

Review

Sustainable Entrepreneurship: a literature review

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Abstract: On these days, issues such as environmental degradation, wealth gap and unequal access to opportunities and resources are increasing. These concerns have increased the need for sustainable entrepreneurship, defined as sustainable business practices. Entrepreneurship is central in transitioning towards a more sustainable future, whereas aligning the social, economic, and ecological objectives and ecological entrepreneurs play a role. This literature review analyzes the field of sustainable entrepreneurship and the extent of their integration in the global business arena. It aims to analyze the depth of existing pieces of literature on sustainable entrepreneurship, its definitions and applications in business practices. The analysis relies upon a literature search on the SCOPUS database around the keywords 'Sustainability' and 'Sustainable Entrepreneurship'. The scientific software VOSviewe is used to better illustrate the linkage of major categories and correspondent trends, related both with business growth and maintenance of ecological systems. It concludes that the desired levels of sustainability require collaborations between all stakeholders, while the transition towards service-oriented business models has contributed to the growth of sustainable entrepreneurship. Nevertheless, existing institutional structures favor current unsustainable businesses and systems over the newer sustainable ones, demanding from ecopreneurs to initiate institutional changes.

Keywords: sustainability; sustainable entrepreneurship

1. Introduction

Despite the economic development occurring worldwide, there has been an increase in economic, societal, and environmental threats. Natural resources depletion and the adverse consequences of environmental degradation, including lack of sufficient freshwater, loss of biodiversity, and drought, have become critical problems [1]. In addition, climate change is threatening the survival and stability of modern societies. More people are dying of hunger and living in poverty. The wealth gap is increasing, gender inequalities and unequal access to opportunities and resources are persistent [2]. These issues, among others, have increased the need for sustainable entrepreneurship. Schaltegger and Wagner [3] define sustainable entrepreneurship as a business approach in which businesses engage in sustainable business practices to achieve efficiency and competitiveness by balancing the impacts of their environmental, business, and social activities. It involves discovering, creating, and exploiting entrepreneurial opportunities that generate social and environmental benefits to the communities to promote sustainability [4]. Sustainable entrepreneurs eliminate traditional business practices, systems, and processes and replace them with superior social and environmental products and services [5]. In this case, conventional market structures, production techniques, products, and consumption patterns associated with unsustainability are destroyed in favor of more sustainable ones.

Given the significant role of businesses in society and the impacts of their practices, entrepreneurship plays a critical role in transitioning towards a more sustainable future. It is associated with economic and non-economic activities that trigger the creation of jobs

and enhanced products and services demanded by global societies [6]. Thus, entrepreneurship's influence is enormous and can be optimized to facilitate transformation towards sustainability. While traditional entrepreneurship promotes economic development, sustainable entrepreneurship focuses on aligning the social, economic, and ecological objectives [7]. Rodgers [8] found that there is a development of a typology of ecopreneurs, whom he defines as "a new breed of eco-conscious change agents who may be called ecological entrepreneurs" [8] (p.126). They include organizations and individuals who popularize eco-friendly ideas and innovations through the market or non-market strategies. Sustainable development and the future depend on such entrepreneurs and their influence on other investors and the general public to adopt sustainable practices. This literature review analyzes the concepts that constitute the field of sustainable entrepreneurship and the extent of their integration in the global business landscape.

2. Materials and Methods

Literature review methodology facilitates knowledge advancement by analyzing prior work on a study topic of interest, making it a critical aspect of academic research. Xiao and Watson [9] explain that by summarizing, analyzing, and synthesizing existing works, researchers understand the depth and breadth of existing literature, test hypothesis and develop new theories, and assess the quality and validity of existing research. This research aims to analyze the depth of existing works on sustainable entrepreneurship, its definitions, different concepts, and application in business practices. The motivations behind the choice of this methodology are based on Okoli's [10] notion that literature review can be conducted to "describe available knowledge for professional practice, to identify effective research projects and techniques, to identify experts within a given field" [10] (p.882). In this case, the researcher hopes to provide information to help eco-entrepreneurs push for eco-friendly ideas and innovations and attract other entrepreneurs and consumers to promote sustainability.

A step-by-step methodological approach was adopted to ensure that the data gathered and analyzed are accurate, reliable, and applicable in practice. In this sense, the systematic review of bibliometric literature (LRSB) involves the screening and selection of information sources to ensure the validity and accuracy of the interpreted and presented data, the process was divided into 3 phases and 6 steps [11,12,13] (Table1).

Table 1. Process of systematic LRSB

Fase	Step	Description
Exploration	Step 1	Formulating the research problem
	Step 2	Searching for appropriate literature
	Step 3	Critical appraisal of the selected studies
	Step 4	Data synthesis from individual sources
Interpretation	Step 5	Reporting findings and recommendations
Communication	Step 6	Presentation of the LRSB report

The methodology approach began with a literature search on the SCOPUS indexing online database of scientific articles, the most important peer-reviewed platform in the academic world. Nevertheless, we consider that the study has the limitation of being based only on the SCOPUS database, excluding other academic databases, which reflect a methodological choice.

The keyword "Sustainability" was used to identify potential sources during the initial search, 287,113 documents were identified, given the need to restrict references to the most relevant, the keyword "Sustainable Entrepreneurship" was identified in 329 documents. Other inclusion criteria for the thematic area: Business, Management and Ac-

counting included documents up to February 2022. This step reduced the number of documents summarized in the final report from 80 (Table 2).

Table 2. Screening Methodology

Database Scopus	Screening	Publications
Meta-search	keyword: Sustainability	287,113
	keyword: Sustainability, Sustainable Entrepreneurship	329
Inclusion Criteria	keyword: Sustainability, Exact keyword: Sustainability Subject area: Business, Management and Accounting	80
Screening	Published until February 2022	

Source: own elaboration

From 80 scientific and/or academic documents, 64 are Articles; 7 Conference Papers; 6 Reviews; 2 Book Chapter; and 1 Editorial.

3. Literature analysis: themes and trends

Peer-reviewed documents on the topic until February 2022 were analyzed. The year 2021 was the year with the highest number of peer-reviewed documents on the subject, with 21 publications. Figure 1 analyzes peer-reviewed publications published through February 2022.

The publications were sorted out as follows: Business Strategy And The Environment (12); Journal Of Cleaner Production (9); International Journal Of Entrepreneurial Venturing (5); Organization And Environment (4); Journal Of Business Ethics (3); with 2 publications (Annals Of Tourism Research; Corporate Social Responsibility And Environmental Management; Emerald Emerging Markets Case Studies; Journal Of Business Venturing; Small Business Economics; Technological Forecasting And Social Change); and with 1 the remaining publications.

We can say that between 2006 and 2021 there has been an interest in research on Sustainable Entrepreneurship.

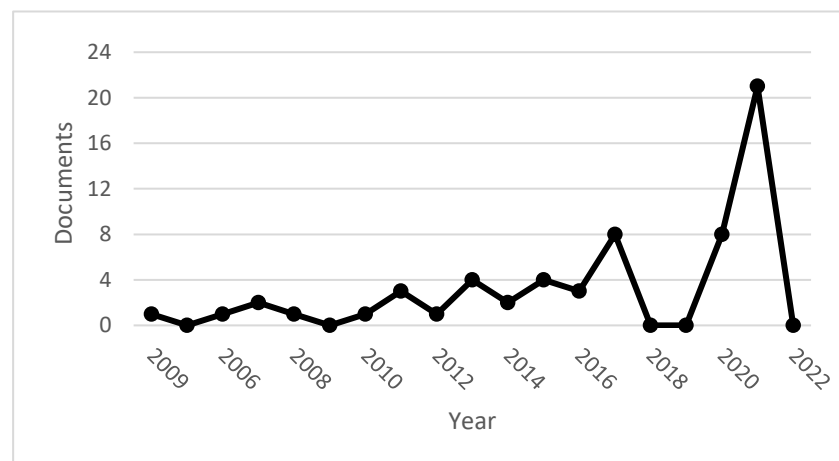


Figure 1. Documents by year. Source: own elaboration.

In Table 3 we analyze for the Scimago Journal & Country Rank (SJR), the best quartile and the H index by publication. The Journal Of Business Venturing with 7,110 (SJR), Q1 and H index 182.

There is a total of 19 publications on Q1, 8 publications on Q2, 8 publication on Q3, and no publications in, publications from best quartile Q1 represent 43% of the 45 pub-

lications titles; best quartile Q2 represents 17%, best quartile Q3 represents 17%, no publications in Q4, data from 10 publications are not available.

As evident from Table 3, the significant majority of articles on Sustainable Entrepreneurship rank on the Q1 best quartile index.

Table 3. Scimago journal & country rank impact factor

Title	SJR	Best Quartile	H index
Journal Of Business Venturing	7,110	Q1	182
Organization Studies	4,440	Q1	148
Journal Of Management Inquiry	2,320	Q1	62
Technological Forecasting And Social Change	2,230	Q1	117
Journal Of Business Ethics	2,210	Q1	187
Small Business Economics	2,200	Q1	131
Annals Of Tourism Research	2,160	Q1	171
Business Strategy And The Environment	2,120	Q1	105
Entrepreneurship And Regional Development	1,670	Q1	90
Corporate Social Responsibility And Environmental Management	1,520	Q1	73
International Entrepreneurship And Management Journal	1,340	Q1	55
International Journal Of Entrepreneurial Behaviour And Research	1,240	Q1	67
International Journal Of Entrepreneurial Behaviour Research	1,240	Q1	67
Organization And Environment	1,230	Q1	60
Organization And Environment	1,230	Q1	60
Asia Pacific Journal Of Tourism Research	0,970	Q1	37
Leisure Studies	0,730	Q1	64
Management Review Quarterly	0,650	Q1	17
Corporate Governance Bingley	0,630	Q1	58
International Journal Of Entrepreneurship And Innovation	0,600	Q2	16
International Journal Of Entrepreneurship And Innovation Management	0,570	Q2	44
Journal Of Business Strategy	0,500	Q2	38
Journal Of Business Economics And Management	0,490	Q2	37
International Journal Of Entrepreneurial Venturing	0,490	Q2	17
Industry And Higher Education	0,440	Q2	24
International Journal Of Globalisation And Small Business	0,290	Q2	17
Journal Of Entrepreneurship And Public Policy	0,290	Q2	13
Journal Of Developmental Entrepreneurship	0,280	Q3	25
International Journal Of Business Environment	0,270	Q3	5
World Journal Of Entrepreneurship Management And Sustainable Development	0,240	Q1	3
Journal Of Technology Management And Innovation	0,230	Q3	27
World Review Of Entrepreneurship Management And	0,230	Q3	16

Sustainable Development			
Academy Of Entrepreneurship Journal	0,210	Q3	12
Revista Venezolana De Gerencia	0,210	Q3	10
Emerald Emerging Markets Case Studies	0,197	Q3	5
International Journal Of Business And Globalisation	0,190	Q3	15
Proceedings Of The European Conference On Innovation And Entrepreneurship Ecie	0,130	-*	6
Entrepreneurship And Sustainability Issues	0	-*	25
International Journal Of Business Research	0	-*	6
International Journal Of Scientific And Technology Research	0	-*	18
International Journal Of Work Innovation	0	-*	5
Entrepreneurship Education Opportunities Challenges And Future Directions	-*	-*	-*
Innovation The European Journal Of Social Science Research	-*	-*	-*
Journal Of Entrepreneurship And Innovation In Emerging Economies	-*	-*	-*
New England Journal Of Entrepreneurship	-*	-*	-*
Studies On Entrepreneurship Structural Change And Industrial Dynamics	-*	-*	-*

Note: *data not available. Source: own elaboration

The subject areas covered by the 80 scientific articles were: Business, Management and Accounting (80); Social Sciences (32); Environmental Science (28); Economics, Econometrics and Finance (20); Energy (10); Engineering (10); Arts and Humanities (3); Decision Sciences (2); Psychology (2); Computer Science (1).

The most quoted article was “Sustainable entrepreneurship and sustainability innovation: Categories and interactions” from Schaltegger and Wagner with 673 quotes published in the Business Strategy and the Environment with 2,120 (SJR), the best quartile (Q1) and with H index (105). The study takes an approach to the new wave of computing based on smart sustainable cities.

In Figure 2 we can analyze the evolution of citations of articles published between ≤2012 and February 2022. The number of citations shows a net positive growth with an R2 of 34% for the ≤2012– February 2022 period, with 2021 peaking at 1093 citations.

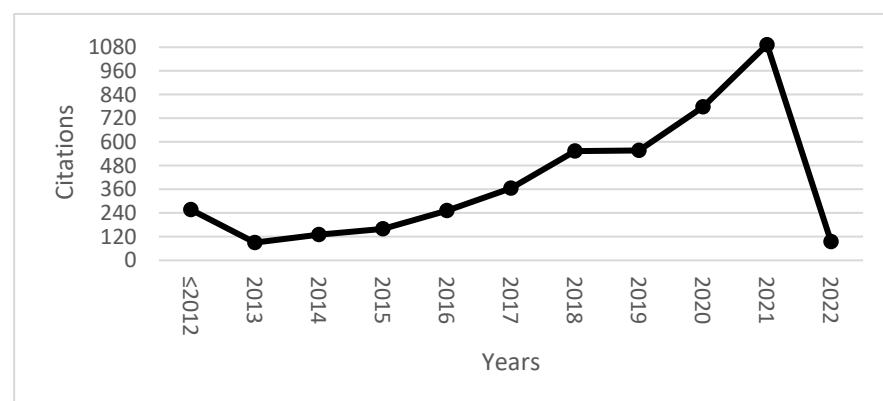


Figure 2. Evolution of citations between ≤2012 and February 2022. Source: own elaboration

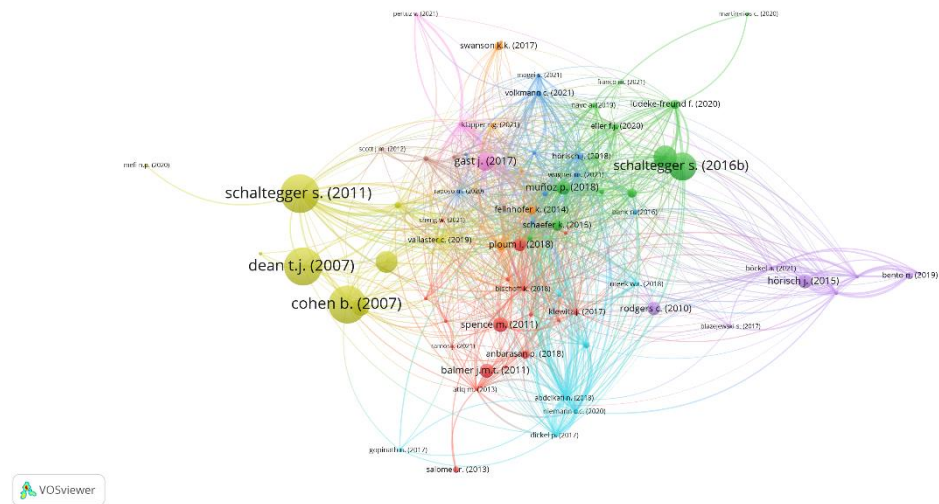


Figure 5. Networks bibliographic coupling.

4. Theoretical perspectives

There has been an influx in sustainable entrepreneurship research in recent academic literature, both in individual and organizational contexts. The concept is being experimented with and applied in multiple contexts, from struggling to developed economies. Anbarasan and Sushil [14] explain the last three decades have seen an evolution of sustainability through managerial thinking and scientific discussions involving executives, scholars, and theorists. The concept of sustainable entrepreneurship has moved from being an abstract idea to a pressing and practical need. There have been various critical drivers in this transformation, including climate change, human security, scarcity of resources, environmental degradation, and economic instability [15]. Due to social and ecological impacts, business and economic activities have been associated with ecological disruption. As a result, the role of entrepreneurship in sustainability cannot be ignored. Ali [16] contributes to this notion, indicating that corporations organize economic and social life and determine ecological systems' capacity. This argument suggests the correlation between social, economic, and environmental aspects in sustainability, often referred to as the triple bottom line. Thus, profit maximization and business growth are all about developing the social structure and the human society by eliminating mechanisms of systematic degradation that undermine ecological and social systems.

4.1. Definition of Key Terms and Concepts

4.1.1. Sustainability

From a broader perspective, sustainability can be defined as the capacity of something to sustain or maintain itself for a long time. In business, sustainability is determined by various factors such as social, physical, and natural resources, climate change, and environmental degradation [17]. These factors affect the current and future economic, environmental, and social stability. For example, the dwindling natural resources threaten the current and future generations' capability to produce products and maintain necessary growth [18]. As a result, World Commission on Environment and Development (WCED) defined sustainability as the capability to "meet the needs of the present without compromising the ability of future generations to meet their own needs" [19] (p.34). In this case, sustainability involves balancing environmental resilience, economic health, and social equity to provide long-term opportunities for growth and development.

Achieving sustainability involves the interplay of activities in the markets, governments, and corporations. For example, the government is critical in environmental sustainability by providing regulatory frameworks and environmental standards [20]. These provisions help conserve the quality of life and productive inputs in a business envi-

ronment, leading to innovations that promote competitiveness, value creation, and reduce production costs. For example, environmental regulations impact corporate decisions on energy use, waste disposal, and raw materials, thus improving ecological impacts [21]. However, the success of these environmental policies and regulations depends on support from the economic environment [22]. For instance, the dominant market model focuses on generating short-term profits without considering the resultant long-term problems on the environment and the wider system [23]. Thus, despite government efforts to promote sustainability through regulations, companies must be willing to change their operations models and embrace more sustainable business models. Under the current dominant market model (profit-oriented), the ecosystems cannot support the economics due to the failure to consider the relationship between business practices and the environment [24]. Besides, markets contribution can be seen in the increased competition in environmentally sensitive markets. Nowadays, more companies are producing "green products" to meet and respond to market demands.

4.1.2. Sustainable Development

Sustainable development illustrates the relationship between human activities and the environment. It identifies the various means of maintaining development over time. Sachs [25] defines it as the optimal growth rate that determines the acceptable economic growth rate in per capita real incomes without exhausting the natural environmental or national capital asset stocks. The primary goal of sustainable development is to promote peace and prosperity by protecting the environment and ending poverty [26]. In this case, the policy and practical interventions adopted must integrate various considerations, such as who bears the costs and losses in multiple activities and whose interests and values are prioritized in each decision implemented [27]. From a literal perspective, sustainable development indicates that current development should not be at the expense of future generations. Investors and the general population must evaluate how their production and consumption patterns will affect future generations [28]. However, this description is associated with multiple challenges of ambiguity. For example, WCED recommended analyzing the "needs" of future generations when setting limits on biophysical processes, technological advancements, and other cultural aspects [19]. However, the term "needs" can mean different things to different people. For instance, the needs of some communities in the developed world might be clean air and open space, while developing worlds need material wealth. In these cases, sustainable development will be interpreted differently, meaning that the approaches implemented will be different.

Researchers have proposed various frameworks to address the complexity of defining sustainable development. These frameworks consist of three pillars of sustainability; social, environmental, and economic [29]. The depictions in Figure 2 indicate that creating a win-win solution requires creating mutually supportive goals across all three pillars. These concepts are often classified as sustainability's "Triple Bottom Line" (TBL). TBL provides a framework for evaluating business performance and organizational success under three aspects; environmental, economic, and social.

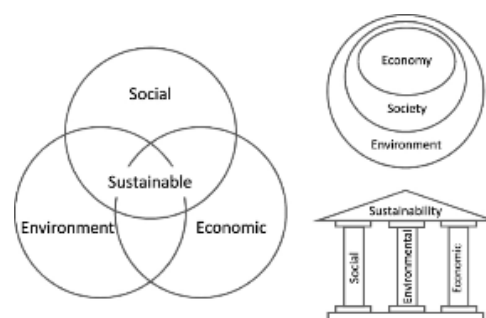


Figure 6. Depictions of Pillars of Sustainable Development [30].

Economic Line. The economic aspect of the TBL framework illustrates the impact of business activities on the economic system. It evaluates the economy's capability to evolve and survive as a subsystem of sustainability amidst the global changes and challenges to support future generations [31]. This aspect ensures that the economic growth rate matches populations' current and future financial needs [32]. Various factors used to measure economic progress include job growth, personal incomes, employment distribution, company sizes, and revenue by sector.

Social Line. This aspect involves identifying and managing the positive and negative business impacts on people. The success of sustainable development initiatives is strongly dependent on company relationships and engagement with employees, partners in the supply chain, customers, and local communities [33]. According to Barnardo et al. [34], the social aspect involves engaging in beneficial and fair business practices that offer value to society and "give back" to the community. Embracing social responsibilities can lead to long-term, sustainable achievements.

Environmental Line. Businesses activities are directly linked to increased ecological problems such as environmental degradation and climate change. The environmental aspect of TBL involves engaging in business activities that do not compromise future generations' access to environmental resources [35]. It involves taking responsibility for protecting global ecosystems and conserving natural resources to better the current and future populations' health and wealth [36]. For example, businesses should strategize to reduce greenhouse gas emissions, ensure efficient use of energy resources, and lower ecological footprints [37]. Following environmental regulations and developing in-house environmental goals can help align its profits to the people it serves and the ecosystems. Thus, when done right, sustainability aligns with profits, people, and the planet.

Sustainable Entrepreneurship

Entrepreneurship is the process of setting up a business to create and extract value. Bischoff and Volkmann [23] describe it as seeking to understand how opportunities are identified, generated, and exploited to develop current and future goods and services. According to Cohen and Winn [19], there are three distinct perspectives of understanding entrepreneurial opportunities; opportunity recognition, opportunity discovery, and opportunity creation. Opportunity recognition involves entrepreneurs' perceptions of an existing potential to redistribute resources to improve some people's lives without worsening others [38]. Opportunity discovery occurs when the entrepreneur has access to factual and sufficient information on the resources' actual value and the resulting value after combining them [39]. Opportunity creation further explains that entrepreneurs seek "seek to maximize the utility functions of multiple stakeholders and that opportunities can only truly be identified ex-post" [19] (p.32). In a sustainability context, entrepreneurship can be defined as the process of discovering, creating, and exploiting opportunities to produce goods and services while considering the potential environmental, social, economic, and psychological consequences.

Sustainable entrepreneurship requires a firm to achieve desired competitiveness and profitability by becoming part of the society, the environment, and economic activities. Atiq and Karatas-Ozkan [40] define sustainable entrepreneurship as the procedure of immersing sustainability into an organization's operational strategy by adopting an opportunity-centered entrepreneurial approach. In this case, the entrepreneur proactively embraces innovation and risk-taking to generate shared value. Bischoff and Volkmann [23] define sustainable entrepreneurship as venturing into business with a sustainability purpose by embedding sustainability into the firm's core business strategy and model to align ecological, social, and economic goals. The entrepreneur takes an entrepreneurial stance to address the triple bottom line, indicating that these ecopreneurs understand the interconnection between environmental, economic, and social sustainability.

4.1.3. Sustainable Business Models

The business model represents the interaction between value elements and value flow within an organization. A business model is an organization's core strategy to en-

sure profitability by clearly defining products and services, target markets, and anticipated expenses [41]. The primary value elements are value proposition, creation, delivery, and capture. According to Davies and Chambers [42], the value proposition is related to a firm's product-service system, target customers, and current relationships. Value creation and delivery are associated with critical business practices in developing market offerings, acquiring resources, managing channels and partners, and using technologies [43]. Value capture refers to cost structures and revenue streams. In sustainable business models, the ecopreneurs simultaneously focus on generating, delivering, and capturing environmental, social, and economic value.

A major change brought about by sustainable entrepreneurship has been the transition towards service-oriented business models, which involves creating economic value to generate value for society. These sustainable business models require entrepreneurs to go beyond economic value and integrate environmental and social value into a more holistic meaning of value [44]. This aspect differentiates sustainable entrepreneurship from social and environmental entrepreneurship [3]. For example, social entrepreneurship is concerned with creating social and economic value, while environmental entrepreneurship is concerned with creating economic value while solving environmental problems [45]. On the contrary, sustainable entrepreneurship combines all these aspects by encouraging entrepreneurs to generate economic, social, and environmental value simultaneously. In this case, society benefits from business activities, companies maximize financial gains, and ecological problems are reduced.

Various business strategies are used in sustainable entrepreneurship, including product stewardship, clean technology, pollution prevention, and sustainability vision. These strategies are driven by multiple factors, such as alleviating poverty, facilitating fair distribution of resources, increasing transparency, and reducing waste and footprint [46]. These factors and strategies have prompted the development of business models that meet the interests of all stakeholders instead of prioritizing the shareholders' expectations [47]. This holistic view of integrating social, environmental, and economic value is represented in Figure 3. Johnsen [48] contributes to these perspectives by explaining that sustainable business models aim to create superior customer value by contributing to sustainable development for society and the organization. Thus, there is more stakeholder satisfaction under sustainable entrepreneurship.

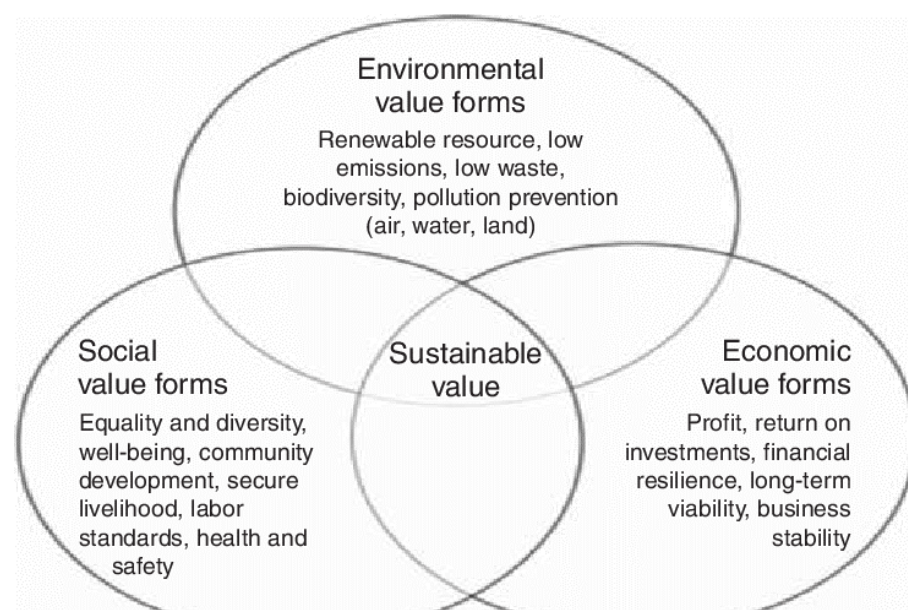


Figure 7. Sustainable Value Integration [46].

Research shows that sustainable business models are not necessarily achieved through technologies or green products and services. For instance, Evans et al. [46] indicate that they can be achieved by innovating the business models. In this case, the entrepreneurs conceptualize the business models based on relations and exchanges with stakeholders [49]. In the current business environment, consumers have the power to influence business operations by sharing their opinions and feedback through multiple channels, including social media [46]. The internet facilitates two-way communication, transforming customers' positions from passive consumers to active co-creators [50]. Consequently, firms continuously use data gained from customers and other stakeholders to innovate their business models to meet expectations and demands. Therefore, under sustainable entrepreneurship, customers are more involved in value creation and business processes, reinforcing organization-customer relationships.

4.2 Corporate Social Responsibility and Sustainable Entrepreneurship

In the past two decades, the concept of corporate social responsibility (CSR) has gained considerable attention due to the massive environmental, social, and economic impacts associated with businesses. Traditionally, CSR was interpreted from a stakeholder theory perspective, where enterprises adopt environmentally or socially responsible behaviors in response to stakeholders' demands [51]. The theory indicates that entrepreneurs and organizational managements take a reactive stance to stakeholders' pressure to guide corporate practices [52]. However, in recent years, CSR is becoming a more proactive approach where companies are increasing their competitiveness by generating value for themselves and society. In these cases, entrepreneurial behavior development spreads throughout the organization from top to bottom [53]. Taking a proactive stance allows firms to analyze the competitive environment they are operating in to make appropriate investments [54]. For example, the demand for green products should prompt companies to innovate, take the risk, and market these products before their competitors discover this opportunity, creating a competitive advantage [55]. From a sustainable entrepreneurship point of view, CSR requires companies to maintain a strategic and entrepreneurial focus on their social responsibility by adopting a proactive approach instead of a reactive [56]. Therefore, CSR is embedded in the modern-day sustainability context as a mechanism of addressing societal, economic, and environmental demands to improve organizational financial performance and society's wellbeing and health.

The adoption of CSR in sustainable entrepreneurship can be associated with the concept of strategic CSR (SCSR). According to Atiq and Karatas-Ozkan (2013) [40], SCSR recognizes the need for businesses to respond to social problems through programs, policies, and processes to create win-win situations beneficial to firms and society. However, Hörisch [57] argues that the success of the SCSR initiative is based on the companies' capabilities to align them with core business activities and mission. By doing so, the SCSR becomes central to the firms' objectives and goals. One major problem undermining sustainability efforts is that most organizations are yet to immerse sustainability in core strategies and business models [58]. Thus, the concept of SCSR solves this challenge by encouraging sustainable entrepreneurs to acknowledge and integrate social responsibility in core business strategies and practices. When the SCSR is central to the organization's mission, it becomes specific to the firm [59]. The management and employees will be proactive in achieving the CSR goals and accomplishing related projects

voluntarily and visibly. Such commitment can increase the willingness and attitudes towards sustainability, leading to sustainable entrepreneurship and development.

Additionally, SCSR encourages firms to create shared value instead of engaging in generic and defensive CSR activities. In most cases, companies adopt CSR initiatives to respond to the expectations of their stakeholders [8]. In this case, the outcomes of these programs often do not create win-win situations due to the tradeoff between business complexities and realities [60]. However, under SCSR, the social responsibility programs and policies are aligned with the company's core mission and strategy; that is, they equally prioritize organizational profitability, environmental conservation and protection, and societal wellbeing and health [61]. Rather than defending themselves against external pressures, the corporation aims to achieve specific sustainability goals by embedding them into business practices and strategies. This proactive approach creates a win-win situation by promoting all the three pillars of sustainability, environmental, social, and economical.

SCSR in sustainable entrepreneurship involves investing in the social aspects of the business' competitive features and transforming the value chain to create innovative products that simultaneously benefit the company and society. Atiq and Karatas-Ozkan [40] support this argument by indicating that CSR activities should be connected to value chain activities. To achieve sustainability and optimize its associated benefits, corporations need to address environmental, social, and economic concerns across the entire supply chain [62]. A sustainable supply chain engages in socially and environmentally responsible practices that protect the planet and people and contribute to business growth [63]. By taking this holistic approach, companies can reduce waste and environmental footprint, improve labor conditions, eliminate employees' exploitation, and enhance the health and safety of all stakeholders [64]. These activities can improve the company's competitiveness, image, and reputation, attracting highly qualified employees and loyal customers. Thus, integrating SCSR into value chain activities can enhance the companies' capacities to maximize the benefits of sustainability by generating shared value for the business and society.

4.3. Managerial Practices in Sustainable Entrepreneurship

Organizational leadership and management provide and integrate resources and capabilities needed to produce goods and services sustainably. Sustainability responsibilities should be distributed across all levels within the organization to ensure the efficiency and success of initiatives implemented [65]. For example, middle-level managers can report to senior managers who report to the CEO on sustainability performance, while together, they make sustainability decisions by considering tradeoffs on social and environmental impacts versus financial ones [66]. In addition, the top leadership should ensure that senior and middle-level managers have access to support and guidance on making decisions and tradeoffs [67]. The support from the leaders reduces potential conflicts that may occur from varying interests and approaches. The employees and department managers are willing to innovate products and services and share innovative ideas since they know the supportive leaders. Thus, the success of sustainability is significantly dependent on leadership support.

Leaders and managers are responsible for building an organizational culture that supports sustainability. Corporate culture refers to the shared norms, beliefs, values, and assumptions that influence employees' and management's daily operations [68]. It informs corporate practices by influencing behaviors that determine interactions, practices, and collaboration. Some managerial practices, such as fostering environmental values and beliefs, can create an organizational culture that prioritizes sustainability [69]. Leaders and managers can create and communicate to their subordinates a vision of corporate sustainability that is embedded in the company's vision and mission to establish a shared corporate identity. These leaders should promote sustainability principles to influence employees' perceptions and attitudes towards sustainable entrepreneurship [70]. For example, they can provide employees with training and guidelines to achieve

corporate sustainability and enhance their capacity to understand and embrace changes [71]. Due to the complexities and ambiguity of the sustainability concept, most people are hesitant to integrate social, environmental, and economic aspects into their core business processes and strategies [72]. Therefore, training programs can alleviate this problem by offering sufficient information on sustainability, related issues, and consequences. Consequently, the knowledge and skills gained will help employees understand the need for change and innovation to improve business performance and profitability while promoting environmental and social wellness.

The lack of a unilateral understanding of corporate sustainability and the different cultural practices within organizations has led to the adoption of multiple types of organizational cultures. Organizational culture is unique to each firm due to varying shared beliefs and values, leadership approaches, and business practices. However, Fietz and Günther [68] identify four types of cultures that enable corporate sustainability; adhocracy, bureaucracy, clan, and market cultures. These organizational cultures have different approaches to sustainability due to varying values, norms, organizational philosophies, managerial styles, and strategies [73]. Although it is possible to combine these cultures, one culture tends to be more dominant in each firm but may include characteristics of another.

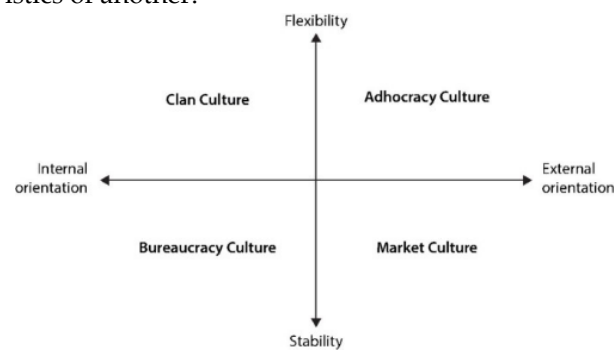


Figure 8. Types of Organizational Cultures [68].

Adhocracy Cultures. These cultures achieve corporate sustainability by focusing on experimentation, innovation, and risk-taking. Adhocracy employs a participative worker culture where employees work together to make decisions and solve problems. It uses an integrated, comprehensive corporate sustainability strategy to promote organizational change and learning [68]. Since the managers and employees have shared responsibility in achieving desired goals and everyone participates in decision-making, it is easier to improve corporate organizational performance and competitive advantage as long as they understand the significance of attaining sustainability [74]. Adhocracy Cultures are more likely to contribute to corporate sustainability since they promote flexible processes and innovative working environments, necessary in breaking through existing norms and pioneering programs.

Bureaucracy Cultures. The focus in bureaucracy cultures is efficiency. For example, companies using this organizational culture can emphasize achieving corporate sustainability by reducing waste and redundancies that undermine efficiency efforts. In addition, they may simplify production processes, products, and services to reduce costs. Fietz and Günther [68] explain that bureaucracy cultures are efficiency-driven and emphasize compliance, where all duties and responsibilities are clearly defined and delegated across all organizational levels. However, the competitive advantage accrued from this type of culture may be limited due to the narrow focus. For example, focusing on efficiency and compliance with existing processes and systems may limit innovation and employee creativity [75]. As a result, companies employing this culture are more likely to progress slowly than others using adhocracy cultures.

Clan Cultures. A clan culture focuses on creating a family-like organizational environment that emphasizes the commonality of goals and objectives and consensus. Among the four types of cultures, these are the least competitive and may affect the

progress of sustainability initiatives or programs. They collaborate to create sustainability through capacity building, social interactions, and interpersonal relationships [68]. The primary hindrance in this type of culture is that consensus is valued over the uniqueness of ideas. For example, an employee can propose an innovative idea to promote sustainability. However, the failure to get other staff on board to support the idea will block its implementation. Thus, group thinking can hinder innovation and lead to slow sustainability accomplishments.

Market Cultures. A market organizational culture emphasizes competition between the organization and its competitors in the industry and among employees. They adopt a competition-oriented corporate sustainability strategy that maximizes outputs and minimizes inputs. It takes a capitalistic approach that encourages employees to create goals and strive to achieve them [76]. They may either be punished or rewarded for their performance following an evaluation and close monitoring. The management relates individual performance to organizational success. While this strategy leads to higher profits and expanded market share, it favors short-term goals over long-term goals [77]. Since employees are rewarded based on individual performance, they may opt for short-term, achievable goals. However, sustainability is a long-term goal that involves considering the organization's current and future performance and its impact on current and future generations [78]. For example, pursuing cost reduction to increase profit margins can be at the expense of other sustainability driving factors such as alleviating poverty and improving labor conditions.

4.4. Driving Intentions for Sustainable Entrepreneurship

Ecopreneurs have varying values that drive their entrepreneurship intentions. Personal values are vital drivers determining an individual's priorities and behaviors and are reflected in the entrepreneurial opportunity they pursue [79]. When creating a firm, an entrepreneur must first undergo an internal process that leads to venture into a particular industry. Jaén et al. [80] explained that although obvious, starting a business is an individual decision that is often overlooked in research. In the case of sustainable entrepreneurship, the entrepreneur has to consider various personal values and beliefs that define their personalities, such as goals and a sense of moral responsibility [81]. In addition, they may consider priorities such as personal gains, contribution to society, employment choices, prestige, power, and status [82]. In most cases, the factors are driven by an individual's personality. For example, a compassionate person is more likely to embrace sustainable entrepreneurship due to inner concerns for the sufferings or misfortunes of others. On the contrary, a greedy person will prioritize monetary gains thus may opt for the conventional entrepreneurship that is profit-oriented.

The role of personal values in driving entrepreneurial intentions can also be illustrated using concepts of Schwartz's theory in entrepreneurship. According to this framework, people make different decisions and take other actions when faced with a similar situation due to varying value priorities [81]. For example, people who prefer self-direction are more likely to open a business since it gives them autonomy and control. However, those who prefer security and supervision are more likely to seek employment [82]. Besides, openness to change is potentially a personal value among sustainable entrepreneurs since it allows independent thinking and action-taking. Sustainability is a continuously evolving concept based on the needs of the people [83]. With globalization and immigration, sustainability challenges are increasingly becoming diverse due to the changes in demographics and people's needs [84]. Thus, openness to change is a critical entrepreneurial value in sustainable entrepreneurship needed to help investors adjust to these populations' rapidly evolving needs and expectations.

Positive attitudes towards sustainability and entrepreneurship are key driving intentions for sustainable entrepreneurship. Attitude determines the business approach implemented when venturing into business. For example, Vuorio et al. [82] indicate that entrepreneurs who view sustainability as an opportunity to help others and the surrounding communities are more likely to promote sustainable entrepreneurship posi-

tively. Various factors can influence an individual's attitudes, including the desirability of sustainable business ventures, innovation, the need for accomplishments, personal control, and self-esteem [4]. There must be a correlation between personal goals and the projected outcomes of the target sustainable sector. Knowledge and skill can further reinforce an entrepreneur's perception of sustainable investments [85]. Therefore, numerous factors influence an individual attitude towards sustainable entrepreneurship and their willingness to risk their finances and innovate products and services.

4.5. Challenges to Sustainable Entrepreneurs

Perceived barriers and risks are major hindrances in achieving sustainability. Entrepreneurs often face ethical dilemmas associated with pursuing economic interests while addressing social and environmental interests. In this case, they struggle to balance between serving self-interests and catering to the needs of others [86]. Besides, sustainable entrepreneurs often exploit opportunities arising from neglected ecological and social concerns, which are more complex to address than conventional entrepreneurship [87]. The profit-oriented or market-oriented business models in traditional entrepreneurship overlook environmental and social problems since they are more likely to reduce profit margins [88]. Given that sustainability is still evolving, companies, especially SMEs, have limited access to advanced technologies and resources. Thus, social entrepreneurship is feared to be associated with fear, discouraging sustainable entrepreneurs from investing.

The traditional systems and products are a major hindrance to realizing the benefits of sustainable entrepreneurship. The ecopreneurs are required to initiate institutional changes targeting legislation, rules, policies, and norms [89]. For example, in most countries, non-renewable sources of energy are subsidized and priced in a way that makes it hard to market renewable energy to the general public [90]. The insufficient infrastructure and price variations undermine efforts to popularize green energy. Similarly, the current public policies and traditions favor traditional entrepreneurship, making it difficult for ecopreneurs to break into specific sectors.

5. Conclusions

Sustainable entrepreneurship has been primarily driven by the demand to achieve sustainability and embrace sustainable business practices to protect people, the planet, and profits. Depletion of natural resources, lack of sufficiently clean water, drought, and biodiversity loss have become critical issues that require sustainable, innovative solutions. Sustainable entrepreneurship promises to solve these problems by implementing strategies and solutions that address current and future generations' economic, social, and environmental needs and concerns. According to World Commission on Environment and Development (WCED), meeting the current needs should not compromise the future of coming generations. Thus, sustainable entrepreneurship prioritizes balancing economic health, environmental resilience, and social equity to establish long-term growth and development opportunities. However, research indicates that achieving the desired levels of sustainability require collaborations between markets, governments, and corporations. The government can establish and implement policies and standards that regulate business practices to reduce gas emissions, conserve natural resources, and protect the environment. However, corporations must comply with these regulations by integrating sustainability goals in their core strategies and business models. Markets, including customers, can contribute to sustainability by demanding corporate social and environmental responsibility and embracing ethical consumption.

The transition towards service-oriented business models has significantly contributed to the growth of sustainable entrepreneurship. These models encourage value co-creation by engaging all stakeholders throughout the production process, including supply chains, customers, and employees. Unlike conventional entrepreneurship that prioritizes shareholders, sustainable entrepreneurship is concerned with meeting the needs of all stakeholders. This transition facilitates the integration of customers' environmental, social, and economic conditions and surrounding communities. However,

despite the benefits achieved or promised by these sustainable models, various perceived challenges and risks hinder the maximum exploitation of sustainable opportunities. For instance, the existing institutional structures favor current unsustainable businesses and systems over the newer sustainable ones. Thus, the ecopreneurs must initiate institutional changes from policies to norms to maximize their operations and benefits. Such changes may take a long time to achieve, thus delaying the rate of sustainable entrepreneurship adoption.

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Appendix A

Table A1. Overview of document citations period ≤2012 to 2022.

Documents		≤2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
Sustainability approaches and nature tourism development	2021	-	-	-	-	-	-	-	-	-	-	1	1
Chief executive officers' sustainability orientation and fir ...	2021	-	-	-	-	-	-	-	-	-	2	2	4
Behavioral entrepreneurship for achieving the sustainable de ...	2021	-	-	-	-	-	-	-	-	-	3	1	4
A systematic literature review of crowdfunding and sustainab ...	2021	-	-	-	-	-	-	-	-	-	7	-	7
Crowdfunding sustainable entrepreneurship: What are the char ...	2021	-	-	-	-	-	-	-	-	-	5	1	6
Identifying sustainable rural entrepreneurship indicators in ...	2021	-	-	-	-	-	-	-	-	-	5	-	5
Insider perspectives on growth: Implications for a nondichot...	2021	-	-	-	-	-	-	-	-	-	4	-	4
The sustainable start-up paradox: Predicting the business an ...	2021	-	-	-	-	-	-	-	-	-	3	1	4
University-linked programmes for sustainable entrepreneurshi ...	2021	-	-	-	-	-	-	-	-	2	9	2	13

Sustainable entrepreneurial ecosystems: an emerging field of...	2021	-	-	-	-	-	-	-	-	2	9	4	15
Social Entrepreneurship and the Sustainability of Small Businesses At A South African Township...	2020	-	-	-	-	-	-	-	-	-	1	-	1
National systems of entrepreneurship: geais of sustainabilit ...	2020	-	-	-	-	-	-	-	-	-	1	1	2
The Three Dimensions ofSustainability: A Delicate Balancing ...	2020	-	-	-	-	-	-	-	-	-	14	-	14
Identifying business opportunities for sustainable developme ...	2020	-	-	-	-	-	-	-	-	3	10	2	15
ustainable entrepreneurship, innovation, and business model ...	2020	-	-	-	-	-	-	-	1	8	30	3	42
Can environmentally oriented CEOs and environmentally friend ...	2020	-	-	-	-	-	-	-	-	3	13	2	18
KITRO: technology solutions to reduce food waste in Asia-Pac ...	2020	-	-	-	-	-	-	-	-	-	2	1	3
The interplay of corporate entrepreneurship, environmental o ...	2020	-	-	-	-	-	-	-	-	3	8	2	13
Crowdfunding for sustainability ventures	2019	-	-	-	-	-	-	-	-	7	14	3	24
Towards a conceptual understanding of sustainability-driven ...	2019	-	-	-	-	-	-	-	-	5	13	-	18
University-Firm cooperation as a way to promete sustainabili ...	2019	-	-	-	-	-	-	-	1	4	8	-	13
Responsible entrepreneurship: outlining the contingencies	2019	-	-	-	-	-	-	-	4	4	13	-	21
Social enterprises: Agents of development (a study on how so ...	2019	-	-	-	-	-	-	-	-	-	1	-	1
The role ofthe government in enhancing sustainable entrepre ...	2019	-	-	-	-	-	-	-	-	2	2	-	4
Sustainable leadership and entrepreneurship for corp...	2019	-	-	-	-	-	-	-	-	1	3	-	4
The influence of gender, self-identity and organizational...	2018	-	-	-	-	-	-	-	-	-	4	-	4
Toward a Validated Competence Framework for Sustainable Entr ...	2018	-	-	-	-	-	-	7	26	13	28	-	74
Integrating hybridity and business model theory in sustainab ...	2018	-	-	-	-	-	-	1	7	9	23	-	40
Put Your Style at Stake: A New Use ofSustainable Entreprene ...	2018	-	-	-	-	-	-	3	1	3	4	1	12
Sustainable Entrepreneurship Research: Taking Stock and look ...	2018	-	-	-	-	-	-	6	8	30	49	4	97
Stakeholder Engagement in Sustainable Enterprise: Evol...	2018	-	-	-	-	-	-	5	5	14	12	1	37
Sustainable entrepreneurship: Agrarian policy in South Korea	2018	-	-	-	-	-	-	6	2	3	2	-	13

Stakeholder support for sustainable entrepreneurship...	2018	-	-	-	-	-	-	-	1	1	8	4	14
Exploring the role of entrepreneurial orientation in cl...	2018	-	-	-	-	-	-	-	2	3	6	-	11
It's getting better all the time (can't get no worse): The w ...	2018	-	-	-	-	-	-	-	-	-	3	-	3
Ecopreneurs' creation of user business models for green tech ...	2018	-	-	-	-	-	-	-	-	2	5	1	8
'Think big' or 'small is beautiful'? An empirical analysis o ...	2018	-	-	-	-	-	-	-	4	8	9	1	22
Grazing, exploring and networking for sustainab...	2017	-	-	-	-	-	-	-	6	3	5	1	15
Doing business in a green way: A systematic review ofthe ec. ...	2017	-	-	-	-	-	4	17	20	41	71	3	156
Entrepreneurship and Well-being: Towards Developing a Novel ...	2017	-	-	-	-	-	-	-	1	3	4	-	8
Developing entrepreneurial leadership: The challenge for sus ...	2017	-	-	-	-	-	-	-	1	3	5	-	9
The impact of protectability and proactiveness on the enviro ...	2017	-	-	-	-	-	-	-	1	2	2	-	5
A theoretical framework for sustaining culture: Culturally s ...	2017	-	-	-	-	-	-	4	11	10	9	-	34
Aesthetic mediation of creativity, sustainability and the or ...	2017	-	-	-	-	-	-	1	2	1	4	-	8
Business Models for Sustainability: A Co-Evolutionary Analys ...	2017	-	-	-	-	3	9	43	48	56	80	4	243
Tenant recruitment and support processes in sustainability-p ...	2017	-	-	-	-	-	1	4	-	5	2	-	12
Business Models for Sustainability: Origins, Present Researc ...	2016	-	-	-	1	9	28	63	62	91	98	6	358
Social, Environmental and Sustainable Entrepreneurship...	2015	-	-	-	-	1	4	3	6	14	22	2	52
Crowdfunding for environmental ventures: An empirical analys ...	2015	-	-	-	-	3	4	17	22	15	26	3	90
Green economy and social responsibility in the Italian agri- ...	2015	-	-	-	-	-	1	-	-	-	-	-	1
The Current state ofresearch on sustainable entrepreneurshi ...	2014	-	-	-	2	-	6	5	4	4	9	2	32
Encouraging sustainable entrepreneurship in clim...	2014	-	-	-	-	4	8	9	1	8	5	-	35
'We are as green as possible': environmental responsibility ...	2013	-	-	1	1	3	4	3	1	3	3	-	19
Sustainability: A paradigmatic shift in entrepreneurship edu ...	2013	-	-	-	-	-	2	-	2	2	1	-	7
Sustainable corporate entrepreneurship from a str...	2013	-	-	2	-	-	-	-	-	3	1	-	6
Exploring the incorporation of values for sustainable entrep ...	2013	-	-	1	2	2	1	1	2	5	2	-	16
Making Ecopreneurs: Developing Sustainable Entrepreneurship ...	2012	-	-	-	-	-	1	-	-	-	-	-	1
Explicating Ethical Corporate Marketing. Insights from the B ...	2011	6	9	8	10	7	11	10	5	9	18	-	93

Sustainable entrepreneurship and sustainability innovation: ...	2011	13	19	26	36	62	76	95	103	108	123	12	673
Sustainable Entrepreneurship: Is Entrepreneurial will Enough ...	2011	-	2	5	3	6	14	18	10	19	24	3	104
Sustainable entrepreneurship in SMEs: A case study analysis	2010	6	3	9	3	11	12	12	7	11	11	3	88
Toward a sustainable conceptualization of dep...	2008	17	3	5	7	11	19	23	16	17	13	3	134
Market imperfections, opportunity and sustainable entreprene ...	2007	86	19	29	36	59	68	80	67	97	103	5	649
Toward a theory of sustainable entrepreneurship: Reducing en ...	2007	89	20	33	42	53	67	89	74	91	99	9	666
Can businesses move beyond efficiency? The shifl toward effe ...	2006	40	15	11	17	18	26	28	23	27	20	-	225
Total		257	90	130	160	252	366	553	557	778	1093	94	4330

Appendix B

Table A2. Overview of document self-citation period ≤2012 to 2022.

Documents		≤2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
Chief executive officers' sustainability orientation and fir ...	2021	-	-	-	-	-	-	-	-	-	-	1	1
Behavioral entrepreneurship for achieving the sustainable de ...	2021	-	-	-	-	-	-	-	-	-	1	-	1
Insider perspectives on growth: Implications for a nondichot...	2021	-	-	-	-	-	-	-	-	-	1	-	1
University-linked programmes for sustainable entrepreneurshi ...	2021	-	-	-	-	-	-	-	-	1	1	-	2
Social Entrepreneurship and the Sustainability of Small Businesses At A South African Township...	2020	-	-	-	-	-	-	-	-	-	1	1	2
Can environmentally oriented CEOs and environmentally friend ...	2020	-	-	-	-	-	-	-	-	-	3	-	3
KITRO: technology solutions to reduce food waste in Asia-Pac ...	2020	-	-	-	-	-	-	-	-	-	1	-	1
The interplay of corporate entrepreneurship, environmental o ...	2020	-	-	-	-	-	-	-	-	-	1	1	2
Responsible entrepreneurship: outlining the contingencies	2019	-	-	-	-	-	-	-	2	1	-	-	3
Toward a Validated Competence Framework for Sustainable Entr ...	2018	-	-	-	-	-	-	-	3	1	1	-	5
Integrating hybridity and business model theory in sustainab ...	2018	-	-	-	-	-	-	-	-	1	-	-	1
Put Your Style at Stake: A New Use of Sustainable Entreprene ...	2018	-	-	-	-	-	-	-	-	-	2	-	2
Sustainable Entrepreneurship Research: Taking Stock and look ...	2018	-	-	-	-	-	-	2	3	-	1	-	6
Stakeholder Engagement in Sustainable Enterprise: Evolving a ...	2018	-	-	-	-	-	-	3	-	-	-	-	3
Stakeholder support for sustainable entrepreneurship - a fra ...	2018	-	-	-	-	-	-	-	-	-	2	-	2

Exploring the role of entrepreneurial orientation in clean t...	2018	-	-	-	-	-	-	-	-	-	1	-	1
Ecopreneurs' creation of user business models for green tech ...	2018	-	-	-	-	-	-	-	-	-	1	1	2
'Think big' or 'small is beautiful'? An empirical analysis o ...	2018	-	-	-	-	-	-	-	1	1	2	-	4
Doing business in a green way: A systematic review ofthe ec... ..	2017	-	-	-	-	-	-	-	-	-	1	-	1
Entrepreneurship and Well-being: Towards Developing a Novel ...	2017	-	-	-	-	-	-	-	-	1	-	-	1
Business Models for Sustainability: A Co-Evolutionary Analys ...	2016	-	-	-	-	1	5	3	5	2	1	17	
Tenant recruitment and support processes in sustainability-p ...	2016	-	-	-	-	-	2	-	1	-	-	3	
Business Models for Sustainability: Origins, Present Researc ...	2016	-	-	-	-	2	6	-	-	-	-	8	
Exploring the incorporation of values for sustainable entrep ...	2011	2	3	1	-	1	1	-	-	-	2	-	10
Making Ecopreneurs: Developing Sustainable Entrepreneurship ...	2011	2	2	3	-	3	1	3	1	2	1	-	19
Toward a sustainable conceptualization of dep...	2008	1	-	-	-	-	-	2	-	-	-	-	3
Market imperfections, opportunity and sustainable entreprene ...	2007	2	-	-	2	1	1	-	3	-	-	-	9
Toward a theory of sustainable entrepreneurship: Reducing en ...	2007	6	-	-	-	-	3	1	3	1	1	-	15
Can businesses move beyond efficiency? The shifl toward effe ...	2006	3	-	-	-	2	-	-	2	3	-	-	10
Total		16	5	4	2	9	13	18	21	18	26	5	138

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