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How can research contribute to the implementation of sustainable development goals? An interpretive review of SDG literature in management

Pascual Berrone[1] | **Horacio E. Rousseau**[2] | **J.E. Ricart**[3] | **Esther Brito**[4] | **Andrea Giuliodori**[5]

[1]IESE Business School, Department of Strategic Management, University of Navarra, Madrid, Spain

[2]Department of Management, College of Business, Florida State University, Tallahassee, Florida, USA

[3]IESE Business School, Department of Strategic Management, University of Navarra, Barcelona, Spain

[4]School of International Service, American University, Washington, District of Columbia, USA

[5]Department of Statistics, Instituto de Estudios Bursátiles (IEB), Madrid, Spain

Correspondence
Pascual Berrone, IESE Business School, Department of Strategic Management, University of Navarra, Camino del Cerro del Águila, 3, 28023 Madrid, Spain.
Email: pberrone@iese.edu

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Abstract

Organizations often face challenges in incorporating the sustainable development goals (SDGs) into their strategic agendas. Despite the availability of guidelines from leading practitioners, such guidance often lacks the scientific insights provided by academia. In this study, we examine the integration of scholarly management literature into practical guidelines for achieving the SDGs. To do so, we first examined nine practitioner guidelines offered by well-reputed consulting firms, multilateral organizations and non-profits, from which we identified four underlying general processes: *prioritizing* SDGs to the most relevant strategic goals of firms, *contextualizing* the SDGs to firms' geographical and industrial contexts, *collaborating* with other organizations and stakeholders to make more impactful progress and *innovating* via business process remodelling. Using these four processes as an overarching framework, we then conducted an interpretive literature review to mine highly cited sustainable development-related papers in the management field covering an 11-year period (2010–2020). From these studies, we derived novel connections to all four stages to offer a more robust and scientifically informed process-based framework for SDG adoption. We discuss multiple scholarly implications, including the importance of enhancing knowledge about the various phases of the SDG adoption model, developing research on understudied SDGs, and expanding theoretical and methodological approaches to SDG research. Additionally, we provide a more grounded SDG adoption model with significant practical implications.

INTRODUCTION

Despite the significant progress in improving human well-being, the world still faces serious social ills such as climate change (Okereke et al., 2012), poverty in cities (Florida, 2016) and growing inequality (Bapuji et al., 2020). To rally the world governments to combat these problems, in September 2015 the United Nations adopted 17 Sustainable Development Goals (SDGs) designed to eliminate poverty, preserve the planet, and ensure prosperity as part of its 2030 Global Agenda (United Nations, 2015). While the SDGs call for businesses to apply their unique abilities, such as creativity and innovation, determining the ways in which firms can integrate aspirational SDGs into their strategic agendas remains an unsolved problem (Griggs et al., 2013). Moreover, public expectations are growing as firms struggle to implement SDGs, indicating that SDG engagement will be crucial for firms to maintain adherence to their social contracts, to which they are often legally (Stout, 2012), ethically (Jones et al., 2018) and economically (Harrison et al., 2010) bound.

In response to this implementation challenge, practicing organizations such as consulting firms, non-profit organizations, and civic institutions, have proposed various guidelines to facilitate SDG adoption in firms. While these guidelines offer valuable real-world experience and general instructions, they often lack the combined theoretical and empirical wisdom that management research can offer when seeking to engage in SDGs. In parallel, the SDG-related management research, while rigorous, has not effectively translated its findings into actionable insights. Indeed, the theoretical lenses used in research are rarely focused on (or informed by) the practicalities of implementing SDGs, therefore missing an opportunity to rethink and expand current frameworks given the specific challenges presented by SDGs. This disconnect highlights the need for a more integrated approach between practice and academia in order to effectively aid in SDG implementation and enhance value for both parties, helping to close management's science-practice gap, which is particularly pervasive in sustainability-related studies (Banks et al., 2016).

Thus, we ask, 'How can scholarly management literature be better integrated into the practical guidelines offered by practicing organizations for implementing SDGs?' To answer this question, we review and interpret academic knowledge with the aim of integrating it with prominent practical frameworks to offer a more robust and scientifically informed process-based framework for SDG adoption in organizations. To do so, we first reviewed nine guidelines produced by recognized practicing organizations (e.g., McKinsey SDG Guide for Business Leaders, PwC Navigating the SDGs) and inductively identified four underlying general processes. The first process involves *prioritizing* SDGs to the most relevant strategic goals of firms. The second involves *contextualizing* the SDGs to firms' geographical and industrial contexts. The third involves *collaborating* with other organizations and stakeholders to make more impactful progress. The fourth involves *innovating* via capital investment and business process remodelling. Using these four cross-cutting processes as an overarching framework, we then conducted a large interpretive literature review (Noblit & Hare, 1988) to identify and evaluate sustainable development-related papers in the management field. An interpretive review is an appropriate way to synthesize diverse approaches to studying the SDGs while offering a nuanced understanding of their complexity and multidimensional nature. We reviewed nine top-tier management journals covering an 11-year period (2010–2020) using a sophisticated filtering method to identify 106 articles, which we then situated and connected across the four stages of the model.

Our paper makes three general contributions. First, by assessing relevant academic literature related to SDG topics and integrating the findings into the four-stage process derived from the practitioner literature, we show the potential value of transforming rigorous evidence into implementable insights. By doing so, we respond to the calls done by theorists of practice (George et al., 2016; Jarzabkowski, 2004; Jarzabkowski & Spee, 2009; Whittington, 2006) to get involved in a deeper understanding of the praxis of external actors (such as consultants) in the inclusion of environmental and social considerations.

Second, we provide an action-oriented literature review. While extant reviews have usefully synthesized theoretical knowledge to explain and predict phenomena, they have not often discussed how organizations can incorporate actionable, evidence-based principles into their strategic agendas. Our interpretive review adds to previous efforts to integrate management practice and academic literature (Stouten et al., 2018) by refining a general 'implementation protocol' that is of practical importance in promoting responsible corporate behavior. Organizations concerned with the implementation process of SDGs can leverage a well-grounded framework to inspire otherwise skeptical firms to incorporate SDGs into their corporate strategies.

Third, our research sheds light on some opportunities and limitations of current management research and encourages scholars to redirect their attention to finding practical solutions to real-world problems, particularly by utilizing the SDGs as a framework for companies to enhance their compliance with their social obligations and improve the well-being of all.

BACKGROUND: AN SDG FRAMEWORK FOR ORGANIZATIONS

Organizations across the globe confront persistent social challenges such as climate change, immigration stress, corruption and increasing inequality. Thus, it is unsurprising that management scholars have increasingly focused on organizational commitment to solving so-called 'grand challenges' and 'wicked problems', which are characterized by extreme complexity and radical uncertainty (Ferraro et al., 2015). Addressing such challenges requires controlling a set of nonlinear dynamics while harnessing imaginative thinking to unite multiple organizations over separate jurisdictions to understand complex cause–effect relationships (Rittel & Webber, 1973). Such challenges cannot be resolved with traditional management techniques that do not account for holistic system changes involving multiple societal actors (Waddock et al., 2015).

To provide management leaders with a common set of objectives to help address these complex societal challenges, the UN officially launched its SDGs in 2015. They comprise 17 goals and 169 corresponding action targets designed to influence the programming of new international sustainable development agendas until 2030. These goals provide an overall framework for addressing worldwide social challenges, such as including human prosperity and planetary protection, emphasizing firms' roles as critical vehicles for achieving these goals. However, the effective implementation of these goals remains elusive. Evidence from grey reports (PwC, 2015) suggests that most managers recognize the importance of SDGs (92%), but only a few (13%) have the tools needed to adopt them. For many firms, the unprecedented scope of the SDGs highlights the challenges of coordinating and balancing the various pillars of sustainable development (economic, social, and environmental) so that global improvements are not only made but also measured (Sachs et al., 2019). In response to this limitation, several consulting firms, public organizations, educational institutions, and nonprofits have suggested general prescriptive guidelines to advise managers on the implementation of SDGs. These guidelines are often procedural or contain broad recommendations, so they can be applied across multiple types of firms, sectors and contexts.

We selected the following guidelines from well-regarded global consulting firms (BCG, Deloitte, McKinsey, PwC). To have a comprehensive perspective, we also included guidelines produced by multilateral organizations such UN Compact, educational institutions (Harvard Kennedy School) and non-profit organizations (WBCSD, HKS). The words in brackets are used in this paper when referring to the following guidelines (listed in alphabetical order):

1. [BCG] Innovation Is the Only Way to Win the SDG Race (BCG, 2019).
2. [Deloitte] Sustainable Development Goals: A Business Perspective (Deloitte, 2018).
3. [HKS] Business and the Sustainable Development Goals: Building Blocks for Success at Scale (Nelson et al., 2015).
4. [McKinsey] SDG Guide for Business Leaders: A Practical Guide for Business Leaders to Working with the SDGs as a Competitive Factor (McKinsey, 2019).
5. [PwC] Navigating the SDGs: A Business Guide to Engaging with the UN Global Goals (PwC, 2015).
6. [SDG Ambition] Scaling Business Impact for the Decade of Action (United Nations Global Compact, 2020).
7. [SDG Compass] SDG Compass: The Guide for Business Action on the SDGs (GRI, 2015).
8. [SDG Fund] Harvard Kennedy School CSR Initiative and Inspiris Limited-Business and the United Nations. Working Together towards the Sustainable Development Goals: A Framework for Action (SDG Fund, 2015).
9. [WBCSD] CEO Guide to the SDGs (WBCSD, 2017).

Two authors reviewed the above publications independently, with the goal of identifying common processes regarding the implementation of SDGs across guidelines. The authors inductively identified common patterns and themes and, through a process of iterative analysis, they arrived at a consensus on the core stages. The result of this work resulted in an overarching framework that included four stages: prioritizing, contextualizing, innovating, and collaborating.[1]

Prioritizing

The reports listed above all provided similar sentiments in which the scope of the full SDG agenda is found to be too broad for any single company to address. Consequently, businesses must select and prioritize the SDGs that are most relevant to them. There is less agreement,

[1] These four stages capture the common essential aspects included in the reviewed guidelines, and they are not intended to be comprehensive. Additional aspects, such as the need to use specific key performance indicators, the benefits of communicating progress and other issues, are highlighted in the different articles. Although these issues are relevant, they are not truly distinctive to SDG deployment.

however, on the criteria that firms must use to identify relevant SDGs. PwC, for example, encourages firms to consider business experience and implementation simplicity (PwC, 2015), whereas the SDG Fund suggests that priority should be given to commercially driven, stakeholder-engaging initiatives (SDG Fund, 2015).

Contextualizing

Although they used several different terms, the reports described the importance of understanding the contextual factors affecting the adoption of SDG-related initiatives. The main argument is that firms may spread too thin without circumscribing their efforts, limiting their impacts and reducing their solvency. WBCSD indicated that a company's business sector should be examined to determine whether a specific SDG will have a material impact (WBCSD, 2017). Deloitte highlighted the importance of being responsive to local social demands (Deloitte, 2018), and HKS and McKinsey proposed the consideration of company value chains and key operations (McKinsey, 2019; Nelson et al., 2015). While the guides use different labels for these contextual factors, we decided to categorize them as 'contextualizing', a term that comprises different elements of the social, sectoral, and local contexts where a business operates.

Collaborating

All the reports agreed that cooperation across multiple parties is required to implement SDGs, given that their complexity exceeds the reach of any single organization. Accordingly, and as part of its framework, the SDG Fund noted that engagement with multiple external partners is necessary to confront the systemic challenges imposed by the SDG agenda (SDG Fund, 2015). Similarly, WBCSD's guide included the need for collaboration to obtain systemic change, cross-sector cooperation and public–private partnerships (WBCSD, 2017). Consultancies such as McKinsey (2019) and PwC (2015) have also highlighted the importance of engaging employees, customers, and other key stakeholders.

Innovating

In general, the need for vast innovation stems from the realization that SDGs are unlikely to be achieved by relying on extant tools, techniques and technologies. For example, BCG argued that the key success factor in making progress in SDGs is unleashing innovation (BCG, 2019). WBSCD reinforced this idea by stating that firms must find business solutions that surpass current models (WBCSD, 2017). SDG Ambition went a step further, claiming that firms must find novel solutions that use fewer inputs and cleaner technologies while innovating their business models (United Nations Global Compact, 2020).

REVIEW METHODOLOGY

While practicing organizations have taken the lead in developing practical guides for organizations, it is management scholars who have long studied the role of businesses in society to understand how they may exacerbate or ameliorate social concerns (Aguilera et al., 2021; Aragón-Correa et al., 2020; Bansal & Song, 2017; Bapuji et al., 2020). Since the aim of this article is to integrate academic knowledge with prominent practical frameworks to offer a more robust and scientifically informed process-based framework for SDG adoption, we conducted an interpretive review (Noblit & Hare, 1988) of the mainstream management literature. This type of review is adequate for multiple reasons. First, unlike traditional reviews, interpretive ones are desirable when synthesizing a diverse set of works with multiple concepts, methods and theories (Suddaby et al., 2017), and when there is less cohesiveness among the reviewed studies (Seele et al., 2021). Given the breadth of the SDGs, related studies stretch along multiple management subfields and are highly heterogeneous in terms of methods (e.g., qualitative and quantitative) and conceptual approaches (i.e., theories). Consequently, an interpretive approach is adequate to review the most relevant publications concerning the SDGs. Second, although conventional integrative reviews are intended to generate aggregative, knowledge-based coding results, interpretive reviews synthesize knowledge by combining induction and interpretation into general findings (Eisenhart, 1998), which is essential to integrating theoretical and empirical knowledge. Third, interpretive reviews are desirable when the research goal exceeds mere cross-referencing (Noblit & Hare, 1988) as in our case. Importantly, interpretive reviews aim to 'have an *impact* on audiences' (Hammersley, 2013, p. 121, italics in the original) and provide clear, practical intent, which fully aligns with the proposed objective of this paper.

We adopted a multistep procedure to interpretatively review the management literature, summarized in Figure 1.

Following previous reviews of sustainability-related topics (e.g., Bansal & Song, 2017), we focused on mainstream management journals, as they are likely to have the greatest impact on the field and are assumed to contain modern, validated knowledge (Podsakoff et al., 2005). We selected relevant articles from nine leading academic management journals (i.e., *Academy of Management Journal, Academy*

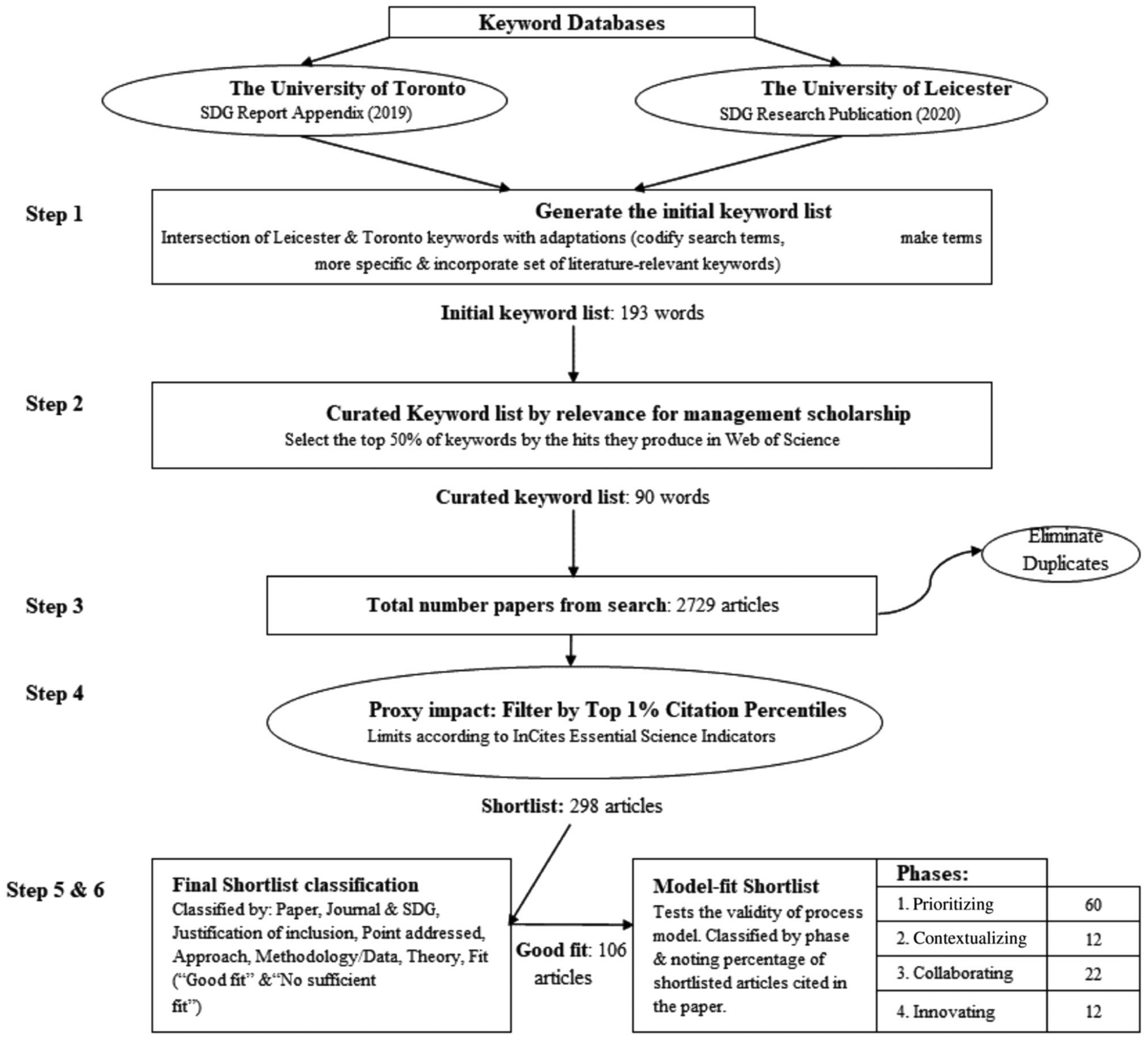

FIGURE 1 Article review process.

of Management Review, Management Science, Administrative Science Quarterly, Journal of Management, Journal of Management Studies, Organization Science, Organization Studies and *Strategic Management Journal*). To identify relevant articles, we electronically queried 90 keywords in titles, abstracts and keyword fields in the Web of Science Core Collection database. To identify these keywords, we followed a two-step process. First, we identified overlapping keywords from Mistry and Sellers (2020) and the SDG Report from the University of Toronto (2020) and supplemented their keyword lists with 24 relevant excerpts from the literature. We considered the combination of these sources sufficient to provide comprehensive coverage of management literature. To minimize false positives and better reflect SDG targets, we avoided generic words such as 'jobs' and 'innovation'. We then selected the top 50% of the keywords based on the hit rate to account for their relevance in management literature. A full description of the methodology and the final list of keywords are found in Appendix 1.

Initially, the keyword search produced 2729 articles. As a broad list, this first set of articles included several false positives and presumed all articles published to be of equally high impact. To rectify these issues, we applied a citation filter for proxy impact and quality control. We filtered the most cited articles using a yearly scale of the Web of Science's top 1% citation limits for the fields of economics and business.[2] Doing so allowed us to retain the most impactful, highest-quality papers. This filtering process reduced

[2] These percentiles reflect subsets of papers across the research field according to numeric citation thresholds and are valuable as baselines for evaluating the research impact. These thresholds were established as part of the InCites Essential Science Indicators from Clarivate Analytics, the Web of Science operators. The thresholds ensure that the data align

the number of articles to 298. The ratio of retained versus candidate sources (11%) is slightly higher than in similar reviews (e.g., Stephan et al., 2016).

Following recent review studies (e.g., Bapuji et al., 2020), we classified papers in two categories. These categories were defined based on their relevance level: relevant or not relevant. Relevance was assessed based on whether the paper addressed the relationships between firms and SDG themes, which we consider can help facilitate firms' progress towards achieving SDG targets. Importantly, for relevant articles, we indicated whether they contained relevant information or insights about one of the four stages identified in the practitioner literature. A total of 106 papers were classified as relevant and 192 as not relevant. Relevant papers were 31.13% theoretical and 68.87% empirical, with most falling under SDG16 (22.64%), SDG9 (13.21%), SDG1 (9.43%) and SDG5 (4.72%). However, multiple other SDGs, such as SDG3, SDG14 and SDG15, yielded zero articles. Scholars applied a myriad of theories, the most popular being institutional theory (13.33%), stakeholder theory (13.33%) and agency theory (7.62%). Several researchers have combined theories or proposed new models. A complete annotated list of papers can be found in the supplementary electronic materials related to this article. The final step in our analytical framework entailed an interpretive review, which focused only on relevant papers. Our interpretive review uncovered a series of non-all-encompassing factors that informed the four SDG adoption steps. Because SDG research is fragmented, these factors emerged from our iterative analysis and deliberation process.

REVIEW INSIGHTS

The four-step process for SDGs adoption and the core factors identified in our review are summarized in Figure 2 and described next.

Phase 1: Prioritizing SDGs

Description

The reviewed SDG articles agree that a key step towards achieving SDGs involves effectively prioritizing goals, which entails selecting the most important things that must be dealt with first as an essential management task and a matter of strategic importance (Child, 1997; Cyert & March, 1963). By limiting the range of goals, firms may focus their efforts. Notably, they should recognize that having too many goals can be as detrimental as 'having no goals at all, even more so if no priority has been allocated' (Holden et al., 2017, p. 214). Prioritizing is particularly crucial for addressing SDGs, as most are multi-sectoral, multi-scale, and multi-actor issues that present significant challenges. Therefore, it is unrealistic to assume that firms can address all sustainability goals. Organizations often lack sufficient resources, time, interest and/or knowledge to address the full spectrum of SDGs. Moreover, attempting to contribute to all SDGs is likely to dilute the organizational impact, dampening commitment and engagement. Anecdotal evidence from grey reports suggests that most, if not all, companies are unable to pursue all 17 goals, even if they consider them strategically important. A 2015 PwC survey indicated that although most companies knew about SDGs (92%) and planned to actively engage them (71%), only 1% expected to assess their impacts on all 17 (PwC, 2015).

Relevant literature

Management scholars have identified at least three attributes that explain the need for SDG activity prioritization. The first involves SDG complexity (Whiteman, Walker, Perego, 2013). Because multiple actors, activities and locations are involved (Ferraro et al., 2015), organizations are obliged to be selective and rank their goals in terms of saliency (Durand et al., 2019). Second, SDGs involve uncertainties and interdependencies that compel firms to optimize scarce resources (Sachs et al., 2019), leading managers to explore, choose and balance the multiple and sometimes conflicting demands of stakeholders (Wang et al., 2016). Third, SDGs entail a long-term evolution, which challenges organizations with intertemporal trade-offs that they must cultivate or eliminate, as the case demands (Slawinski & Bansal, 2015). Furthermore, the essence of sustainable development is to safeguard intergenerational equity (WCED, 1987).

To prioritize effectively, organizations must first understand the associations between SDGs and core corporate activities.[3] For managers, understanding these links is essential, as they demonstrate how the efforts to achieve one SDG may affect an entire system and create synergies or trade-offs within organizations. Because the SDGs address sets of interconnected economic, environmental

with both the citations of the indexed papers and the extracted data. The numeric citation thresholds differ from year to year to help balance the measure of research relevance over time.

[3] There may be associations between the individual SDGs. For instance, advances in fisheries and the livelihoods of coastal communities (SDG14) may positively impact poverty eradication (SDG1) and food security (SDG2; Nilsson et al., 2018). Conversely, agricultural expansion (SDG12) via insecticide and irrigation-system use may adversely affect health issues. Thus, these links may enable positive and negative feedback loops (Nilsson et al., 2018).

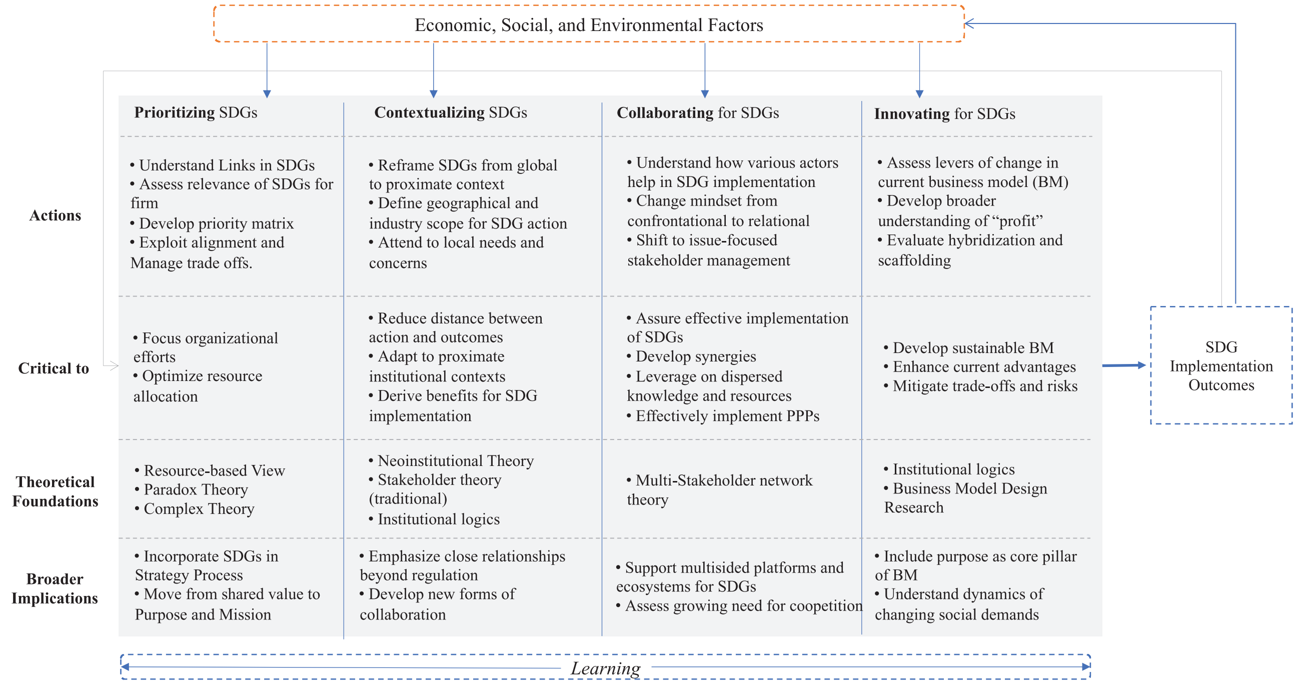

FIGURE 2 Four interrelated-step model of United Nations Sustainable Development Goal (SDG) implementation in firms. [Colour figure can be viewed at wileyonlinelibrary.com]

and social concerns (Sachs et al., 2019), adopting them may generate both conflicts and opportunities that managers must assess, prioritize and handle (Hahn et al., 2014).

Our literature review revealed a wealth of knowledge about the associations between organizational and social activities (Mellahi et al., 2016). One research stream focused on the antecedents of firms' social initiatives. These antecedents include existing resources and capabilities (e.g., Hart & Dowell, 2011), governance structures (De Villiers et al., 2011; Walls et al., 2012), personal preferences and values (Chin et al., 2013) and external pressures (Surroca et al., 2013). This stream relied on multiple theoretical lenses and empirical measures to suggest the potential determinants of corporate sustainability (for reviews, see Bansal & Song, 2017; Etzion, 2007; Montiel & Delgado-Ceballos, 2014).

Another stream of research attempted to calibrate the impacts of social activities on financial and nonfinancial organizational outcomes (De Roeck et al., 2016; Flammer, 2015). A third and more recent stream, the 'paradox perspective', focuses on the tensions between business and society's desirable, yet conflicting objectives (Smith & Lewis, 2011). Instead of highlighting the benefits of SDG engagement (e.g., financial performance, legitimacy), this stream focuses on the inherent trade-offs associated with aligning business objectives with societal needs, which lead to tensions and contradictions that managers must embrace rather than ignore (Hengst et al., 2020). This view also accounts for the temporal trade-offs and tensions that arise when organizations decide to pursue sustainability agendas (Bansal & Song, 2017). Overall, the management literature addressing sustainability agreed that there are interdependencies (both positive and negative) among economic, environmental and social performance (Matten & Moon, 2020).

The management literature also accounts for the relevance of sustainability aspects when prioritizing them. Studies suggest three attributes of the significance of SDG-related activities. The first (individual level) accounts for the personal values and cognitive frameworks of decision-makers (Petrenko et al., 2016; Tang et al., 2015, 2018), which heavily influences how they interpret problems (El Akremi et al., 2018). For example, studies on environmental management issues have argued that leaders' value orientations shape organizational behaviors and link values to corporate sustainability actions (SDG13; Farooq et al., 2017). Second, relevance can result from the alignment between an SDG and the core activity of a firm (organizational level; Aguinis & Glavas, 2019), which demonstrates the uses of firm resources and capabilities (Hart & Dowell, 2011). Tang et al. (2012) provide quantitative evidence that firms that develop a corporate social responsibility (CSR) strategy based on their skills, knowledge and resources are likelier to enhance their performance (ROA). Additionally, whenever an SDG-related aspect must be prioritized, good alignment is obtained through organizational mechanisms, such as incentives (Flammer et al., 2019). Third, relevance may emanate from the saliency of a social issue in the physical locations where a company operates (contextual level), which highlights

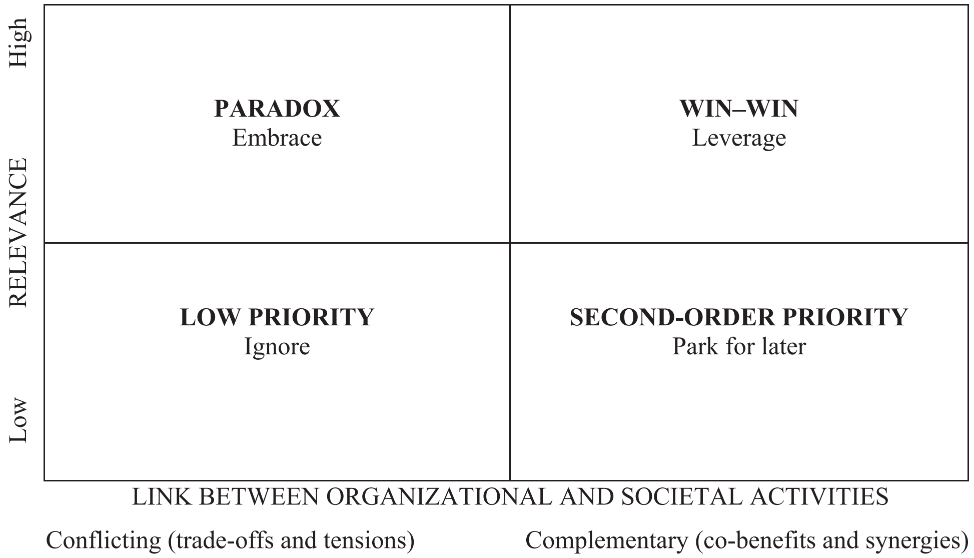

FIGURE 3 Prioritization matrix for United Nations sustainable development goals.

the importance of understanding the context (or multiple contexts) of social impact (Marano & Kostova, 2016). Certain social ills, such as income inequality (SDG10), poverty (SDG1) and access to clean water (SDG6), are often more pressing in underdeveloped areas (Mair et al., 2012). Management studies have argued that the idiosyncratic elements of context are key determinants of civic and political actions (Sun et al., 2016) and the creation of inclusive markets that foster social development (Mair et al., 2012).

Interpretation: Alignment criteria for prioritization

Our interpretation is that the associations and relevance dimensions are more closely related than has often been presumed. Moreover, the management literature offers a valuable foundation for a set of criteria that could aid managers in assessing their current situations with regard to SDG support. We depict this relationship in Figure 3. The upper-right quadrant represents the 'win–win' (ideal) case in which advances towards a given SDG are relevant to decision-makers, the organization, and its context. Simultaneously, they generate synergies through the complementarity between organizational and societal activities. This situation is compatible with a business-case framework (Hahn et al., 2014) in which managers conceive a complete alignment between sustainability issues and corporate goals and adopt a pragmatic approach to scanning, interpreting and responding to societal problems. In the upper-left quadrant, advancing a given SDG is relevant, but the interrelations result in conflicts and trade-offs. In this case, managers must apply a paradoxical approach that recognizes contradictions and assists participants in overcoming them so that they can arrive at solutions (Hahn et al., 2014). This implies acknowledging and embracing the contradictions among the financial, social and environmental dimensions (Jay, 2012; Wang et al., 2016). In the lower-right quadrant, progress on a given SDG is shown to generate synergies at a given level, but the objectives do not meet the criteria of a significant issue. Thus, continuing to support the SDGs would be favourable, but not essential. Hence, management can postpone these initiatives. Finally, in the lower-left quadrant, SDG advancement does not appear relevant at all and results in offsets, suggesting that managers should direct their efforts elsewhere.

Phase 2: Contextualizing SDGs

Description

Contextualizing SDGs involves reframing them from global calls to action to contextually relevant, manageable goals that fit within a corporate purview. As with any strategic problem, early contextualization may lead firms to perceive these goals (and their solutions) as distant issues. This sometimes results in key decision-makers failing to grasp the practicality of incorporating new strategic agendas into daily operations. Thus, symbolic rather than substantive firm efforts are affected (Hawn & Ioannou, 2016). Second, although no single firm can address all 17 goals, some may not be able to address any. Solving global problems (e.g., water sanitation) is a vast challenge, even for resourceful, dedicated organizations such as the

Bill and Melinda Gates Foundation, as each community possesses different (and sometimes conflicting) institutional and cultural environments (Marano & Kostova, 2016), infrastructures (e.g., sewer systems) and market conditions (Flammer, 2015). Third, SDGs differ in importance according to region and industry (i.e., relevance). Thus, contextualizing challenges is crucial to effective SDG implementation.

Relevant literature

According to the literature, contextualization occurs when firms define their geographical boundaries (localization) based on corporate impact. Thus, the SDGs should be reframed and implemented at local and community levels as the saliency of sustainability imperatives are determined there, and the contextual effects of sustainability-oriented activities are provided (Stephan et al., 2016). Community engagement via SDGs can increase firm legitimacy (Battilana et al., 2015) and provide community-oriented companies with access to unique opportunities (Mair et al., 2012) while enabling them to be more resilient during turbulent periods. For instance, Koh et al. (2014) argued and empirically showed that, because a community is more tolerant of a firm with a reputation for good social performance, the firm enjoys legitimacy that acts as insurance against higher risks. Indeed, the authors report that, for firms in high-litigation industries, a one-standard-deviation increase in social performance raises median firm value by 8.31%.

Additionally, communities provide geographically bounded contexts in which social exchanges occur and values are created through stakeholder interactions (McWilliams & Siegel, 2011). Indeed, concerned citizens and local activists often influence social and environmental efforts (Crane et al., 2014; Crilly et al., 2012). Companies that fail to fully engage locally may be seen as taking unfair advantage of their communities (Porter & Kramer, 2011), thereby becoming the targets of contentious protests. Furthermore, most firms draw their workers from local communities while selling most of their products and services. Localizing the SDGs encourages managers and employees to visualize their firms making incremental progress towards SDGs at a local level (Cobb, 2016). This requires that firms incorporate the geographic, religious, linguistic, and demographic perspectives of the communities they are embedded in to better align sustainability efforts with communal values and needs (Chrispal et al., 2021). Slawinski and Bansal (2015) provide qualitative evidence that these perceptions help mitigate perceived temporal disconnections by reorienting firms to consider the future consequences of today's actions, which increases their impact on stakeholder networks.

Initially, the benefits of locally contextualizing SDGs may seem more prominent for domestic firms, as their managers tend to be more locally embedded. Thus, their responsibilities are more local in nature, and they elicit greater discretion, in contrast to multinational managers, who enjoy more limited spans of control at local levels. However, this is not necessarily true for SDG-related aspects. For instance, Siegel et al. (2019) showed that breaking from local exclusionary norms to hire and promote socially excluded groups (e.g., South Korean women) is a valuable mechanism for foreign multinationals to fight against discrimination (SDG5). According to their estimation, a 10% increase in the number of local female workers increases ROA by 1%, and greater female representation seems to consistently raise performance for both multinational and domestic firms. Thus, considering the global scale while acting locally helps multinationals adopt SDGs in more meaningful and impactful ways.

Firms may also contextualize SDGs by reframing them at the industry level. This bounding of efforts can be critical to firm success, as it enables them to translate SDGs into manageable activities (Ferraro et al., 2015). When decision-makers take ownership of SDG activities within their industry, related problems and contingencies become more discernible (Hawn & Ioannou, 2016). For instance, beverage companies may add the goal of guaranteeing equitable access to clean water (SDG6) to their strategies while embedding activities that align with the skills and resources of firms in the sector, including improving water-use efficiency and replenishment in water-stressed areas. When firms adopt SDGs in their visible strategies, impactful activities are likelier to produce tangible and compelling results that lead to the preservation of critical resources and ecosystems (SDG15) while promoting health and well-being (SDG3). These efforts may also allow firms to leverage the associations among SDGs more readily while prompting other industry participants and supply-chain partners to embrace such changes (Darnall et al., 2010).

Interpretation: Parameters for contextualization

Firms can use the geographic and industrial contexts as parameters for contextualizing SDGs because employees are embedded in them daily and have first-hand knowledge of their social and environmental shortcomings (Husted et al., 2016). For instance, actions derived from corporate SDG contextualization within industries can be retrofit to the prioritization stage of our model, as these activities clarify means–ends relationships, allowing firms and other industry participants to understand the link between actions and societal effects. Thus, we interpret contextualizing activities as those that increase firms' chances of moving towards the win–win quadrant of Figure 3 when prioritizing SDGs that draw on their unique resources and capabilities.

Moreover, contextually aware managers are more intrinsically motivated to pursue the accomplishment of SDG goals and objectives. Kacperczyk (2009) reports evidence from a sample of publicly traded US firms showing that, when relieved of short-term financial pressures, managers focus more on the natural environment and their local communities. Interestingly, 'long-term stock market value increases for firms more attentive to community, the natural environment, and minorities' (Kacperczyk, 2009, p. 275). Managers motivated to foster change in their communities and industries will likelier orient their strategies towards combined social, environmental and economic goals (Lee & Lounsbury, 2015). Additionally, contextualizing SDGs can also boost managers' and firms' local reputations (Hawn & Ioannou, 2016), open new opportunities (McWilliams & Siegel, 2011) and facilitate critical organizational processes such as the attraction and retention of talent (Flammer & Luo, 2017).

The literature shows that contextualization does not necessarily eliminate the inevitable trade-offs between social, environmental and economic pillars (Hahn et al., 2014). However, it enables decision-makers to visualize these trade-offs more clearly and to better understand how their choices will affect their community and industry. For example, community banks play a vital role in local community solvency by providing critical loans and services to local firms, thereby promoting financial inclusion (SDG9; Battilana & Dorado, 2010). Such banks face pressures from regulators and shareholders to demonstrate solid financial performance; however, helping small firms and less affluent individuals who are considered riskier conflicts with the larger profit motive. Although this paradox may be unavoidable, localizing one's strategy can facilitate its mitigation. Taking ownership of such contradictions also enables firms to specify how they plan to respond to ambiguous situations triggered by competing goals.

In summary, contextualizing enables firms to reframe SDGs to manageable scales, visualize the links between their actions and SDG activities more clearly and improve stakeholder engagement. However, no single firm can address SDGs alone, which leads to the issue of collaboration.

Phase 3: Collaborating for SDGs

Description

Collaborating involves working jointly with other actors and institutions to achieve mutual goals. The SDG agenda highlights the importance of collaboration and presents it as a critical prerequisite for assuring the effective implementation of SDGs (Berrone et al., 2019). Specifically, SDG17 encourages partnerships across the finance, technology, trade, infrastructure and policy lanes (Le Blanc, 2015). The basic notion behind SDG17 is that the SDGs can be met only through the coordinated contributions of multiple stakeholders, including those in the public sector, companies, multilateral institutions and the rest of civil society.

Relevant literature

Collaboration is central to SDG-related research, although scholars refer to the activity in slightly different ways. For instance, some have examined how the outcomes of interorganizational relationships are affected by trust and related decisions (Harrison et al., 2010). Bowen et al. (2018) showed how multiparty collaboration fosters a better use of common resources and shared technology when addressing SDG-related issues. Similarly, Pinkse and Kolk (2012) suggested the use of multi-stakeholder partnerships to address climate change in developing countries. Doh et al. (2018) coined the term 'collective environmental entrepreneurship' to explain how cooperative entrepreneurial actions and cross-sector partnerships may enable broader responses to current ecological challenges.

Our review indicates that the predominant approach to dealing with the interrelational plurality of social actors leverages stakeholder theory. This theory posits that managers harmonize conflicting stakeholder pressures by paying more attention to the most powerful and legitimate ones, while overlooking the needs of the less powerful ones and those at the fringes (Mitchell et al., 1997). However, given the complexity of SDGs, recent reinterpretations emphasize broader stakeholder cooperation (Harrison et al., 2020). Here, the idea of social cooperation takes precedence over stakeholder competition. The cooperative view defines value more broadly, as its social nature is derived from the shared beliefs of communities (Freeman et al., 2010) where opportunities for stakeholder synergies arise (Tantalo & Priem, 2014). This approach requires a shift from the notion of managing stakeholders to one of partnering with them (Harrison et al., 2020) and advances a shift from confrontational stances (e.g., non-governmental organizations [NGOs] and activist groups) to more relational ones (Levy et al., 2016). Additionally, it involves shifting from organization-focused approaches to issue-focused approaches. In this regard, Ferraro et al. (2015) argued that unilateral efforts are unlikely to contribute meaningfully to grand societal challenges owing to their multidisciplinary complexity and inherent unpredictability. Instead, the authors advocated the establishment of participatory architectures that address long-term social ills. This is one of many studies that suggested a collaborative approach to effectively dealing with the societal challenges addressed in the SDGs.

Interpretation: Conditions for collaboration

Reflecting on the vast research on the use of collaboration to address societal challenges, we conclude that creating collaborative platforms, such as multi-stakeholder networks, is difficult but necessary owing to stakeholder heterogeneity. Although some stakeholder groups may support given solutions, others may resist or ignore them. Additionally, the differing priorities, criteria, and incentives complicate the collective understanding of problems and solutions (Ferraro et al., 2015), leading to conflicts that may require strong governance mechanisms for mitigation and decision-making (Scherer & Palazzo, 2011). Hence, we identified stakeholder dialogue as a key factor in establishing effective collaborative platforms. Dialogue is necessary not only to obtain a better understanding of the issues at stake before committing to a course of action but also to provide a legitimate foundation for a given decision (Tost, 2011). Proper channels of dialogue can facilitate consensus-building, negotiations and compromises, which are required to resolve the inconsistencies and tensions stemming from the needs of broad social systems. Given the SDGs' complexity and social sensitivity, dialogue among organizations and other stakeholders is required to determine specific solutions that are agreeable to all parties (Ferraro et al., 2015). Moreover, this dialogue generates trust,[4] which creates common ground for stakeholder engagement (Wang et al., 2018) while fostering more far-reaching responses (Wright & Nyberg, 2017).

Importantly, stakeholder dialogue is the mechanism to define three necessary conditions for a successful collaboration. The first one refers to having a shared or common goal. For instance, longitudinal evidence from two healthcare public–private partnerships (PPPs) in the United Kingdom presented by Caldwell and colleagues (2017) showed that multiparty cooperation is more likely when goals (i.e., outcomes and time frames) are aligned and thus coordination can be more easily achieved. The second condition refers to having complementary skills and abilities. Hess and Rothaermel (2011) empirically tracked 108 global pharmaceutical firms and found that collaboration among firms that focus on the same parts of the value chain is unlikely since there are knowledge redundancies. However, resource combinations among firms are more likely if they focus on different parts of the value chain since integrating nonredundant knowledge is beneficial. Finally, the third condition concerns the relational approach to make collaboration sustainable in time. For instance, Slawinski and Bansal (2015) showed that polluting firms that engage in two-way conversations with multiple stakeholders are more likely to sustain collaboration with others when addressing complex issues with intertemporal tensions such as climate change.

Although there are many forms of collaboration, one particularly relevant form in the context of SDGs is the PPP. Agenda 2030 openly invites private-sector participation, acknowledging that business innovations and investments are essential for achieving SDGs. In the words of former UN Secretary-General Ban Ki-moon, 'Business is a vital partner in achieving the Sustainable Development Goals. Companies can contribute through their core activities, and we ask companies everywhere to assess their impact, set ambitious goals and communicate transparently about the results' (GRI, 2015).

By addressing the preservation and replenishment of public goods, SDGs implicitly refer to notions of public welfare and the common good. Although fostering the well-being, security and prosperity of all citizens is most often the responsibility of governments, many isolated, top-down governmental initiatives have failed to produce inclusive growth (Scherer & Palazzo, 2011). Consequently, PPPs are seen as an alternative means of creating social value, as they address governmental and market failures by combining resources and developing complementary capabilities to address social needs (Levy et al., 2016). Moreover, public and private interests are interdependent and cannot be understood independently (Marquis & Qian, 2014). Thus, joint efforts involving public bodies and the private sector are crucial.

Despite the potential of PPPs to address SDGs, management research on this topic is scant and predominantly focuses on economics (Rangan et al., 2006), including the efficiency and completeness of contractual arrangements (Quélin et al., 2017). However, some studies have recently revealed the fundamental conditions that enable PPPs to effectively provide social value. For instance, Caldwell et al. (2017) studied two PPPs in the UK healthcare sector (SDG3), suggesting that their relational coordination (i.e., managing task interdependencies within relationships) was more important than contractual safeguards. Additionally, focusing on the healthcare sector in Italy, Villani et al. (2017) suggested that the efficacy of PPPs stems from their ability to design and implement appropriate business models for the tasks at hand. These studies

[4] The management literature focusing on strategic alliances has extensively explored the role of trust in interorganisational relationships (Connelly et al., 2011; Faems et al., 2008; Gulati, 1995; Krishnan et al., 2006). However, much of this literature considered only private links.

indicated that because PPPs must inherently account for specific economic and social interests, they provide useful organizational arrangements that manage conflicts among the public, social and private spheres. Such arrangements, however, require hybridization processes that account for pluralistic views of complex societal problems. Moreover, incorporating and managing such views requires innovation, which we explore in the next section.

Phase 4: Innovating for SDGs

Description

Innovating involves rethinking how firms typically conduct business. Doing so is critical because SDGs are unlikely to be achieved without significantly altering current business practices while adopting new ones built on a novel logic of societal engagement (Ferraro et al., 2015). Thus, change and innovation are needed so that firms may develop effective collaboration capabilities while incorporating SDGs into their strategic agendas.

Relevant literature

Our review indicates that social concerns can spur innovation (Berrone et al., 2013), which, in turn, helps address major societal problems (Jay, 2012). Prior works have shown the importance of innovating business processes when addressing SDGs, such as encouraging the application of sustainable entrepreneurial activities (SDG7; York et al., 2016) or tackling poverty (SDG1; Wry & York, 2017). Moreover, the literature has also demonstrated that shifts in business imperatives result in business model innovation (BMI; Casadesus-Masanell & Zhu, 2013). A business model comprises the choices and activities that define the logic and *modus operandi* of a firm and how it creates value for its various stakeholders (Battilana & Dorado, 2010). Innovation implies changing the nature and direction of the choices taken by managers to ensure that their consequences will differ from those of the extant choices. For instance, Scherer and Voegtlin (2020) reviewed insights to highlight the need for a new form of responsible innovation and governance structure to tackle the social and environmental challenges that society faces. Thus, firms must design innovative business models if their goal is to produce distinct SDG-related outcomes. Doing so is relevant as it aims to ultimately transform social reality (Scherer & Voegtlin, 2020). BMI can enable firms to foster sustainable changes by incorporating social and environmental consequences into their designs. Prior literature suggests that BMI is a critical tool for social transformation (e.g., Stephan et al., 2016). These studies also indicated that firms that overcome SDG challenges develop broader and more inclusive notions of profitability, which account for the costs and benefits of leveraging environmental, social and economic resources (Hahn & Figge, 2011).

Interpretation: Links of innovation

Our negotiated analysis of this stream of research concludes that innovating is more deeply related to the other stages than initially expected, offering multiple links to the other stages of the process model. For instance, Khavul and Bruton (2013) argued that innovations aimed at alleviating poverty are more effective when designed with local characteristics in mind, highlighting the importance of contextualizing innovation. Additionally, innovation is deeply related to prioritization. To determine the business model elements to innovate, we refer to the prioritization matrix in Figure 3. Cases with high relevance offer three instances in which innovation plays a significant, albeit different, role. Those instances include win–win cases, paradox cases in which firms aim to overcome trade-offs to obtain win–win results, and paradox cases in which firms must cope with conflicting trade-offs. Next, we examine each case.

Firms expect to benefit from pursuing win–win SDG opportunities as they represent situations in which positive social consequences align with the critical (and possibly unforeseen) economic success factors of their business models. Innovation plays a secondary role in this case, as the primary focus is on improving either processes or established capabilities. However, not every SDG can be achieved through incremental changes to extant business models.

The second possibility indicates that inertial forces may inhibit the transition towards a business model that incorporates SDGs (Nadkarni & Chen, 2014), especially if a firm previously addressed paradoxes by selecting trade-offs that did not advance any SDG dimension. In this case, innovation plays a significant role, as it can help assuage trade-offs. The literature has suggested innovative strategies to mitigate the conflicts generated when pursuing SDGs, such as distributed experimentation (Ferraro et al., 2015) and scaffolding (Mair et al., 2016). Other interesting recommendations include collaborative innovation in a network of partners (Davis & Eisenhardt, 2011), learning from non-traditional partners with different expertise (Jeppesen & Lakhani, 2010), and incorporating external knowledge as a driver for innovation (Garriga et al., 2013). These pragmatic approaches can be used to foster the cooperation needed to transform seemingly irreconcilable trade-offs into compatible and reinforcing goals.

The third possibility states that, despite substantive organizational efforts, paradoxes and trade-offs will persist. Firms may fail to find the single best solution to address multiple goals or acquire sufficient technology (e.g., materials) to confront problems with trade-offs that cannot be overcome with extant knowledge. The literature suggests that firms should cope with and adapt to multiple social demands through hybridization by blurring the boundaries between for-profit and social goals. Studies on hybrid organizations also suggest that firms pursue goals that are simultaneously oriented towards the market, the environment and society, even if they face contradictions while doing so (Battilana et al., 2015). Importantly, by combining different identities, forms and institutional logics, organizations have been shown to coexist with the conflicts and stresses generated by conventionally incongruous elements (Smith & Besharov, 2017). Thus, innovation is vital, as it creates the means for business model transformation (Wry & York, 2017). Notably, such transformations are risky because hybridity is challenging to sustain in the long run (Pache & Santos, 2013). Thus, the challenge is to redesign business models while changing cultures to facilitate shared hybrid mindsets. Nevertheless, organizations that can coexist with different logics may build new methods of addressing societal problems via innovation (Smith & Besharov, 2017) while selectively deploying different logics (Pache & Santos, 2013).

IMPLICATIONS AND FUTURE RESEARCH

Our study is a first step towards resolving how academic work can be integrated with practitioner-oriented frameworks to guide and inform the implementation of SDGs. We identified four universal stages of SDG implementation from popular sources that examined organizational approaches. Then, we reviewed SDG-related management research to elaborate on these stages. To the question 'What can research teach the practice of implementing Sustainable Development Goals?' our response is that the scholarly management literature can offer multiple insights. First, it can provide three levels of criteria (individual, organizational and contextual) to help firms prioritize which SDGs to follow first. Second, our study provides general parameters to contextualize SDG-related actions—namely, the industry and the local context. Third, our review discusses the necessary conditions for successful collaboration initiatives around SDGs, including the need for a shared goal, complementary skills, and a relational approach, for all of which stakeholder dialogue is essential. Finally, we explore the link between innovation and other stages of the model, particularly when it comes to novel business models. By interpreting the research linking firms' actions to social issues from an SDG perspective, we have provided more nuanced approaches to SDG implementation. Therefore, our work offers insights regarding how researchers may reorient their efforts towards a broader understanding of firms' practical roles in achieving SDGs. Our results can also be used to assist consulting firms and managers understand how to better allocate resources towards achieving these broad-purpose societal goals. As such, this paper contributes to both academics and practitioners.

Implications for academia: An SDG research agenda

Expanding the focus on other SDGs

Our review provides several noteworthy findings. Unsurprisingly, we found more relevant articles regarding SDG9 related to industry and innovation, and those concerning SDG16 were relevant to the institutions themselves. The articles were instrumental in providing insights into the different stages of the derived process model. They reflect the impact of institutional and stakeholder theories on SDG-related topics. Moreover, management scholars have produced a decent number of high-impact studies related to inequalities (e.g., gender [SDG5]). However, our review also showed that management science has generally overlooked several societal ills. For instance, SDG 13 has generated only a handful of impactful papers in mainstream management journals on climate action. This observation is consistent with that of Nyberg and Wright (2022), who found that only 24 articles on climate change were published in top management journals from 2007 to 2018. Granted, some articles related to climate action in our review were classified with keywords related to corporate and business sustainability; however, it seems that most research efforts on this topic focused on issues outside the discipline (Wohlgezogen et al., 2021). Similarly, mainstream management scholarship has not produced relevant findings regarding the association between organizations and aspects of biodiversity (e.g., SDGs 6 and 14). Another relevant omission refers to SDG 11, for which we found only one high-impact paper. This should function as a wake-up call to top journals and prompt management researchers to start addressing hunger, clean energy, climate change, urbanization, and ocean biodiversity to increase their relevance and impact.

Learning from the implementation of the SDG adoption framework

Although we have presented the four steps sequentially, real situations may lead to interdependent or iterative pro-

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cesses with recursive dynamics, suggesting that learning takes place both within and across stages (see the bottom of Figure 2). For example, collaborations with stakeholders may reveal new priorities that entail novel capabilities and new learning needs. Likewise, collaborations among multiple actors may lead to novel and innovative methods that facilitate solutions at different scales. Furthermore, BMI or contextual changes may provide new capabilities that allow firms to revise their priorities towards contributions that fit other SDGs. Thus, the different stages are not strictly linear. Unfortunately, there is little knowledge about the links and interactions between the different stages of SDG adoption. Consequently, researchers could explore how different stages of SDG adoption cross-fertilize each other to propose optimal sequences that maximize adoption success. Moreover, our framework recognizes that firms do not implement SDGs in a vacuum or statically. Different external economic, social and environmental factors influence each step at all points (see the top of Figure 2). For instance, changes in public opinion regarding the relevance of specific issues may lead to re-evaluating a firm's priorities. The preferences and needs of a local community and the features of a firm's industry may also shift. Future research could explore how contingencies such as social, economic and environmental forces affect how firms manage each of the four stages.

More knowledge is needed to respond to the question of why firms are not adopting SDGs. Identifying barriers and roadblocks in preventing the adoption of SDG-related actions is a fruitful area for researchers. If a significant impact is to be achieved, however, the study of these and other topics cannot be done in isolation but requires collaboration between academia and practice. While 'there is no single silver bullet to impact' (Bansal & Sharma, 2022, p. 831), we believe that the 'Cocreating Forward Approach' suggested by Sharma et al. (2022), which invites researchers and managers to come together to cocreate solutions for wicked problems, is particularly relevant in the context of SDGs. By building bridges across academia and practice to address future emerging or evolving issues, we would not only be contributing to the theory of practice (Jarzabkowski, 2004; Jarzabkowski & Spee, 2009; Whittington, 2006) but also be moving the field of management research from simply generating insights to actual practical impact.

Conducting research to enhance knowledge about the SDG adoption framework stages

Our review highlights multiple areas in which more research is needed regarding the identified stages of SDG adoption. Specifically, priority definition requires a shared understanding of the nature of SDGs, including their multiple linkages and trade-offs and the challenges faced during implementation. Prioritizing is based on cognitive and institutional notions of paradoxes and trade-offs (Hahn et al., 2014; Slawinski & Bansal, 2015) and resource-based arguments behind the business cases for sustainability (e.g., Flammer, 2013). Despite its intuitive appeal, we still have much to learn about prioritizing and its management (Aguilera et al., 2021). Researchers have paid little attention to the kinds of strategic and structural changes required to enable firms to deal with SDGs. We need more knowledge about who within top management should supervise a firm's pursuit of SDG goals, what type of governance structures are effective, and the requisite organizational systems needed to align the process stages.

There is also a pressing need to explore the process of goal formation in sustainability. For instance, we know little about the political processes influencing the selection of SDGs within firms and how lobbying constrains their adoption (Sun et al., 2016). We further lack an understanding of how firms define measurement systems with which to properly measure their SDG goal attainment. The absence of commonly shared standards, compounded with the lack of convergence in environmental, social and governance (ESG) ratings (Chatterji et al., 2016), poses an important barrier to achieving SDGs.

Moreover, more research is needed to determine why some firms adopt social practices with clearly instrumental objectives when others incorporate societal goals as integral parts of their missions. Research should examine how the relationships among organizational and individual factors shape outcomes (i.e., goal priorities) and how firms attend to SDG goals when they align with a single element (e.g., personal values) while avoiding others (e.g., incentive systems).

The contextualizing step offers several research opportunities. Contextualizing SDGs increases firm awareness and receptiveness to social activism, reducing firm exposure to reputational risks and increasing the likelihood that firms can work together with interest groups to create social value (Caldwell et al., 2017). Recognizing that sustainability concerns are relevant to both communities and industries is essential, and responding to these concerns imparts the legitimacy needed to operate and facilitate the implementation of specific SDG solutions (Farooq et al., 2017). Nevertheless, fixing the scope of SDG actions may have negative consequences by fostering proximate benefits in exchange for harmful global externalities. Thus, the notion of contextualizing SDGs offers a broad research space for management scholars (Berrone et al., 2016; Sun et al., 2016). For instance, researchers may examine how industry features and dynamics affect firms' ability to implement SDGs while exploring the unexpected benefits derived thereof.

Additionally, although localizing SDGs is relatively straightforward to firms that operate in single communities, the issue becomes more complex for large multinational enterprises whose notion of 'local' depends on the scope of operations (Surroca et al., 2013). Scholars should also study the effects of embeddedness in multiple communities on the types and intensities of SDGs pursued by firms. Moreover, the interactions between specific business models and their local contexts should be examined, alongside how those interactions later affect communities (Ricart et al., 2020). A deeper understanding of the positive and negative externalities that affect the pursuit of SDGs is needed so that bold recommendations can be made to firms and policymakers.

Another step involves collaborating with individuals, groups and organizations with legitimate interests in various corporate activities. Multiparty cooperation is conceptually anchored in stakeholder theory, which reinforces the idea that although businesses cannot realize SDGs alone, they can play crucial roles together. Our review highlights the relevance of cooperation among different stakeholders in addressing grand challenges. However, we know very little about how firms can effectively manage stakeholder relations and conflicts of interest in this respect while incorporating them into a proper BMI (Aguilera et al., 2021).

This problem raises even more research questions, such as 'What kinds of participatory architectures help manage multi-stakeholder issues?', 'Can these participatory platforms promote dialogue to make confrontational positions more collaborative?' and 'How should these collaborative arrangements be governed?'. In this regard, a novel focus area for study includes PPP activities, which play a crucial role in achieving SDGs (Berrone et al., 2019). Management scholars should investigate how actors with different and competing logics may develop norms of trust and reciprocity to support the implementation of SDGs. Additionally, we need to know more about how the delicate balance of contractual and relational elements in these relationships shapes the simultaneous pursuit of economic and social goals.

Finally, innovation is rooted in business modelling (Casadesus-Masanell & Ricart, 2010) and hybridization (e.g., Battilana & Dorado, 2010; Battilana et al., 2017) literatures. Although innovation may help firms attenuate their business models to societal demands, prior research has been largely silent about how firms should reshape existing business models into hybrid forms. This remains an acute challenge for firms with primarily commercial intent. Scholars should therefore explore how firms incorporate complex sets of social and environmental goals into their business models. Additionally, understanding how path dependency—the continued pattern and historical preference of a certain model—affects hybridization is another fruitful area of investigation. Indeed, understanding how firms overcome inertia and stakeholder resistance when shifting business models in support of SDG integration will enhance the practical value of management research. Engaging these points will help us better understand how to resolve conflicts between financial and eco-social goals.

Expand current theorizing and methodological approaches

The management literature must better understand the pitfalls of implementing SDGs by identifying both unintentional and intentional transgressions. Moreover, the recent call made by Nyberg and Wright (2022), who advocated a 'radical shift in management scholarship' (p. 4) to address grand challenges, needs to be heeded. Unfortunately, management research lacks a solid theoretical foundation for investigating new forms of value creation from a societal perspective. For instance, exploring these research topics will require the reconsideration of profit maximization and agency theory as the backbone of corporate decision-making. Similarly, academics and practitioners require new fundamentals for understanding and valuing property rights, other than those offered by agency or transaction-cost theories, so that we may better understand the complexity of multi-stakeholder collaboration and how it creates distinctive shares of resources. Rather than a maximization theory, a framework is needed that accommodates the conflicts and paradoxes between social and financial goals. In this sense, the emerging literature on systems thinking (Grewatsch et al., 2021) may be instrumental in the pursuit of SDG agendas.

The insights of this paper will be helpful to those willing to undertake such endeavors. Specifically, the four main processes examined in this paper can inform relevant scholarly efforts. First, regarding assumptions, a broader theory around SDG-related issues should have no presumed preferences for economic goals over societal ones. There is increasing agreement that the shareholder-value model has long outlived its utility (Davis, 2018), an idea supported by a growing number of chief executives taking public stances on socially contentious issues (Hambrick & Wowak, 2021). Secondly, new theory should account for the different characteristics of the most immediate contexts within which organizations operate. Developing a greater awareness of how local geographic and industrial forces shape organizations is critical to understanding how firms work towards SDG goal achievement. Third, SDG-based theories should be developed to explain firm interactions with social actors while disclosing how multi-stakeholder structures emerge and are governed. Finally, theory should adopt a broader view of innovation—one that recognizes the potential of various organizational forms (i.e., hybrids and B-corporations) as vehicles for embracing the trade-offs inherent in pursuing SDGs.

Ultimately, this article invites academics to rethink the value of management literature in securing private involvement in social progress. The SDGs prompt us to complement the current theory-driven approaches with mid-range explanations and mechanisms more closely tied to the relevant practice.

Implications for practice: An invitation to engage with SDGs

How can organizations integrate the UN's aspirational SDGs into their strategic agendas and help resolve grand challenges in society? The complexity of SDGs highlights the importance of a hands-on approach, and several practicing organizations have provided blueprints in this respect. These guidelines, however, are often not grounded in theory or robust evidence. Our review can help remedy this shortcoming by providing scientifically informed insights that will strengthen the implementation protocols of consulting firms, non-profit organizations and civic institutions. For instance, consultancies should take into account trade-offs when helping businesses implement SDGs as a way to prepare for the inevitable tensions that arise from such endeavour. Effective guidelines also need to consider how firms can establish the conditions for collaboration, especially in communities that may distrust firms' efforts to engage in SDGs.

We consider the four stages identified as necessary conditions for any process that attempts to implement SDGs. Initially, a skeptic might consider these four stages relevant to any change process in organizations; however, we believe they are particularly suitable for pursuing SDGs. A firm adopting an SDG strategy becomes a multiple-goal organization, making the prioritization process much more crucial than for organizations with single goals (e.g., profit maximization). Thus, redefining the prioritization criteria becomes crucial. However, the prioritization of SDGs is not enough, and firms need to move beyond talk. For that, contextualization requires firms to exceed their traditional boundaries and think more carefully about their material impacts, which is desirable for SDG accomplishment. Collaboration and innovation are also distinctively relevant to SDGs. Although traditional firms often adopt competitive mindsets, the broad scope offered by SDGs invites collaborative approaches. Partnerships built around SDGs are fundamental to scaling social impact, but they require novel processes and business model designs.

From a practical point of view, we see our model as a recurrent process that highlights four key lessons. First, firms must formulate strategies that include relevant SDG issues, implying that they move beyond the instrumental values of social initiatives to incorporate them deeply into their core mission. Second, firms must understand how proximate contexts (e.g., industry and community) can render their purposes more tangibly. Third, firms must acknowledge that social ills can only be solved through the collective efforts of multiple social actors. This implies thinking beyond traditional organizational boundaries and creating broader ecosystems. Finally, firms must rethink how they design their business models to account for their social impacts. In doing so, firms will develop new capabilities that support the broad strategies defined in the first stage, resulting in self-reinforcing dynamics that contribute to SDG achievement.

The model presented here is not comprehensive. Other important steps, such as measuring SDG achievement and efficacy, may be required to calibrate a firm's progress. Moreover, the model is not bulletproof, and its adoption does not guarantee success. Hence, it is crucial to avoid the trap of simply list-checking steps to continue business as usual (Wright & Nyberg, 2017).

Admittedly, adopting SDGs is a transformational process that entails risk. The SDGs provide decision-makers with complex situations fraught with conflicts and risk amid grand challenges and new business imperatives. Reconciling the economic, social and environmental aspects requires the exchange of a priori preferences with these new dimensions (Hahn & Figge, 2011): a new mindset, significant innovation and associated gambles. Ultimately, a firm's ability to successfully navigate these risks will determine whether it can incorporate SDGs into its strategic agenda. Nonetheless, whenever a society demands that private firms internalize the social and environmental costs they generate, their most significant risk may be simple inaction (Slawinski et al., 2017), such as the reputational costs of merely symbolic SDG adoption (or SDG-washing).

DISCUSSION

Through an interpretive review, this article paper responds to the constant calls to make management research more useful in addressing the pressing problems of business and society and resonates with scholars advocating impact-focused approaches to management studies addressing societally important questions (Hinings & Greenwood, 2002). By connecting different stages of SDGs adoption with academic research, we translate scholarly work into practical advice for organizations to contribute to societal well-being.

As with all research, our review article suffers from limitations. The first relates to the scope of our review in terms of the journals and topics selected. Regarding journal selection, we recognize that we may have omitted relevant evidence from specialist journals by circumscribing our review to mainstream management journals. Papers not meeting our 1% cut-off criterion and those published in specialized journals are not unimportant or irrelevant. Instead, the selected papers included in this interpretive review should be seen as valid cross-sectional samplings of the rich and pertinent management literature. Future work should attempt to replicate our findings by including specialist journals or by expanding the 1% cut-off criterion. Moreover, management scholars have also produced several important monographs (Adler, 2014; Davis & White, 2015; Henderson, 2020; Kaplan, 2019) that point to the challenges and trade-offs regarding the adoption of SDGs. These contributions should be included in subsequent reviews.

Another limitation regards our focus on the macro-level steps of adopting SDGs, as it largely disregards the micro-level decision points that managers must face when undertaking SDG operations. There are idiosyncratic elements in each goal, as represented by the 169 different targets identified in the review. All of these may require unique solutions. The general four-step process model is the first step towards the meaningful adoption of SDGs; however, it does not represent a comprehensive process. Therefore, future research should study how specific processes, communication channels, incentive schemes, information systems, and transparent reporting can be incorporated.

Moreover, there will clearly be differences between the ambitions of large multinational firms (Montiel et al., 2021) and those of small and medium enterprises (Darnall et al., 2010) when implementing SDGs. Future research efforts should aim to illuminate these differences.

Third, although there are risks associated with the gaps between symbolism and substance regarding SDG adoption, we did not explore the specific effects these may have on reputation and financial performance. This is an appealing topic for future research, as some companies may avoid methodically pursuing SDGs by merely relabelling their own environmental and social aims using SDG terms (Howard-Grenville et al., 2019). For some firms, SDGs may simply function as a means to improving reputations rather than genuinely effecting a better society.

Another caveat is that we began our review of the business sustainability literature using 2010 materials. Notably, the UN did not approve the SDGs until 2015. Thus, almost half of the potentially related business sustainability literature (albeit in its early forms) may have been missed. Nevertheless, mainstream management science is well positioned to inform companies about how to implement and fulfill SDGs. Future research should study the specific actions, struggles, experiments, and modalities used by firms to achieve societal goals under the SDG umbrella.

CONCLUSION

If we accept the premise that 'the purpose of management is to serve human needs' and '[m]anagement's broad purpose today is the achievement of the UN's Sustainable Development Goals' (Davis, 2018), then management research must strengthen its link to that purpose by rethinking established theoretical concepts in ways that make our scholarship more useful to firms that aim to adopt SDG initiatives. We anticipate that building a general framework for SDG adoption will foster progress towards the 2030 agenda by giving managers the basis for a road map. The reward for achieving SDGs will be a better world for everyone—including businesses—allowing all to flourish as integral parts of more resilient and prosperous societies.

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ORCID

Pascual Berrone https://orcid.org/0000-0003-2515-3890

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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