Ecocentric management mindset: a framework for corporate sustainability

Cecilia Lobo Araujo, Marc Eric Bara Picavet, Cristina Aparecida Pires de Souza Sartoretto, Enrico Dalla Riva and Paulo Sodre Hollaender
FGV EAESP, São Paulo, Brazil

Abstract

Purpose – This study aims to propose a framework to drive organizations, and particularly multinational enterprises, to understand and internalize a sustainable mindset for implementing efficient and effective corporate sustainability initiatives and helping them achieve sustainable development goals (SDGs).

Design/methodology/approach – The framework is based on the bidirectional iterative process of the flexible pattern matching methodology. The literature on ecocentric management was examined from top to bottom in its dialogue with corporate sustainability and corporate social responsibility (CSR). The bottom-up phase was based on highly visible deviant cases of companies that were significantly recognized for their CSR or for their sustainability programs but became well-known examples of unsustainability. Additionally, an illustrative case was analyzed to examine the mindset in practice.

Findings – The study offers a framework based on six constructs that were identified in ecocentric management literature. It translates the ecocentric management mindset framework into behaviors for organizations that want to conduct efficient sustainable programs that help them achieve the SDGs.

Originality/value – The proposed new framework highlights the conceptual pillars of ecocentric management, and offers practical and theoretical perspectives on how sustainability can be better addressed at the corporate level, and help achieve the SDGs.

Keywords Sustainability, Corporate Sustainability, Corporate Social Responsibility (CSR), Ecocentric Management, Sustainable Development Goals (SDGs), Multinational Enterprises (MNEs), Pattern matching

Paper type Research paper

1. Introduction

Sustainable development goals (SDGs) are a commitment among 193 nations with regard to the economic, social and environmental aspects of development. As these aspects are linked and affect one another, achieving the SDGs depends on all stakeholders, including multinational enterprises (MNEs) (SDG Compass, 2015). In this scenario, both national

“This study was financed in part by the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior – Brasil (CAPES) – Finance Code 001 and we also thanks FAPESP (São Paulo Research Foundation) for the doctoral fellowship of one of the authors (Grant 2018/26505–5).”

The authors thank the anonymous reviewers for their constructive feedbacks. The authors are also grateful to Ann Cunliffe and Luciana Hashiba for their comments on an earlier version of this paper.
companies and MNEs are facing more and more pressure from society. As a result, company awareness of the SDGs is increasing year by year (Eccles and Karbassi, 2018; Sinkovics and Archie-Acheampong, 2019). However, despite claims by 27 of the 50 largest US companies – most of them MNEs – that they are working on advancing the SDGs, little effort is being put into achieving these goals (Kramer et al., 2019).

Management literature and newspaper headlines refer to the inconsistency of organizations in positioning themselves as being sustainable; they present their corporate social responsibility (CSR) or their sustainability programs, but they have also been the perpetrators of some of the worst social and environmental incidents in the twenty-first century. Concern with the sustainability of MNEs’ operations and their impact on and beyond their countries of origin, has also been under-exposed in the international business (IB) literature (Kolk and van Tulder, 2010; Kolk, 2016; Van Zanten and Van Tulder, 2018). Nor has research in this field paid sufficient attention to the role of companies in defining their sustainable development agendas (Van Zanten and Van Tulder, 2018). In this regard, this article examines how an ecocentric management perspective can contribute to existing knowledge in IB literature. Specifically, it can be compared to the holistic level of spiral dynamics, that was introduced by Marrewijk (2003) into CSR literature and a complement to the responsibility matrix (Sinkovics et al., 2020), a framework for mapping out the sustainability status and transformation needs.

Ecocentric management theorizing emerged in the mid-1990s born out of the lack of an ecological perspective in business management and organizational literature (Purser et al., 1995; Shrivastava, 1995; Heikkurinen et al., 2016). Since the 2000s, some scholars have been showing signs of a renewed interest in ecocentric management by acknowledging how people, organizations and nature are intertwined and influence each other reciprocally (Whiteman and Cooper, 2011; Vlasov, 2019); firms are embedded in the environment and place where they are located (Whiteman and Cooper, 2000, 2011; Morris and Kirwan, 2011; Vlasov et al., 2018) and meanings are attached to ecological processes and places (Shrivastava and Kennelly, 2013; Whiteman, 2012; Masterson et al., 2017). The usefulness and practicality of the ecocentric thinking, however, has been questioned and criticized as being too idealistic (Hoffman and Sandelands, 2005; Heikkurinen et al., 2016). The goal of the framework being proposed here is to contribute to the ecocentric management literature by presenting a realistic and practical use of the perspective. It indicates a rationale and eight behaviors that are associated with the ecocentric mindset in the management field.

This conceptual paper aims to contribute toward corporate sustainability and achieving the SDGs by translating the ecocentric management into an ecocentric management mindset framework. The framework considers the interlinked dimensions of sustainability and its complexities and answers the research question:

**RQ1.** How can the ecocentric management perspective drive organizations to become more sustainable and help in the achievement of the SDGs?

The objective of the framework is to change the understanding and practices of sustainability at the organizational level, specially helping managers in MNEs improve working conditions, economic growth (SDG 8), responsible consumption, production (SDG 12) and related goals (SDG Compass, 2015) in local contexts.

The framework was developed by adopting a flexible pattern matching approach. The top-down phase reviews the literature on ecocentric management, corporate sustainability and CSR and is associated with a data-driven, bottom-up review of some highly visible and
deviant cases of sustainability failure. The iterative matching process resulted in a series of propositions that led to the ecocentric management mindset framework, comprising the ecocentric reasoning cycle and ecocentric behavior, a juxtaposition of ecocentric concepts and sustainable practices. Following the proposed framework, firms that are willing to be more sustainable can recognize, interact, understand and translate ecocentric concepts into action, creating effective sustainable initiatives in a constant questioning and rethinking process.

The structure of the paper is as follows. After the introduction, Section 2 presents the conceptual background that explores the corporate sustainability and CSR literature and the pillars of ecocentric management. Section 3 presents the methodology, followed by Section 4 that presents the results of the analysis and data matching processes. Section 5, based on interpretation and theorizing, presents the propositions and the framework itself. Section 6 discusses the proposed framework with the help of an illustrative case, Brazilian cosmetics multinational, Natura. The article finishes with conclusions, final remarks, an agenda for future research and the study’s limitations in Section 7.

2. Conceptual background
2.1 Corporate sustainability and corporate social responsibility
The discussion about the responsibility of organizations to society, and the call for a more humane, ethical and transparent way of doing business, have been present in the business practitioner environment and literature since the 1930s. The issue progressively gained in relevance after World War II with the acceleration of the industrialization process (Montiel and Delgado-Ceballos, 2014). After Bowen’s (1953) initial definition of corporate responsibility as the “social responsibilities of businessmen,” concepts and definitions of corporate sustainability and CSR emerged and evolved over the decades (Carroll, 1999). There is, however, no agreement over a definition of CSR and its boundaries (Frynas and Stephens, 2015). Terms such as business for social responsibility, corporate citizenship, business ethics, stakeholder management and sustainability are often interrelated, overlapped and compete as concepts (Frynas and Stephens, 2015; Montiel and Delgado-Ceballos, 2014). Corporate sustainability is sometimes considered a synonym for CSR, although some authors posit that there is a small difference: CSR is concerned with issues such as transparency, stakeholder dialogue and sustainability reports, while corporate sustainability focuses on value creation, environmental management, environmentally friendly production and human capital management (Marrewijk, 2003).

In short, most definitions of CSR and its concepts have in common an acknowledgment of the impact of firms on society, an awareness of the existence and impact of different stakeholders and power groups and an understanding that firms need to act ethically and responsibly toward society and the natural environment. All of these normally include voluntary acts beyond legal compliance and the liability of individuals (Carroll, 1999; Marrewijk, 2003; Carroll and Shabana, 2010; Frynas and Stephens, 2015). Carroll (1991) synthesized that a CSR firm should “strive to make a profit, obey the law, be ethical and be a good corporate citizen” (p. 43).

The literature on business and management has explored the concepts and definitions of CSR and divided them into categories, frameworks and scales in an attempt to simplify its complexity and study-specific aspects. Examples include reviews that: explore the theoretical bases of CSR (Frynas and Yamahaki, 2016); categorize CSR initiatives based on ethical motivations for adopting it (Schaltegger and Burritt, 2018); discuss value creation for the stakeholders of CSR initiatives (Peloza and Shang, 2011); investigate why businesses engage in CSR initiatives (Carroll and Shabana, 2010); and what levels of responsibility
firms have toward sustainability (Sinkovics et al., 2020). Frynas and Stephens (2015) differentiate CSR into three types, namely, micro-level, which considers individuals; meso-level, which examines relations between organizations; and macro-level, which looks beyond the firm to the political, economic and social dynamics of society as a whole. Aguinis and Glavas (2013) classified CSR initiatives in a continuum from “peripheral” to “embedded.” Their results emphasize that when CSR initiatives are embedded and part of a company’s core competencies, they engage employees and consumers and have outputs that are different from those when they are not embedded in the core business, and not observed in the marketing, sales, finance and other areas of the firm.

Several authors have discussed CSR implementation levels, such as Carroll (1979), who developed a rectangular model that specified four levels of CSR that evolved from the economic, legal and ethical levels, to finally reach the discretionary level. Carroll (1991) later updated his model and depicted it as a pyramid, in which economic responsibility appears at the base, but instead of having the discretionary category at the top, the author proposes philanthropic responsibility. According to Carroll (1991), these levels should be simultaneously addressed by managers, and at the same time considered as a precondition for the next level (i.e. economic responsibilities are the foundation on which the other levels rest). The next level, legal responsibilities, is guided by compliance with rules and laws, followed by ethical responsibilities, having to do with being ethical and doing what is right. Finally, philanthropic responsibilities are concerned with improving society.

Similarly, Marrewijk (2003) presents five CSR levels, namely, compliance-driven, where the benefit to society is restricted to obligations, which is similar to the legal level in Carroll’s (1999) model; profit-driven, when the integration of social, environmental and ethical aspects result in an increase in the financial results and profit, which is similar to Carroll’s (1999) economic level; caring, which is the level that signals investments that go beyond profit and compliance and where the motivations are people and the planet; synergic CSR is the level at which there is an active search for synergic solutions that create economic, social and environmental values and sustainability is itself relevant and recognized as the future; and the last is the holistic level, when CSR initiatives are fully integrated and embedded in company operations, and firms believe in their interdependence vis-à-vis society and the environment. At this level, the economic goal is not the main one, and sustainability is truly intrinsic to the firm’s business proposal (Marrewijk, 2003).

According to Marrewijk’s work, firms define on which level of CSR they wish to operate or what their ambitions are with regard to it. CSR is voluntary and demonstrates the social and environmental levels of concern of the firm toward its stakeholders. The level at which a firm wants to act (self-determination) is balanced by the principle of communion, where peculiarities of the context and situation will define the CSR implementation level (Marrewijk, 2003). Carroll (1991) also advocates that the management of such depends on how moral the company and its managers are. Unlike immoral managers, who do not act according to ethical principles, moral managers seek to profit by way of ethical precepts of leadership, fairness and justice.

Dialoguing with Carroll’s (1999) and Marrewijk’s (2003) logic of an increased level of engagement with CSR, Sinkovics et al. (2020) propose a framework for mapping out the responsible business behavior of companies in two dimensions, namely, “width,” which stands for the degree of their network connections; and “depth,” which is their degree of responsibility. The association of these two dimensions offers a panorama on how responsible or otherwise, a firm is toward sustainability, varying from a delinquent level of responsibility, in which the company uses its network to do social or environmental harm, to an advanced embedded level, when a firm delivers long-term solutions and tackles the root
cause of any constraints that are detected (Sinkovics et al., 2020). The ecocentric management mindset framework presented in this study proposes a complementary way of thinking, whose objective is to drive sustainability in organizations, while recognizing the need to question it constantly.

2.2 Corporate sustainability in multinational enterprises
Concern with the sustainability of MNEs’ operations, and their impact on their countries of origin and beyond, has been under-explored in IB literature (Kolk and van Tulder, 2010; Kolk, 2016; Van Zanten and van Tulder, 2018), while research in this field has paid insufficient attention to the role of companies in sustainable development or SDGs agendas (Van Zanten and van Tulder, 2018). Indeed, since the 1970s IB literature has focused mainly on corporate performance. In the 1990s, it evolved to include understanding developing countries as new markets resulting from the development of their middle-income classes (London and Hart, 2004; Luo et al., 2019). IB literature then moved on to discuss the formal and informal institutional aspects of emerging markets and developing countries, and questions related to entering, investing, organizing, competing and managing in these countries (Kolk and van Tulder, 2010; Luo et al., 2019). There are, however, few examples in IB literature of how MNEs can be more sustainable or mitigate their negative externalities in developing countries, other than some debate about concerns that MNEs may be outsourcing to bypass domestic regulations (Kolk and van Tulder, 2010).

Critical IB literature was born out of this concern as economic development imbalances, corporate scandals and unequal power relations between multinationals and national governments in developing countries kept on growing (Dörrenbächer and Gammelgaard, 2019). In contributing to the critical IB literature, this study explores the ecocentric management approach and six concepts that emerged from a theoretical literature review of this topic.

2.3 Ecocentric management
In the mid-1990s, management scholars started advocating the need for a paradigm shift in the way organizations dealt with the natural environment, and the necessity to introduce alternate approaches that were more centered on nature (Gladwin et al., 1995; Hart, 1995; Purser et al., 1995; Shrivastava, 1995). One example of this is the term sustaincentrism, which was coined by Gladwin et al. (1995) and defined as the equitable inclusion of a highly interconnected set of social, ecological and economic systems (Valente, 2012). Another is Hart’s (1995) natural resource-based view of the firm. Concurrently, Shrivastava (1995) presented the concept of ecocentric management, which identified nature as a stakeholder and a central piece in the development of ecocentrism.

Although nature-centric and ecocentric views were present before, albeit not always with this name, Shrivastava’s work was influential and put the idea in the spotlight of organizational studies (Cunha et al., 2008; Heikkurinen et al., 2016). Shrivastava (1995) positioned ecocentric management as an alternate ecocentric paradigm for management, advocating it as an “ecologically-centered inter-organizational concept” (p. 118). He provided a preliminary description based on the perspective that the traditional management paradigm was outdated and was not a response to the risks of post-industrial society. An ecocentric perspective was needed to “effectively address the ecological degradation” (p. 127).

Building on Beck et al.’s (1992) definition of risk (mostly centered on external and natural resources), Shrivastava (1995) proposed creating a “tentative, provisional and incomplete” (p. 127) vision of ecologically sustainable, organization-environment relations, placing
nature at the center of management’s concerns. Ecocentric management, as defined by Shrivastava, produces eco-friendly products using eco-design concepts. It encourages the use of less energy, smaller amounts of resources and more environmentally efficient and appropriate production technologies than anthropocentric management does.

Others have built on this vision of ecocentric management and brought their own ideas and concepts to the debate. The present study brings together some of these different views, building on the ecocentric management theory, updating its potential role and addressing how ecocentric management can be implemented by companies for them to become more sustainable (Shrivastava and Kennelly, 2013) and address the SDGs.

3. Methodology
The act of translating theory into practical propositions is fundamentally an ongoing reasoning process, by which concepts and constructs are defined, understood and confronted with reality. Pattern matching is an approach that reveals which assumptions and implicit mental models were implemented during research, helping readers retrace the logic connections made and the conclusions arrived at by the researchers (Sinkovics, 2018).

The pattern matching process starts with two paired investigations, namely, a top-down, theory-driven review of the theoretical realm; and a bottom-up, data-driven inquiry of the observational domain. Patterns from both realms are matched – hence, the pattern matching approach – and theory is developed from that (Bouncken et al., 2021).

There are three categories of pattern matching, namely, full pattern matching, when all stages are fully implemented; flexible pattern matching, when all stages are implemented, but freedom is allowed, providing a degree of flexibility; and partial pattern matching, when only the top-down or the bottom-up phase is fully implemented (Sinkovics, 2018). This study used the flexible pattern matching approach. This category combines deductive and inductive approaches in an exploratory investigation that builds on theory-driven research and allows the emergence of data-driven findings (Sinkovics et al., 2019; Bouncken and Barwinski, 2021; Bouncken et al., 2021).

The main objective of the top-down phase was to explore the theoretical realm of ecocentric management. Concepts related to the ecocentric management theory were identified by way of a theoretical literature review (Paré et al., 2015). Starting with fundamental papers, such as those by Shrivastava (1995), Shrivastava and Kennelly (2013) and Whiteman and Cooper (2000, 2011), an approach inspired by snowball sampling (Creswell, 2007; Patton, 2014) was adopted, in which other articles that discuss ecocentric management were selected from the references and so forth. In a second step, searches about ecocentric management were conducted in Google Scholar and Web of Science (WoS). The results from the search in WoS were saved in a text file and imported to the VOSviewer software to create a citation network map. The map was used to deepen concepts and broaden the scope of authors in the review. VOSviewer makes use of a mapping technique based on the visualization of similarities, which can be used to create cluster graphs based on text corpus or on networks, such as citations, co-authorship and others (Sinkovics and Sinkovics, 2016).

After the search, each paper was discussed by at least two researchers and, gradually, the most significant and recurring concepts were selected by consensus. This iterative process was conducted until saturation was reached, when new papers that were analyzed did not have new aspects of the ecocentric management theory (Corbin and Strauss, 2014; Merriam and Tisdell, 2015).

A second iterative process was used for exploring the use of ecocentric management concepts in management and IB journals by way of a critical review approach (Paré et al., 2015). The researchers engaged in extensive discussions to extract as many meanings as
possible for each of the ecocentric management concepts that had been identified in the first iterative process. Once their meanings had been extracted, keywords derived directly from them were looked for in IB and critical IB journals. By doing so, it was possible to identify the ways in which the ecocentric management theory and its practices are portrayed in both literatures. This iterative process finished with new debates to incorporate IB and Critical IB understanding into the reasoning, enabling new relationships to be identified between the ecocentric management theory and management practices for IB.

All the concepts that were selected using this top-down phase comprise the theoretical domain side of pattern matching and are presented in the section analyzing and matching data.

The main objective of the bottom-up phase was to explore empirical data to confront relevant ecocentric management concepts with real situations. To do so, three deviant cases – i.e. when data deviate from what is expected, leading to surprising outcomes – were selected (Gerring, 2008). Each case represents an organization considered to be green or sustainable. Despite this, however, all of them were involved in a damaging event from a sustainability perspective. These cases were selected because of their potential for revealing new insights once the organizations’ actions and omissions were investigated. These cases comprise the observational domain side of the pattern matching and are presented in the next section.

Once the top-down and bottom-up phases had been completed, the patterns that emerged from both were compared and analyzed. Then, completing the pattern matching approach, propositions were formulated based on the insights generated; these are presented in the interpreting and theorizing section. These propositions were organized into a framework, in which ecocentric management concepts were articulated in an ecocentric reasoning cycle, which promotes ecocentric behavior. The research ended with a positive illustrative case, which tested the proposed framework.

4. Analyzing and matching data

Following the pattern matching process, the two initial phases – exploratory research based on theories and discoveries based on data – are presented below. From the top-down literature review, which was based on the theoretical domain, six concepts that focus on ecocentric management emerged. These are summarized in Table 1.

4.1 Ecocentric management concepts

4.1.1 Embeddedness. The notion of embeddedness comes from the perception that interactions occur immersed in a network of relationships. Interactions do not happen in a vacuum; they take place while embedded in relational networks. Uzzi (1999) defined social embeddedness as “the degree to which commercial transactions take place through social relations and networks of relations that use exchange protocols associated with social, non-commercial attachments to govern business dealings” (p. 482). Besides embracing interactions, relational networks influence how interactions occur, depending on the values and rules on which they are built. Expanding on Polanyi’s introduction of the concept, Granovetter (1985) suggested that immoral actions could be discouraged through social networks because social relations are more important than institutions and morality for generating trust.

Building on this social embeddedness, Murdoch et al. (2000) were among the first to venture that embeddedness could refer not only to social relations but also to relations with the environment. This paper agrees with the perspective of some authors that social and ecological aspects are intertwined rather than separate (Folke et al., 2016; Vlasov et al., 2018),
and it is extremely important to consider all of these aspects to have a more holistic and systemic ecocentric approach. There is value, however, in distinguishing between them, particularly when analyzing and trying to understand embeddedness and other concepts of ecocentrism.

Taking a more ecological approach, Allen et al. (2019) emphasize embeddedness to be an ongoing and reciprocal process that is constructed between the environment and humans. In firms that are embedded, employees go beyond understanding and supporting the environment and social sustainability issues to work toward solutions. Problems cease to be external, become internal and need to be addressed. Whiteman and Cooper (2000) rename this embeddedness that exists between the environment and humans as “ecological embeddedness.” Their main idea is that interactions occur immersed in social networks with nature present, so social and business transactions are influenced by nature. For them, being ecologically embedded means to “identify with the land, to adhere to beliefs of ecological respect, reciprocity and caretaking, to actively gather ecological information and to be physically located in the ecosystem” (p. 1265). In other words, it is the extent to which we relate to the land where we are and how much we can learn from it. They argue that

<table>
<thead>
<tr>
<th>Concepts</th>
<th>How it is incorporated into ecocentric management</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materiality</td>
<td>By recognizing that there is a reciprocal influence between society and everything that is material. Inorganic matter, nature and place are no longer only objects shaped by humans but also entities with agency</td>
<td>Allen et al. (2019), Bansal and Knox-Hayes (2013), Leonardi (2012), Odum (1983), Orlikowski et al. (1995), Whiteman and Cooper (2011)</td>
</tr>
<tr>
<td>Uniqueness of place</td>
<td>By recognizing that there are three dimensions that define unique aspects of any site, namely, its location, its characteristics and the meanings that people attach to it</td>
<td>Cresswell (2004); Shrivastava and Kennelly (2013), Guthey et al. (2014); Matuzis et al. (2020)</td>
</tr>
<tr>
<td>Sense of place</td>
<td>By understanding the organization’s connection with place and what it means to the organization</td>
<td>Hay (1988); Livingston (1995), Shrivastava and Kennelly (2013), Masterson et al. (2017), Vlasov (2018); Matuzis et al. (2020)</td>
</tr>
<tr>
<td>Sensemaking</td>
<td>By understanding novel, ambiguous and confusing issues through an iterative process of attaching new meanings to new and old knowledge</td>
<td>Maitlis and Christianson (2014); Whiteman (2012); Whiteman and Cooper (2011), Vlasov (2018); Zuckerman (2019)</td>
</tr>
<tr>
<td>Radically reflexivity</td>
<td>By rethinking knowledge and behavior through the cognitive routine of continuously reviewing and challenging taken-for-granted assumptions, routines, knowledge and practices</td>
<td>Allen et al. (2019), Archer (2007), Kessl and Maurer (2012), Quarshie et al. (2019); Vlasov (2019)</td>
</tr>
</tbody>
</table>

Source: Prepared by the authors

| 525 |  | Ecocentric management mindset |

Table 1. Synthesis of the ecocentric management concepts
organizations vary in terms of the extent to which they are ecologically embedded and are often dissociated from the natural world because they do not interact through experiences neither with their ecosystem nor do they seek to develop knowledge from it. The authors further argue that the degree of ecological embeddedness of individuals or organizations may affect their commitment to and practice of sustainability and their ecological sensemaking (Whiteman and Cooper, 2000, 2011). Morris and Kirwan (2011) criticize Whiteman and Cooper’s approach to ecological embeddedness, stating that their definition focuses too much on rootedness in the land. In this regard, they suggest four dimensions of ecological embeddedness: understanding, realizing, using and negotiating.

Morris and Kirwan (2011) and Vlasov et al. (2018) go further to argue that embeddedness should also incorporate spatial relations. This so-called “embeddedness in place” can be divided into socio-cultural and ecological (Vlasov et al., 2018). For Vlasov, entrepreneurs or firms that are locally embedded would: include the interests of local stakeholders (including nature); respect local traditions; identify and notice relevant local needs, problems, opportunities and feedbacks (ecological and socio-cultural); gain knowledge and legitimacy; and be able to mobilize a community around a common purpose. In this regard, it is possible to posit that embeddedness is not incompatible with MNEs. On the contrary, it might be quite beneficial, as combining local embeddedness with strategic global networks would provide access to new ideas and resources, as well as making these resources, including knowledge, work in the MNEs’ host countries, thus creating unique opportunities (Vlasov et al., 2018). In short, the concept of embeddedness allows people and organizations to understand themselves as inseparable from their socioeconomic and material environment (Vlasov et al., 2018). In other words, it allows a better understanding of their materiality.

4.1.2 Materiality. The concept of materiality is used across several areas of study within the social sciences. Its origins can be traced back to the 1960s, to a series of studies that explored the role of technology in organizations (Leonardi, 2012); for example, how the adoption of computers affected organizational structure, hierarchy and decentralization. The second wave of researchers further developed the concept of materiality. Orlikowski et al. (1995) studied how communication technology shaped organizational forms and was, in turn, shaped by users’ interactions.

Sociomateriality, a field of study that evolved from materiality, goes beyond technology and assumes that all materiality is social, as it is “created [. . .], interpreted and used in social contexts” and at the same time, “all social action is possible because of some materiality” (Leonardi, 2012, p. 32). Thus, the essence of sociomateriality is the “mutual in acting” between society and everything that is material and their entangled relations (Allen et al., 2019, p. 785).

Materiality and sociomateriality, however, are almost always applied to the context of organizations and have not extended beyond these boundaries to include the natural environment (Bansal and Knox-Hayes, 2013). The social is similarly entangled with everything that is material; there is an interconnectedness between the social and natural. In trying to fill this gap, several articles in the ecocentric management literature have explored materiality and sociomateriality. From Odum’s (1983) definition of materiality as a “dynamic [. . .] system of [. . .] entities made out of organic and inorganic matter” (p. 892), Whiteman and Cooper (2011) introduce the term “ecological materiality” as “the interaction of dynamic biological and biophysical processes and organic and inorganic matter over space and time” (p. 892).

The lens of materiality, through which nature is no longer seen as an object shaped by humans, is essential for ecocentrism. People and nature are intertwined and influence each other reciprocally. Nature becomes an important stakeholder that needs to be considered
Materiality can also be extended to include place. As organizations interact with the environment in which they are physically located, place and organizations have materiality; they influence each other. Thus, local context and local actors have to be taken into account as important stakeholders and incorporated in decisions and planning.

Materiality will exist independently of human action. Organizations can choose to notice the materiality of nature and place, make sense of it, and act upon it or they can choose to ignore it. Whiteman and Cooper (2011) go further and state that the ability to respond to changes in ecological materiality caused by climate change, for instance, is tied to one’s embeddedness in the natural environment. It can be inferred, then, that organizational responsiveness to changes in materiality (social, of place or ecological) is tied to their embeddedness (social, of place or ecological). Materiality will always exist independently, while embeddedness is an organizational characteristic that will be influenced by how the organization makes sense of this reality.

4.1.3 Place and sense of place. The use of the term “sense of place” in general academic literature is not new, but it gained relevance in the sustainable management literature with Shrivastava (1995). He pointed out that the term “organizational environment” placed an emphasis on the economic, political and technological dimensions in detriment to connections with the natural environment and with the place. In the same year, Livingston (1995) argued that a sense of place is essential for sustainable management because, without it, there is “an amputation of the fundamental skills required to play a co-evolved, healthy, contributory role in interspecies relationships” (p. 99). However, what is a sense of place?

The concept has several definitions, including “personal connection with place, encompassing feelings of identity with and attachment to a place, in all its complex dimensions” (Hay, 1988). It is “about knowing deeply and caring intensely about any unique place, region or bioscape, including in a larger sense the entire planet” (Shrivastava and Kennelly, 2013) and “close attachment, care and responsibility for community and local environment” (Vlasov, 2018). For Masterson et al. (2017), the concept of sense of place has two dimensions, namely, the meaning attributed to it and the degree of attachment, which, in turn, comprises place dependence and identity. Finally, behavior as a response to the sense of place among people and organizations varies from intensely caring to completely alienated.

Mazutis et al. (2020) and Masterson et al. (2017) agree that a sense of place exists in a continuum or spectrum where at one extreme there are people or organizations that have a disconnected sense of place and at the other, there are people or organizations that have a connected sense of place. Most organizations and people are situated at some place on this spectrum. Organizations with a disconnected sense of place experience place as uniform or homogeneous across multiple locations (Cresswell, 2004), like many MNEs. On the other hand, an organization with a connected sense of place is deeply rooted or embedded (Shrivastava and Kennelly, 2013).

Also relevant to the sense of place is a correct understanding of place itself. Most definitions of the place include three dimensions, namely, the location, the locale (the characteristics and uniqueness of a particular place, whether natural or built) and sense of place (Cresswell, 2004; Guthey et al., 2014; Mazutis et al., 2020). Likewise, Shrivastava and Kennelly (2013) describe the place as a multidimensional concept, defining it as “a built or natural landscape, possessing a unique geographical location, invested with meaning” (p. 84).

Shrivastava and Kennelly (2013) and Guthey et al. (2014) broadened the scope of the discussion on ecocentric management in the 2010s to include these constructs. They presented two reasons why management and organizational studies of sustainability would
benefit from a more encompassing understanding of place and sense of place. First, the vague presence of place in sustainability is a gap that needs to be addressed (Shrivastava and Kennelly, 2013); and second, it can better highlight human-environment relationships and uncover new dimensions of sustainability (Guthey et al., 2014).

These concepts have the potential to transform the current idea of “placeless” sustainability. Moving beyond the narrowly framed notions of input-output models, concepts of place and sense of place help with the understanding of how people make sense of their world and how organizational identity and status are constructed in each place (Guthey et al., 2014). Shrivastava and Kennelly (2013) proposed that when organizations are rooted in place, their relationship with the locus is filled with a sense of place – connection, attachment, identity and responsibility toward it.

4.1.4. (Ecological) sensemaking. Sensemaking is a central activity in organizations, and is defined as “the process through which people work to understand issues or events that are novel, ambiguous, confusing” (Maitlis and Christianson, 2014, p. 57). Organizations go through this sensemaking process “by noticing certain things, ignoring others and by attaching meanings to what we have noticed until we develop a plausible story” (Whiteman, 2012, p. 8). There are some variations in how sensemaking is used and defined in organizational studies, e.g. political sensemaking, environmental sensemaking and cultural sensemaking, etc. Despite this, the definitions of sensemaking in organizational studies are similar in certain aspects, namely, sensemaking is a continuous and iterative social process; it occurs as a response to events, actions or changes in the environment that defy expectations; it contributes to understandings that are agreed between individuals who are similar enough to conduct coordinated collective actions; and it is a continuous process of ongoing action and understanding of the world (Maitlis and Christianson, 2014, as mentioned in Zuckerman, 2019).

Bearing this in mind, Whiteman and Cooper (2011) coined the term “ecological sensemaking,” which they defined as “the process used to make sense of material landscapes and ecological processes” (p. 889). To make sense of this process “actors notice and bracket ecologically material cues from a stream of experience and build connections and causal networks between various cues and with past enacted environments” (pp. 890–891). These actors can choose to ignore these cues or act on them. This behavior can also be identified in organizations: the effects of climate change worldwide can be seen by all, but only some organizations choose to act upon it, while others prefer to ignore it. One reason behind the unsustainable situation the world faces today is that these cues are either ignored or are spotted too late to induce any meaningful change (Vlasov, 2018).

Whiteman and Cooper (2011) go further and argue that actors who are embedded in local ecologies have greater opportunities to engage in ecological sensemaking than those who are disembedded. Consequently, ecologically embedded actors should be better able to make sense of changing ecological conditions as they can access a richer repertoire of actions, meanings, cues and consequences.

4.1.5 Radical reflexivity. Being reflexive is about considering how research is conducted (Alvesson et al., 2008). Banister et al. (1994) define it as the researcher’s recognition that he is central to the construction of knowledge. This is achieved through constant questioning, evaluation and reflection (Finlay, 1998). Moving away from academic reflexivity to a more general reflexivity, Archer (2007) defines it as a person’s “mental ability, shared by all normal people, to consider themselves in relation to their (social) contexts and vice versa” (Archer, 2007, p. 4). In these instances, people deliberate and question themselves. This inner conversation is important because it can help people make sense of things and events, as well as influencing their decisions and future action (Quarshie et al., 2019). In this regard,
Quarshie asserts that reflexivity serves as a practical and relevant starting point for understanding how engagement and change toward nature may take place, as “it accentuates the iterative and nested processes of sensemaking” (Quarshie et al., 2019, p. 24).

Allen et al. (2019) argue that within the field of sustainability we need to engage with another branch of reflexivity called “radical reflexivity.” It adopts a critical stance to reflexivity and questions sedimented, routine and taken-for-granted assumptions and practices (Kessl and Maurer, 2012). How a person or an organization views the world and the effects or outcomes of that view, need to be questioned and challenged, offering a more powerful way of understanding and acting on issues of sustainability. By questioning and continuously evaluating its routines, actions and limitations, an organization is better equipped to understand how it affects society, nature and place and is able to envision and enact a more ecocentric future (Vlasov, 2019). Seeing ecocentrism through the lens of radical reflexivity also offers a new perspective on “our embedded relationship with our world” and serves to highlight “our individual and collective responsibility to act” (Allen et al., 2019, p. 782), thus contributing to a solid foundation for ecocentric management.

The next section presents the three deviant cases explored during the bottom-up phase of the pattern matching approach.

4.2 Highly visible cases
Observational data from the bottom-up phase, which were gathered from business literature with a focus on cases, resulted in this section that summarizes three highly visible cases of leading companies that positioned themselves as sustainable, but were simultaneously the protagonists of some of the biggest social and environmental disasters involving organizations in history.

Volkswagen, Primark and British Petroleum (BP) are examples of leading companies that positioned themselves as sustainability-driven and that issued reports that emphasized their environmental and social initiatives, following the triple bottom line (TBL) directive to focus beyond economic performance (Elkington, 1998; Jeurissen, 2000). These initiatives, however, did not result in sustainable outputs; in fact quite the opposite. They led to disasters: the so-called “dieselgate” case (Volkswagen), the Rana Plaza collapse (Primark) and the oil spill disaster (BP). Our observations focused on understanding each case individually and their paradoxes.

4.2.1 Volkswagen and the “dieselgate” episode. Volkswagen, a globally famous automotive manufacturer, was the perpetrator of one of the most visibly unethical behaviors toward society and the environment ever. In September 2015, the company announced a huge recall of almost half a million diesel cars in the USA. It admitted that approximately 11 million vehicles all over the world had a software device fitted that disguised the real pollutant emissions. This was done to comply with regulatory levels, as real emission levels were around 40 times the legal limits at that time (Jung and Park, 2017).

The Dieselgate scandal as it was called after the cheating was discovered had a directly harmful effect on Volkswagen’s clients, and its own financial health. Apart from the environmental impact itself, the scandal had spillovers on the economic side, as share prices downturned, worldwide sales declined, fines piled up and lawsuits were lost one after another. Volkswagen was also investigated all over the world and on the social side, the case negatively affected the city of Wolfsburg, the location of Volkswagen’s headquarters (Jung and Park, 2017).

Before the recall, Volkswagen had defined some sustainable practices, such as initiatives to prevent soil contamination at its factories (Nunes and Bennett, 2010) and supply chain management policies that addressed environmental and social issues (Koplin et al., 2007;
Volkswagen was considered to be a model of corporate engagement. As cited by Ihlen and Roper (2014), its 2006 sustainability report stated its goal of “maintaining a long-term balance between the economic, environmental and social systems.” However, according to Blome et al. (2017), this was an example of greenwashing. For Mujkic and Klingner (2019), Volkswagen’s corporate decisions with regard to the Dieselgate scandal were based on environmental negligence, unethical leadership, poor decision-making and inadequate damage control. Jung and Park (2017) considered it to be the consequence of heavy leadership pressure for results, mixed with bad corporate governance that was based on family-related issues. Even the associated risks involved with the discovery of the event were overlooked. Neither the company has not demonstrated sustainability to be an intrinsic value nor does it even have the level of compliance the market requires.

4.2.2 Primark and the Rana Plaza collapse. The Rana Plaza disaster occurred in Savar Upazila, Dhaka District, Bangladesh, on April 24, 2013. On that day, an eight-floor commercial building collapsed, resulting in 1,133 deaths and 2,438 injuries. The tragedy is known as one of the worst factory accidents in history. The facility, used to house many clothing factories, received more than 50,000 employees every day. The incident was symbolic, due to the lack of attention given to working conditions, to the risk it represented and to the focus on sourcing costs (Jacobs and Singhal, 2017). Although the owner was aware of the building’s structural failures, employees were encouraged to continue working despite the risky labor conditions. They worked to deliver products for their customers abroad, mainly MNEs in developed countries (Chowdhury, 2017), such as Primark and Walmart (Reinecke and Donaghey, 2015). According to Arrington (2017, p. 282), “the Rana Plaza disaster brought the dirtiness of the garment industry into living rooms and people witnessed the horrifying truth about fashion.”

Primark was a member of the ethical trading initiative (ETI), a non-governmental organization that promoted good practices with regard to supply chain labor conditions (Collins, 2010). Its website used to state: “Primark is committed to providing the best possible value to our customers, but not at the expense of the people who make our products” (Collins, 2010, p. 58). Walmart was also an ETI member, when in 2005, it launched a new plan to reduce its environmental footprint based on three goals: zero waste, a 100% renewable energy supply and trade products that sustain resources and the environment. Although Walmart had these concerns, the main one was to drive down costs to generate earnings (Plambeck and Denend, 2008). In fact, Anner (2020) found evidence that the purchasing practices of MNEs negatively affect working conditions and labor rights in suppliers’ factories.

The most relevant sustainability issues, in this case, were the questionable supply chain management and the lack of responsibility of MNEs. Outsourcing should also be related to social and environmental responsibility. In this case, the values, norms and conditions of the headquarters of the MNEs were not considered along the chain. This omission led them to neglect the social dimension of their business suppliers.

4.2.3 British petroleum and the oil spill disaster. The BP case is an illustrative sequence of actions that culminated in an economic and social disaster that demonstrates neglect toward nature and the social environment. Although the multinational energy company had a well-publicized CSR among its management policies and had labeled itself a green energy company “beyond petroleum” (Lowe and Harris, 1998; Kolk and Levy, 2001; Adamson, 2007; Cox, 2008), the organization had a culture that was driven by strategic cost-cutting (Grundy, 1996).
On April 20, 2010, in the Gulf of Mexico, after a series of safety-related cases in Texas and Alaska (Khan and Amyotte, 2007; Kurtz, 2010), the infamous accident happened on Deepwater Horizon, a deep-sea floating oil-drilling platform run by a subcontractor, Transocean and leased to BP. This whole structure sank after an explosion. For 87 uninterrupted days, it discharged more than 4.9 million barrels of oil into the sea and caused immeasurable harm, including the deaths of 11 workers, 17 injured and the largest-ever oil spill in history to date (Smith et al., 2011; Arora and Lodhia, 2017).

The disaster was a clear example of the consequences of conflicting business and internal goals. BP managers took advantage of a US deregulatory window as an opportunity for prioritizing savings over security. At the time, the technology for stopping leaks from seafloor platforms was available, an acoustic switch. This system could have stopped the spill within seconds by simply clogging the platform tube, and was obligatory almost everywhere else around the globe (Halbert and Ingulli, 2011). Besides the financial losses, which were estimated to be around US$36.9bn (Smith et al., 2011), and that were caused by an inappropriate risk management policy and motivated by an economy of US$500,000, the disaster had a huge impact on the environment, tourism and fishing activities, with serious harm to ocean life.

Even though the company had published its CSR program, shareholder and profit pressures were prioritized over social and environmental responsibility. The “green energy company” was just a marketing ploy, i.e. greenwashing to leverage higher levels of profit and reduce risks at the shareholder level.

5. Interpreting and theorizing
This section presents the development of the ecocentric management mindset framework that resulted from the pattern matching process. Once data from the top-down theoretical realm is matched with data from the bottom-up observational realm, some interpretations can be made enabling a framework to be configured that reflects not only the mindset promoted by the ecocentric management theory but also the sustainable behaviors that are stimulated by this way of thinking.

5.1 Ecocentric reasoning cycle
When considered together, the six ecocentric management concepts identified in this research express a specific way of thinking that can be understood as a continuous reasoning cycle. Materiality and uniqueness of place prompt the organization to recognize values and forces that could be otherwise overlooked. Being able to recognize these characteristics can lead the organization to a better understanding of the type of relationship it has with the place, people and other organizations. Embeddedness helps the organization realize that these relationships are inseparable, and induces it to experience interconnected interactions. Sensemaking and sense of place arise from these interactions, taking the organization to a new understanding of its reality and its surroundings and to a greater awareness of new opportunities. By constantly questioning everything and taking the reasoning cycle back to the beginning, radical reflexivity challenges the status quo and taken-for-granted assumptions, resulting in a new understanding that comes from sensemaking and sense of place.

As the ecocentric reasoning cycle gains force in the organization’s culture, the mindset gets stronger and theory is translated into action, promoting the following sustainable behaviors.
5.2 Greater willingness to adopt ethical behaviors

Being embedded in relationships will discourage people from acting unethically in general (Granovetter, 1985), and with regard to nature and place in particular (Whiteman and Cooper, 2000).

In practice, acknowledging their embeddedness enables companies to be more aware of how they are inserted in society and their environment. A firm is inserted in society when it has strong social networks and adherence to or at least respect for beliefs, norms, reciprocity and caretaking. Each of the described cases represents an example of a lack of recognition of the embeddedness aspect of relationships, especially the Volkswagen “dieselgate” episode. If decision-makers were more aware of their embedded relationships and concerned with them, then they would refrain from acting unethically.

P1. Organizations aware of their embeddedness have a greater willingness to adopt ethical behaviors.

5.3 Stronger social and environmental responsibility

Another consequence of embeddedness is the emergence of social and environmental responsibility within the organization. Besides discouraging unethical behaviors, embeddedness stimulates good behavior within the organization. In the ecocentric management literature, Whiteman and Cooper (2000) point out that embeddedness promotes ecological reciprocity, respect and caretaking.

The BP oil spill disaster is an example of how a lack of embeddedness can be sufficient to weaken social and environmental responsibility.

P2. Organizations aware of their embeddedness are more concerned about the implementation of stronger social and environmental responsibility.

5.4 Adoption of nature and place as stakeholders

Materiality leads to an understanding that place and nature have agency. Thus, place and nature – and their interconnectedness with society – need to be considered in the strategies and decision-making processes of organizations. They need to consider not only “where” they are, but “what” the needs and opportunities of the place in which they are situated are; and “what” and “how” the environment impacts their strategy and operations (and vice versa). In other words, organizations should consider nature and place as their stakeholders, which was not the case neither with BP nor with Volkswagen.

P3. Organizations aware of materiality recognize the adoption of nature and place as stakeholders.

5.5 Use of decentralized knowledge for local adaptation

In IB literature – although not directly – the idea of materiality emerges as the regard with which environmental and local aspects should be considered beyond compliance. It is understood that local material forces not only affect the reality of firms, but (re)define them. An organization’s norms and policies should not simply be imposed by its foreign management headquarters that adopts a centralized perspective. If it does so, an organization risks implementing external and, sometimes, superficial procedures based on a false understanding of the environmental and social realities of its subsidiaries. A
decentralized perspective suggests that the local environment and social context should be considered, and that the organization’s practices should be adapted to fit the reality of its subsidiaries, based on local knowledge. In this way, international compliance would be more meaningful and more easily followed by local staff. The Primark case is an example of what happens when an organization fails to adapt its knowledge, understanding and practices to fit the local reality.

P4. Organizations aware of materiality promote the use of decentralized knowledge for local adaptation.

5.6 Recognize the multidimensional values of place
Sense of place allows the recognition of multidimensional aspects of the locality, its uniqueness and its complexities. This offers companies the opportunity to familiarize themselves with the local and to foster a deep understanding of the context in which they find themselves. By developing a keen sense of place, firms nurture knowledge of their environmental values, assimilate the richness and potentiality of place and recognize the organization’s impacts on local stakeholders.

By not investing in the acoustic switch system that could stop the oil spill within seconds, BP showed a clear disregard for the multidimensional values of place, as did Primark in relation to people’s work conditions.

P5. Organizations with a keen sense of place are willing to recognize the multidimensional values of the place.

5.7 Growth of a protective posture toward place
The firm with a strong sense of place identifies itself as an intrinsic part of the community, and encourages a protective posture toward the place. Once an organization gets to know the place, its culture, history and people, it becomes harder to adopt an indifferent, placeless posture. This was not the case of Primark, which prioritized cost over local characteristics.

P6. Organizations with a keen sense of place are willing to allow the growth of a protective posture toward the place.

5.8 Fostering collective and coordinated sustainable actions
As organizations embrace and get used to the ecocentric reasoning cycle, the understanding of ecocentric management concepts becomes stronger. The process of extracting meaning promoted by sensemaking not only reinforces ecocentric drivers in an organization's mindset but also stimulates individual actions for sustainability. These individual sensemaking processes tend to be linked between individuals within the organization, leading to coordinated and collective action toward sustainability (Whiteman and Cooper, 2011; Zuckerman, 2019).

P7. Sensemaking processes across individuals within the organization will stimulate the fostering of collective and coordinated sustainable actions.
5.9 Constant questioning of the status quo
An up-to-date organization positively reflects the fresh approach it adopts to its strategies and initiatives and creates a competitive advantage by constantly renewing its understanding of its reality. Radical reflexivity is the state of mind that constantly assesses and criticizes ideas. This allows the organization to question concepts frequently and to ascertain how it is evolving, thereby creating a healthy critical culture that is always evolving.

P8. Radical reflexivity is a state of mind that leads to a constant questioning of the status quo.

5.10 Proposed framework
Figure 1 shows the proposed ecocentric management mindset framework. It is composed of three parts. At the top, the basic mindset is displayed as a continuous process, namely, recognize, interact, understand, translate into action and rethink. These are the five steps that should be constantly taken to promote an ecocentric management mindset in an organization. The first three steps are directly related to the ecocentric reasoning cycle. This cycle, as explained before, is the visual representation of how the ecocentric management concepts identified in this research should be articulated to create the cognitive foundations of the ecocentric management mindset. Finally, all propositions are consolidated as the eight ecocentric behaviors that are presented on the right-hand side. The practical approach of the framework is intended to directly address its implementation in organizations. The more the cycle is reinforced, the more the behaviors are promoted.

6. Discussion and an illustrative case
The proposed ecocentric management mindset framework offers guidelines for implementing sustainable behavior that will result in greater sustainability at the corporate level – the meso level, as defined by Frynas and Stephens (2015) – and increase the potential
achievement of SDGs through economic growth, which is associated with responsible production, consumption and working conditions. By means of an ongoing process, the ecocentric reasoning cycle proposes that understanding and then internalizing materiality and uniqueness of place result in a firm becoming authentically embedded in its social and natural environment. This results in an ecological sensemaking and a sense of place that are essential for sustainable behavior and for addressing the challenges of sustainability. It is a continuous process anchored in radical reflexivity, which is a constant questioning of status quo assumptions and understanding, based on the fact that reality is dynamic and constantly changing. The emerging ecocentric management mindset, like the holistic level of spiral dynamics (Marrewijk, 2003), results in an organization in which CSR initiatives are completely integrated into strategy, operations and routines, as opposed to being isolated actions (Aguinis and Glavas, 2013).

To examine the proposed framework, we chose Natura, an MNE that has demonstrated engagement with social and environmental issues over time. Because the company has long claimed to be sustainable, as is clearly stated in its values and beliefs (Natura, 2020), there is a vast amount of literature on cases that assess its green footprint, which has enabled enough evidence to be collected to compare its initiatives from the past few years with the mindset propositions that emerged from this study.

Natura’s business has basically focused on cosmetic products and services since the very beginning back in 1969, originally in Brazil. Since then, the company has been constantly driven by TBL principles (Pires and Fischer, 2014; de Oliveira et al., 2018; Sehnem et al., 2019), and has lately also aligned itself with the SDGs (Sehnem et al., 2019; Natura, 2020). In 2012, Corporate Knights considered Natura to be the second most sustainable company in the world (Dalmarco et al., 2015). In 2014, the organization was the first publicly traded company to receive the B Corp certification. At the time, Natura was the biggest organization in the world promoting growth associated with well-being and the environment (Araujo et al., 2018).

Following the proposed framework and using secondary data from academic case studies about Natura, it is possible to identify evidence related to all eight ecocentric behaviors.

First, in terms of greater willingness to adopt ethical behaviors, some episodes indicate its commitment to establishing a correlation between sustainability and ethics, for example, promoting ethical and transparent business in favor of well-being, and incentives for ethical trading in their inputs (Sehnem et al., 2019). Dinato and Nascimento (2006) also found evidence of actions guided by ethical values throughout the organization. The company was also ranked as one of the most ethical in the world by the Ethisphere Institute (Dalmarco, 2015).

With regard to stronger social and environmental responsibility, the literature suggests the existence of internal key performance indicators for management that are related to social concerns in its interaction with stakeholders, such as its employees, consultants, suppliers and others; for example, labor practices, human rights, citizenship, philanthropy, product responsibility and supplier assessment (de Oliveira et al., 2018; Sehnem et al., 2019).

The environmental dimension is also considered in the company’s balanced scorecard (Dinato and Nascimento, 2006). Topics such as water, land, energy use, gas emissions, residue and pollution, biodiversity and resource scarcity are frequently monitored in their reports and following global reporting initiative (GRI) standards (de Oliveira et al., 2018; Sehnem et al., 2019). The company demonstrates systematic efforts in its supply chain management for reducing its environmental impact, including its planning, procurement, production, sales (Borges and Herreros, 2011) and consumption patterns (Dalmarco, 2015).
Evidence of an understanding of place for the business were also found. Some studies state that local relevance is taken into consideration throughout the organization in the whole of the production chain. Within-case studies present the way the company connects to communities for developing new products by intensively using technology and innovation (Hashiba and Paiva, 2016). The authors state that Natura incorporates sustainability into its supply chain processes and strategy, and establishes conceptual drivers and goals by way of its corporate guidelines that respect communities and biodiversity. Such initiatives made the process more complex and costly (Boehe et al., 2014), but retained the company culture.

In regard to the proposition of place multidimensionality, Hashiba and Paiva (2016) also understand that the organization profits from its geographic location, and explores Brazilian style in its products. These are indicative signs of the adoption of nature and place as stakeholders and recognition of the multidimensional values of place.

Nascimento (2002) states that the firm used to have a decentralized development process that involved human resources in different minor projects, a clear indication of the use of decentralized knowledge for local adaptation. Hashiba and Paiva (2016) reported on a sub-process in Natura designed to manage relationships with local communities, including seeking authorization for research and protection and the appropriation and sharing of intellectual rights, which are aligned with the growth of a protective posture toward place.

With regard to fostering collective and coordinated sustainable actions, Sehnem et al. (2019) point to the company’s interactions with stakeholders over the years, with an emphasis on collective agreements with trade unions and local communities, the latter between top management and community leaders involving basic raw materials for producing essences. There are also connections with cooperatives for inputs (Lombardi et al., 2010). Coordinated actions are demonstrated by the product development processes that are based on pre-established guidelines for sustainability (Hashiba and Paiva, 2016).

Finally, in relation to constant questioning of the status quo, Sehnem et al. (2019) present evidence that corporate reporting has boosted quality over the years, and new issues have become more transparent year after year, which may have been initiatives from management to novel questions that appeared in the organization, and that were relevant enough to be disclosed.

Although it was likely that strong signs of practices would be found following the proposed framework, it was also possible to observe criticism of these practices, thus emphasizing the need for a constant questioning of the status quo. Le Tourneau and Greissing (2010), for instance, presented a case that had to do with Natura’s exploitation of Brazil nuts in the Amazon, where the company and the community relationship ended in a social imbalance because of power issues. Despite all the efforts to engage in this challenging task related to extraction activities in protected areas of the Amazon, the authors reported poor living conditions and decision-making that was mainly controlled by local elites. Homero and Carrieri (2020) also criticize the lack of transparency with regard to the cosmetics salesforce in the company’s reports. The authors argue that the company “celebrates the exploitation of precarious work as a contribution to sustainable development” (p. 212). In their opinion, despite the GRI principles being followed in its reports, management’s treatment of the company’s salesforce is significantly different from its treatment of formal, salaried employees.

The illustrative case analysis suggests that Natura does, indeed, adopt actions that are aligned with the proposed framework. Nevertheless, the examination also raised concerns about some social matters in its operations (Le Tourneau and Greissing, 2010; Homero and Carrieri, 2020). This paper does not intend to certify Natura as a sustainable company as the dynamism of such an approach is much more complex. What it does is portray a coherent
image of Natura’s sustainable actions based on the proposed mindset and on the academic studies about the company that were selected. Besides, companies need to be open to learning from nature and society, and more importantly, they need to rethink and implement changes, despite any associated economic costs.

The findings that emerged from the flexible pattern matching process are summarized in Table 2, which associates the propositions with matches and mismatches observed in the analyzed cases. Additionally, each ecocentric behavior is linked to relevant SDGs, pointing out the framework potential to help organizations achieve them.

7. Conclusion and final remarks
This paper proposes the ecocentric management mindset framework, whose objective is to contribute to the development of sustainability in the business management environment, particularly in the international or non-local field. The framework is an answer to: how can the ecocentric management perspective drive organizations to become more sustainable and help in the achievement of the SDGs? The purpose is to help corporations recognize, interact with and understand their surroundings and translate into action their corporate sustainability intentions in a constant questioning process, a mindset that enables them to become more sustainable, which is an epistemological complement to the responsibility matrix that maps out the sustainability responsibility of firms (Sinkovics et al., 2020). The objective is to avoid the negative societal and environmental impacts of MNEs and other organizations away from their headquarters, allowing for the harmonious and sustainable development of business and, as a consequence, attainment of the SDGs, the path to a higher level of sustainability; an example of the holistic level of spiral dynamics (Marrewijk, 2003).

The framework was developed using a flexible pattern matching approach that associates ecocentric management theory concepts with the cases of three MNEs that were recognized as role models because of their sustainable programs, but that were also responsible for well-known economic and social disasters. These cases show that the mere introduction of sustainable initiatives and CSR programs does not necessarily lead to sustainability. The proposed framework provides the ecocentric management perspective of what was missing.

The ecocentric management mindset framework has three elements. The basic mindset, a circular process of recognizing, interacting and understanding, translating into action and rethinking. The ecocentric reasoning cycle is the conceptual part describing the logic that creates the fundamental conditions for promoting ecocentric behaviors. These behaviors are, namely, greater willingness to adopt ethical behaviors, stronger social and environmental responsibility, adoption of nature and place as stakeholders, use of decentralized knowledge for local adaptation, recognition of the multidimensional values of place, growth of a protective posture toward place, fostering collective and coordinated sustainable actions and constant questioning of the status quo.

This article offers a theoretical framework that dialogues and evolves from previous corporate sustainability and CSR frameworks, whose objective was to achieve corporate sustainability. The ecocentric management mindset framework is both as idealistic as the holistic level of spiral dynamics, mentioned by Marrewijk (2003) but also very realistic and practical, as it directs behavior and translates the proposed theory into action. The framework includes the sustainability discussion of IB, and offers a theoretical tool for understanding and dealing with the impact of MNEs in foreign countries. It is also a complement to the responsibility matrix (Sinkovics et al., 2020) that allows organizations to map out the actual status of their sustainable responsibility, and to direct the implementation of sustainability as a mindset and higher levels of sustainable practices. To
The observed pattern

<table>
<thead>
<tr>
<th>Theoretical pattern (propositions)</th>
<th>Observed pattern</th>
<th>Related SDGs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizations aware of their embeddedness have a greater willingness to adopt ethical behaviors</td>
<td>Lack of recognition of the embeddedness aspect of relationships lead to unethical actions (VW case)</td>
<td>Promotion of ethical and transparent business conduct in favor of well-being, as well as incentives for ethical trade in their inputs</td>
</tr>
<tr>
<td>Organizations aware of their embeddedness are more concerned about the implementation of stronger social and environmental responsibility</td>
<td>Lack of embeddedness can be sufficient to weaken social and environmental responsibility (BP case)</td>
<td>Key performance indicators (KPI) for management related to social concerns on interaction with stakeholders, such as employees, consultants, suppliers. Topics such as water, land, energy use, gas emissions, residue and pollution, biodiversity and resources scarcity are frequently monitored on their reports</td>
</tr>
<tr>
<td>Organizations aware of materiality recognize the adoption of nature and place as stakeholders</td>
<td>Organizations' strategies and decision-making processes that did not consider place and nature – and their interconnectedness with society (BP and VW cases)</td>
<td>Incorporation of sustainability into its supply chain processes and strategy, establishing conceptual drivers and goals through corporate guidelines respecting communities and biodiversity</td>
</tr>
<tr>
<td>Organizations aware of materiality promote the use of decentralized knowledge for local adaptation</td>
<td>The organization fails to adopt knowledge, understanding and practices to local reality (Primark case)</td>
<td>Practices of decentralized development processes that involved human resources into different minor projects</td>
</tr>
<tr>
<td>Organizations with a keen sense of place are willing to recognize the multidimensional values of place</td>
<td>BP showed a clear disregard to multidimensional values of place, as did Primark, in relation to people’s work conditions</td>
<td>The organization somehow profits from its geographic location, exploring the Brazilian style in their products</td>
</tr>
<tr>
<td>Organizations with a keen sense of place are willing to allow the growth of a protective posture toward place</td>
<td>Prioritization to costs over the local characteristics (Primark case)</td>
<td>Sub-process designed to manage relationships with local communities including authorizations for research and protection, appropriation and sharing of intellectual rights</td>
</tr>
<tr>
<td>Sensemaking processes across individuals within the organization will stimulate the fostering of collective and coordinated sustainable actions</td>
<td>-</td>
<td>Collective agreements with trade unions and local communities, the latter between top management and community leaders for basic raw material of essence production. Coordinated actions are demonstrated through the product development processes based on pre-established guidelines based on sustainability</td>
</tr>
<tr>
<td>Radical reflexivity is a state of mind that leads to a constant questioning of the status quo</td>
<td>-</td>
<td>Firm reporting has enhanced quality over the years, and new issues became more transparent year after year, which may have been initiatives from management toward novel questions that may have appeared inside the organization, relevant enough to be disclosed</td>
</tr>
</tbody>
</table>

Source: Prepared by the authors

Table 2. Observed matches and mismatches
the best of our knowledge, the ecocentric management mindset framework is the first to translate the ecocentric management theory into cognitive reasoning that can promote corporate sustainability and CSR in organizations.

The study’s managerial contribution is to offer a mindset, a way of being for companies and a suggested behavior for MNEs that want to be sustainable. The rationale and behaviors of the framework are also valid in any corporate situation in which a firm is entering a new market. It is a tool that can help firms recognize, interact with and understand their surroundings and translate their sustainable objectives into action, recognizing that this is a process that needs to be constantly questioned. Companies can also use the framework as a guide for sustainability, a tool to help them identify the causes of unsustainability and drive sustainable behaviors.

This research has limitations. Although relevant, the illustrative cases were analyzed only using academic works and the information available in them. Some aspects of ecocentric management thinking were possibly present in these organizations, but an in-depth case study would be necessary to detect them. While this research undertook a careful review of the literature, some aspects of ecocentric management may have been overlooked, notably those not related to sustainability, which was the main focus of this work. Despite the analysis of illustrative cases, the proposed framework was drawn up purely from theoretical sources. Although there are cases in the present study, it is possible that the framework may need modifying once new empirical studies have applied it in other contexts.

Future studies could further explore the relationship between an ecocentric management approach to sustainability with the achievement of SDGs in the long run and the success or failure of specific projects. Quantitative research could investigate the explanatory power of the proposed framework by way of structural equation modeling analysis or similar. Qualitative methods could be used to test the framework and understand how organizations apply it or how the use of the framework might change the way organizations understand sustainability or tackle the SDGs. The relationships between ecocentric behaviors and specific SDGs shown in Table 2 could be further explored. Another research opportunity could be to investigate drivers, barriers and moderators of ecocentric management practice. Organizational studies could use the proposed framework, exploring ways in which it impacts organizational culture.

The proposed debate is timely, as the whole world is facing up to challenging changes in several domains, and the SDGs represent a significant step toward a sustainable world. Besides the environmental dimension, movements such as Me Too against sexual harassment, Black Lives Matter against racism and the LGBTQI+ and feminist movements, are indicators that organizations need to be more aware of social concerns. The status quo needs to be challenged constantly and, in this regard, Guerriero et al. (2020) consider the COVID-19 pandemic crisis to be an opportunity for redirecting the economy toward sustainable businesses. Rab and Kettler (2020) state that there have always been new epidemics in history that have resulted in deep socio-economic changes. Although the current crisis is initially expected to impact the SDGs negatively, the consequences are still very uncertain (Sachs et al., 2020). This paper points out that at a time when it is not only governments that are facing enormous challenges, but businesses also, sustainability needs to be discussed and ecocentric management is a promising perspective for doing so.

References


<table>
<thead>
<tr>
<th>Reference</th>
<th>Details</th>
</tr>
</thead>
</table>


**Further reading**


**Corresponding author**

Cecilia Lobo Araujo can be contacted at: cecilia.araujo@fgv.edu.br

---

For instructions on how to order reprints of this article, please visit our website: www.emeraldgrouppublishing.com/licensing/reprints.htm
Or contact us for further details: permissions@emeraldinsight.com