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Social values and sustainable development in business education

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Abstract

Business education has been criticised for overlooking social values despite the critical role that social values play in promoting sustainable development (SD) and equipping future business leaders to tackle global challenges. Against this background, this paper examines the incorporation of social values and SD into business education. The study employs a mixed-methods approach including a bibliometric analysis of 637 publications and an analysis of 15 international case studies. The findings indicate significant progress in incorporating social values such as fairness, justice, accountability, and responsibility into business education. Nevertheless, there is still a significant amount of uncertainty regarding the integration of these values across institutions. The case studies, in particular, elucidate prevalent challenges, providing educators and policymakers with actionable insights. Ultimately, this study contributes to the development of business leaders who can promote positive social and environmental change by emphasizing the critical role of social values and SD in business education and providing evidence-based recommendations to improve their integration.

Keywords Social values, Sustainable development, Education for sustainable development, Business education, Business schools

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Introduction

Social values are the collective beliefs, attitudes, and conventions that shape individuals' behaviors and decisions within a society [91]. They are an essential component of social systems and significantly influence individual and collective behaviors [46]. They facilitate the regulation and organization of daily life, are transmitted between generations, and contribute to the formation of a collective identity and purpose [131]. Empirical researchers have identified correlations between social value and education, skill development, health and wellbeing, quality of life, community cohesion, and various other societal and cultural dimensions (e.g. [11, 95, 111, 127, 130]). Social values provide a normative moral imperative [130], although they fluctuate over time in reaction to society transformations and difficulties, influenced by elements such as religion, culture, education, and political and economic systems [49]. Figure 1 illustrates the aspects that influence the formation of social factors, which in turn are composed of shared values, norms, and attitudes. The figure illustrates the contributions of major clusters, including religion, culture, education, politics, and the economic system, which present distinct characteristics yet also interrelate, forming a complex system.

When discussing efforts to transform values for the sake of conservation, Manfredo and others note that "values define and bind groups, organisations, and societies; serve an adaptive role; and are typically stable across generations. When abrupt value changes occur, they are in response to substantial alterations in the social-ecological context" [86], p 772). The increasing emphasis on sustainable development (SD), or "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" [132], p. 43), has led to a greater focus on social responsibility and ethical business practices [67]. As [58], p. 481) notes, such a refocus compels us to balance "social, ecological and economic objectives… to sustain the integrity of the overall system". Studies have demonstrated the importance of SD in terms of access to education and healthcare, sustainable economic growth, equitable distribution of resources and wealth, infrastructure development, responsible consumption and production, poverty reduction and social inclusion, and cultural preservation and promotion [30, 61, 82, 122, 123, 129, 145].

Yet without significant changes to current approaches, the trajectory of climate change poses an existential threat to existing and future economic development and environmental sustainability. Here, social values play an important role in achieving SD; if we are to balance current responsibilities with obligations toward future generations as a society, we must fundamentally shift our values towards more sustainable and equitable production and consumption systems ([9, 30, 61, 79, 122, 123, 129]).

Within this context, higher education has been identified as a promising mechanism to shift social values towards SD [49, 83], and there is an increasing movement towards designing higher education with a social value lens [139, 142]. This movement builds on the momentum of a growing body of research in which scholars are proposing a shift of view(s) in education to encompass a

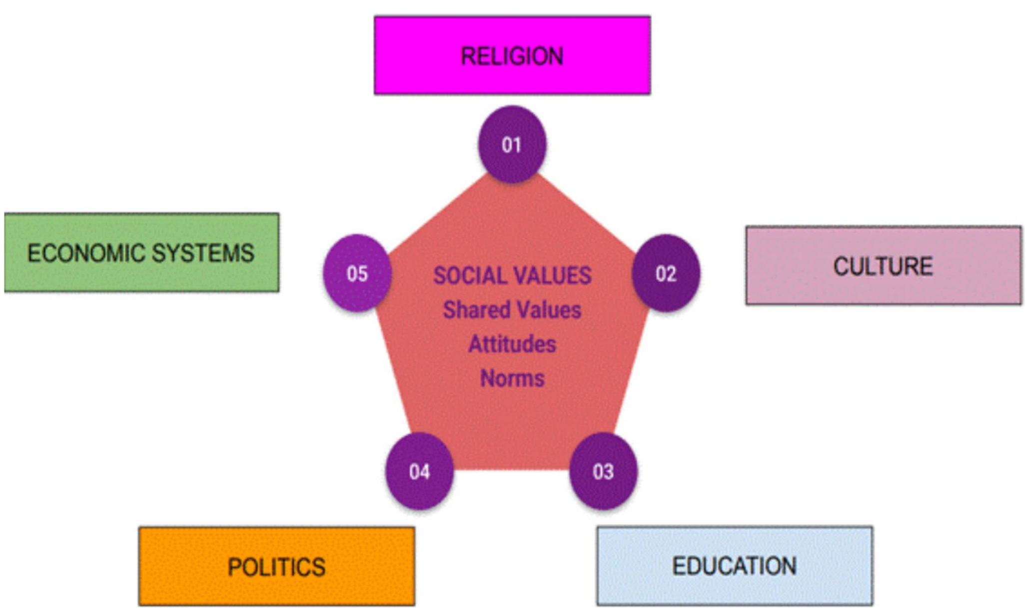

Fig. 1 Some of the factors impacting social values (Source: authors, considering the literature analysed)

broader understanding of value [11, 46, 49, 61, 85, 91, 95, 104, 111, 120, 127, 128, 143].

As one of the most widely studied areas globally, Business Schools have been recognised as agents for change and advocates for integrating social and environmental concerns into business practices to help address society's challenges. In their role as developing upcoming business leaders, "Business Schools must acknowledge the vast power that business leaders possess to shape and guide society" [61], p. 516). Here, business students "are coming into their professional lives at a moment when the needs have never been more stark." [65]. The need to change social values in business education is key to SD, especially through values which foreground the need to understand and integrate the perspectives of a broad range of actors in decision making and action taking [81]. As Hoffman notes, in order for business education to nudge society's social values to deal with societal challenges, it "requires that we take a normative stand on what kind of world we want and what kind of leaders we want to take us there" (2021, p. 517).

Emerging evidence highlights a variety of learning methods that develop SD learning for business students and graduates, especially experiential forms of learning [52]. However, despite recognition of the critical role of social values in promoting SD and developing methods to equip future business leaders to tackle global challenges within the curricula [41], business education is still frequently criticised for overlooking social principles [18, 51, 80, 101]. Here, studies identify the ongoing structures of Business Schools and their curricula which limit the transformational effects of education and replicating patterns of unsustainable thinking and practice particularly through disciplinary boundaries [62]. Moreover, while there is evidence which correlates SD learning with the social innovation tendency of a higher education institute, this evidence does not directly explore how social value and SD are related or how they mutually develop [41]. At the same time, however, contemporary scholarship also highlights the continued lack of evidence in highlighting practices and their transformatory impacts on wider cultural norms [140].

As such, this research examines the integration of social value in business education, how it connects to (or does not) SD, and offers recommendations for strengthening this connection. More specifically, it is guided by the following research questions: What social values should be incorporated into business education? Is it possible to observe an evolution in the incorporation of these values into the curriculum? What opportunities for improvement are observed?

This paper argues that integrating social values into business education is essential for sustainable development. Its importance resides in the fact that it demonstrates how fostering ethical responsibility and long-term thinking in future leaders creates businesses that benefit both society and the environment, moving beyond pure profit motives. The research gap it addresses is the lack of practical integration between teaching core business skills and instilling the social values necessary to achieve genuine, equitable, and long-term sustainable development, rather than treating it as a separate, peripheral concept. The novelty of the paper is based on its proposed framework for integrating social values as a core, pedagogical component across the entire business curriculum, moving beyond their treatment as a standalone topic to fundamentally reshape how future leaders are educated for sustainable development.

To achieve this aim, this paper is structured as follows. The next section examines the state of the art of social value and SD in a business education context. Following this, the methods section explains the main data collection and data analysis methods and techniques that were deployed to achieve the aim. Next, the results are presented and discussed against the literature. Finally, the theoretical and practical implications are outlined. The value of this study is it extends ESD theory by highlighting the role of social values not only as pedagogical content but as epistemic drivers of transformative learning. Our findings suggest that social values act as catalysts for sustainability competencies, fostering not only knowledge acquisition but moral engagement and long-term behavioral change.

Literature review

Social value and sustainable development in a business education context

There is a growing recognition among educators, policymakers, and business leaders of the importance of balancing economic, environmental, and social concerns in business decision-making. One example of this trend is the United Nations' Principles for Responsible Management Education [103], which seeks to advance corporate sustainability and social responsibility in business schools worldwide. With the recognition of the importance of corporate social responsibility, businesses are increasingly expected to address their impact on society and the environment. This trend has led to a shift in the focus of business education from purely profit-oriented approaches to more socially responsible and sustainable practices [51]. Work has begun to integrate social value and SD into business curricula [145].

SD is progressively being incorporated into long-established assumptions and frameworks of social values in business education, which promotes the development of rich, new, and diversified fields of study. Here, it is essential to equip leaders with the expertise and adaptable mindset required to drive change in the business world [51, 55]. Social value in education, on the other hand, is the beneficial influence that education may have on society when it works with different demographics [126]. Collaborating with different communities to create social value contributes to shared values, attitudes, and conventions that help people deal with issues associated with sustainability [19]. Business education has cultivated these shared sustainability values, attitudes, and norms via the SD Goals (SDGs), enhancing understanding of the SV inherent in collaboration across diverse stakeholders [36, 139, 140].

Business education that incorporates sustainability concepts has impacted students' sustainability norms and their willingness to pursue a sustainable future [12]. Furthermore, Negm [98] discovered that social values might affect students' sustainability norms, which subsequently prompts behaviors aimed at achieving sustainable futures. Cancela et al. [24] assert that green strategic alliances between practice and academia might shape green identities by promoting social value, hence enhancing awareness and comprehension of sustainability concerns. The authors pointed out that green identities can foster favorable views toward the transition to sustainable futures, and that green shared visions can exemplify sustainability norms. Bai et al. [14] also discovered that green strategic alliances facilitate transfer of knowledge, fostering new learning experiences and proactive behaviors that result in transformations via social value creation. So, collaboration between academia and practice to create social value is very important for reaching the objective of long-lasting futures.

There are many ways to include social value and SD in business education. These include creating new courses and programs, adding sustainability and social value ideas to existing courses, and making new learning opportunities [59] that allow students to use these ideas in real-life situations. Many business schools also encourage research and scholarship on social value and sustainable development (SD) and work with businesses to come up with ways to run their businesses that are good for the environment. This transdisciplinary approach provides an amalgamation of science and practice as a method for sustainability education through the synthesis of diverse knowledge forms and epistemologies [125].

For many years, scholarly writing has stressed the importance of business managers and entrepreneurs acting ethically and doing their jobs in an efficient manner that benefits society [5, 30, 74]. Simultaneously, social values and sustainable development principles should be integrated into business school courses to prepare future managers and entrepreneurs [92, 141]. Gregersen-Hermans [54] supports this idea and stresses how important it is to have a systemic and global view in business education.

Several programmes guide business schools to improve their curricula towards social values and SD. Chiang & Chen [30] highlight the importance of "*Education for Sustainable Development*" (ESD) and the *"Principles for Responsible Management Education"* (PRME) [135]. Baloyi and De Jongh [15] also mention the importance of the *"Principles for Education in Responsible Management"* in training new professionals, and [108] emphasise the Giving Voice to Values (GVV) programme to develop leaders guided by the concept of value.

For Sidiropoulos [120], the very definition of sustainability raises the question of what we mean by 'value'. According to the International Integrated Reporting Framework [64], organisations make use of six types of capital (financial, manufactured, human, intellectual, natural, and social and relational) and, through these means, create value for society. However, in many cases, the values associated with the mentioned capital can only be preserved or destroyed. Business schools can enable students to critically analyse how the organisation's business models can generate value for society.

Moosmayer et al. [92] argue that business education aligned with SD concepts demands a diversity of theories to provide students with the knowledge and abilities needed to deal with real-world problems. The plurality of theories necessarily involves valuing social aspects and ethical reflections. The authors suggest that authentic learning for responsible management education happens when students are exposed to learning situations involving complex problems and critical thinking. Kopnina [70] also presents a statement about critical thinking in its text, mentioning that business school curricula should lead students to develop this skill.

Inserting social values and principles of SD into business education is not a simple activity. Indeed, there are many barriers that need to be overcome [41, 74, 97, 107]. These can be categorised as organisational, technological, pedagogical and competence-related [117]. It has been suggested that some barriers may be overcome through the use of creativity, interaction with communities, partnerships, and collaborations [16]. It is also important to learn lessons from across the world (see, for example, [74]). This is important as business schools have historically encouraged a profit-first mentality [84]. Entrepreneurs, therefore, often see their role as being that of profit maximisation [92]. Training on sustainability for future entrepreneurs is, therefore, essential [75].

Sewchurran et al. [118] suggest that future managers and entrepreneurs should be trained on "processes and practices", including how to critically analyse problems while also considering the concept of value in their business. Meanwhile, Kopnina [71] argues that business courses should debate cultural positions and ideologies as a critical aspect of sustainability education. Stough et al. [124] highlight the importance of integrating ethics, responsibility, and sustainability (ERS) in the curricula of business courses. However, the improvements must be constantly debated and assessed. In this sense, the authors highlight the need for more methodologies, curriculum evaluations, and the development of internal curriculum strategies to address social values and sustainability in courses in the business area.

In a similar way, Gatti et al. [50] highlight the need to assess the contribution to learning when methods and techniques are used for the purpose described. In their paper, the authors analyse the effectiveness of a business game focused on sustainability and performed a study on two universities in Switzerland. The study's empirical results show positive cognitive and affective learning results, contributing to the development of students' critical thinking [50].

Real-life sustainability challenges can be incorporated into business education through experiential learning approaches [4, 13, 22]. Since a United Nations Educational, Scientific and Cultural Organization (UNESCO) report on learning for SD in 2017 was issued, much research has discussed the key sustainability competencies (KSC). The KSC facilitates a transformation of mindset to education for sustainability [109] that can help to provide teachers with the tools to develop a curriculum and work with real-world pedagogical approaches within a safe space for teaching and learning [89]. In a three-horizon approach [119], it is possible to first take small steps to apply the systems, strategic, futures, values, interpersonal, intrapersonal, and implementation thinking competencies into a course, curriculum, or programme. The next step is to provide teachers with a safe space to create interventions that can transform the educational systems they are working within. The third step is for teachers to begin to work as facilitators for the student's learning experience towards the social values that lead towards sustainability in the future.

Figueiró and Raufflet [44] found that few articles explicitly described projects designed to promote sustainability in business and management education. Meanwhile, in a bibliometric review of sustainability in business curricula, Cullen [32] calls for more research in this area. While Fang & O'Toole [42] affirm that business schools have increased their understanding of concepts associated with SD for business management in the last few years, only some have effectively adopted them in their curricula. Sustainability and social value in business education also ask teachers to align their values, attitudes, and norms with the sustainability perspective, which means teachers need to understand how to implement sustainability and social value in business education.

In this article, we build on previous research in this area and draw clear links between social value and sustainability education in a business education context. To support this integration, we present a conceptual model in Fig. 2 that maps how social values and sustainable development concepts are embedded in pedagogical and institutional practices. This framework synthesizes the key insights from our bibliometric analysis and case study evidence, illustrating the dynamic relationships among curriculum design, student engagement, partnerships, and institutional values. We propose this as a novel conceptual framework of Values-Driven Sustainability Pedagogy, derived from both empirical insights and existing theoretical discourse.

This framework does more than teach facts about environmental issues. It relies on two main foundations: insights from real-world classroom research and established education theories. This approach actively includes important human values such as justice, responsibility, and care in the learning process. The goal is to empower students not just with knowledge but also with the moral compass and motivation to be proactive agents for a sustainable and fair future. This shifts education from merely passing on information to emphasizing values-based transformation.

The framework integrates themes from Education for Sustainable Development (ESD) and Responsible Management Education (RME), offering a structured approach to embedding social values into business education that can inform future research and institutional design.

The case studies provide practical illustrations of how the conceptual framework of social values and sustainable development (SD) can be operationalized in business education [115, 142]).

They transform the abstract relationship between social values and SD into concrete teaching methods and business school courses. By examining these educational efforts, it can be highlighted how key values like equity and responsibility can be incorporated to help shape future business leaders. The cases confirm the framework's usefulness and establish a connection from theory to practical actions for including sustainability in business education. Taken together, they highlight that integration does not happen through a single mechanism but rather through a constellation of approaches that emphasise context, interactivity, partnerships, and resources [34].

Contextual grounding is essential. Recent studies demonstrate that starting with students' own frames

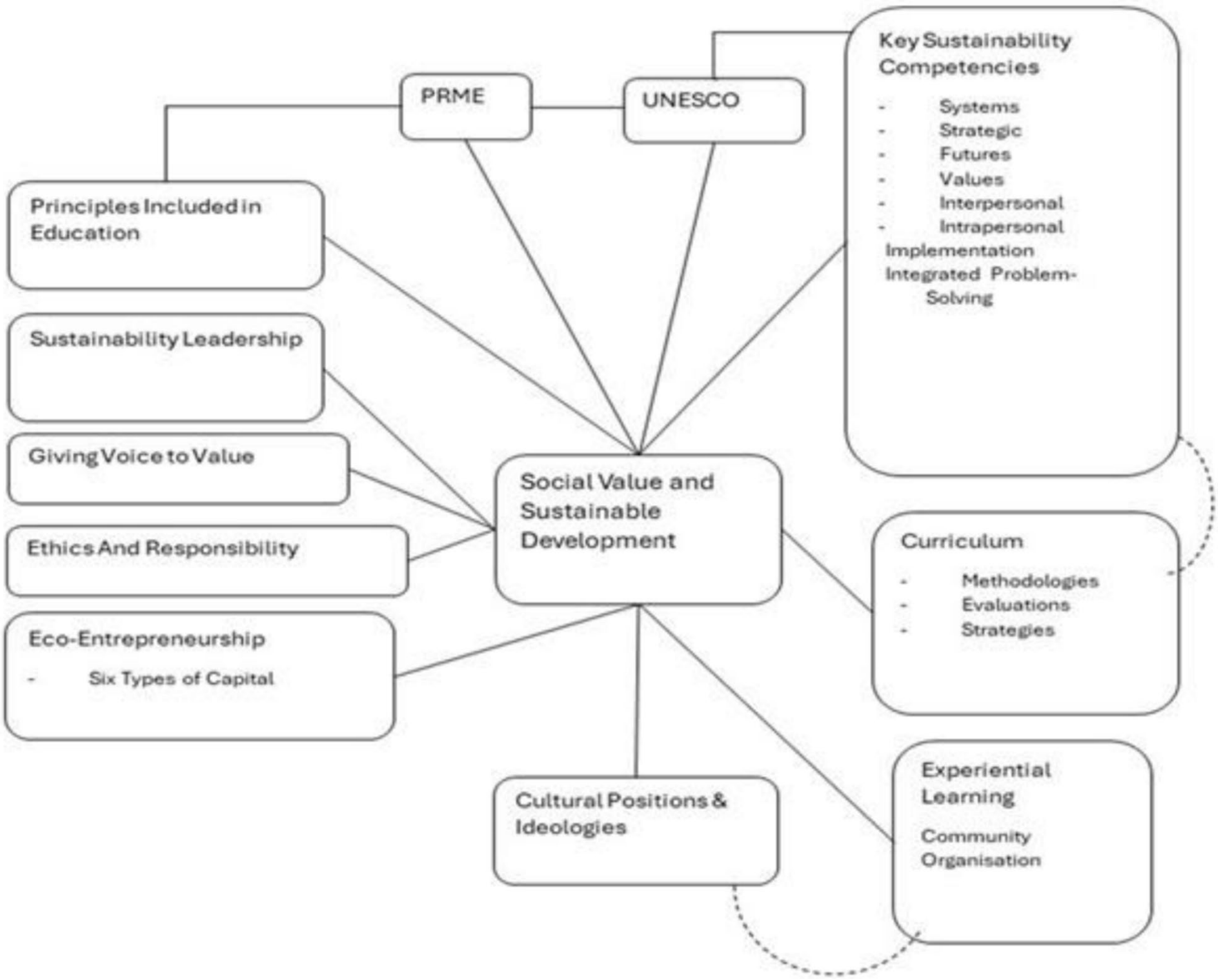

Fig. 2 A map of social values and SD concepts in business education. (Source: created by authors based on references mentioned)

of reference fosters reflexivity and deeper engagement [44, 60]. By situating sustainability content in relation to students lived realities, whether through explorations of poverty alleviation or reflections on personal values, educators can create resonant learning experiences that prompt shifts in mindsets, attitudes and competencies. A second thread running through the cases is the emphasis on interactivity. Digital tools and experiential methods, from simulation-based learning to gamification and emerging technologies, illustrate how interactive pedagogies can empower students as active participants rather than passive recipients of knowledge creation [28], Krammar, 2022; [90]. These methods not only enhance engagement but also mirror the complexity and systems thinking required to address sustainability challenges living in a social-ecological world.

Partnerships emerge as another expressing theme. Many case studies illustrate that when universities collaborate with businesses, communities, and wider networks, they open new spaces for co-creation of knowledge and practice. Whether through service-learning initiatives [88], pragmatic inquiry, or structured co-curricular activities, these collaborations demonstrate how values-driven education is strengthened by direct exposure to social-ecological challenges and the perspectives of diverse stakeholders that are interconnected in community [115].

Finally, the case studies underline the reality that embedding social values and SD requires sustained resourcing and institutional support [142]. Examples of CSR curricula and organisational change processes highlight that without appropriate investment, staff capacity, and structural backing, efforts risk remaining piecemeal. Systemic change depends not only on innovative pedagogy but also on governance and leadership that prioritise sustainability across the institution [142]. Viewed collectively, these cases affirm that integrating social values into business education is multi-layered: it begins with student reflexivity, is deepened through interactive methods, is enriched through partnerships, and is sustained through institutional support. Together, they show how the proposed framework can move from abstraction into lived educational practice, equipping future leaders to enact responsible, ethical, and sustainable forms of business [34].

Methods

This study investigates the relationships between social values and sustainable development in business education. Social values are essential for advancing sustainable development and equipping future corporate leaders to tackle global challenges successfully. By addressing this objective, this research enhances theoretical and practical understanding of how to foster awareness, competencies, and abilities among business students about sustainability and social values. This study also keeps stakeholders up to date on new research in the areas of social values and SD by showing the main contributors in the field, summarizing the conclusions of relevant literature, and pointing out new issues that need more research [146].

To achieve the study's objective, we employ a bibliometric analysis of the literature utilizing the co-occurrence of terms methodology [136, 137] alongside a series of case studies meticulously identified through a comprehensive literature review [117]. The integration of these two methodologies enabled the research to elucidate how the incorporation of social values into business education might facilitate the development of responsible and ethical leaders capable of generating beneficial social and environmental impacts through their business activities [106].

Bibliometric analysis

Bibliometric analysis is a quantitative method utilized by scholars to comprehend the research tracks within a field. This technique is employed for performance analysis and scientific mapping, typically utilizing the co-occurrence of terms method [136, 137]. The result of the co-occurrence analysis often manifests as a spatial depiction of two or more research domains chosen by the authors. To accomplish the objectives of this study, a search string including three primary dimensions was utilized: (1) sustainable development (SD), (2) business education, and (3) social values, either in conjunction or separately. The authors utilized the Web of Science (WOS) database to determine the document sample for subsequent analysis [37]. The Web of Science (WOS) database was chosen for many important reasons to follow the previous study [17, 82]. Hota et al., [63] noted in their research that WOS is esteemed for its superior indexing of peer-reviewed literature across many disciplines, particularly in the social sciences, education, and business studies, in contrast to Scopus. WOS has more historical depth and a stricter approach for choosing journals than Scopus. This ensures that only important and reliable sources are included. For a full bibliometric analysis, it was very important to use the analytical tools built within WOS, such as citation reports, co-authorship networks, and keyword co-occurrence maps. Still, because we were more interested in academic influence and quality control, we thought WOS was a better fit for this study than Scopus.

The Scopus database returned fewer results than WOS, so we utilised WOS results for most extensive coverage, and we identified that there were no omissions from using WOS alone. Finally, we selected WOS as the major database for employing quantitative method of bibliometric first defined by Pritchard [108] for its comprehensive coverage of peer-reviewed publications in management, business, and education. To build upon the foundations, avoid database bias and ensure completeness, results were cross-checked with Scopus, Zopic & Čater [147] and Donthu et al., [37] both highly regarded for social science bibliometric analysis. Our contribution is essentially twofold: first, we provide the debut comprehensive assessment of the Social Business Education-SDG literature to reveal its basic biases and structural constraints. Secondly, we delineate a fundamental challenge in the field: a "measurement-impact gap," which refers to the disjunction between research centred on the social values of sustainable business education and a comparative synthesis matrix of case studies that meticulously assess the ultimate developmental outcomes. By focusing our research on this primary issue, we provide a critical synthesis that transcends mere data presentation, so contributing a novel paradigm for comprehending the topic (Table 1).

Our inclusion criteria were the peer-reviewed journal articles, conference papers, and book chapters published between 2000 and 2025, written in English, and addressing social values, sustainability, or SDGs in business/management education. Detailed exclusion criteria include editorials, reviews, unrelated fields, and duplicate or incomplete entries. To conduct a search, we focused on titles, abstracts, and keywords. To analyse the data,

Table 1 Inclusion & exclusion criteria for the bibliometric analysis

Inclusion criteria	Exclusion criteria
Key Terms Criteria Peer Reviewed Journals	Non-Peer Reviewed Literature Scope Mismatch Duplicates

we used VOS viewer and Biblioshiny (R) to clean and analyse the data for co-authorship, co-occurrence, and citation mapping. These adjustments improve the bibliometric component's methodological rigor and address the reviewer's concerns about clarity, rationale, and reproducibility.

Table 2 summarises the terms adopted, and the number of documents found in each one of the search strings. Since adopting the combination of terms related to business education, SD, and social values did not return a substantial number of documents (indicating an emergent field), the authors opted to broaden the search string to gather a bigger picture of what researchers are studying in the field. Therefore, the bibliometric analysis followed with a sample of 637 peer-reviewed documents.

Database: Web of Science

Bibliometric analysis, as a method, has been used in various disciplines, areas, and subject topics to investigate trends, identify patterns, optimise resources, and make decisions [17, 37], but it is relatively novel within the business management field (ibid.). Bibliometrics is an open-source tool that is programmed in R and focuses on domain (sources, authors, and documents) and knowledge structures (conceptual, intellectual, and social) [7]. The Web of Science dataset of 637 records was uploaded into the command-based software Bibliometrics package in R, and various scientific mapping analyses were undertaken. VOS viewer software (version 1.6.19, windows) was used as a graphic display tool.

To ensure transparency in our bibliometric analysis, the search strings were carefully designed around three core dimensions—sustainable development, business education, and social values—to capture both the intersections and independent evolutions of these themes. The rationale for selecting these keywords was based on their centrality in the literature and their alignment with the study's research questions. We opted for the Web of Science (WoS) as the primary database rather than Scopus for three reasons: (1) WoS provides superior historical depth, ensuring coverage of earlier foundational works that remain influential in sustainability and education research; (2) its stricter journal inclusion criteria guarantee higher reliability and quality control of the indexed materials; and (3) the analytical tools embedded within WoS (such as citation reports, co-authorship mapping, and keyword co-occurrence analysis) offered the necessary robustness to conduct advanced bibliometric techniques, including co-occurrence and coupling analyses. While Scopus also indexes a wide range of journals, preliminary tests showed that it yielded fewer relevant documents, and no significant studies were omitted when using WoS alone. For this reason, and in line with prior bibliometric studies in the field (e.g., [17, 63]), WoS was selected as the most appropriate database for this study.

In sum, the authors adopted four analyses in this research: country scientific production, co-occurrence network analysis, cluster coupling analysis, and thematic mapping (ibid). The country's scientific production analysis includes the nationality of all authors in the dataset, with the colour intensity of the map being proportional to the number of publications (ibid). The co-occurrence network analysis shows vertices (nodes) and their connections (edges), with nodes and edge size denoting importance or level of co-occurrences; distance from the centre (centrality versus fairness) denotes the level of importance; and colour clustering identifies community detection (ibid). The clustering by coupling analysis plots the community detection on a bi-dimensional map, where the x-axis measures cluster centrality and the y-axis measures cluster impact (ibid). Finally, thematic mapping analysis determines the hot topics that are developed for the conceptual framework of the domain (higher values of centrality and density); basic topics significant for the domain (higher values of centrality and lower values of density); peripheral topics not fully developed or marginally of interest (lower values of centrality and density); and niche topics strongly developed but marginal for the domain (lower value of centrality and higher values of density) [8].

Case study analysis

A literature review was carried out to conduct the case study analysis from secondary data available online and in studies published in peer-reviewed journals, where relevant documents were identified and screened based on the study objectives. The case study method enables researchers to understand the phenomenon in depth

Table 2 Search strings for the bibliometric analysis

Search strings	Number of documents
("social value" or "social values") and ("business education" or "management education" or "management learning") and ("SDG" or "Sustainable Development Goals" or "sustainability")	3
("business education" or "management education" or "management learning") and ("SDGs" or "Sustainable Development Goals")	82
("social value" or "social values") and ("education" or "learning")	637

while strengthening the analytical conclusions of the study [144]. The final sample included 15 case studies based on their relevance in providing practical and real examples illustrating the incorporation of social values in SD in business education programmes. The methods used in this study are complementary since they allow for the identification of trends in the administration of business schools. Using these quantitative and qualitative approaches, the paper presents the current status of social values and SD in business education and identifies opportunities for improvement/best practices.

Results and discussion

Bibliometrics

The bibliometric analysis provided various findings. The first is that the results show growth over the last decade (from 22 articles in 2012 to 115 by 2022), with coverage across the world involving countries in America, Europe, Asia, and Oceania, whereas central Africa is not well represented (Fig. 3).

This increase in interest of scholars in the field can be considered a consequence of several initiatives regarding the implementation of the UN SDGs in business schools, such as the Principles for Responsible Management Education [133] and the need to foster responsible management education [1, 38]. The PRME business schools are expected to create social value for all stakeholders connected to the institution by increasing the SD profile of business schools around the world, as well as making business schools more capable of dealing with sustainable challenges, and therefore, helping society to deal with the sustainable challenges through the principles of purpose, methods, research, partnership, and dialogue. These principles are tackled in a direct and indirect way in the literature, as further explored in the three bibliometric techniques conducted in this study: co-occurrence, coupling, and thematic analysis.

In the *co-occurrence network analysis*, despite the broad search terms, it highlighted that "education", "management", and "model" were the most common keywords appearing within the network. Still, they were visualised as being from different communities (i.e., different display colours). Within this network, "social value" is a relatively minor part, linked to each of the three main keywords mentioned above and commonly co-occurring often with expectations, information, policy, and communications [7], as seen in Fig. 4. This reflects the strategic nature of social values [102].

In *clustering by coupling analysis*, three clusters demonstrated the most central and impactful relationships in the literature network. The most impactful in the network was "social value, expectations, and information", followed by "management, social values, and valuation"; and then "management, knowledge, and students". As keywords, "social value" and "social values" belong to distinct clusters within the literature network. Figure 5 shows the clustering of themes by using a coupling analysis.

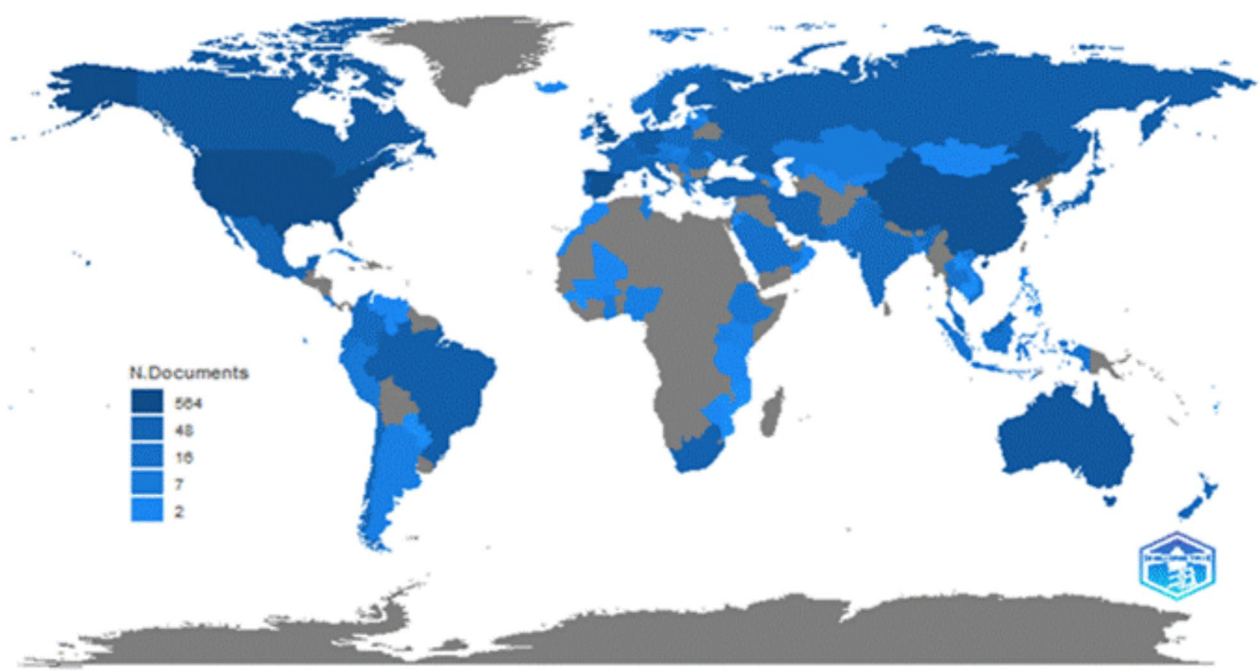

Fig. 3 Distribution of the countries from where documents were analysed

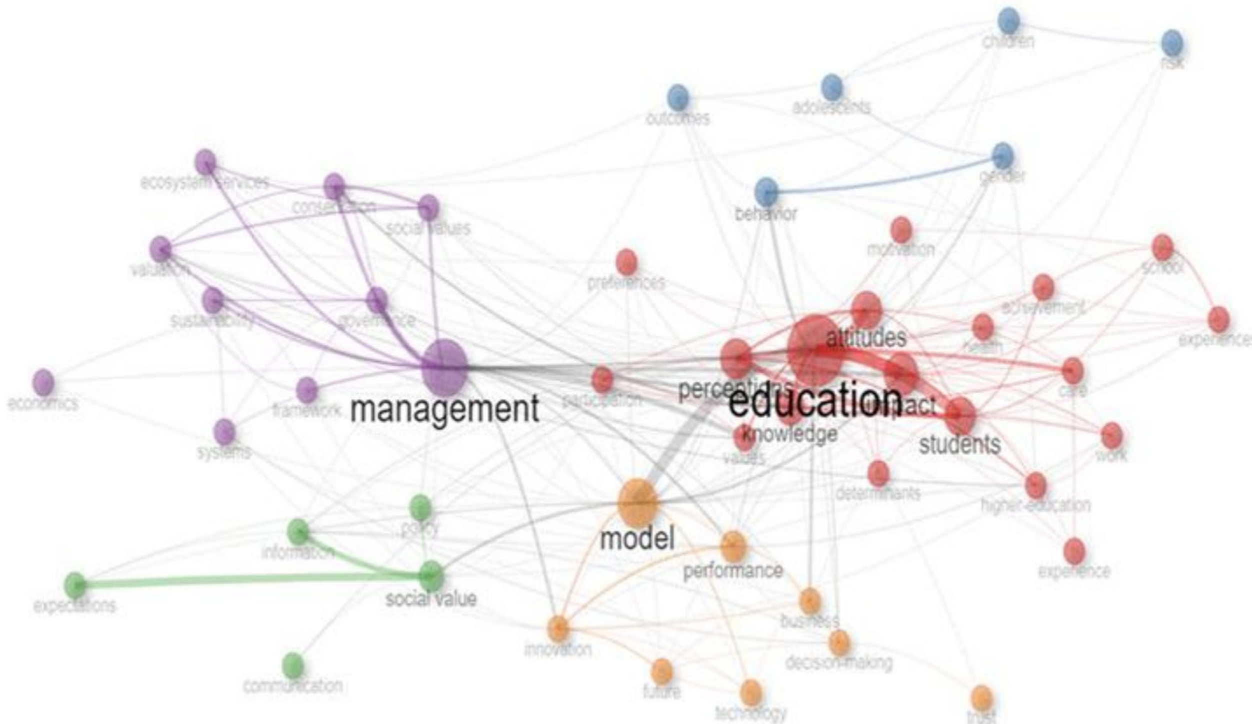

Fig. 4 Co-occurrence network analysis

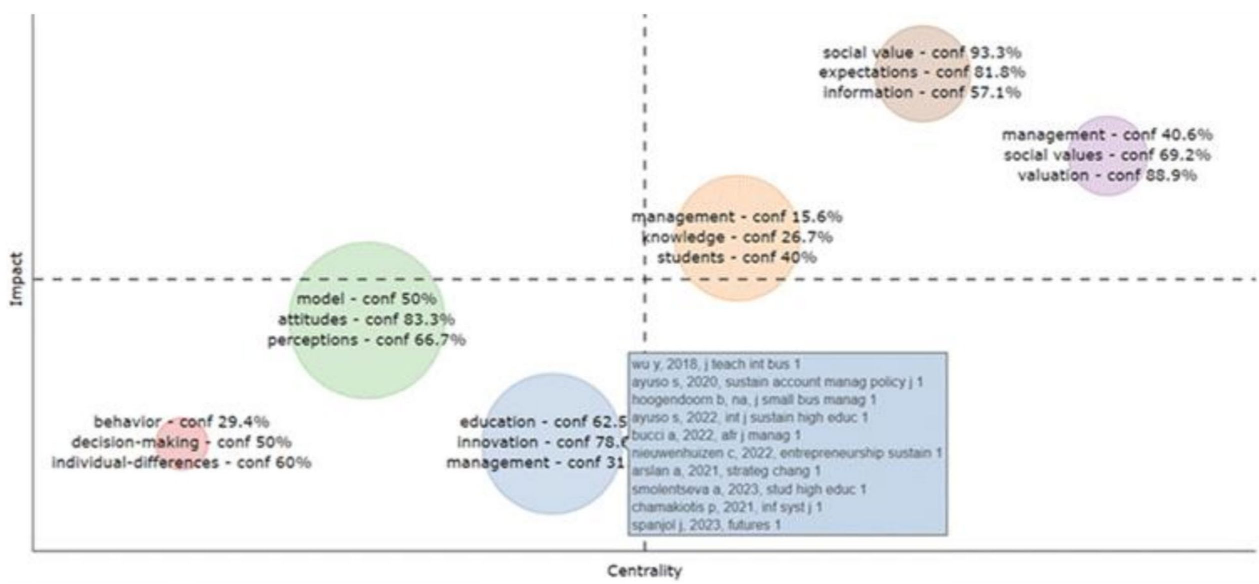

Fig. 5 Clustering by coupling analysis

In the *thematic mapping analysis*, seven clusters were identified. Here, "social value" and "social values" appear as similarly sized niche themes, which means that although they are developed as a cluster of keywords, they are both localised and, as such, are not emerging, declining, or yet acting as directing other themes within the network. The "education, impact, attitudes" cluster forms the largest established set of keywords (motor themes) within the literature network. This location in the thematic mapping analysis, therefore, suggests that “social values”, as developed through education, can be a potential driver for SD learning (in line with the work of Bravo et al. [20]. Figure 6 shows the thematic mapping analysis.

The combined results from the co-occurrence, thematic, and coupling analysis evidence that the discussion of social values is in its initial stages, suggesting that the field is currently in state of the art. This could be, for example, because of the broad aspect of the term, since there could be a myriad of ways that business schools could contribute to tackling sustainable challenges.

In this context, the co-occurrence analysis indicates the need for innovation in the business school's education models, where the university needs to be considered as an open system, constantly interacting with society and understanding its communities' several sustainable challenges [35] that can happen in the local, national, and international scales. Therefore, as universities become open to the community and understand the several social challenges, they could address sustainability in their core systems, such as management education [1], in order to guarantee that students will be properly educated to become sustainable leaders in the future [38].

The thematic mapping and clustering by coupling analysis, in turn, are complementary and indicate both the discussion of the importance of why business schools should engage in responsible management education [33, 56, 93] and how they can create and promote social values through their several initiatives and practices [1, 72, 73], which could also be evidenced by several business schools sharing information on progress reports [134].

In this perspective, business schools embrace responsible management education also as a way to work in accordance with social values and contribute to establishing a social order in society through, for example, implementing sustainability into curricula, research and publications, collaboration and partnerships, student engagement, campus operations and practices, engaging stakeholders, and advocacy and thought leadership [76, 114].

Curriculum integration becomes relevant since PRME business schools are expected to adapt and revise their curricula, making them adherent to the Sustainable Development Goals. From this perspective, sustainability-oriented business schools are continuously adding themes that could increase their students' knowledge of social values, such as corporate social responsibility, the SDGs and social entrepreneurship, and social innovation. By working with sustainability-related themes, business schools can not only educate students about social values but also develop skills and knowledge among students (future leaders) so that they can make decisions in their organisations based on social values [83, 120]. Research, in turn, is another dimension for business schools that aims to implement social values into their core systems as well as deliver value to society. By establishing research lines/strands and encouraging researchers to adopt responsible management and social values, business schools can further contribute to the main societal

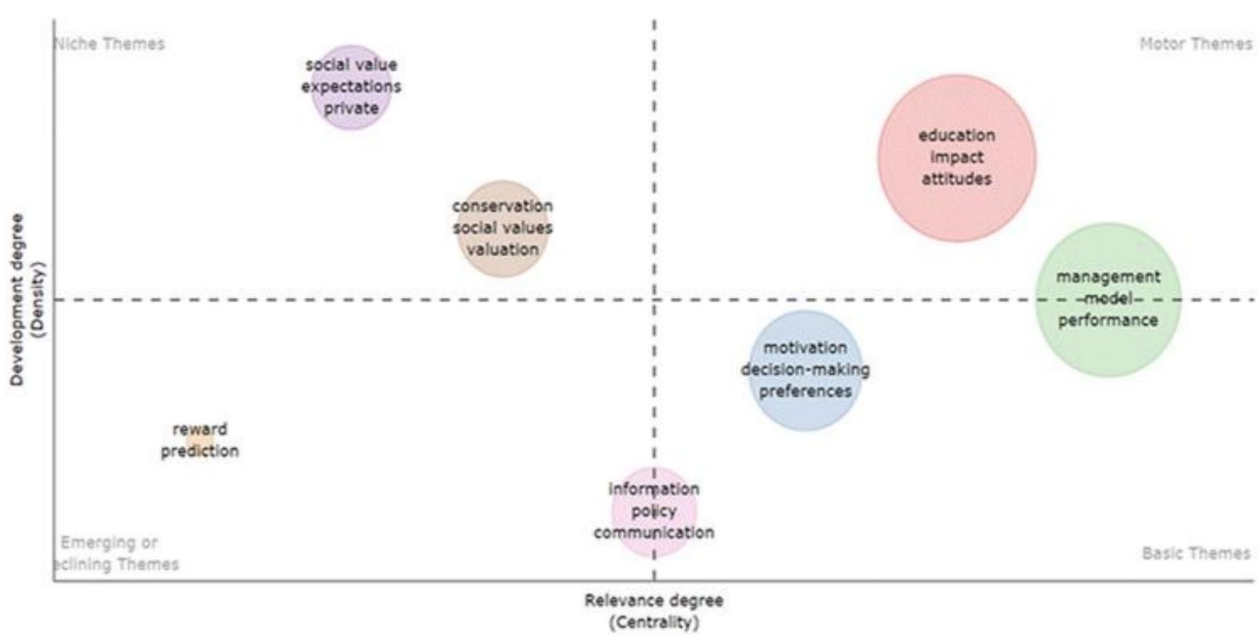

Fig. 6 Thematic mapping analysis

challenges and contribute to sustainable business strategies and practices [1].

Another relevant aspect reported by the literature is the importance of establishing collaboration and partnerships. For example, business schools could collaborate with several types of organisations and stakeholders, such as non-governmental organisations, enterprises, and governments. This initiative of connecting business education with other stakeholders could assist societies in achieving social values and social progress [6, 69], help societies promote positive externalities, and foster collaborative processes to address social value issues collectively.

In addition, social values can be created not only from a top-down perspective in the sense of what the institution can provide students but also from a bottom-up perspective in terms of student engagement in social value initiatives. This could go, for example, beyond formal learning, where business schools could recognise the importance of the informal and non-formal learning aspects that students can engage with in order to increase their awareness of the challenges related to the SDGs [23, 77]. This could take the form of community service, volunteer programmes, and social entrepreneurship projects and activities, encouraging students to understand the importance of social values according to real-world settings, such as dealing with the communities' sustainable challenges and civic engagement [3, 53]

Case studies

This analysis encompasses fifteen case studies presented in Tables 3, 4, 5, 6, 7. These studies are sourced from various regions worldwide, such as North America, Europe, the Middle East, Southeast Asia, and Australia. The case studies reveal valuable insights, which are categorised into four key themes: context, interactivity, partnerships, and resourcing. We present these themes in Table 2 and then discuss each theme in more detail in the following sections.

Context

Voola et al. [138] and Nagpal et al. [96] emphasise the significance of understanding students' frame of reference regarding sustainability and their learning. Recently, Ryder and Downs [113] highlighted the central focus of 'Orientation' in reflective practice. Understanding the students' frame of reference helps to develop resonating content that enhances engagement. Aligning activities with student preferences increases success rates [39], improves engagement, and yields positive outcomes [43]. Content, resources, and delivery should all reflect the Sustainable Development Goals (SDGs) in a relatable manner. Refer to Table 2 for more information on the Context of Learning Through Student Reflexivity.

In Table 4: Case examples that support the context and value of students' learning through student reflexive practice.

Interactivity

In addition to considering the students' individual learning context, the learning environment itself plays a crucial role in ESD. Digital pedagogies have seen significant growth [99], with Sierra [121] and Szu-Wei Chen et al. [29] highlighting the role of digital technology in fostering student engagement. Savelyeve and Park [116] propose Blockchain technology for sustainable education.

Introducing sustainability into management education poses pedagogical challenges [44], requiring a more transformative learning approach [110]. Gamification offers interactivity to develop competencies and enhance engagement [87]. See Table 4 for examples of interactivity used in higher education.

Digital tools enable students to explore sustainability issues in society, the economy, and the environment, catering to 'digital natives' [25], p. 798). As digital technologies mature, their prevalence in higher education will likely increase. Academic upskilling is essential to meet student expectations and alleviate digital fear [68] through proper training and support.

Table 5: Case examples that support the value of interactivity in enabling student engagement and learning in HE.

Partnerships

It is perhaps not surprising that partnerships are an important aspect of social values and SD in business education. Pocol et al. [105] highlight the implications of strengthening the relationship between universities and businesses for knowledge co-creation.

The importance of co-creation is highlighted by Muff et al. [94], who suggest that collaboration between different actors and different realities provides a meaningful basis for transformative education. Partnerships between HE and business can, therefore, enhance the students' critical perspective around sustainability and the wider context of industry and society [45].

These partnerships can support the development of experiential learning practices, such as those suggested by Fornes [47], Ngui et al. [100] and Brower [21] – all of which feed into the wider discourse around 'pragmatic inquiry' highlighted by Kelley and Nahser [66], as well as the role of the co-curriculum in developing graduates with a sustainable mindset [112]. Partnerships can also extend beyond businesses to the wider community, with initiatives such as transition towns and food

Table 3 Comparative synthesis matrix: case studies on social values and SD in business education

Case Study	Region	Pedagogical Innovation Type	Key Social Value Focus	SD/ESD Theme	Partnership Involvement	Key Insight / Unique Feature
Nagpal et al. [96]	Australia	Active/Experiential learning	Student values, reflexivity	SDG 4.7 (Education)	University-only	Learning begins with understanding student values
Voola et al. [138]	Australia	Transformational learning	Critical reflection	Poverty alleviation (SDG 1)	University-community	Challenges student frames of reference
Hays et al. [57]	Middle East (Dubai)	Sustainable process paradigm	Engagement, social capital	PRME integration	University-business	New conceptual sustainability model
Sierra [121]	Not specified (Global)	Simulation-based learning	Interdisciplinary thinking	Systems view	Academic	Economic and social systems interconnection
Chen et al. [29]	Taiwan	Digital gamification	Motivation, attention	Energy conservation (SDG 7)	University-only	Gamification improves memorization & engagement
Savelyeva & Park [116]	South Korea/Global South	Blockchain in education	Inclusion, decentralization	SDG access & innovation	Educational commons	Innovation in marginalised community engagement
Leal Filho et al. [78]	Global	Networked academic partnership	Collaboration, research ethics	Multi-SDG support	Multi-university	Strengthening inter-university collaboration
Pocol et al. [105]	Europe (France)	Co-creation in curriculum	Knowledge adaptation	Labour market readiness	University-business	Adapts curriculum to socio-economic needs
Fornes [47]	Latin America/Asia	MBA/ERS integration	Ethical motivation	ERS in business education	Accreditation/PRME	Leverages global ERS values in emerging markets
Ngui et al. [100]	Malaysia	Academic service-learning	Community awareness	Social innovation	University-community	Students reflect on lived community needs
Brower [21]	US/Global South	Experiential service-learning	Equity, engagement	SDG in practice	University-community	Breaking from normative classrooms to community
Kelley & Nahser [66]	US	Pragmatic inquiry	Critical, values-based thinking	Responsible management	University-only	Step-by-step leadership mindset formation
Rusinko [112]	US	Co-curricular integration	Reflective practice	Curriculum development	University	Matrix approach to SD integration
Chirieleison [31]	Italy	Institutional CSR curriculum	Inclusion, support	CSR/SDG integration	University	Highlights gaps in CSR resourcing
Fukukawa et al. [48]	UK	Organizational change model	Ethics, institutional change	ESD systems change	University	Highlights structural support for ESD

rescue schemes providing positive outcomes for both HE institutions and the community groups involved [2]. In Table 6: Case examples that support partnerships for social values and SD.

Resourcing

Naturally, obtaining results would not be possible without suitable resourcing. As teaching-active researchers ourselves, we have all experienced the challenges facing business schools across the globe, with ever-increasing demands on staff time such that sustainability can feel like something that it would be 'nice to do if we got the time'. As Chirieleison [31] notes: Corporate Social Responsibility (CSR) education is insufficiently resourced, and our own anecdotal experience would suggest this is still the case (See Table 6 – Cases Demonstrating the Need for Resources to Enable SD). Certainly, there are both supply-side and demand-side issues with implementing social values and SD in business education. There are also financial constraints that impede staff engagement [26]. One thing the literature would seem to agree on is that the adoption and implementation of these practices need sustained support from business school management to give staff the time and freedom to update course materials and develop their courses as needed.

Table 4 The Value of Context in Learning Through Student Reflexivity

Case Study Title (3)	Short Description	Implications	Reference
Graduate Competencies and Disposition for Sustainable Development: The Nexus of Curriculum and Pedagogy in Business Education	An Australian case study of experiential learning based on active learning that espouses social value for sustainability	- Developing competencies for sustainability requires understanding students' values before building problem-solving abilities and behavioural change	Nagpal et al. [96]
Transformational Learning Approach to Embedding UN Sustainable Development Goal 1: No Poverty, in Business Curricula	Examines transformational learning via critical reflection in a master's course on 'Poverty Alleviation and Profitability'. Studies the impact on learners exploring how for-profit businesses can alleviate poverty	- The importance of questioning students' existing beliefs and values ("frames of reference") - Combining social values with SDGs enables students to align new practices with social values	Voola et al., [138]
Lessons in Sustainable Process Paradigm: A Case Study from Dubai	Explores the implementation of PRME through the Sustainable Process Paradigm (SPP) using engagement and social capital	- Contributes to sustainable learning and education theory - Offers a new way of thinking about sustainability and its global implementation	Hays et al. [57]

Table 5 Interactivity Case Examples in Higher Education (HE)

Case Study Title (3)	Short Description	Implications	Reference
The Importance of Simulation in Teaching and Learning Economics: The Students' Perspective	Aims to advance interdisciplinary education methods for SD by addressing the relationship between economic sectors, social actors, and countries	- Demonstrates the merits of using simulations for teaching and learning economics	Sierra [121]
Digital Games for Learning Energy Conservation: A Study of Impacts on Motivation, Attention, and Learning Outcomes	Examines the impact of fact-based question-and-answer games on learning about energy conservation	- Participants who played digital games showed better learning outcomes - Colourful game characters and interactive effects may improve short-term memorisation of knowledge	Chen et al. [29]
Blockchain Technology for Sustainable Education	Proposes leveraging education in blockchain to advance UN SDGs for social inclusion in marginalised communities of teachers and learners	- Conceptualises knowledge transformation for sustainable education through blockchain-supported educational commons - Informs educational practitioners and innovation policy makers interested in blockchain applications - Envisions a more sustainable transformation in educational practices	Savelyeva & Park [116]

Table 6 Partnerships Enabling Social Values and Sustainability Case Examples

Case Study Title (7)	Short Description	Implications	Reference
The Inter-University Sustainable Development Research Programme (IUSDRP)	Establishes a network linking academic stakeholders interested in SD research	Calls for better communication among researchers and cooperation for joint works	Leal Filho et al. [78]
Knowledge Co-creation and Sustainable Education in the Labor Market-Driven University–Business Environment	Identifies francophone socio-economic organisations willing to co-create knowledge with universities to adapt academic curriculum, implement SDG principles, and ensure sustainable education	- Strengthens the university-business environment partnership - Improves knowledge co-creation and sustainable education - Identifies solutions within university governance	Pocol et al. [105]
Ethics, Responsibility, and Sustainability in MBAs. Understanding the Motivations for the Incorporation of ERS in Less Traditional Markets	Utilises case studies and interviews to understand motivations for incorporating Ethics, Responsibility, and Sustainability (ERS) in management education	- Emphasises the importance of first-hand experience and real-world exposure.—Suggests using accreditation processes/PRME memberships to implement changes for a stronger ERS mindset/skills toolkit in graduates	Fornes [47]
Integrating Community Engagement with Management Education: A Case Study of ENT30014 Social Innovation Internship	Analyses self-reported logbooks from students engaged in academic service-learning in a foreign university branch campus in Malaysia	- Supports service-learning as a model for university-community engagement - Calls for a sustainable community partnership model	Ngui et al. [100]
Sustainable Development Through Service Learning: A Pedagogical Framework and Case Example in a Third World Context	Explores a case where students engage in experiential service-learning in a third-world country	- Advocates breaking away from normative business classes for service-learning - Emphasises the importance of experiential learning and community connection	Brower [21]
Developing Sustainable Strategies: Foundations, Methods, and Pedagogy	Uses Pragmatic Inquiry to prepare students for responsible management and sustainable strategies	- 'Pragmatic Inquiry' fosters the mindset for sustainable value creation - Internal conditions for responsible management are developed through specific steps	Kelley & Nahser [66]
Integrating Sustainability in Management and Business Education: A Matrix Approach	Presents a decision-making matrix for integrating sustainability in management and business education	- Co-curriculum importance in addition to the curriculum for sustainability integration	Rusinko [112]

Table 7 Cases Demonstrating the Need for Resources to Enable SD

Case Study Title (2)	Short Description	Implications	Reference
CSR Education in Italian Economics Departments: An Exploratory Study	Analyses CSR education in Italian economics departments using quantitative and qualitative methodologies. Examines the educational offer and demand from undergraduate students	- CSR education is insufficiently mainstreamed with limited resources and institutional support - Professors have limited experience in CSR - Highlights different international approaches to integrating CSR	Chirieleison [31]
Sustainable Change Education for Sustainable Development in the Business School	Explores how barriers to ESD implementation are addressed through organisational change as a 'sustainable' process	- Emphasises the importance of 'academic integrity' in enabling and sustaining the integration of ESD - Has implications for policymakers, faculty, and business school managers involved in delivering ESD programmes	Fukukawa et al. [48]

There also needs to be consistency across the university. Chankseliani and McCowan [27] argue the importance of a unified approach and the need for alignment between teaching, community engagement, and university activity. This emphasis on integration is echoed by Avelar et al., [10], who highlight the importance of sustainability across all facets of the institution. In ensuring a united approach to sustainability and social value, the university can provide an ethical platform for a continued focus on these issues across the curriculum and wider university activity.

In Table 7: Case studies demonstrating the need for resources to support learning on social values and SD.

Conclusions and recommendations

As this paper has shown, linking social values and SD is crucial for creating a prosperous and equitable future for both present and future generations. Bearing in mind that SD aims to meet the needs of the present without compromising the ability of future generations to meet their own needs, social values play a key role, especially – but not only – in recognising the interconnections between environmental, social, and economic dimensions of development.

In regard to how educators and institutions can overcome structural and cultural barriers to curriculum reform, institutional support for sustainability education is needed, providing an environment where academics are encouraged to collaborate and interact through professional networks. The needs of today's students in increasingly digitised classrooms cannot be met without first gaining a thorough understanding of their perspectives on sustainability, the context in which they learn, and their specific academic objectives. In this context, business schools may pursue and implement sustainability goals via the curricula, research and publications, collaboration and partnerships, student engagement, campus operations and practices, and engagement with their stakeholders. Combined, these elements may function more in accordance with social values and help to establish a social order in society.

The findings of the study also emphasise the need to better explore the connections between business education, social values, and SD. Identifying the right way to incorporate social values into business education can assist future business executives in adopting sustainable practices. Knowledge of corporate social responsibility, ethical decision-making, and environmental stewardship should thus be included in business curricula to educate students in how to address social and environmental issues in their careers. Our proposed Values-Driven Sustainability Pedagogy offers a foundation for future theoretical and empirical research in ESD and RME, helping reorient business education toward long-term societal and environmental transformation.

Implications for theory and practice

The integration of social values into business education holds profound implications for both theoretical frameworks and practical applications. To effectively advance this integration, several key measures can be implemented:

1. *Emphasis on Inclusivity and Equity* A strong emphasis on fairness and inclusion is necessary. Business education must prioritize different viewpoints and guarantee equitable opportunity for all persons, irrespective of their socio-economic status, gender, color, or other attributes. This method not only makes the learning environment better, but it also gets future corporate leaders ready to deal with and fix societal inequalities. (see for example: [33, 94, 128]).
2. *Promotion of long-term viability* SD must be presented as a strategic goal that ensures economic, social, and environmental (ESE) viability. Educators should emphasize the importance of long-term planning and the integration of sustainability and regenerative principles into business strategies. This per-

spective encourages students to think beyond profit maximization and consider the broader impacts of their decisions on future generations [1].

3. Fostering stakeholder engagement It is imperative to get different groups of people involved, such as communities, civil society groups, corporations, and governments [26, 55]. Business education should emphasize the significance of collaborative endeavors and multi-stakeholder collaborations in attaining the Sustainable Development Goals (SDGs). Students can learn a lot about how to solve real-world problems and how important and powerful working together is by getting these different groups involved in the learning process. (see for example [100]).
4. Encouragement of innovation and entrepreneurship: Innovation and entrepreneurship are essential for devising solutions to address difficulties within social-ecological systems [3, 12, 84]. Business education should foster an atmosphere that promotes innovative thinking and the formulation of novel business models, technologies, and methodologies. This approach can lead to the formation of businesses that not only solve social and environmental problems but also encourage growth that is good for the environment.

This study enhances the theoretical foundation of Responsible Management Education (RME) by implementing the PRME framework, illustrating the use of values-based learning, community participation, and curricular integration across several global contexts. The comparative examination of case studies illustrates practical strategies for integrating PRME principles beyond just aspirational objectives. In sum, integrating social values with SD is paramount for building a future that is equitable, inclusive, and environmentally sustainable. By embedding these core values into business education, we can cultivate a generation of business leaders who are equipped to foster positive change and contribute to fairness, prosperity, and regenerative futures. This holistic approach ensures that economic progress does not come at the expense of social justice or environmental health, thereby creating a more resilient, fair, and prosperous world for all.

This ties back to the aim of the paper stated in the introduction, which is to examine the connections between social values and sustainable development in business education.

Educators should also focus on practical insights. They need to move beyond theory and include social values in key courses like finance and marketing. This can be done through case studies on ethical dilemmas and real-world projects. Curriculum designers should create interdisciplinary modules that link business strategies to the UN SDGs. This approach encourages systems thinking. Policymakers and accrediting bodies can support this change by adding sustainability and ethics measures to program assessments and funding requirements. The ultimate goal is to shift teaching from 'business and society' to developing leaders who create sustainable value for all stakeholders.

Limitations and future research

While this research draws on a range of sources, its overall generalizability may be limited by the narrow scope of case studies that we draw on that look only within a business education context. Additionally, the bibliometric study has several constraints to consider. Using a fuller search phrase is likely since the study's search string was likely incomplete. Meanwhile, the bibliometric data we draw on only comes from a single database (Web of Science). While the database we used was chosen on the basis that it provided the most results, future research might encompass additional databases and draw on a wider and more diverse range of cases.

Using "sustainable development targets" and "SDGs," the string targeted UN SDGs. Before the 2015 summit, various publications may use generic terminology to describe SD ideas. Future endeavors may include "sustainable development" or "sustainable advancement." Since 2015, this study has examined the fundamental implementation of the seventeen Sustainable Development Goals (SDGs) in higher education institutions. This study did not examine the specific relationship with all SDGs, except for SDG 4 (good education), which is considered higher education institutions' core competency. Despite these limitations, this paper provides a welcome addition to the literature and shed some light on the connections between social values and sustainability in a business education context.

To create a greater social value, higher education institutions should also engage with the Sustainable Development Goals of health and well-being (SDG 3), decreased disparities (SDG 10), and partnerships (SDG 17) [40]. Further research may study how these three and other goals affect the ability of higher education institutions to foster sustainability in business education.

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Author contributions

WL initiated the ideas, conceptualization, and reviewed the manuscript; HB contributed to the original writing of the manuscript, and then review and editing; WL, HB, LT contributed to the abstract writing, HB, EG, EN and JB contributed to the introduction; HB, KW, AA, RA contributed to the context and literature review; HB, TW, AH contributed to the methodology. AH, TW, JHPPE, HB conducted the bibliometric analysis; KW, MR, and SC contributed to section case studies; WL, HB, and KW contributed to the conclusions and implications of the study; HB, and MR contributed to identify the limitations of the study; HB, and LT reviewed the references, all authors reviewed and edited the manuscript.

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