

Critical Factors for SMEs' Business Sustainability through the COVID-19 Pandemic: A Systematic Literature Review

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ABSTRACT

The COVID-19 pandemic has brought profound changes in the global economy, altering the dynamics between nature, people, government, and business. This transformation has particularly impacted Small and Medium Enterprises (SMEs). As vital contributors to the distribution of wealth and the foundation of numerous businesses worldwide, SMEs face various challenges in sustaining their operations in today's competitive and globalized economy. The research aimed to explore the factors influencing the sustainability of SMEs from the Resource-Advantage Theory of Competition (RAToC) perspective. It applied a qualitative research through bibliometric analysis using Visualization of Similarities (VOS) viewer software with Scopus data from 2019 to 2023 and resulted in 560 relevant articles. The literature review reveals that successful SMEs in the post-COVID-19 era are capable of addressing challenges through innovation, adaptability, flexibility, and resource integration with a commitment to social responsibility. The keys to their success are the adept embrace of technological advancements, responsiveness to market changes, proactive seizing of new opportunities, and the cultivation of stakeholder engagement alongside prudent risk management. The research not only provides a nuanced understanding of dynamic strategies, but also offers profound insights into essential attributes, positioning SMEs to succeed within the continually evolving post-pandemic landscape. Therefore, it ensures their resilience and sustained growth in the future.

Keywords: Small and Medium Enterprises (SMEs), business sustainability, COVID-19, systematic literature review

INTRODUCTION

The concept of sustainability developed by Small and Medium Enterprises (SMEs) has undergone rapid awareness growth regarding environmental issues for several reasons (Belyaeva, 2018; Chofreh et al., 2020; Das et al., 2020). Firstly, sustainability is seen as promising to act as a source of competitive advantage (Cantele & Zardini, 2018). Secondly, it serves to avoid fraudulent practices and

mismanagement (Moosa & Ramiah, 2018). Thirdly, it provides a better understanding of how organizations substantially enhance their social and environmental performance (Johnstone, 2020). Fourthly, it aids SMEs in achieving sustainable business growth through improved performance (Rao et al., 2023). Lastly, it reflects a higher self-image compared to competitors. Furthermore, many entrepreneurs have adopted the sustainability concept to develop and maintain competitive advantages. Consequently,

competition has intensified. Various industries and businesses have consequently adopted the concept of sustainable business models to fulfill their economic, environmental, and social goals simultaneously (Nosratabadi et al., 2019).

In the SME business sector, challenges persist. They are further exacerbated by limited strategic resources (Yadav et al., 2017), small-scale operations in terms of employee count and revenue (Montoro-Sanchez et al., 2018), and a constrained culture of innovation (De Jesus Pacheco et al., 2017). Consequently, it is imperative to enhance performance and establish sustainable competitive advantages, even though SMEs are categorized as isolated enterprises with constrained resources.

Furthermore, SMEs play a significant role in the global business landscape, serving as crucial contributors to job creation and the advancement of the global economy. In Indonesia, they constitute a substantial majority, representing around 90% of businesses and employing over 50% of the workforce worldwide. In developing countries, formal SMEs alone contribute up to 40% of the national income Gross Domestic Product (GDP), but these figures increase significantly when considering informal SMEs as well (Naradda Gamage et al., 2020). Considering one of the goals of sustainable development is for a nation to accommodate the growing global workforce, the development of SMEs has become a top priority for governments worldwide, prompting significant attention and action (Barrantes Briceño & Almada Santos, 2019).

It is undeniable that the COVID-19 pandemic has triggered dramatic impacts on global economic and environmental development (Emami et al., 2022; Saleh, 2020), particularly for the survival of SMEs. SMEs have felt significant repercussions from the COVID-19 pandemic (Shafi et al., 2020). The severity of the COVID-19 pandemic has generated chaotic impacts on the SME industry worldwide. Hence, the research aiming to capture the body of research by integrating 'COVID-19 and SMEs' through a systematic literature review becomes imperative. It recognizes that recovery from the pandemic's effects will take years (Hossain et al., 2022). It has been found that these impacts have been more pronounced on SMEs compared to larger corporations due to the lack of adequate resources, ultimately rendering them ill-prepared to confront this uncertainty (Bartik et al., 2020).

On the other hand, this pandemic has also presented opportunities for the future growth of SMEs and the development of stronger and more humane responses in the event of similar disasters in the future (Sharma, Kraus, et al., 2022). Therefore, SMEs need to increase their investment in strategically sustainable innovation as a response to the COVID-19 pandemic crisis (Sharma, Lopes de Sousa Jabbour, et al., 2022). This approach can assist SMEs in remaining competitive during crises by focusing on the sustainable competitive advantages required for a strategic approach.

The researchers' critical question is what crucial factors should be developed as strategic instruments to support the sustainable success of SMEs during the pandemic. The researchers answer that the adoption of strategic instruments should be developed through the Resource-Advantage Theory of Competition (RAToC) perspective for several reasons. First, this theory proposes that strategic resources should be managed as organizational assets to achieve sustainable competitive advantage. Second, resources must possess and highlight distinctive characteristics compared to competitors. Finally, demand is heterogeneous across industries, within industries, and dynamic in the business environment. Thus, the primary contribution of the research is that the researchers explore and provide a critical review of the determinants of SMEs' sustainability during the COVID-19 pandemic using the grand theory of RAToC, enabling them to thrive in the next era.

Organizational determinants for SMEs' business sustainability refer to the internal factors within an SME that influence its ability to remain sustainable, grow, and be successful in the long term (Salim et al., 2019). These organizational determinants cover various aspects of how the organization is organized, managed, and adapted to changes in its business environment. Understanding and addressing these organizational factors is critical for SMEs to enhance sustainability and competitive advantage. Additionally, SME management can be utilized to understand the relevance of sustainable financial factor mechanisms across various types of SMEs and how SMEs can employ these financial instruments to achieve strategic competitive advantages (Burlea-Schiopoiu & Mihai, 2019).

The benefits of sustainability practices can ultimately be realized through effective leadership and management as the basis for the success of every organization, including SMEs. Competent leaders set strategic directions and create a positive organizational culture and orientation and a shared vision that is in line with sustainability goals (Hanaysha et al., 2022). They are responsible for making important decisions, managing resources, and guiding companies through challenges and uncertainties. Therefore, leaders and entrepreneurs are required to cultivate and integrate value-based practices and competencies (such as strategic competencies, systems thinking, interpersonal skills, anticipatory skills, and ethical values) into their business endeavors (Luu, 2020). Furthermore, the sustainability of SMEs in the era of economic globalization is crucial due to their role as drivers of sustainable economic development, both in developed and developing countries. It is reflected in the various competitive challenges faced by SMEs, including sustainability, global, and technological challenges. Specifically, technological advancements within SMEs are closely linked to their sustainability and success in global competition (Prasanna et al., 2019). For instance, companies adopt green approaches and continuously minimize organizational management waste (De et al.,

2020). Lean and green initiatives have the potential to enhance the sustainability competitiveness of SMEs, and when implemented concurrently, they are likely to outperform their competitors (Cherrafi et al., 2017). The concept of sustainability enables SMEs not only to concentrate on strategies for implementing sustainable practices but also to critically identify the barriers to the success of their sustainable business endeavors (Abdullah et al., 2023). It is considered essential to design and develop a strategic approach by integrating sustainable concepts as a manifestation of management commitment to sustainability performance in SMEs (Madrid-Guijarro & Duréndez, 2024).

Next, the strategic role of human resources becomes highly significant as it provides numerous benefits for the success of performance. First, it serves as a tool for change and innovation and supports strategic decision-making within the organization (Zhou et al., 2021). Second, it is as the knowledge base, motivating companies to invest more in the prospects of the company (Iqbal, 2020). Third, Human Resource Management (HRM) involves organizational, career, and personnel development. For example, facilitating employee learning, skills, and capabilities leads to environmentally proactive actions and work culture (Yuriev et al., 2018). Logically, environmental value can emerge as an output of business processes and activities that can support behavioral change and learning opportunities toward sustainable development (Topleva & Prokopov, 2020).

Green Human Resource Management (GHRM) represents an expansion of traditional HRM to foster environmentally responsible business practices. Human resource plays a vital role in an organization and can actively contribute to multifaceted environmental management endeavors. As such, it is essential to involve employees in the decision-making process to promote economic growth while mitigating environmental harm (Dumont et al., 2017).

Existing literature indicates that HRM has evolved from conventional forms with low employee involvement to become more participatory and supportive. This process involves employees having the opportunity to develop skills, knowledge, and attitudes (Singh et al., 2019). In an era of heightened awareness regarding environmental management and sustainable resource development, GHRM refers to HRM practices that are oriented towards the environment and the ecological impact of the company, as well as aligning with the company's environmentally friendly strategies and environmentally responsible employee behavior. It is argued that GHRM is an integral part of the sustainable HRM literature, focusing on environmentally oriented corporate management practices and serving as a platform to connect HRM practices with green corporate management activities (Dumont et al., 2017; Masri & Jaaron, 2017). Therefore, GHRM also reflects an organization's strategic orientation towards environmental protection and considers business processes and organizational practices that encourage employees to engage in

environmentally friendly work behavior to reduce workplace environmental pollution.

The sustainability of SMEs is contingent upon environmental determinants, which encompass external factors within the business environment that exert an influence on the long-term sustainability of these enterprises. These determinants encompass the broader economic, social, technological, and regulatory conditions in which SMEs function (Gawusu et al., 2022). Proficient comprehension and effective management of these environmental factors are imperative for SMEs to navigate challenges, capitalize on opportunities, and maintain competitiveness in the market.

One notable aspect involves the implementation of supportive government policies to reinforce the notion of sustainability within the industrial sector while encouraging industries to transition towards circularity and environmentally friendly practices (Zutshi et al., 2021). However, for SMEs to elevate their sustainable performance, adopting appropriate managerial tools at the enterprise level is crucial. It includes investments in skilled human capital, SMEs' resilience-building capacity, the development of flexible strategies, and a comprehensive analysis of the ever-changing external environment, all of which positively contribute to the overall enhancement of sustainable performance for these SMEs.

Empirical literature addressing approaches to corporate support specifically tailored to the pro-environmental needs of SMEs is limited (Paterson et al., 2022). However, government support plays a positive role in enhancing firm performance (Han et al., 2017). In particular, government financial incentives are considered a key factor in fostering innovation across business sectors as they can incentivize network ties between managers and owners to achieve long-term goals (Adomako et al., 2018).

The sustainability of SMEs is influenced by social determinants, which pertain to external factors associated with society and stakeholders (Subramanian & Suresh, 2022). These factors have an impact on the ability of SMEs to maintain long-term sustainability and foster developmental progress. These social determinants include the relationship between SMEs and their employees, customers, communities, and the surrounding environment (Mies & Gold, 2021). Understanding and addressing these social factors is important for SMEs to establish good relationships with stakeholders and support a commitment to social responsibility, which can improve reputation and business sustainability.

Some SMEs cannot survive the COVID-19 pandemic. In Indonesia, data from the Ministry of Cooperatives and SMEs shows that around 30% of SMEs experience a significant decline in income during the pandemic, with many having to close their businesses. In India, a survey by the All India Manufacturers' Organization (AIMO) has reported that around 35% of SMEs in India have to permanently stop their operations due to the impact of the pandemic.

According to a report from McKinsey, around 25% of SMEs in Europe are at high risk of bankruptcy in the first 12 months of the pandemic if there is no government intervention. In the UK, the Federation of Small Businesses (FSB) has reported that more than 250,000 SMEs are at risk of closure by the end of 2020. In the United States, a study by the National Bureau of Economic Research (NBER) shows that around 22% of SMEs in the US are forced to close their business in the early months of the pandemic. In Canada, the Canadian Federation of Independent Business (CFIB) reports that 14% of MSMEs are considering permanent closure due to the economic impact of the pandemic.

Stakeholders have a proven role in generating a sense of environmental responsibility in SMEs. Capabilities regarding stakeholders, both tangible and intangible, influence a company's orientation towards continuous innovation, its environmental responsibility, and related capabilities. As stakeholders, SMEs are becoming more open to creating, sharing, and reusing environmental knowledge (Ahmed et al., 2021). SMEs and their stakeholders, united by a shared objective, establish and synchronize networks to disseminate information, provide education, and raise awareness regarding sustainability. This collective effort influences the industry by transforming fundamental business operations and shaping market perceptions of the organization. Moreover, it impacts the individual stakeholders' sense of identity, fostering the cultivation of more robust relationships with the SMEs. Therefore, sustainability challenges must continue and require the exploration of new sustainable approaches (Alexander, 2020). In this way, a comprehensive solution to sustainability may be offered by exploring the factors that influence sustainability policy and implementation.

METHODS

The main objective of this systematic literature review is to explore existing knowledge about how SMEs around the world can survive running their business by looking at the challenges that will be faced and how MSMEs get out of problems and face challenges so that they gain a competitive advantage which in the end is a sustainable business. The primary objective of conducting a systematic literature review is to amalgamate and synthesize existing literature, thereby delineating and proposing potential avenues for future research to propel the advancement of the field. A systematic review encompasses the following key characteristics: (1) a clearly stated set of objectives with a priori eligibility criteria, (2) explicit and reproducible methods, (3) a comprehensive search that attempts to find all eligible studies, (4) assessment validity of the included studies (e.g., risk of bias), and (5) systematic presentation and synthesis of the findings of the included studies (Salim et al., 2019). The research steps can be seen in Figure 1 (see Appendices).

Data search uses scopus.com with restrictions. It is based on keyword (Small and Medium Enterprises), subject area (business management and accounting, social sciences and economics and finance), publication stage (final), source type (journal and conference paper), and language (English). Based on this limitation, 560 documents are obtained, as seen in Figure 2 (see Appendices).

The next step is to carry out the mapping and analysis process with the help of Visualization of Similarities (VOS) Viewer tools. The methodology used in the research is bibliometric analysis using VOS Viewer software. This method is used to identify and visualize the latest research trends, as well as map collaboration networks between researchers and institutions.

The results of a database search based on Scopus Search yield several articles to facilitate the analysis and evaluation process so that the researchers can determine and sort these articles to answer research questions. Apart from that, the VOS Viewer can also map a figure of research that has been carried out worldwide related to the business continuity of SMEs. Based on the results of an article search through Scopus in the last five years, 560 articles are obtained. Based on Figure 3 (see Appendices), research with the theme of business sustainability for SMEs has increased throughout the year, which means that the topic is still interesting today.

RESULTS AND DISCUSSIONS

The distribution of countries from 560 research articles related to the sustainability of SMEs covers 43 countries. In Table 1, India, the United Kingdom, Italy, Malaysia, and Indonesia are the countries that have researched the topic the most. Then, 32 journals from 16 countries discuss the stability of the SMEs' business during the COVID-19 pandemic, with India and Malaysia having the most, as seen in Table 1.

Research on SMEs' business sustainability cannot be separated from other variables that influence or support the concept of SME business sustainability itself. It can be seen in Figure 4 (see Appendices), which maps out keywords that have a connection to SMEs' business continuity. Figure 4 (see Appendices) explains that business sustainability is very closely related to sustainable development and SME entrepreneurs.

In addition, the role of SME's business size is also related to sustainable development, business development, supply chain management, manufacturing, stakeholders, environmental economics, knowledge, and entrepreneurs (shown in Figure 5 (see Appendices)). The size of SMEs impacts their capacity for sustainable practices as they are typically more agile and adaptable to regulations. Their innovative capabilities enable them to create unique sustainability solutions. SMEs also have closer connections with local communities, enhancing stakeholder engagement and allowing for tailored

sustainability initiatives. In supply chain management, their smaller scale promotes direct communication with suppliers and customers, facilitating the adoption of sustainable practices. Entrepreneurs in SMEs play a crucial role in advancing sustainable development by prioritizing eco-friendly practices and fostering a culture of sustainability, inspiring employees and stakeholders to contribute to environmental goals.

Table 1 Mapping Journal by Country

| No | Country | Number of Journal |
|--------------------|----------------|-------------------|
| 1 | India | 6 |
| 2 | Malaysia | 6 |
| 3 | Indonesia | 4 |
| 4 | United Kingdom | 3 |
| 5 | Vietnam | 2 |
| 6 | Brazil | 1 |
| 7 | Croatia | 1 |
| 8 | Czech | 1 |
| 9 | Georgia | 1 |
| 10 | Kenya | 1 |
| 11 | Romania | 1 |
| 12 | Rusia | 1 |
| 13 | Slovakia | 1 |
| 14 | Spanyol | 1 |
| 15 | Thailand | 1 |
| 16 | Ukraine | 1 |
| Grand Total | | 32 |

Figure 6 (see Appendices) shows that the most dominant number of journals in SMEs' business sustainability research is sustainability journals, with 149 papers, and the rest have less than 30 papers. This trend underscores the growing importance of sustainability in SME research. The high volume of publications in sustainability journals reflects a strong interest among researchers in how SMEs can adopt sustainable practices. The concentration of papers in these journals indicates that sustainability is a central theme in academic inquiry rather than a peripheral concern. Then, the low number of publications in other journals suggests a need for more interdisciplinary approaches that connect sustainability with areas like finance, marketing, and human resource management. Overall, these findings highlight the crucial role of sustainability in the future of SMEs and suggest that further research is necessary to explore innovative practices and frameworks that support sustainable development in this sector.

Figure 7 (see Appendices) only illustrates the relationships between journals that study business sustainability in SMEs. The three journals with the highest number of papers on this topic are Sustainability, the Journal of Cleaner Production, and the Journal of

Business Strategy and the Environment. Sustainability is renowned for its comprehensive approach to the environmental, social, and economic dimensions of sustainability, making it a pivotal platform for research related to SMEs. The Journal of Cleaner Production emphasizes innovative approaches and practices that enhance sustainability in production processes, which is crucial for SMEs seeking to improve their operational efficiencies. Meanwhile, the Journal of Business Strategy and the Environment focuses on strategic considerations for businesses aiming to integrate sustainability into their core strategies. It offers valuable insights for SMEs looking to align their business models with sustainable practices. The prominence of these journals indicates a growing recognition of the importance of sustainability in the SME sector, providing a rich resource for researchers and practitioners dedicated to advancing sustainable business practices.

The information obtained from the literature indicates that SMEs are increasingly shifting towards environmental practices. As previously mentioned, a company's resilience in addressing economic impacts depends on its awareness, which has influenced business competition rules, as well as the business model in the global industry as a core competitive factor in sustainable development. Due to the green movement, it is not only used as an engine for economic growth but also actively utilized as a field to discover, nurture, and develop entrepreneurial opportunities and achieve sustainability values. Therefore, focusing on the environment becomes a crucial opportunity that is not only used for survival but also for future sustainability.

SMEs striving for survival in the context of sustainability must adopt and formulate growth-oriented business approaches even in post-pandemic conditions. Moreover, they must also exhibit resilience in facing all uncertainties, such as the COVID-19 pandemic. The scale of environmental and social challenges is currently faced by the world necessitates companies, both large and small, to develop economically, environmentally, and socially sustainable innovative solutions.

The success of SMEs in practicing sustainable entrepreneurship is highly dependent on their entrepreneurial orientation. To effectively address sustainability challenges and offer distinctive business solutions, SMEs must demonstrate adaptability, flexibility, innovation, and integration of resources as organizational capital. These characteristics enable SMEs to successfully navigate the complexities of sustainable entrepreneurship.

In the RAToC perspective, the role of management in realizing sustainability goals is to recognize, understand, create, select, implement, and modify strategies. Green innovation that has an environmental perspective is considered green intellectual capital. It includes learning actions to produce innovative actions that are part of the continuous improvement process. Furthermore, it

not only requires the integration of knowledge and capabilities but also ensures that the value generated will be distributed evenly (Lu et al., 2017). It will stimulate survival and even increase competitive advantage in the long term. Firstly, innovation includes technology and business practices. Digitalization can be a significant differentiator for SMEs who can survive this pandemic. It is characterized by SMEs having lower bargaining power compared to large companies, which allows them full access to critical resources and capabilities (Campbell & Park, 2017). For instance, high-volume, diverse data on social media can become high-value information when using new processing techniques to enhance the discovery of new knowledge, generating insights for decision-making (Akpan et al., 2020). Integration of market orientation with organizational learning achieves competitive advantage in emerging markets. The learning cycle plays a crucial role in attaining competitive advantages and reveals the company's adaptability to internal and external changes (Shehata, 2020).

Understanding complexity helps SMEs to understand the markets and customers they want to serve with innovative offerings through uniqueness that becomes a differential value compared to competitors. It can be innovation strategies that encourage growth and profitability towards sustainable innovation in product offerings, marketing strategies, business model transformation, and influencing regulations. By understanding the complexities of their operating environment, SMEs can identify emerging trends and customer needs, allowing them to tailor their products and services. This adaptability enhances customer satisfaction and positions SMEs as leaders in their niches. Moreover, embracing complexity enables SMEs to leverage advanced technologies and data analytics to optimize operations and improve decision-making. Through innovation, SMEs can adopt more sustainable practices that reduce waste and resource consumption, further strengthening their competitive advantage.

Supportive support from the government for employees, customers, suppliers, and local communities can help SMEs to increase sustainability awareness, improve workforce competency, provide technical and financial support, and strengthen data communications infrastructure. For example, limited resources and company size can hinder the company's ability to respond and recover from the unprecedented COVID-19 pandemic. One of the examples is in terms of investment management which can increase operational costs (Ivanov & Dolgui, 2020). Therefore, the involvement of the government or stakeholders can contribute to handling current and future business challenges through synergistic collaboration. For example, the response to the COVID-19 pandemic is to support important stakeholders such as employees, customers, communities, and society as a whole through Corporate Social Responsibility (CSR) initiatives both internally and externally. Internal CSR

refers to employees being able to participate and gain development benefits that demonstrate the employer's respect for its employees. Meanwhile, external CSR refers to practices that focus on the stewardship of local communities, the natural environment, and consumers (Deng et al., 2020). Therefore, as part of a relationship, efforts to build readiness, response, recovery, adaptation, and develop the organization's unique advantages are the main drivers for improving company performance that is pro-sustainable development.

The results show that strategic resources include adaptability, flexibility, innovation, and resource integration. If they are developed into sustainability-based business logic, they will ultimately form environmental values and environmental learning as strategies for adapting and changing environmental aspects for more profitable harmony. Strategic resources such as adaptability, flexibility, innovation, and resource integration can be transformed into a sustainability-based business model. By doing so, these resources will create environmental values and foster environmental learning, which serve as strategies for adapting to and improving environmental conditions while achieving greater profitability and harmony in business operations.

CONCLUSIONS

The research aims to identify and explore the critical factors that contribute to the sustainability of SMEs during the COVID-19 pandemic. By employing a systematic literature review, the research highlights the importance of innovation and digitalization, understanding market complexity, government and stakeholder support, synergistic collaboration, and development of unique advantages. These factors are found to be essential for SMEs to navigate through the challenges posed by the pandemic and ensure long-term business sustainability.

Here are the critical factors that can enable SMEs to survive. First, it is innovation and digitalization. Innovation encompasses technology and business practices. Digitalization becomes a significant differentiator for SMEs, allowing full access to critical resources and capabilities, which generate insights for decision-making. Second, understanding market complexity helps SMEs to grasp markets and customers, enabling them to offer unique innovations as a differential value compared to competitors. It drives growth and profitability through sustainable innovation in product offerings, marketing strategies, business model transformation, and regulations. Third, it is government and stakeholder support. Government support can enhance sustainability awareness and workforce competency, provide technical and financial assistance, and strengthen data communication infrastructure. It includes internal and external CSR initiatives. Fourth, in synergistic collaboration, involvement of the government and stakeholders in synergistic collaboration is essential to

face current and future business challenges, such as the COVID-19 pandemic. Fifth, in developing unique advantages, adaptability, flexibility, innovation, and resource integration are strategic resources that, when developed into sustainability-based business logic, will form environmental values and environmental learning as strategies for adapting and changing environmental aspects for more profitable harmony.

The research findings have several implications for policymakers, business owners, and researchers. For policymakers, it underscores the need to provide robust support mechanisms, including financial aid and infrastructural improvements, to assist SMEs in times of crisis. Business owners can leverage the insights to enhance their adaptability and resilience by focusing on innovation and digitalization and building strong stakeholder relationships. For researchers, the research offers a comprehensive framework for understanding the multifaceted aspects of SME sustainability, paving the way for further empirical studies in this domain.

Despite its contributions, the research has certain limitations. The reliance on secondary data through literature review limits the direct applicability of findings to all contexts. Additionally, the dynamic nature of the COVID-19 pandemic means that the factors influencing SME sustainability can evolve, necessitating continuous monitoring and updating of research findings.

Future research can focus on conducting primary empirical studies to validate the identified critical factors in diverse geographic and economic contexts. Longitudinal studies can provide deeper insights into how these factors influence SME sustainability over time. Furthermore, exploring the role of technological advancements and digital transformation in greater detail can offer valuable perspectives on how SMEs can better prepare for future disruptions.

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APPENDICES



Figure 1 Stages of the Bibliometric Method

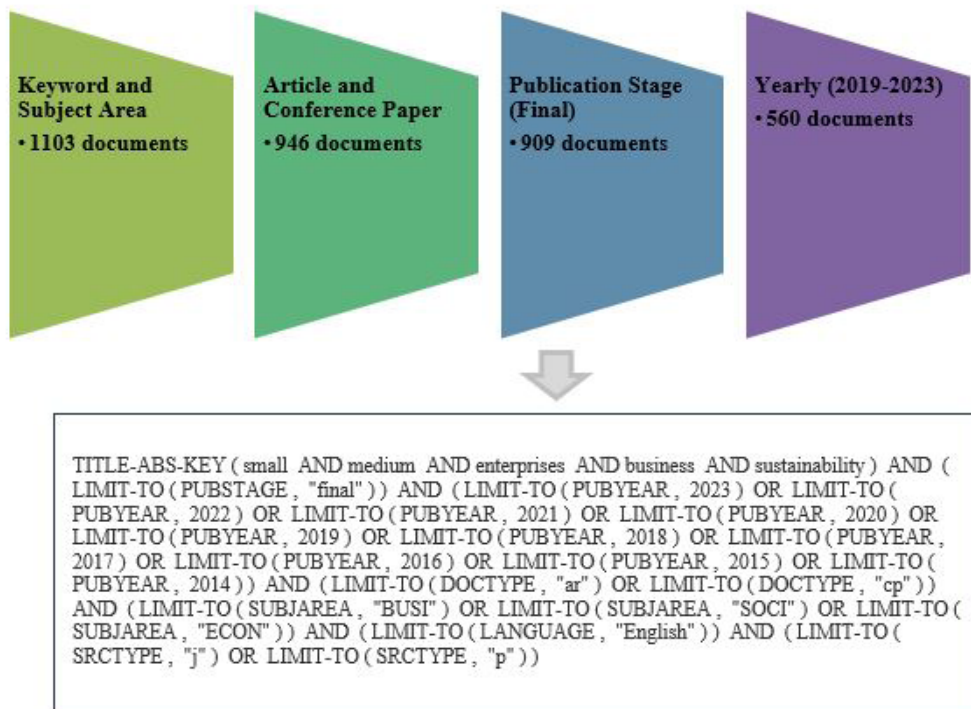


Figure 2 The Process of Searching Literature Using Scopus



Figure 3 Number of Business Sustainability in Small and Medium Enterprises (SMEs) Research

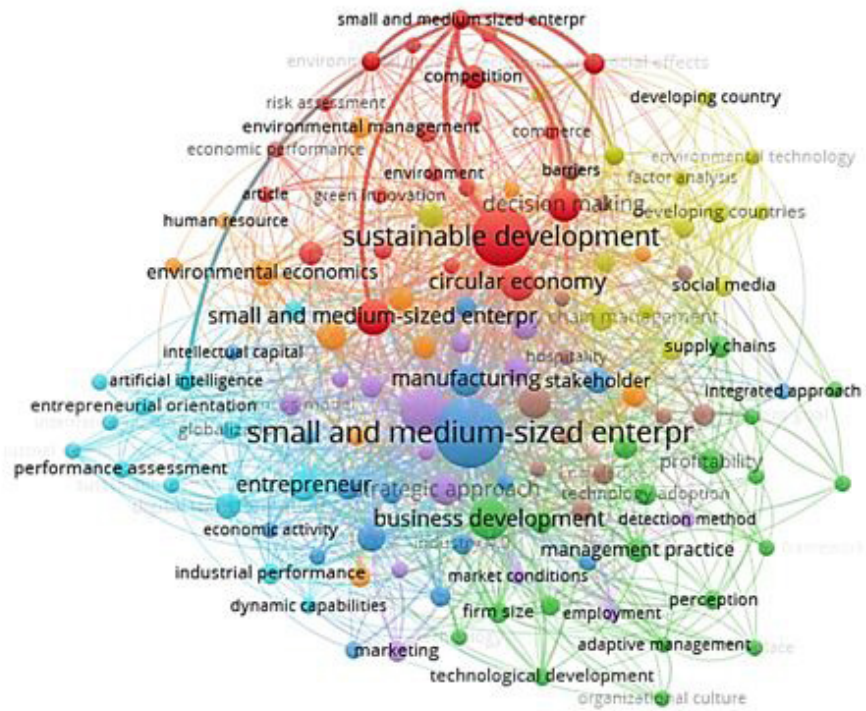


Figure 4 Mapping of Business Stability in Small and Medium Enterprises (SMEs) Research Keywords

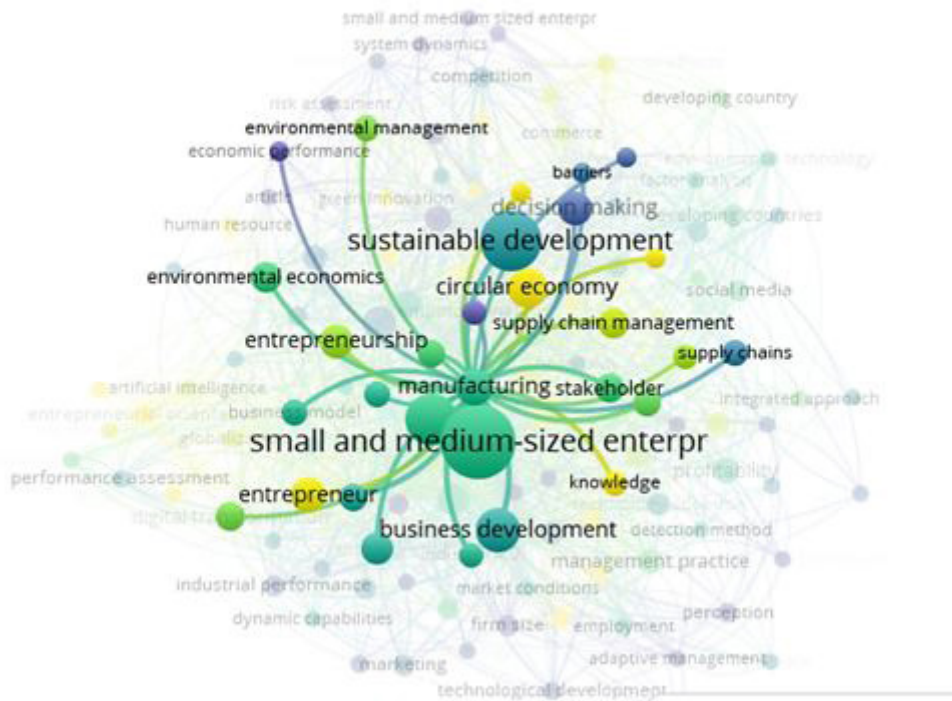


Figure 5 Mapping of Business Stability Size in Small and Medium Enterprises (SMEs) and Stability Research Keywords

| Verify selected sources | | |
|-------------------------------------|---|-----------|
| Selected | Source | Documents |
| <input checked="" type="checkbox"/> | journal of cleaner production | 27 |
| <input checked="" type="checkbox"/> | sustainability (switzerland) | 149 |
| <input checked="" type="checkbox"/> | business strategy and the environment | 24 |
| <input checked="" type="checkbox"/> | corporate social responsibility and en... | 10 |
| <input checked="" type="checkbox"/> | journal of open innovation: technolo... | 6 |
| <input checked="" type="checkbox"/> | journal of business research | 7 |
| <input checked="" type="checkbox"/> | environment, development and susta... | 5 |
| <input checked="" type="checkbox"/> | journal of small business and enterpri... | 5 |
| <input checked="" type="checkbox"/> | international journal of entrepreneurs... | 6 |
| <input checked="" type="checkbox"/> | proceedings of the international conf... | 7 |

Figure 6 Mapping the Number of Journals on Business Sustainability in Small and Medium Enterprises (SMEs)

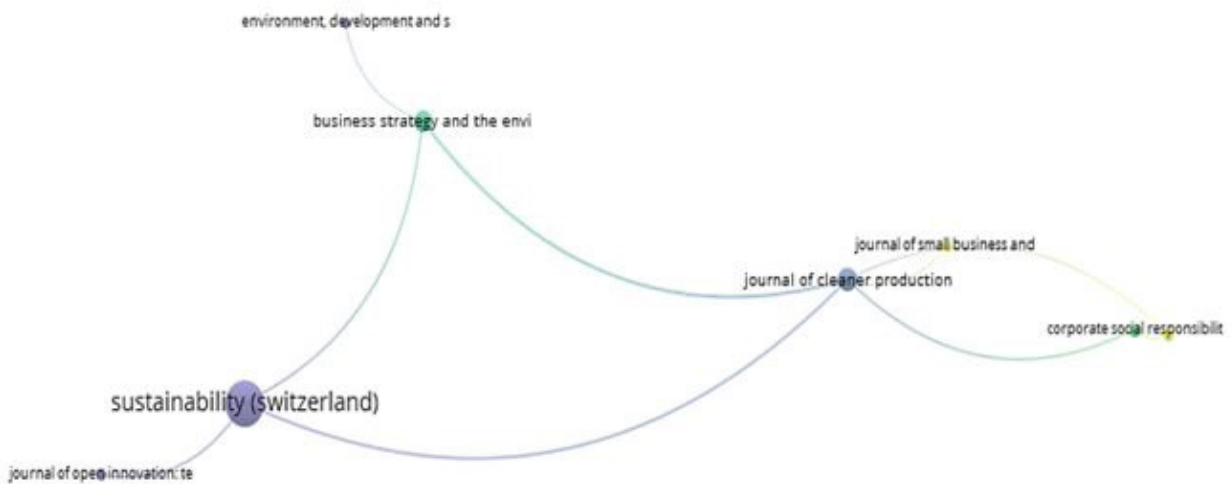


Figure 7 Mapping of Business Sustainability in Small and Medium Enterprises (SMEs) Research Based on Journal