
















## Barriers to institutional social sustainability

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### Abstract

Social sustainability is a work field characterised by an emphasis on social aspects, e.g. equity, ethics, health, gender balance, or empowerment, within a broader sustainability context. Although the concept seems to be reasonably well established and deemed worthy of pursuing, some obstacles prevent its wide dissemination. Through a bibliometric analysis focusing on the literature on social sustainability at institutions, with a focus on companies, this paper aims to investigate and describe some of the barriers associated with social sustainability implementation. Apart from identifying that sustainability reporting, environmental disclosure and financial performance play a central role in successfully achieving social sustainability, in the context of which gender-related issues seem more tangential, the results indicated some solutions commonly reported for overcoming barriers and obstacles to a company's social sustainability implementation within different sectors. These solutions have to do, among many other factors addressed in this study, with strengthening communication transparency and trust, contributing to awareness, using technology to document and promote social sustainability. Thus, empowering organizations and citizens, recognized as essential factors to social development, and addressing the challenges in a multi-dimensional way.

**Keywords** Sustainable development · Social dimension · Challenges · Difficulties

### The concept of social sustainability

Despite being debated for decades, the concept of sustainability gained notoriety after the publication of the report *Our Common Future*, when it started to disseminate the construction of a future based on the balance among economic, environmental, and social dimensions. Only through this triad would it be possible to continue providing what current generations needed, without compromising available resources for future generations (WCED 1987). Despite the development of the aforementioned concept, both environmental and social indicators analysis shows the need to rethink the economic models practiced (Roomi et al. 2021).

Indeed, social sustainability is not only a normative layer offering a direction for change towards worldwide equity

but also an entire societal project inviting multiple voices to debate, think, imagine and negotiate a more sustainable transformation grounded on more harmonious nature–culture relations (Parra 2013). Lami and Mecca (2020) mention that the search for sustainability in all its aspects is characterised by multiple objectives, involving different stakeholders that most of the time have conflicting goals. Thus, the planning and the correct understanding of the needs and interests of all involved stakeholders and surrounding debates is necessary to ensure that the results achieved will allow advancement towards a more just and egalitarian society. In line with this, Raymond et al. (2019) argue that social sustainability demands the consideration of an ample range of values. In this context, divergences in social values exist and need to be considered by academics. Accordingly, the Sustainable Development Goals (SDGs) may be used to better understand the current sustainability challenges (Leal Filho 2019; Purcell et al. 2019).

In the last decades, social sustainability is an area of knowledge that has proportionally received less attention, when compared with economic and environmental

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dimensions being discussed in academic research (Shirazi and Keivani 2019; Chatterji 2021). In the face of social barriers felt by the world of today, namely due to the COVID-19 pandemic, still present in everyday lives, it becomes imperative that the social sustainability lens integrates interventions made at every level of the societal challenges. It is a fact that social concerns were included relatively late in terms of sustainability debates, which until recently have been centered on innovation aspects, such as fighting climate change and protecting the planet. Only more recently has social sustainability been receiving additional attention (Chatterji 2021), to become an integral part of our daily societal agenda (Shirazi and Keivani 2019). This is corroborated by Guimarães et al. (2020).

The United Nations (UN) recognises the need to strengthen the social aspect of sustainability, emphasising the importance of integrating policies and partnerships to achieve it. In this line of reasoning, SDG 17 on global partnerships, which also encompasses various aspects beyond the social ones, addresses this issue at a greater level of detail (United Nations-Department of Economic and Social Affairs 2021). As emphasized by Smith et al. (2018), these goals also clarified barriers for sustainability science to support the initiatives toward sustainable development. When focusing on the social aspects of sustainability, we are dealing with issues that are extremely important for the development of a fairer society, such as gender equality, aging issues, the family in its multiple aspects, social inclusion, poverty eradication, education for all, access to basic sanitation and drinking water services, human rights, and the need to establish decent employment, among many other relevant issues (UN 2021). It is possible to understand that social sustainability, like other dimensions of sustainability, demands a multidisciplinary, or even a transdisciplinary approach, requiring knowledge from different areas to be successfully achieved (Rampasso et al. 2018; Brink et al. 2020). The implementation difficulties mainly relate to the mentioned particular aspect, i.e. social sustainability requires a multidisciplinary understanding that is not easy to accomplish (Shirazi and Keivani 2019). Essential sustainability attributes demand public participation and citizen empowerment, as the social outcomes are difficult to measure (Chatterji 2021), thus contributing to hindering successful implementation. For this and considering the transdisciplinary character of sustainability science, it has a key role in educational systems (Salovaara et al. 2020). Thus, as Franco et al. (2019) highlight, sustainability science should also be inserted into higher education, to prepare students to better understand this concept.

There is much to be done in terms of the social aspect of sustainability to be successfully accomplished. Small results demand decades of long efforts that often recede in short periods due to crises (UN 2020a). The COVID-19 pandemic

is a sad example of this reality. Among the COVID-19 consequences, millions of people have gone into extreme poverty in different regions of the planet, many of whom were already living in a critical situation even before the pandemic (UN 2020b). According to The World Bank (2020), extreme poverty increased considerably during the COVID-19 pandemic, affecting millions of people living on less than 1.90 US dollars per day. Due to its relevance, the eradication of extreme poverty is the first target of SDG 1 (UN 2015). To address this issue, Malmaeus et al. (2020) advocate the need for universal basic income models to ensure that people have access to their basic survival needs, comprising an important instrument of social sustainability.

For Guimarães et al. (2020), it is necessary to understand whether the practices developed in the context of the desired social sustainability achievement are correlated to what is really anticipated, i.e. whether the social sustainability benefits are happening according to a horizontal or vertical approach. In the first approach, benefits are distributed equally to everyone, while in the second, specific groups are favoured. Most of the time, it is necessary to focus on specific groups aiming to empower them and effectively reach positive social results. Indeed, Kibukho (2021) highlights the importance of empowerment in the search for effective results regarding social sustainability actions.

Another interesting aspect regarding the search for social sustainability can be mentioned from the study of Langergaard (2019), which, despite focusing on social practices in the non-profit housing sector, highlights something we consider valid for any social sustainability project, i.e. when working with social sustainability, the goals must be continuously ‘reinterpreted and subject to changing perceptions along the process’ (Langergaard 2019, p. 456); their being necessary to constantly understand what is required and desired by the groups in focus.

In addition to outlining social sustainability policies and actions, Rey-Garcia and Mato-Santiso (2020) believe that enhancing the social aspects of sustainability involves restructuring how future professionals are qualified. University students must be trained with the concept to ‘think, act and leverage’ (p. 1470) social capital. Practical projects with local communities can contribute to the students’ engagement. In these projects, students can verify what they learned in the classroom and more profoundly reflect on different existent realities.

Practices that enable better results associated with the social aspects of sustainability have been increasingly debated in the literature in different knowledge fields. Among these fields, business management can be highlighted. Indeed, the UN recognises that companies, a term herewith used to describe private sector enterprises, can and should play an essential role regarding social sustainability (UN 2021). For Contini et al. (2020), organisations need

to be increasingly responsible for their actions and should consider society's demands in their fields of action. Focusing especially on social sustainability in the business supply chain, Khan et al. (2021) argue that this has been relatively limited until now and has ample potential for expansion. Moreover, although social sustainability could be discussed in an isolated manner, it is essential to understand the big picture and consider the systems perspective in which social sustainability impacts not only in terms of the social dimension but being also able to bring positive externalities to the other dimensions of sustainability, such as the economic and environmental dimensions (Eizenberg and Jabareen 2017). This interconnectedness of dimensions of sustainability is well discussed in the literature, in which some studies analyse, for example, how several SDGs and their targets are correlated, even though they are from different dimensions (Eustachio et al. 2019; Fonseca et al. 2020). In this sense, this study advocates that exploring the research streams on institutional social sustainability, particularly the practices of companies, is essential to understanding how humanity is threatening earth systems and what are the possible lessons learned to foster environmental protection, such as reducing carbon emissions and combating climate change through collective human action (Steffen et al. 2018; IPCC 2021).

Considering this context, and departing from a bibliometric analysis that focuses on the literature on social sustainability at institutions focusing on companies, this study investigates and describes some barriers associated with the implementation of social sustainability on a broader scale. It also intends to outline some measures that may be deployed to address these barriers.

This research contributes to sustainability science in three main ways. First, it outlines some key elements such as sustainability reporting, environmental disclosure, and financial performance, which play a central role in successfully achieving social sustainability. Second, it describes some of the barriers which prevent developments in the field of sustainability from being implemented. Finally, it helps to meet the perceived need for scientific publications which provide in-depth discussions on the social aspects of sustainable development.

In addition to this introductory section, the theoretical background provides an overview of the literature regarding social sustainability in companies. The subsequent section presents the methodological procedures to conduct the bibliometric analysis followed by which the research findings are presented and debated. The last section presents the conclusions.

## Social sustainability in companies

Companies usually prioritise economic gains and environmental legal compliance, often neglecting the somewhat vague social pillar of sustainability (Popa and Salanță 2015; Ajmal et al. 2018). Nevertheless, business operations are responsible for numerous negative externalities in society (Popa and Salanță 2015), which requires them to address accountability and public acceptance to keep growing in the market, thus being reflected into a positive image. In this sense, social responsibility has become a strategic resource for maximising society–company interaction (Soroka and Mazurek-Kusiak 2014), reputational gains in older organisations, and competitive differentiation in newer firms (Popa and Salanță 2015). Additionally, it has been suggested that addressing social sustainability aspects for employees could be used to attract younger and more skilled personnel to companies (Sundström et al. 2019).

Socially responsible organisations typically focus on enhancing the life quality of both the society as a whole, i.e. job market, honest and qualitative service to customers or community investments, and that of their workers and supply chain collaborators (Soroka and Mazurek-Kusiak 2014; Popa and Salanță 2015; Ajmal et al. 2018). In this sense, companies should also be aligned with the aspirations of a sustainable working society to ensure the satisfaction of basic socio-economic needs, social coherence, e.g. volunteerism and tolerance towards minority groups, and gender equality, e.g. work–life balance (Littig and Griessler 2005). Therefore, business organisations need to balance the interests of their multiple stakeholders. For social sustainability, in particular, there are three groups whose concerns must be given priority, namely, employees, community members, and consumers. Although both corporate actors and stakeholders have combined importance for social sustainability, they have different roles in this process. As explored in the previous section, involving the different stakeholders represents one of the biggest challenges for social sustainability (Lami and Mecca 2020), as well as the constant reinterpretation of concepts (Langergaard 2019), which are important responsibilities in terms of company management. Government assistance is also needed, particularly for the promotion of policy initiatives to support Corporate Social Responsibility, for example, ensuring that an empowered civil society is included in the relations between government and companies (Albareda et al. 2009). The community and potential consumers, on the other hand, are considered to be the market force that compels companies to invest and value social sustainability (Mihajlović 2020).

The literature review on social sustainability suggests that SDGs could be a good basis for each type of social stakeholder. In particular, the SDGs 3 (good health and

well-being), 5 (gender equality), and 8 (decent work and economic growth) are good indicators of addressing the needs of employees (Khan 2016). Workers' behaviour can take one of four paths according to their psychological needs: improved corporate citizenship/ethical behaviour and decision-making (belongingness), higher employee retention and commitment (self-esteem), increased emotional well-being and task-persistence (meaningful existence), and less ineffective work conduct (security). Corporate Social Responsibility (CSR), which according to UNIDO (2018) is "a management concept whereby companies integrate social and environmental concerns in their business operations and interactions with their stakeholders", represents a strategic lever for influencing workers' behaviour (Bauman and Skitka 2012). In general, when employees perceive a company's thorough commitment to socially responsible activities, they generate a better operating performance, translated by a net income or sales per labour unit, rewarded through higher wages too, as a result of improved job satisfaction that directly stems from their identification (psychological connection) with the company (Sun and Yu 2015; Shin et al. 2016). More specifically, internal CSR practices (directly affecting workers' psychological and physical reaction to the working environment) seem to encourage a higher degree of engagement, in terms of vigour (mental resilience and perseverance), absorption (full concentration at work), and, to some extent, dedication (enthusiasm and pride) (Ferreira and Real de Oliveira 2014).

SDGs 3 (good health and well-being), 8 (decent work and economic growth), and 10 (reduced inequalities) may be good indicators for addressing social interaction with community partners and involvement in civic affairs (Ajmal et al. 2018). CSR takes several roles in community development, such as collaborating for compensating the environmental degradation caused by industrialisation and for protecting human rights, transferring technology from multinational enterprises to developing host countries, alleviating poverty in local communities, attracting talent, or providing data to public research entities (Ismail 2009). Corporate community engagement can be achieved in four different ways: philanthropic donations (in cash, fundraising events, giving away equipment to non-governmental organisations, schools, and hospitals); largely voluntary and quite popular, employee voluntarism (volunteer services to communities during working hours); projects, e.g. visiting communities to train their financial savviness; and partnerships with non-profit entities for attaining specialist resources (that businesses may lack but need, to tackle public welfare matters) (Deigh et al. 2016). Corporate–cause partnerships, in particular, are important charity programmes that help companies foster corporate citizenship, while at the same time have positive repercussions on the long-term industry and community growth, which can rely on the internal drivers of the

organisation such as expertise, resources, and measurements of programme benefits for society (Edwards 2015).

Consumers are given due consideration through SDG 12 (responsible consumption and production). The literature has shown that there are two viewpoints when looking at social sustainability from the consumers' perspective. One highlights the need for companies to offer quality and affordable products to buyers with lower incomes (Khan 2016), while the second perspective focuses on the companies offering products that include packaging returns (Kleindorfer et al. 2009). The most important attributes in their purchasing decisions remain price and quality, followed by philanthropic activities, which may be considered slightly more relevant by consumers in highly educated nations (Valor 2006). Yet, the consumers' awareness of their rights has proved to prompt businesses to introduce more social sustainability initiatives on the whole (Bello et al. 2016). In some cases, however, consumers may perceive such activities as either threatening the company's ability in developing quality products (Valor 2006), or as greenwashing, thus believing that an organisation is lying about its green practices. In fact, when companies are not clear about the real green risk involved or do not engage in qualitative and satisfying green activities, this undermines consumer trust. This results in consumers being more prone to share negative comments, affecting the corporate reputation (de Jong et al. 2020).

A fundamental variable in realising social sustainability is innovation. One that is self-organised between communities and businesses is social innovation, through which companies transform social needs into opportunities for resolving enduring business issues and promoting social progress, going beyond charitable giving or profit pursuit. Within this dynamic, companies contribute to co-development with various entities, achieving proactive problem solving, and accomplishing a scale-up of ideas by mobilising financial and human resources (Martinez et al. 2017). Frugal innovation is another major contributor to the uptake of social sustainability. It is aimed at improving the quality of life of resource-constrained consumers in emerging countries, by providing low-cost but new, robust, and user-friendly products and services, resulting from the application of advanced technologies (Khan 2016). From a corporate point of view, sustainable business model innovations can help address the higher complexity of consumer demand for a new range of services, products, and business practices that progressively capture more sustainability value (Cantele et al. 2020), contributing to social sustainability.

Additionally, strategies leveraging innovation support organisations in enhancing their operational performance when consolidated with social priorities (Longoni and Cagliano 2015), e.g. incorporating social risks into the organisational culture. Operations management is indeed



crucial for implementing corporate social strategies through a smoother four-step transition: (1) catching up internally, (2) conforming to minimum industry standards, (3) defining a stand-alone agenda, and (4) demonstrating high-quality operational competence externally (Kleindorfer et al. 2009). Social performance in operations (core activities and projects), however, ought to be assessed separately from societal initiatives (corporate social investment). As for operations, the defining social criteria are internal human resources (fair compensation, well-being, contracts, retirement benefits, disciplinary practices, career development), external communities (job creation, education, infrastructure such as housing and transport, security/trust when analysing a project's social sustainability), stakeholders (communication, participation, influence) and regional/global citizens (gross domestic product and trade, environmental monitoring and legal enforcement) (Labuschagne et al. 2005).

Finally, when analysing operational social sustainability, it is also useful to distinguish between the implications for different business structures. Overall, small–medium enterprises (SMEs) have a limited inclusion of social sustainability concepts in their operations (particularly neglecting diversity and equality), as they consider environmental strategies of higher importance. Companies in industrial engineering seem, however, to pay more attention to health and safety, especially in their supply chains, as opposed to high-tech companies that mostly focus on product innovation (Sundström et al. 2019). When instead SMEs aggregate into network or group structures, they become very proactive, having enough influence to support policymakers at the macro-level setting of social and environmental priorities for the local industries. Hence, the combination of organisational forms, culture, and sustainability accounting has positive effects on the integration of social sustainability into businesses (Liakh and Spigarelli 2020).

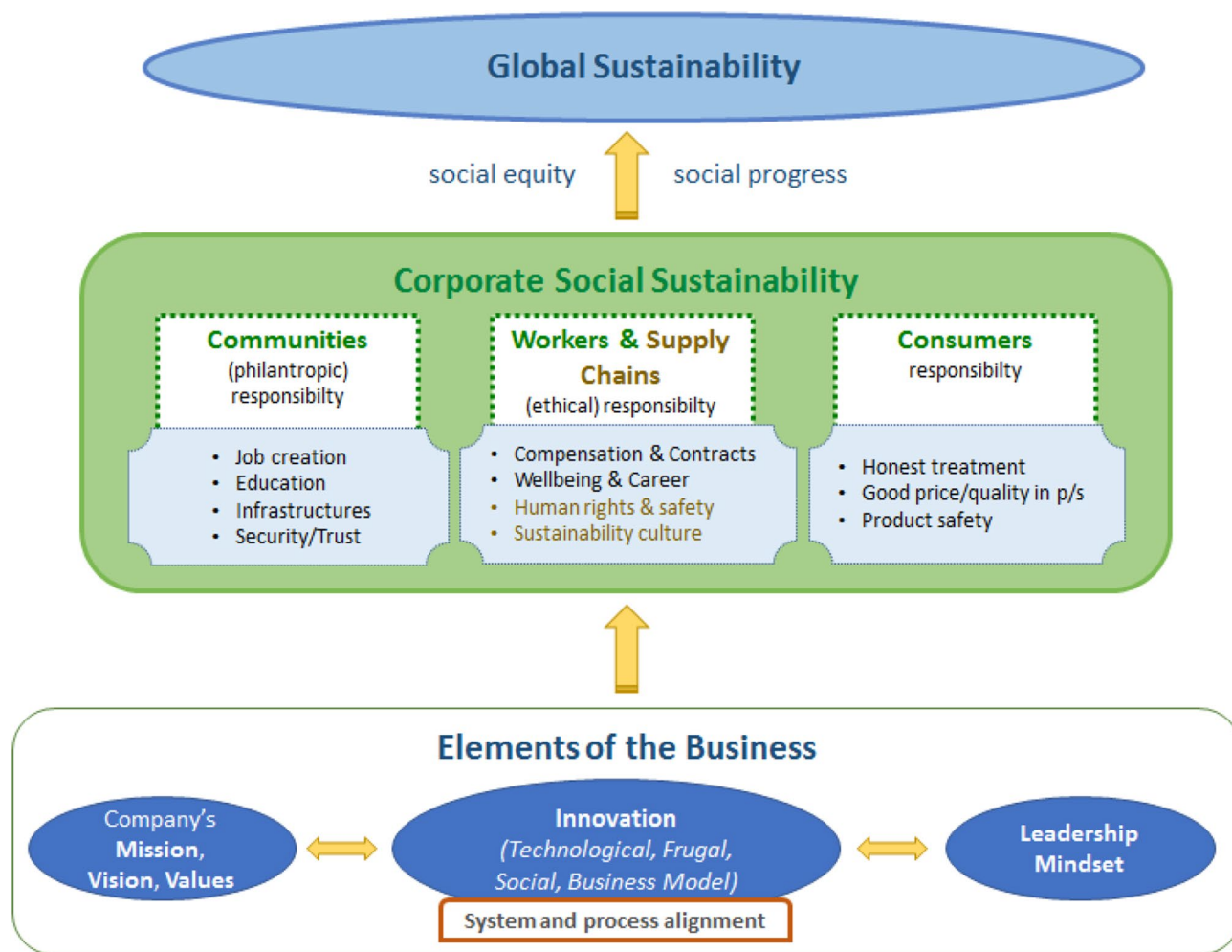
Similarly, in supply chains, the organisational culture remains a key driver in the adoption of social sustainability. It is argued that neither coercive pressure nor standards alone can ensure sustainability compliance unless businesses implement a sustainability culture (Rentizelas et al. 2020) and orientation (Croom et al. 2018). All in all, supply chains are progressively becoming more socially relevant, due to the occurrence of industrial tragedies and incidents in outsourced production globally (Croom et al. 2018; Venkatesh et al. 2020; Rentizelas et al. 2020). Therefore, they are under pressure to become socially sustainable, accountable, transparent, and to uphold human rights (Croom et al. 2018; Sundström et al. 2019). Blockchain technology could be a paramount variable in improving the adoption of social sustainability by organisations in the global supply chain (Venkatesh et al. 2020). Its integration, along with the internet-of-things (IoT) and big data analytics, could ensure effective monitoring and subsequent compliance with social

sustainability requirements, helping society understand sustainability-related problems and effectively addressing them, generating several positive social and environmental impacts through, for example, factory optimisation, development of smart cities and traffic flow optimisation (Attaran 2017; Beier et al. 2018; Salam 2020).

Figure 1 summarises the main components of CSR, as well as dynamics with macro-sustainability and business elements, including innovation.

## Methods

To understand the overall landscape of research on social sustainability at companies and the associated barriers, this study relied on the text mining abilities of VOSviewer, a commonly used software tool for bibliometric analysis (van Eck and Waltman 2010). The software can conduct different types of bibliometric analyses including term co-occurrence analysis, which can be used to obtain an overall understanding of major thematic focus areas in a research field. While systematic reviews are needed to gain a detailed understanding of a field, conducting such reviews could be challenging considering the rapid pace of publication in recent years. In addition, in some cases, such as in this study, understating the overall knowledge structure is enough. Therefore, the term co-occurrence analysis was used. The input data for term co-occurrence analysis in VOSviewer are the bibliometric details of publications indexed in academic databases. In fact, the VOSviewer software generates term co-occurrence maps by text mining of these data. For the literature search, Web of Science was used, considering its broad coverage of quality peer-reviewed articles. To create a database that covers as many relevant articles as possible, a broad-based search string that included different terms related to companies and social sustainability was developed (see the Appendix). This search string was also informed by the existing literature on social sustainability and CSR (Sharifi and Murayama 2013; Rahdari and Anvary Rostamy 2015). Using this string in the Web of Science returned 6896 articles on April 23, 2021. Also, as it was intended to examine barriers to social sustainability at companies, another search string was developed with terms related to barriers, i.e. barriers, challenges, obstacles. The latter search returned 1129 articles. These two sets of article databases were used for term co-occurrence analysis in VOSviewer. The output is a network of nodes and links as shown in Fig. 3. Node size is proportional to the frequency occurrence, and link width is proportional to the strength of the connection between two nodes, i.e. the terms. Terms that are closely linked to each other form clusters, indicated in different colours, that correspond to major thematic



**Fig. 1** Components and dynamics of corporate social sustainability and innovation. Source: Adapted from Ajmal et al. (2018) and Popa and Salanță (2015)

focus areas. It is also possible to find out which areas have received relatively less attention.

This methodology has some limitations. The focus on information from VOSviewer for text mining and on information available at the Web of Science may not include relevant 2021 publications. Despite these constraints, the paper provides a contribution to the literature since it offers an overview of the emphasis given so far to social sustainability.

## Results and discussion

### Barriers to social sustainability

Following the guidelines of the UN SDGs (UN 2015), the concept of sustainability has been widely discussed in the literature through three interdependent dimensions: economic, social, and environmental (Khan et al. 2018a). Under

the systems thinking perspective, however, some studies suggest that practitioners and researchers are expected to be careful in simply categorising single SDGs since the literature highlights the inherent complexity and correlation with other goals (Reynolds et al. 2018; Hernández-Orozco et al. 2021). Despite this discussion, from the companies' viewpoint, the SDGs need to be balanced to guarantee corporate sustainability and help to “meet the needs of a firm’s direct and indirect stakeholders without compromising its ability to meet the needs of future stakeholders as well” (Dyllick and Hockerts 2002, p. 131). In this sense, the concept of ‘business success’ is evolving, aiming to achieve not only the success of the company’s direct stakeholders but also those who belong to the community and are affected by the company’s practices.

Social sustainability, considered as a key to worldwide sustainable development (Awan et al. 2020), may include equity, inclusion, well-being, resilience and sustainability

(Imperiale and Vanclay 2021), labour practices, and decent work or product responsibility (Beltagui et al. 2020), contributing to a more equitable quality of life (Karji et al. 2020). To produce eco-friendly services of sustainability concerns, companies worldwide have refined processes and incorporated Sustainable Supply Chain Management (SSCM) at the global level, evolving into multi-tier supply chains. Within this context, and because social sustainability has been limited to its implementation in supply chains, considered as complex systems necessary to allow products and services to reach customers (Nair and Thankamony 2021), it faces significant barriers and obstacles (Khan et al. 2021). Wages, working hours, and conditions are cross-cutting issues involved in this discussion, with particular emphasis on under-developed countries where poverty is high and social development almost non-existent. Social aspects of sustainability seem to receive less attention than economic and environmental dimension aspects (Hamalainen et al. 2018; Shirazi and Keivani 2019; Chatterji 2021), and studies that focus on barriers and obstacles to its implementation are scarce (Khan et al. 2021). In the context of company management, sustainability practices need to be promoted with the aim to pursue sustainable behaviours. Through a fuzzy method, Khan et al. (2021) present a series of solutions to foster the implementation of social sustainability in SSCM in developing countries. The importance of emerging technologies, which can strengthen transparency and trust and are recognised as essential components of social development, is highlighted, as well as openness to the external environment. Rupasinghe and Wijethilake (2021) emphasise that statements to motivate employees should be responsible, empowered, and engaged with social sustainability goals. Within emerging economies, the role played by an unstable political climate is highlighted by Chen et al. (2021) as a barrier to financial system social sustainability.

The social sustainability agenda cannot be properly implemented without adequate institutional policies that are aimed at addressing the fragilities found in ineffective implementation. CSR is known to be a tool that is adopted to foster advancement in social sustainability, supporting organisational performance, customer satisfaction, employee engagement, and expertise development, among others, and positively contributing to the company's reputation. Despite the growing focus on social, economic, and environmental aspects worldwide, CSR in developing countries faces organisational challenges and a lack of resources, with the government as the primary stakeholder and implementing actor (Bux et al. 2020). In recent studies, Khan et al. (2021) and Merli et al. (2015) pointed out the important role of control and awareness mechanisms applied to suppliers. No significant differences between micro, small, medium and large companies (all certified SA8000 Standard Italian ones) were found when studying the social values involved

in CSR sustainability practices, being, therefore, considered a transversal topic for certified companies. Khan et al. (2018a) argue that obstacles to social sustainability must be addressed in a multi-dimensional way and not be limited to specific practices.

According to Macassa and Tomaselli (2020), the barriers to social sustainability can be overcome with a social exchange, particularly in light of the COVID-19 pandemic. To achieve this, the proposed solutions in the present study need to be addressed in the context of worldwide sustainable development for all and the UN's advocated SDGs. Accordingly, the social sustainability agenda cannot be properly implemented without adequate institutional policies that are aimed at addressing the fragilities found in the effective implementation and contributing to socially responsible behaviour over time (Awan et al. 2020).

Table 1 highlights some solutions commonly reported for overcoming barriers and obstacles to social sustainability implementation, within different sectors of activities. The relevant literature is focused on the supply chain topic, addressing social sustainability issues in developing countries.

Figure 2, in turn, presents the most commonly recognised categories that intervene in social sustainability.

As Fig. 2 shows, the various categories go over and above the interconnected pillars of environment, economy, and society.

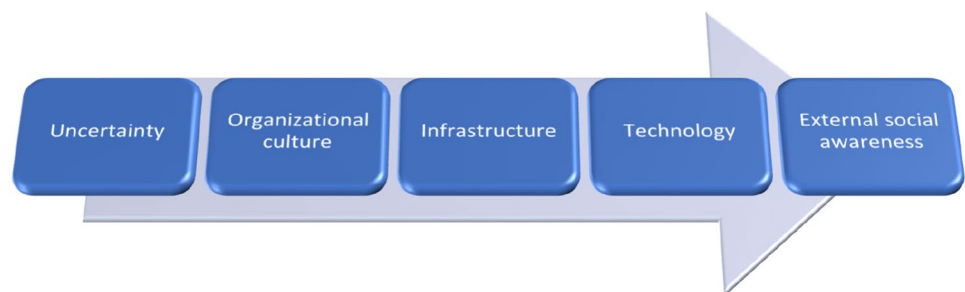
## VOSviewer analysis

As previously mentioned, the software VOSviewer was used to analyse relationships between the selected search terms. The results of co-occurrence analysis indicate three main clusters of terms that are connected to the discussion of social sustainability at companies. Figure 3 illustrates the connections and provides the big picture of what studies are covered in this field.

In analysing Fig. 3, it is possible to verify that the green cluster focuses on how the literature addresses accountability, sustainability reporting, and environmental disclosure in communicating the companies' financial and environmental performance. For example, a study conducted by Haque and Ntim (2018) found that the Global Reporting Initiative (GRI) report is positively related to carbon reduction initiatives and that this issue is more observable in better corporate governance mechanisms. Gerged et al. (2021), in turn, attempted to understand the connections between corporate environmental disclosure and the extent to which it affects a company's value from a sample of 500 multi-country companies. In the same perspective, Al-Awadhi et al. (2020) explored the importance of corporate involvement in climate change by addressing it beyond regulatory compliance and by communicating carbon management

**Table 1** Solutions to barriers and obstacles to social sustainability within companies

Category	Driver	Addressed area and references
External social awareness	Establishment and application of social regulations	Supply chain (Nair and Thankamony 2021; Khan et al. 2021) Corporate social responsibility in the industry (Merli et al. 2015; Bux et al. 2020) Construction industry (Karji et al. 2020) Manufacturing industry (Awan et al. 2020)
	Transparency and trust	Supply chain (Beltagui et al. 2020; Nair and Thankamony 2021; Khan et al. 2021)
Technology	Internet of things (IoT)	Supply chain (Khan et al. 2021)
	3D printing	Social manufacturing (Hamalainen et al. 2018) Supply chain (Beltagui et al. 2020)
	Knowledge sharing	Disaster risk (Imperiale and Vanclay 2021) Construction industry (Karji et al. 2020)
Infrastructure	Establishment of coordination between stakeholders	Healthcare (Khan et al. 2018a; Hussain et al. 2019) Corporate Social Responsibility in business strategy (Kealy 2020)
Organisational culture	Investment in training and experience	Healthcare (Khan et al. 2018a; Hussain et al. 2019) Corporate Social Responsibility in business strategy (Kealy 2020)
	Management support, empowerment, and commitment	Healthcare (Hussain et al. 2019) Construction industry (Karji et al. 2020) Corporate social responsibility in business strategy (Kealy 2020) Manufacturing industry (Awan et al. 2020)
	Social–ecological governance	Disaster risk (Imperiale and Vanclay 2021)
	Stable political climate	Supply chain (Chen et al. 2021) Construction industry (Karji et al. 2020)
	Access to healthcare	Healthcare (Macassa and Tomaselli 2020)
Uncertainty	Just-in-time systems	Supply chain (Rupasinghe and Wijethilake 2021)
	Clarity in business	Healthcare (Khan et al. 2018a)

**Fig. 2** Most commonly recognised categories intervening in social sustainability

policies to the companies' stakeholders, and they found that these practices were associated with financial performance. While sustainability reporting, environmental disclosure, and financial performance are central to the green cluster, gender-related issues seem more secondary. However, they are commonly used by companies for sustainability reporting and CSR researchers, i.e. gender diversity issues, board member composition, and their impacts on financial performance are currently receiving significant attention in CSR literature (see Gordini and Rancati 2017; Reguera-Alvarado

et al. 2017; Mun and Jung 2018; Galbreath 2018). In sum, articles that belong to the green cluster are closely related to strategic communication for sustainable value to the companies' several internal and external stakeholders through sustainability disclosure practices (Corazza et al. 2017; Helfaya and Moussa 2017; Sulkowski et al. 2018).

The blue cluster is the smallest one in the co-occurrence analysis. It holds references related to perception aspects of the stakeholders regarding the effect of social corporate responsibility on a given company. It is stated in the





et al. 2017; El Akremi et al. 2018; Porter and Kramer 2019; Barnett et al. 2020; Matten and Moon 2020), either in multinationals (van Zanten and van Tulder 2018; Burritt et al. 2020; Tian et al. 2020) or in SMEs (Choongo 2017; Doshmanli et al. 2018; Moneva and Hernández-Pajares 2018). This process of creating sustainable value is also connected to business models for sustainability and innovations that could foster CSR implementation (Schaltegger et al. 2016). Moreover, this same cluster shows what drivers and barriers companies face during the process of change and adaptation towards corporate sustainability (Lozano 2015; Jaramillo et al. 2019) and how addressing them can generate a company's performance and competitive advantage (Porter and Kramer 2006; Khan et al. 2018b; Zhao et al. 2019). In this sense, companies are challenged to define priorities to adapt their organisational systems to respond to the environmental forces and stakeholders' pressures (Wolf 2014). Along with this journey, studies also consider the importance of indicators to define the priorities to integrate the sustainable development goals into the company's system (SDG Compass 2021), assess the implementation of social responsibility projects (Lin et al. 2017), measure corporate sustainability performance (Engida et al. 2018), and understand the maturity levels or current stages of corporate sustainability companies (Landrum 2018).

It is also worth considering that the literature on social sustainability at companies is vibrant and constantly evolving, demanding researchers to constantly review the role of companies in meeting the needs of a company's direct and indirect stakeholders, without compromising its ability to meet the needs of future stakeholders as well (Dyllick and Hockerts 2002, p. 131). Therefore, very recent research raises attention to some CSR fields that will be trending or need to be revisited. For instance, there is a growing discussion about the importance of individuals as change agents with different ethical motivations, and how they can design corporate sustainability and create sustainable value from the inside out (Schaltegger and Burritt 2018; Girschik 2020; Girschik et al. 2020). In addition, there is an urge to understand how the COVID-19 pandemic crisis is impacting the future of CSR research and challenging previous assumptions (Crane and Matten 2021). Among these assumptions, the stakeholders, societal risk, responsibility in supply chains, and CSR's political economy will remain essential topics to be addressed and will probably be revisited by researchers (Crane and Matten 2021). Finally, the role of the SDGs in resilient transformations (van Zanten and van Tulder 2020) and in addressing great societal challenges such as climate change, pollution, or inequality within the CSR research perspective is expected to contribute to the institutional social sustainability research field (Howard-Grenville 2021). Leal Filho (2019) outlined how social responsibility and sustainability principles may be deployed,

to support businesses and organisations to operate in a sustainable and socially responsible way.

Linked with the cluster analysis of the literature carried out, and connected to the above discussion, the key lessons learned may be summarised as follows:

- i) Sustainability reporting, environmental disclosure, and financial performance have shown to be strategic in sustainability communication (Labuschagne et al. 2005; Corazza et al. 2017; Helfaya and Moussa 2017; Sulkowski et al. 2018).
- ii) The role of a company's CSR clearly has a positive effect on a company's reputation (Saeidi et al. 2015; Park 2017), as well as do ethics and leadership (Zhu et al. 2014; Carroll and Brown 2018).
- iii) The role of CSR, the company's management and performance, and environmental sustainability are essential in creating sustainable value for the stakeholders (Hart and Milstein 2003; Haugh and Talwar 2010; Yang et al. 2017; El Akremi et al. 2018; Porter and Kramer 2019; Barnett et al. 2020; Matten and Moon 2020) in both multinational companies or SMEs.

As highlighted above, specific aspects related to social sustainability assume particular relevance in the cluster analysis carried out, but they all end up supporting the multidisciplinary linkage between the various factors identified as meaningful within the scope of social sustainability, and which need to be addressed if aiming to achieve its successful implementation. The COVID-19 pandemic crisis is challenging every assumption made until now, demanding further action towards achieving the companies' successful social sustainability. This is true in terms of the supply chain, involving the stakeholders and CSR at the political level, multidisciplinary essential aspects to be pursued in the context of social sustainability in the future, empowering companies and citizens at a global level, through transparency in management practices, supported by adequate institutional policies, as several other aspects addressed in this study.

## Conclusions

Social sustainability is a key aspect of sustainability science, assuming a great importance in the scope of the SDGs. This study presented the outcomes of a systematic review of the literature, aimed at examining the barriers to institutional social sustainability, focused on companies. The addressed topic has hitherto not been fully explored in the literature. Generally, social sustainability has received limited attention compared to the other economic and environmental dimensions of sustainability. It involves multiple objectives, a

range of values, and multiple stakeholders which should be considered in the discussion of the challenges and strategies for achieving social sustainability. Some of the key findings from the study may be expressed as follows:

- (i) It is clear that the quest for achieving social sustainability requires a multidisciplinary approach, considering the contributions from sustainability science;
- (ii) Since social sustainability involves different vulnerable groups in society, efforts in achieving social sustainability should be continuously re-assessed and the vulnerable groups redefined to achieve social inclusion;
- (iii) To fully take into account the principles of social sustainability, companies and business organisations should focus on three key stakeholders for their social sustainability efforts: employees, community members, and consumers; and
- (iv) Organisations should interact more closely with stakeholders, possibly through their CSR programs. Moreover, innovative development by the organisations can lead to the improvement of their interactions with stakeholders and thereby promote CSR.

The general institutional policies, organisational structure, and lack of resources are found to be the major barriers to institutional sustainability. The issues associated with institutional social sustainability are exemplified in supply chain management because it involves multiple stakeholders and was largely impacted across the developing and the developed world, due to the COVID-19 pandemic crisis. Various measures may be deployed to face the barriers outlined here. These include more intensive efforts to raise social awareness, a greater use of technology to document and promote social sustainability experiences, changes in organisational structure, and the use of tools to address uncertainty. The cluster analysis of the literature on companies' social sustainability indicated three main clusters of discussion: one cluster on accountability, governance, and reporting, another cluster on stakeholder management, ethics, and leadership, and the third cluster on CSR, environmental factors, and companies' performance. Knowledge about these three clusters may lead to the further pursuit of social sustainability, especially, but not only, in the private sector.

Despite the limitations outlined in Methods, this study provides a relevant contribution to the literature, through an assessment of the extent of the various barriers to the implementation of social sustainability within companies. Some areas where further research may be undertaken are:

- i. the influences of the COVID-19 pandemic on social sustainability;
- ii. the specific responses to challenges seen among the various groups intervening at this level;
- iii. how companies may introduce social sustainability principles in their supply chains; and
- iv. the role of social sustainability in addressing societal challenges such as climate change, pollution, and inequality.

Future studies may also analyse the role of individuals as change agents in promoting the principles of social sustainability in organisations. Also, the possible impacts of unexpected factors, such as the COVID-19 pandemic crisis on institutional social sustainability, may be the subject of further studies since they may influence the extent to which sustainability is practiced at organisations.

Other areas of future research are needed to encompass elements such as assessments of the complexity of the interactions between sustainability issues and social themes to seek synergies. Also, future research may focus on a better understanding of the individual components of the interactions between individuals and nature, so people may be able to better reflect on their own influence on the environment. A further research need is in respect to applying knowledge from the social sciences in support of decision-making for sustainable development. Sustainability science research may help to meet these needs by shedding light on aspects which are not well known, not fully documented, or are not widely disseminated.

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## References

- Ajmal MM, Khan M, Hussain M, Helo P (2018) Conceptualizing and incorporating social sustainability in the business world. *Int J Sustain Dev World* 25:327–339. <https://doi.org/10.1080/13504509.2017.1408714>
- Al-Awadhi AM, Alsaifi K, Al-Awadhi A, Alammadi S (2020) Death and contagious infectious diseases: impact of the COVID-19 virus on stock market returns. *J Behav Exp Finance* 27:100326. <https://doi.org/10.1016/j.jbef.2020.100326>
- Albareda L, Lozano JM, Tencati A et al (2009) The role of government in corporate social responsibility. In: Zsolnai L, Boda Z, Fekete L (eds) *Ethical Prospects*. Springer, Netherlands, Dordrecht, pp 103–149
- Attaran M (2017) The internet of things: limitless opportunities for business and society. *J Strateg Innov Sustain* 12:11
- Awan U, Kraslawski A, Huiskonen J, Suleman N (2020) Exploring the locus of social sustainability implementation: a South Asian perspective on planning for sustainable development. In:



- Leal Filho W, Tortato UFF (eds) Universities and sustainable communities: meeting the goals of the agenda 2030. Springer International Publishing, Cham, pp 89–105
- Bansal P, Song H-C (2017) Similar but not the same: differentiating corporate sustainability from corporate responsibility. *Acad Manag Ann* 11:105–149
- Barnett ML, Henriques I, Husted BW (2020) Beyond good intentions: designing CSR initiatives for greater social impact. *J Manag* 46:937–964. <https://doi.org/10.1177/0149206319900539>
- Bauman CW, Skitka LJ (2012) Corporate social responsibility as a source of employee satisfaction. *Res Organ Behav* 32:63–86. <https://doi.org/10.1016/j.riob.2012.11.002>
- Beier G, Niehoff S, Xue B (2018) More sustainability in industry through industrial internet of things? *Appl Sci* 8:219. <https://doi.org/10.3390/app8020219>
- Bello KB, Jusoh A, Mdnor K (2016) Corporate social responsibility and consumer rights awareness: a research agenda. *Indian J Sci Technol*. <https://doi.org/10.17485/ijst/2016/v9i46/107134>
- Beltagui A, Kunz N, Gold S (2020) The role of 3D printing and open design on adoption of socially sustainable supply chain innovation. *Int J Prod Econ* 221:107462. <https://doi.org/10.1016/j.ijpe.2019.07.035>
- Brink M, Hengeveld GM, Tobi H (2020) Interdisciplinary measurement: a systematic review of the case of sustainability. *Ecol Ind* 112:106145. <https://doi.org/10.1016/j.ecolind.2020.106145>
- Burritt RL, Christ KL, Rammal HG, Schaltegger S (2020) Multinational enterprise strategies for addressing sustainability: the need for consolidation. *J Bus Ethics* 164:389–410. <https://doi.org/10.1007/s10551-018-4066-0>
- Bux H, Zhang Z, Ahmad N (2020) Promoting sustainability through corporate social responsibility implementation in the manufacturing industry: an empirical analysis of barriers using the ISM-MICMAC approach. *Corp Soc Responsib Environ Manag* 27:1729–1748. <https://doi.org/10.1002/csr.1920>
- Cantele S, Moggi S, Campedelli B (2020) Spreading sustainability innovation through the co-evolution of sustainable business models and partnerships. *Sustainability* 12:1190. <https://doi.org/10.3390/su12031190>
- Carroll AB, Brown JA (2018) Corporate social responsibility: a review of current concepts, research, and issues. In: *Corporate social responsibility (business and society 360, Vol. 2)*. Emerald Publishing Limited, Bingley, pp 39–69
- Chatterji T (2021) Urban social sustainability: theory, policy and practice. *Urban Policy Res* 39:121–123. <https://doi.org/10.1080/08111146.2020.1863312>
- Chen W-K, Nalluri V, Lin M-L, Lin C-T (2021) Identifying decisive socio-political sustainability barriers in the supply chain of banking sector in India: causality analysis using ISM and MICMAC. *Mathematics* 9:240. <https://doi.org/10.3390/math9030240>
- Choongo P (2017) A longitudinal study of the impact of corporate social responsibility on firm performance in SMEs in Zambia. *Sustainability* 9:1300. <https://doi.org/10.3390/su9081300>
- Contini M, Annunziata E, Rizzi F, Frey M (2020) Exploring the influence of corporate social responsibility (CSR) domains on consumers' loyalty: an experiment in BRICS countries. *J Clean Prod* 247:119158. <https://doi.org/10.1016/j.jclepro.2019.119158>
- Corazza L, Scagnelli SD, Mio C (2017) Simulacra and sustainability disclosure: analysis of the interpretative models of creating shared value. *Corp Soc Responsib Environ Manag* 24:414–434. <https://doi.org/10.1002/csr.1417>
- Crane A, Matten D (2021) COVID-19 and the future of CSR research. *J Manage Stud* 58:280–284. <https://doi.org/10.1111/joms.12642>
- Croom S, Vidal N, Spetic W et al (2018) Impact of social sustainability orientation and supply chain practices on operational performance. *Int J Oper Prod Manag* 38:2344–2366. <https://doi.org/10.1108/IJOPM-03-2017-0180>
- de Jong MDT, Huluba G, Beldad AD (2020) Different shades of greenwashing: consumers' reactions to environmental lies, half-lies, and organizations taking credit for following legal obligations. *J Bus Tech Commun* 34:38–76. <https://doi.org/10.1177/1050651919874105>
- Deigh L, Farquhar J, Palazzo M, Siano A (2016) Corporate social responsibility: engaging the community. *J Cetacean Res Manag* 19:225–240. <https://doi.org/10.1108/QMR-02-2016-0010>
- Doshmanli M, Salamzadeh Y, Salamzadeh A (2018) Development of SMEs in an emerging economy: does corporate social responsibility matter? *Int J Manag Enterp Dev* 17:168–191. <https://doi.org/10.1504/IJMED.2018.090827>
- Dyllick T, Hockerts K (2002) Beyond the business case for corporate sustainability. *Bus Strateg Environ* 11:130–141. <https://doi.org/10.1002/bse.323>
- Edwards H (2015) Social responsibility and the evolution of corporate philanthropy: an analysis of successful corporate-cause partnerships in an era of the global corporate citizen. *Prism* 12:1–14
- Eizenberg E, Jabareen Y (2017) Social sustainability: a new conceptual framework. *Sustainability* 9:68. <https://doi.org/10.3390/su9010068>
- El Akremi A, Gond J-P, Swaen V et al (2018) How do employees perceive corporate responsibility? Development and validation of a multidimensional corporate stakeholder responsibility scale. *J Manag* 44:619–657. <https://doi.org/10.1177/0149206315569311>
- Engida TG, Rao X, Berentsen PBM, Oude Lansink AGJM (2018) Measuring corporate sustainability performance—the case of European food and beverage companies. *J Clean Prod* 195:734–743. <https://doi.org/10.1016/j.jclepro.2018.05.095>
- Eustachio JHPP, Caldana ACF, Liboni LB, Martinelli DP (2019) Systemic indicator of sustainable development: proposal and application of a framework. *J Clean Prod* 241:118383. <https://doi.org/10.1016/j.jclepro.2019.118383>
- Ferreira P, Real de Oliveira E (2014) Does corporate social responsibility impact on employee engagement? *J Work Learn* 26:232–247. <https://doi.org/10.1108/JWL-09-2013-0070>
- Fombrun C (1996) *Reputation*. Harvard Business School Press, Boston
- Fonseca LM, Domingues JP, Dima AM (2020) Mapping the sustainable development goals relationships. *Sustainability* 12:3359. <https://doi.org/10.3390/su12083359>
- Franco I, Saito O, Vaughter P et al (2019) Higher education for sustainable development: actioning the global goals in policy, curriculum and practice. *Sustain Sci* 14:1621–1642. <https://doi.org/10.1007/s11625-018-0628-4>
- Galbreath J (2018) Is board gender diversity linked to financial performance? The mediating mechanism of CSR. *Bus Soc* 57:863–889. <https://doi.org/10.1177/0007650316647967>
- Gerged AM, Beddewela E, Cowton CJ (2021) Is corporate environmental disclosure associated with firm value? A multicountry study of Gulf Cooperation Council firms. *Bus Strateg Environ* 30:185–203. <https://doi.org/10.1002/bse.2616>
- Girschik V (2020) Shared responsibility for societal problems: the role of internal activists in reframing corporate responsibility. *Bus Soc* 59:34–66. <https://doi.org/10.1177/0007650318789867>
- Girschik V, Svystunova L, Lysova EI (2020) Transforming corporate social responsibilities: toward an intellectual activist research agenda for micro-CSR research. *Hum Relat*. <https://doi.org/10.1177/0018726720970275>
- Gordini N, Rancati E (2017) Gender diversity in the Italian boardroom and firm financial performance. *Manag Res Rev* 40:75–94. <https://doi.org/10.1108/MRR-02-2016-0039>
- Grover P, Kar AK, Ilavarasan PV (2019) Impact of corporate social responsibility on reputation—insights from tweets on sustainable











- development goals by CEOs. *Int J Inf Manage* 48:39–52. <https://doi.org/10.1016/j.ijinfomgt.2019.01.009>
- Guimarães GV, Santos TF, Fernandes VA et al (2020) Assessment for the social sustainability and equity under the perspective of accessibility to jobs. *Sustainability* 12:10132. <https://doi.org/10.3390/su122310132>
- Hamalainen M, Mohajeri B, Nyberg T (2018) Removing barriers to sustainability research on personal fabrication and social manufacturing. *J Clean Prod* 180:666–681. <https://doi.org/10.1016/j.jclepro.2018.01.099>
- Haque F, Ntim CG (2018) Environmental policy, sustainable development, governance mechanisms and environmental performance. *Bus Strateg Environ* 27:415–435. <https://doi.org/10.1002/bse.2007>
- Hart SL, Milstein MB (2003) Creating sustainable value. *Acad Manag Perspect* 17:56–67. <https://doi.org/10.5465/ame.2003.10025194>
- Haugh HM, Talwar A (2010) How do corporations embed sustainability across the organization? *Acad Manag Learn Educ* 9:384–396. <https://doi.org/10.5465/amle.9.3.zqr384>
- Helfaya A, Moussa T (2017) Do board's corporate social responsibility strategy and orientation influence environmental sustainability disclosure? UK evidence. *Bus Strateg Environ* 26:1061–1077. <https://doi.org/10.1002/bse.1960>
- Hernández-Orozco E, Lobos-Alva I, Cardenas-Vélez M et al (2021) The application of soft systems thinking in SDG interaction studies: a comparison between SDG interactions at national and subnational levels in Colombia. *Environ Dev Sustain*. <https://doi.org/10.1007/s10668-021-01808-z>
- Howard-Grenville J (2021) Grand challenges, Covid-19 and the future of organizational scholarship. *J Manage Stud* 58:254–258. <https://doi.org/10.1111/joms.12647>
- Hussain N, Rigoni U, Oriji RP (2018) Corporate governance and sustainability performance: analysis of triple bottom line performance. *J Bus Ethics* 149:411–432. <https://doi.org/10.1007/s10551-016-3099-5>
- Hussain M, Khan M, Ajmal M et al (2019) A multi-stakeholders view of the barriers of social sustainability in healthcare supply chains. *Sustain Account Manag Policy J* 10:290–313. <https://doi.org/10.1108/SAMPJ-05-2018-0140>
- Imperiale AJ, Vanclay F (2021) Conceptualizing community resilience and the social dimensions of risk to overcome barriers to disaster risk reduction and sustainable development. *Sustain Dev*. <https://doi.org/10.1002/sd.2182>
- IPCC (2021) Intergovernmental panel on climate change. climate change 2021: summary for policymakers
- Ismail M (2009) Corporate social responsibility and its role in community development: an international perspective. *J Int Soc Res* 2
- Jaramillo JA, Sossa JWZ, Mendoza GLO (2019) Barriers to sustainability for small and medium enterprises in the framework of sustainable development—literature review. *Bus Strateg Environ* 28:512–524. <https://doi.org/10.1002/bse.2261>
- Karji A, Namian M, Tafazzoli M (2020) Identifying the key barriers to promote sustainable construction in the United States: a principal component analysis. *Sustainability* 12:5088. <https://doi.org/10.3390/su12125088>
- Kealy T (2020) Key enablers/inhibitors in the corporate social responsibility—business strategy integration space. Evaluating sustainable development and corporate social responsibility projects. Springer International Publishing, Cham, pp 145–178
- Khan R (2016) How frugal innovation promotes social sustainability. *Sustainability* 8:1034. <https://doi.org/10.3390/su8101034>
- Khan M, Ajmal M, Hussain M, Helo P (2018a) Barriers to social sustainability in the health-care industry in the UAE. *Int J Organ Anal* 26:450–469. <https://doi.org/10.1108/IJOA-05-2017-1164>
- Khan SZ, Yang Q, Waheed A (2018b) Investment in intangible resources and capabilities spurs sustainable competitive advantage and firm performance. *Corp Soc Responsib Environ Manag* 26:285–295. <https://doi.org/10.1002/csr.1678>
- Khan SAR, Zkik K, Belhadi A, Kamble SS (2021) Evaluating barriers and solutions for social sustainability adoption in multi-tier supply chains. *Int J Prod Res* 59:3378–3397. <https://doi.org/10.1080/00207543.2021.1876271>
- Kibukho K (2021) Mediating role of citizen empowerment in the relationship between participatory monitoring and evaluation and social sustainability. *Eval Program Plan* 85:101911. <https://doi.org/10.1016/j.evalprogplan.2021.101911>
- Kleindorfer PR, Singhal K, Wassenhove LN (2009) Sustainable operations management. *Prod Oper Manag* 14:482–492. <https://doi.org/10.1111/j.1937-5956.2005.tb00235.x>
- Labuschagne C, Brent AC, van Erck RPG (2005) Assessing the sustainability performances of industries. *J Clean Prod* 13:373–385. <https://doi.org/10.1016/j.jclepro.2003.10.007>
- Lami IM, Mecca B (2020) Assessing social sustainability for achieving sustainable architecture. *Sustainability* 13:142. <https://doi.org/10.3390/su13010142>
- Landrum NE (2018) Stages of corporate sustainability: integrating the strong sustainability worldview. *Organ Environ* 31:287–313. <https://doi.org/10.1177/1086026617717456>
- Langergaard LL (2019) Interpreting ‘the social’: Exploring processes of social sustainability in Danish nonprofit housing. *Local Econ* 34:456–470. <https://doi.org/10.1177/0269094219846626>
- Leal Filho W (2019) Social responsibility and sustainability. Springer International Publishing, Cham
- Liakh O, Spigarelli F (2020) Managing corporate sustainability and responsibility efficiently: a review of existing literature on business groups and networks. *Sustainability* 12:7722. <https://doi.org/10.3390/su12187722>
- Lin H, Zeng S, Ma H et al (2017) An indicator system for evaluating megaproject social responsibility. *Int J Project Manage* 35:1415–1426. <https://doi.org/10.1016/j.ijproman.2017.04.009>
- Littig B, Griessler E (2005) Social sustainability: a catchword between political pragmatism and social theory. *Int J Sustain Dev* 8:65. <https://doi.org/10.1504/IJSD.2005.007375>
- Longoni A, Cagliano R (2015) Environmental and social sustainability priorities. *Int J Oper Prod Manag* 35:216–245. <https://doi.org/10.1108/IJOPM-04-2013-0182>
- Lozano R (2015) A holistic perspective on corporate sustainability drivers. *Corp Soc Responsib Environ Manag* 22:32–44. <https://doi.org/10.1002/csr.1325>
- Macassa G, Tomaselli G (2020) Rethinking developed nations' health systems through a social sustainability perspective in the light of the COVID-19 pandemic. A viewpoint. *J Public Health Res* 9:1834. <https://doi.org/10.4081/jphr.2020.1834>
- Malmæus M, Alfredsson E, Birnbaum S (2020) Basic income and social sustainability in post-growth economies. *Basic Income Stud*. <https://doi.org/10.1515/bis-2019-0029>
- Martinez F, O'Sullivan P, Smith M, Esposito M (2017) Perspectives on the role of business in social innovation. *J Manag Dev* 36:681–695. <https://doi.org/10.1108/JMD-10-2016-0212>
- Matten D, Moon J (2020) Reflections on the 2018 decade award: the meaning and dynamics of corporate social responsibility. *Acad Manag Rev* 45:7–28. <https://doi.org/10.5465/amr.2019.0348>
- Merli R, Preziosi M, Massa I (2015) Social values and sustainability: a survey on drivers, barriers and benefits of SA8000 certification in Italian firms. *Sustainability* 7:4120–4130. <https://doi.org/10.3390/su7044120>
- Mihajlović B (2020) The role of consumers in the achievement of corporate sustainability through the reduction of unfair commercial practices. *Sustainability* 12:1009. <https://doi.org/10.3390/su12031009>
- Moneva JM, Hernández-Pajares J (2018) Corporate social responsibility performance and sustainability reporting in SMEs: an

- analysis of owner-managers' perceptions. *Int J Sustain Econ* 10:405–420. <https://doi.org/10.1504/IJSE.2018.095268>
- Montiel I (2008) Corporate social responsibility and corporate sustainability. *Organ Environ* 21:245–269. <https://doi.org/10.1177/1086026608321329>
- Mun E, Jung J (2018) Change above the glass ceiling: corporate social responsibility and gender diversity in Japanese firms. *Adm Sci Q* 63:409–440. <https://doi.org/10.1177/0001839217712920>
- Nair PU, Thankamony P (2021) A study on barriers and practices of supply chain social sustainability in Indian and North American energy and manufacturing sectors. *SSRN Electron J*. <https://doi.org/10.2139/ssrn.3781430>
- Park S (2017) Corporate social responsibility, visibility, reputation and financial performance: empirical analysis on the moderating and mediating variables from Korea. *Soc Responsib J* 13:856–871. <https://doi.org/10.1108/SRJ-01-2017-0012>
- Parra C (2013) Social sustainability: a competing concept to social innovation? In: *The international handbook on social innovation*. Edward Elgar Publishing, pp 142–154
- Popa M, Salanță I (2015) Business organizations' positive socio-economic impact on society—a step beyond CSR. *Econ Seria Manag* 18:244–263
- Porter ME, Kramer MR (2006) The link between competitive advantage and corporate social responsibility. *Harv Bus Rev* 84:78–92
- Porter ME, Kramer MR (2019) Creating shared value. In: *Lenssen GG, Smith NC (eds) Managing sustainable business: an executive education case and textbook*. Springer Netherlands, Dordrecht, pp 323–346
- Purcell WM, Henriksen H, Spengler JD (2019) Universities as the engine of transformational sustainability toward delivering the sustainable development goals: “Living labs” for sustainability. *Int J Sustain High Educ* 20(8):1343–1357. <https://doi.org/10.1108/IJSHE-02-2019-0103>
- Rahdari AH, AnvaryRostamy AA (2015) Designing a general set of sustainability indicators at the corporate level. *J Clean Prod* 108:757–771. <https://doi.org/10.1016/j.jclepro.2015.05.108>
- Rampasso IS, Anholon R, Silva D et al (2018) An analysis of the difficulties associated to sustainability insertion in engineering education: examples from HEIs in Brazil. *J Clean Prod* 193:363–371. <https://doi.org/10.1016/j.jclepro.2018.05.079>
- Raymond CM, Kenter JO, van Riper CJ et al (2019) Editorial overview: theoretical traditions in social values for sustainability. *Sustain Sci* 14:1173–1185. <https://doi.org/10.1007/s11625-019-00723-7>
- Reguera-Alvarado N, de Fuentes P, Laffarga J (2017) Does board gender diversity influence financial performance? Evidence from Spain. *J Bus Ethics* 141:337–350. <https://doi.org/10.1007/s10551-015-2735-9>
- Renizelas A, de Sousa Jabbour ABL, Al Balushi AD, Tuni A (2020) Social sustainability in the oil and gas industry: institutional pressure and the management of sustainable supply chains. *Ann Oper Res* 290:279–300. <https://doi.org/10.1007/s10479-018-2821-3>
- Rey-Garcia M, Mato-Santiso V (2020) Enhancing the effects of university education for sustainable development on social sustainability: the role of social capital and real-world learning. *Int J Sustain High Educ* 21:1451–1476. <https://doi.org/10.1108/IJSHE-02-2020-0063>
- Reynolds M, Blackmore C, Ison R et al (2018) The role of systems thinking in the practice of implementing sustainable development goals. *Handbook of sustainability science and research*. Springer, Cham, pp 677–698
- Roomi MA, Saiz-Alvarez JM, Coduras A (2021) Measuring sustainable entrepreneurship and eco-innovation: a methodological proposal for the global entrepreneurship monitor (GEM). *Sustainability* 13:4056. <https://doi.org/10.3390/su13074056>
- Rupasinghe HD, Wijethilake C (2021) The impact of leanness on supply chain sustainability: examining the role of sustainability control systems. *Corp Gov* 21:410–432. <https://doi.org/10.1108/CG-06-2020-0217>
- Saeidi SP, Sofian S, Saeidi P et al (2015) How does corporate social responsibility contribute to firm financial performance? The mediating role of competitive advantage, reputation, and customer satisfaction. *J Bus Res* 68:341–350. <https://doi.org/10.1016/j.jbusres.2014.06.024>
- Salam A (2020) Internet of things for environmental sustainability and climate change. In: *Internet of things for sustainable community development*. pp 33–69
- Salovaara JJ, Soini K, Pietikäinen J (2020) Sustainability science in education: analysis of master's programmes' curricula. *Sustain Sci* 15:901–915. <https://doi.org/10.1007/s11625-019-00745-1>
- Schaltegger S, Burritt R (2018) Business cases and corporate engagement with sustainability: differentiating ethical motivations. *J Bus Ethics* 147:241–259. <https://doi.org/10.1007/s10551-015-2938-0>
- Schaltegger S, Lüdeke-Freund F, Hansen EG (2016) Business models for sustainability: a co-evolutionary analysis of sustainable entrepreneurship, innovation, and transformation. *Organ Environ* 29:264–289. <https://doi.org/10.1177/10860266166633272>
- SDG Compass (2021) SDG compass—a guide for business action to advance the sustainable development goals
- Sharifi A, Murayama A (2013) Changes in the traditional urban form and the social sustainability of contemporary cities: a case study of Iranian cities. *Habitat Int* 38:126–134. <https://doi.org/10.1016/j.habitatint.2012.05.007>
- Shin I, Hur W-M, Kang S (2016) Employees' perceptions of corporate social responsibility and job performance: a sequential mediation model. *Sustainability* 8:493. <https://doi.org/10.3390/su8050493>
- Shirazi MR, Keivani R (2019) *Urban social sustainability: theory, policy and practice*. Routledge, London
- Smith MS, Cook C, Sokona Y et al (2018) Advancing sustainability science for the SDGs. *Sustain Sci* 13:1483–1487. <https://doi.org/10.1007/s11625-018-0645-3>
- Soroka A, Mazurek-Kusiak A (2014) The importance of corporate social responsibility of enterprises in business. *Acta Sci Pol Oecon* 13:117–125
- Steffen W, Rockström J, Richardson K et al (2018) Trajectories of the earth system in the anthropocene. *Proc Natl Acad Sci* 115:8252–8259. <https://doi.org/10.1073/pnas.1810141115>
- Sulkowski AJ, Edwards M, Freeman RE (2018) Shake your stakeholder: firms leading engagement to cocreate sustainable value. *Organ Environ* 31:223–241. <https://doi.org/10.1177/1086026617722129>
- Sun L, Yu TR (2015) The impact of corporate social responsibility on employee performance and cost. *Rev Acc Financ* 14:262–284. <https://doi.org/10.1108/RAF-03-2014-0025>
- Sundström A, Ahmadi Z, Mickelsson K (2019) Implementing social sustainability for innovative industrial work environments. *Sustainability* 11:3402. <https://doi.org/10.3390/su11123402>
- The World Bank (2020) COVID-19 to add as many as 150 million extreme poor by 2021. <https://www.worldbank.org/en/news/press-release/2020/10/07/covid-19-to-add-as-many-as-150-million-extreme-poor-by-2021#:~:text=TheconvergenceoftheCOVID,ratecouldbeabout7%25>. Accessed 4 May 2021
- Tian G, Liu J, Gong Y et al (2020) Multinational companies' coordination mechanism for extending corporate social responsibility to Chinese suppliers. *J Clean Prod* 267:121896. <https://doi.org/10.1016/j.jclepro.2020.121896>
- UN (2015) *Transforming our world: the 2030 Agenda for Sustainable Development*. <https://sdgs.un.org/2030agenda>. Accessed 6 Jan 2021

- UN (2020a) The least developed countries report. <https://unctad.org/webflyer/least-developed-countries-report-2020a>. Accessed 4 May 2021
- UN (2020b) The least developed countries report. <https://unctad.org/webflyer/least-developed-countries-report-2020b>. Accessed 4 May 2021
- UN (2021) Do business in ways that benefit society and protect people. <https://www.unglobalcompact.org/what-is-gc/our-work/social>. Accessed 4 May 2021
- UNIDO (2018) What is CSR? In: United Nations Industrial Development Organization. <https://www.unido.org/our-focus/advancing-economic-competitiveness/competitive-trade-capacities-and-corporate-responsibility/corporate-social-responsibility-market-integration/what-csr>. Accessed 9 Sep 2018
- United Nations-Department of Economic and Social Affairs (2021) Social development for sustainable development
- Valor C (2006) Consumers' responses to corporate philanthropy: are they willing to make trade-offs? *Int J Bus Soc* 6:1–26
- van Eck NJ, Waltman L (2010) Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics* 84:523–538. <https://doi.org/10.1007/s11192-009-0146-3>
- van Zanten JA, van Tulder R (2018) Multinational enterprises and the sustainable development goals: an institutional approach to corporate engagement. *J Int Bus Policy* 1:208–233. <https://doi.org/10.1057/s42214-018-0008-x>
- van Zanten JA, van Tulder R (2020) Beyond COVID-19: applying “SDG logics” for resilient transformations. *J Int Bus Policy* 3:451–464. <https://doi.org/10.1057/s42214-020-00076-4>
- Venkatesh VG, Kang K, Wang B et al (2020) System architecture for blockchain based transparency of supply chain social sustainability. *Robot Comput Integr Manuf* 63:101896. <https://doi.org/10.1016/j.rcim.2019.101896>
- WCED (1987) Our common future: report of the world commission on environment and development. United Nations Commission 4:300. <https://doi.org/10.1080/07488008808408783>
- Wolf J (2014) The relationship between sustainable supply chain management, stakeholder pressure and corporate sustainability performance. *J Bus Ethics* 119:317–328
- Yang M, Vladimirova D, Evans S (2017) Creating and capturing value through sustainability. *Res Technol Manag* 60:30–39. <https://doi.org/10.1080/08956308.2017.1301001>
- Zhao Z, Meng F, He Y, Gu Z (2019) The influence of corporate social responsibility on competitive advantage with multiple mediations from social capital and dynamic capabilities. *Sustainability* 11:218. <https://doi.org/10.3390/su11010218>
- Zhu Y, Sun L-Y, Leung ASM (2014) Corporate social responsibility, firm reputation, and firm performance: the role of ethical leadership. *Asia Pac J Manag* 31:925–947. <https://doi.org/10.1007/s10490-013-9369-1>

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