particular department (Windolph et al., 2014). A challenge in this regard is the

development of advanced mathematical models and of multi-criteria analysis, addressing, for example, the management of energy systems, water supply, waste management, etc. (Duic, Urbaniec, & Huisingsh, 2015).

Moreover, it was found that the implementation of sustainable practices such as the development of products and processes through technological innovation increased the level of exports (Rocha-Vencato et al., 2014). This is consistent with Staub, Kaynak and Gokc (2015), who recommend developing innovative strategies for sustainable performance, particularly with regard to the organization's identity. They note that innovation must be understood as the implementation of improvements in goods and services or of a new organizational method with respect to business practices, the workplace or relationships with people or external groups. In this regard, reference is made to the value of awards because they improve the image of companies and thus their financial performance (Dhanda, 2013; Haywood et al., 2013.). This can be explained by the positive correlation between a company's sustainable practices and its performance (Maffini-Gomes et al., 2015), which is consistent with the type of correlation that maintains stakeholder pressure regarding environmental practices (Betts, Wiengarten, & Tadisina, 2015). Additionally, it has been found that sustainability determines the quality of products (taste, texture, smell, etc.), encouraging their consumption (Schacht et al., 2010). Quality could be complemented through presentation, specifically packaging, by including data on the product that addresses not only sustainability and price but also nutrition, etc. (Van Loo et al., 2015).

Finally, research developed by Pedersen, Gwozdz and Kant (2016) yielded results confirming that the organizational ability to guide the sustainability of a company is strongly influenced by the values of the organization.

5. Challenges

A number of challenges are noted by Bekele, Bosona, Nordmark, Gebresenbet and Ljungberg (2012), who assessed the sustainability of the food company Konsum Värmland in Sweden. They found that the main challenges for sustainability initiatives were the higher cost of more environmentally friendly products, the high cost of logistics and emissions, the seasonal nature of local products and the high cost of investment. Perego and Kolk (2012) analysed 250 multinational Fortune 500 companies over ten years. They found great variability in the adoption of sustainability practices. Arenas, Fosse and Murphy (2011) conducted a six-year case study of a company to assess whether corporate

efforts to integrate sustainability in business practices could be more effective by combining cultural factors, collaboration and innovation. In the same line of study, Gjerdrum-Pedersen, Henriksen, Frier, Soby and Jennings (2013) presented a case study of a company that attempted to transform general stakeholder principles into concrete and manageable actions; however, the company faced various needs, challenges and paradoxes.

A similar case was presented by Parisi (2013), who studied 405 large European companies and found weak alignment and commitment among middle- and top-level managers with regard to sustainable management. Education could be crucial in the implementation of sustainability. Aigner and Lloret (2013) assessed sustainability practices in 500 of the largest Mexican companies. Although these companies were active in this respect, they were still at an early stage of the learning curve. Not all activity stemmed from their own initiative, as there was also pressure from trading partners, as presented by Jorgensen and Knudsen (2006), who examined the role of sustainability in supply chain management. Their conclusion was that small and medium-sized businesses face greater demands from their customers, which they are unable to impose on their suppliers; therefore, recommendations were made to study sustainable supply chain management to explore large buyers' opportunities to encourage or assist small suppliers in achieving sustainability requirements (see table 4).

Ultimately, the high costs of sustainability measures in production systems require leadership and employee commitment, the alignment of the organization's values and consumer awareness (Bekele et al., 2012). In addition, greater attention must be paid to research and development, an area in which companies, universities, government representatives, etc., can become involved (Kucuksayrac, 2015).

Considering the variation in sustainability practices, the elements that were less addressed are organizational systems, the procurement of goods and services and marketing (Perego & Kolk, 2012). Moreover, other factors were taken into consideration, such as culture, collaboration and innovation (Arenas, Fosse and Murphy, 2011). In light of sustainability practices, the so-called 'corporate integration of voluntary sustainability initiatives' helps business leaders better understand how to contribute to sustainability goals and seek a holistic approach that offers maximum results (Lozano, 2012).

Stakeholders are decisive to successful businesses; therefore, the aim is to transform their principles into concrete actions, which is extremely challenging due to several obstacles (Gjerdrum-Pedersen et al., 2013). This challenge is not unique to the environmental care, given that within organizations, there is a low

level of commitment to sustainable management (Parisi, 2013). Moreover, a lack of knowledge regarding this issue results, for example, in Mexican companies remaining at an early stage of the learning curve (Aigner & Lloret, 2013). Finally, small and medium-sized companies face greater demands regarding topics related to sustainability, and greater collaboration with their major customers is necessary (Jorgensen & Knudsen, 2006). Such collaboration may be critical because the field of study of corporate sustainability has focused on variables and issues that can be controlled by environmental programs. In view of this, new interdisciplinary studies are proposed (Linnenluecke & Griffiths, 2013) that could contribute to clarifying the vast complexity and variety of organizations.

A further challenge in terms of understanding corporate sustainability is mentioned by Christ, Burritt & Varsei (2017), who argue that at a theoretical level, investigations of the dynamics of cooperation strategies and win-win relationships, as well as trade-offs within economic, environmental and social performance environments, are needed. Another aspect that can be considered as a challenge is mentioned by Ogreaan and Herciu (2018), who argue that there is some complexity in understanding the successful application of corporate sustainability as well as identifying the beneficiaries of this concept. This complexity is due to the following factors:

- companies deploy certain levels of corporate sustainability integration,
- there is controversy in the overall approach to corporate sustainability,
- corporate sustainability is far from being a solution that can be applied in the same way to all companies,
- there is a difficulty in evaluating sustainability reports in companies in a standardized way.

Furthermore, the idea established by Lyon et al. (2018) should also be considered as a challenge to corporate sustainability. They incorporate the concept of Corporate Political Responsibility (CPR), which makes transparent the actions of corporations regarding their actions to influence government policies. For example, by using lobbying as a strategy to influence public policy, companies can avoid regulations that affect their economic interests, regardless of whether such regulations might improve social or environmental conditions for a given country or region.

Finally, it is important to mention that there is no consensus in the literature on how to quantify sustainability in society or companies (Antunes and Leal, 2016). According to Arslan and Kisackir (2017), it is very important to develop economic, environmental and social indicators, as well as information on these dimensions, without losing their integrity, credibility and transparency.

6. Opportunities

Fortunately, along with the accumulation of challenges, a number of opportunities are presented. For example, Balkau and Sonnemann (2010) conducted a case study showing that life cycle management can be an important alternative to sustainability management by including products and materials along the value chain. Their findings show that businesses focus on supply chain management to achieve their sustainability goals. Governments emphasize communication more than legislation. The pressure exerted by the community and non-governmental organizations in the commodities sector has led to multi-stakeholder management, and these approaches are more effective than collaborative work. In parallel, certain proposals deserve distinction, such as green supply chain management as described by Mathiyazhagan, Govindan, NoorulHaq and Geng (2013). They note that the main barrier to its implementation stems from suppliers, i.e., the complexity of measuring and monitoring suppliers' compliance with environmental practices and their limited commitment to sharing information. Haapasaari and Kerosuo (2014) performed the same analysis in a transformative agency and discovered the importance of identifying and solving problems through training and flexibility. Nystrom, Strehlenert, Hansson and Hasson (2014) presented a longitudinal case study of a national program to improve the quality of care of the elderly. Ultimately, they found that the program had to implement multidimensional strategies depending on the type of actor, level of the system, contextual factors, program content, learning styles, process of change, sustainability conditions, etc. Other options were presented by Mysen (2012), who mentioned a sustainability business model called the "Eden Project" that provides opportunities to develop sustainability management via three interconnected strategies: operational practice and educational and assistance programs. Pesonen and Horn (2013) measured sustainability using a SWOT (strengths, weaknesses, opportunities and threats) analysis, which is an efficient tool for evaluating product life cycle, and prove that it is useful and capable of generating changes and improvements along the value chain. Strand (2014) found that companies implement sustainable practices when confronting a crisis of credibility and reputation and proposes bureaucratic machinery be established to execute these actions (see table 4).

Life cycle management, as a tool to meet sustainability goals, allows multi-stakeholder management (Balkau & Sonnemann, 2010). The need to design and implement multidimensional strategies is clear (Nystrom et al., 2014). For example, SWOT analysis is applied to achieve changes at the level of the value

chain (Pesonen & Horn, 2013). Further, initiatives such as green supply chain management (Mathiyazhagan et al., 2013), bureaucratic machinery (Strand, 2014) and the “Eden Project” (Mysen, 2012) may have a greater chance of being implemented if harmonized standards exist at the international level, for example regarding environmental issues (Chaabanen, Ramudhin, & Paquet, 2012). The Global Reporting Initiative (GRI) has the mission of promoting voluntary reporting on activities, products and services related to environmental, economic and social sustainability (GRI, 2002, cited by Lamberton, 2005). This tool allows for flexibility, which is necessary to solve problems such as those mentioned by Haapasaari and Kerosuo (2014).

More recently, Hahn, Pinkse, Preuss and Figge (2015) present an approach that clarifies the application of corporate sustainability by incorporating the levels of process of change, temporal context and spatial context, in addition to economic, social and environmental dimensions. This approach implies the development of activities from organizations in different dimensions as well as at different levels. Moreover, the application of this multidimensional concept represents an opportunity not only for the application of corporate sustainability but also for its study at a conceptual level.

The proposal of Hahn, Figge Pinkse and Preuss (2018) is also identified as an opportunity by incorporating the “Paradox perspective” and tensions in corporate sustainability. They address the tensions that can arise among the economic, social and environmental dimensions; they also include the notion of a paradox in the application of corporate sustainability that arises when the interests of the company conflict with the social and environmental dimensions. In this regard, the authors propose that the following aspects be analysed: instrumental (identifying tensions), descriptive (explaining how to respond to these tensions) and normative (adopting a strategy for reconciling social and environmental aspects).

Overall, corporate sustainability helps firms obtain a number of benefits that can be categorized as improvements in image, customer loyalty, reputation and quality. Similarly, sustainability is positively correlated with knowledge, business performance and sales. However, a number of challenges still exist, such as high investment costs, logistics and pricing, variable management practices and insufficient alignment between middle and senior management. Indeed, corporate sustainability is at an early stage of development, with a number of challenges and paradoxes still to be resolved. Finally, it is possible to discern certain opportunities that appear as management proposals, such as the “Eden Project,” life cycle management and bureaucratic machinery,

and as tools, such as SWOT analysis, ideas for formalization and flexibility and multidimensional strategies. Certainly, this issue could have a positive impact on environmental conservation, the welfare of society and economic development (see table 4).

Table 4. Benefits, challenges and opportunities for corporate sustainability

Benefits	Author and year	Challenges	Author and year	Opportunities	Author and year
Awards that improve the image of the organization	Dhanda (2013)	High investment cost, logistics and price of organic products	Bekele et al. (2012)	SWOT is a useful and effective tool to implement along the value chain	Pesonen and Horn (2013)
Customer loyalty	Chen (2015)	Variability of sustainable management practices	Perego and Kolk (2012)	Formalization and flexibility are required	Haapasaari and Kerosuo (2014)
Positive correlation with knowledge	Windolph et al. (2014)	Needs, challenges and paradoxes of sustainability	Gjerdrum-Pedersen et al. (2013)	Bureaucratic machinery is proposed to ensure compliance	Strand (2014)
Positive correlation with business performance	Maffini-Gomes et al. (2015)	For greater management effectiveness, cultural factors, collaboration and innovation must be considered	Arenas et al. (2011)	Multidimensional strategies are necessary to achieve sustainability	Nystrom et al. (2014)
Positive correlation with higher sales	Rocha-Vencato et al. (2014)	Weak alignment between top and middle management	Parisi (2013)	Life cycle management could be an alternative to comply with sustainability practices	Balkau and Sonnemann (2010)
Improves reputation, is cost effective, guarantees profitability and competitive advantage	Haywood et al. (2013)	Early in the learning curve	Aigner and (2013)	Green administration of the supply chain	Mathiyazhagan et al. (2013)

Improves quality and encourages consumption	Schacht et al. (2010)	Small and medium-sized companies face greater demands from buyers	Jorgensen and Knudsen (2006)	The sustainable management model of the "Eden Project"	Mysen (2012)
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Source: Prepared based on the authors cited

7. Conclusion

This article has presented several concepts for sustainability, described their similarities and presented models that make compliance possible through established components and principles. Additionally, various benefits of corporate sustainability were identified: it improves the quality, image and reputation of companies and is positively correlated with sales, customer awareness and loyalty. However, there are challenges, such as high investment costs, the high cost of organic products, the variability of management practices and a tendency not to consider cultural factors, collaboration and innovation. Fortunately, there are a number of opportunities, such as sustainability implementation through life cycle management, the "Eden Project," SWOT analysis, and bureaucratic machinery, among others.

Analysing the various benefits, challenges and opportunities of corporate sustainability can help to create a proactive vision that shows that it is possible to address them in a spirit corresponding with the times, characterized by demand for quality products and services generated efficiently and in compliance with national and international standards of environmental protection and respect for workers' rights while maintaining adequate profit margins to remain in the market.

This document reviews various theoretical sources in an attempt to provide an image of corporate sustainability. It starts with a review of concepts from different schools of thought and presents a number of sustainability models. In addition, this paper shows the benefits, challenges and opportunities presented by the abovementioned topic, which serve as a basis for analysis and reflection on the relevance of extending the study framework.

Additionally, it must be acknowledged that, by definition, this article has limitations because it consists of a literature review involving only the consultation of documents, their analysis and description. It is thus necessary to conduct new studies, for example via bibliometrics, to identify important elements among

a wide range of scientific documents, create new concepts of sustainability and submit these concepts to empirical tests to generate new theories.

Beyond political rhetoric, sustainability is a subject that deserves a privileged place in the field of management sciences because of the benefits it presents in the construction of a more equitable, fair and plural environment within a framework of cooperation and inclusion.

Summary

Benefits, challenges and opportunities of corporate sustainability

The topic of corporate sustainability has gained importance in recent years; unfortunately, confusion persists as to what it represents for businesses and academics. This review of the literature aims to analyse concepts and models related to corporate sustainability and to emphasize the most representative recent findings regarding the benefits, challenges, and opportunities of corporate sustainability. First, a series of benefits are identified, including improved quality, image and reputation for organizations. Second, challenges are recognized, such as the high cost of investment and the lack of consideration of cultural factors, collaboration and innovation. Opportunities are then presented, for example, the implementation of sustainability through life cycle management, the “Eden Project” and analysis of strengths, weaknesses, opportunities and threats (SWOT), among others. Finally, the need to achieve the benefits, take advantage of the opportunities and face the challenges of corporate sustainability in order to balance environmental, social and economic development is highlighted.

Keywords: *Management, Corporate sustainability, Sustainable development.*

JEL

Classification: Q01,M1

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