
SMALL ENTERPRISES, BIG CHALLENGES: DETERMINANT FACTORS FOR SUSTAINABILITY IN A CHANGING WORLD

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SUMMARY

This study investigates the dynamics influencing the sustainability of small and medium-sized enterprises (SMEs) and the key strategies for achieving long-term sustainability. Based on a review of 206 scientific articles published between 2019 and 2023, the results highlight the importance of formalizing economic activities, managing human talent, providing continuous training, implementing advanced technologies, and embracing corporate social responsibility (CSR). These practices are essential for improving competitiveness, fostering sustainable innovation, and enhancing SMEs' adaptability.

The formalization of economic activities not only improves management but also increases competitiveness. Continuous training of human capital, from managerial to operational levels, promotes sustainable innovation and commercial success.

CSR is crucial for improving corporate reputation and strengthening relationships with stakeholders. Integrating environmental practices, such as prioritizing local suppliers and ensuring proper waste management, is vital for business sustainability. Support from stakeholders and financial institutions is vital, as maintaining solid relationships and accessing adequate financing significantly contributes to stability and sustainable growth.

SMEs can achieve long-term sustainability by adopting a comprehensive approach that combines the formalization of activities, human talent management, technology implementation, CSR, and stakeholder support. These strategies enable them to effectively navigate internal and external challenges, ensuring sustainability in a dynamic and competitive business environment.

Introduction



lobally, small businesses have a significant impact on the economy as they are sources of employment and income.

Additionally, their productive activity helps accelerate local economies by serving a public that is often neglected by larger companies (Baque *et al.*, 2022).

According to Dini and Stumpo (2020), this is also true in Latin

American countries. Small businesses contribute to their growth as they are a substantial part of the productive network. In the case of Uruguay, for example, they represent 99% of all businesses, generating employment for 67% of the workforce in the private sector. However, their contribution to the Gross Domestic Product (GDP) compared to large companies is still significantly lower. For instance, according to the analysis, the productivity of large companies is 33 times higher than that of micro-enterprises and six times

higher than that of small businesses. Furthermore, when discussing and debating the evolution of sustainability in small and medium-sized enterprises, these businesses are often overlooked despite being key players (Alayon *et al.*, 2022).

For small businesses, as for any organization today, sustainability—understood by Dourojeanni (2000) as the development of a wide range of environmental, social, and economic factors and their proper implementation—represents sustained and consistent success,

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and the positive impact can be seen in the surrounding environment.

In this context, the present study aims to deepen the understanding of the internal and external factors that influence the sustainability of small businesses. The objective is to analyze the existing literature and extract information regarding the critical strategies that small businesses must implement to achieve long-term sustainability. Consequently, this study seeks to answer the research question: What key strategies must small businesses adopt to effectively face internal and external challenges and ensure long-term sustainability in the market? Through this investigation, we aim to provide valuable insights that strengthen the action framework for small businesses in their quest for sustainable growth.

Methodology

This research employed a descriptive bibliographic review based on scientific articles on SME sustainability. Articles were selected from Web of Science and Scopus due to their high quality and peer-review process. The search included the terms "sustainability" and "small businesses," considering only original and open-access articles from 2019 to 2023, excluding those related to COVID.

A total of 206 articles were obtained (120 from Scopus and 86 from Web of Science). By applying the criteria of the Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA), 39 duplicate articles and 18 with broken links were first discarded, resulting in 149 records. In the screening stage, titles were evaluated, discarding 99 non-relevant articles. Then, the abstracts of the remaining 50 articles were analyzed, eliminating 21 for lack of relevance and 2 for not being open access. Finally, 27 articles were included for full-text analysis, as shown in Figure 1.

In the first analysis of the 27 documents, the following distribution was evident: United States (3), Spain (2), Indonesia (2), Finland (2), China (2), and one article each from Scotland, Serbia, Saudi Arabia, Sri Lanka, Slovenia, Nigeria, Sweden, Greece, Italy, Korea, and Poland. Two articles mentioned European countries, one mentioned Australia, and two did not specify any country. Regarding funding, 14 articles were financed by public and/or private funds, 7 had no funding, and 6 did not present any information.

In the second analysis, the information was organized into a

matrix (Table I) with three columns: authorship of the study, research topics, and main proposals. The "research topics" column facilitated categorization, grouping similar topics into six categories. For example, "The impact of formality, integration, and commitment on the performance of Latino-owned small businesses" was classified under "Best practices in management and strategy for SME sustainability."

Similarly, the "proposals and/or contributions" were categorized into 15 different categories. The category "Importance of learning, training, and practice generates sustainable innovation and commercial success" was repeated seven times, being the most frequent.

Finally, regarding the methodology used by the reviewed articles, they were classified by type of instrument (Figure 2) as follows: studies using surveys (10), interviews (6), official databases (4), literature review (2), case studies (2); literature review and surveys (2), and literature review and interviews (1).

Results

As mentioned in the methodology, the methodology used allowed the organization of information into two fundamental aspects. First, a bar chart was generated to show the categories of researched topics, and second, a frequency Table II was developed to compile the 15 main proposals and contributions from the 27 articles analyzed in full text. These two aspects constitute the main findings of the present investigation.

Main Research Topics on Small Business Sustainability

The organization of information through Table I allowed for the identification of six research topics, each grouping a different number of articles, as detailed in Figure 3.

To present the information in Figure 3 in an organized and clear manner, the details of each column are described from left to right.

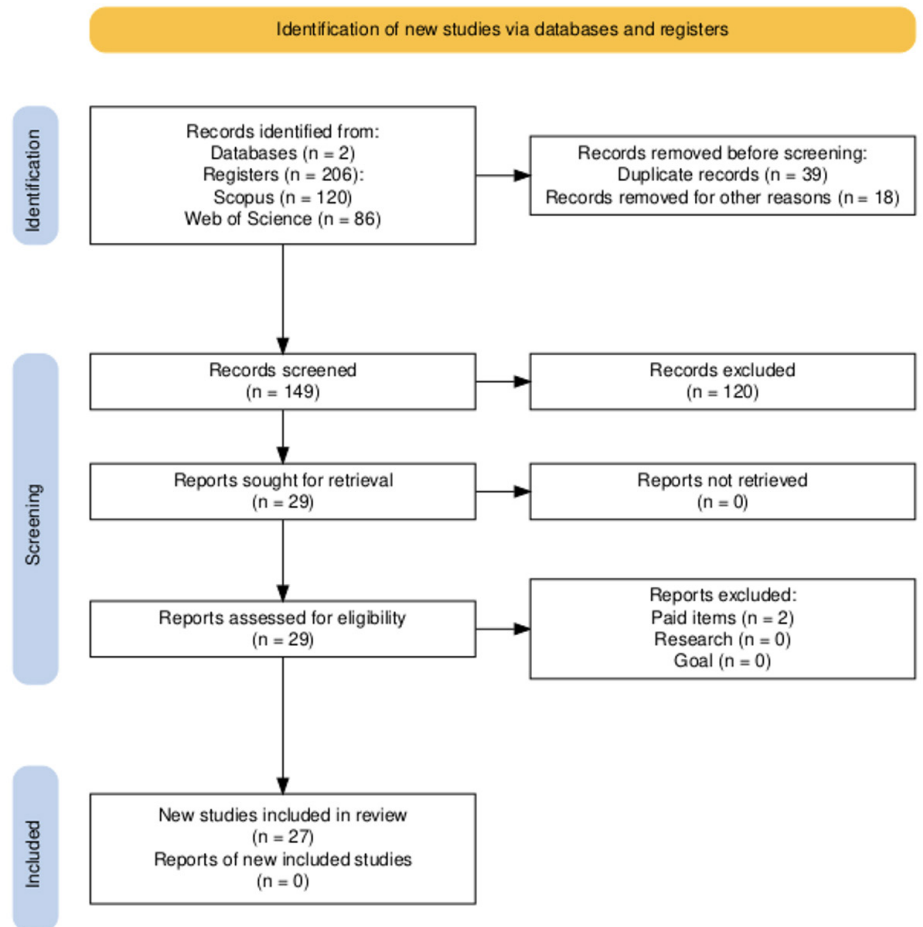


Figure 1. Application of PRISMA 2020 diagram criteria.

TABLE I
MAIN THEMES, PROPOSALS AND/OR CONTRIBUTIONS OF THE ARTICLES REVIEWED

Author	Research Topic	Proposals and/or Contributions
1. Starbird <i>et al.</i> (2022)	Best practices in management and strategy for SME sustainability (T1*)	Commitment, values, good leadership, and the path of business formality as good practices for business success and SME sustainability (1*)
2. Su <i>et al.</i> (2022)	Determinants related to owner/staff behavior and shared values in the creation and development of sustainable SMEs (T2*)	(1*) Education and promotion to customers and stakeholders on the importance of consuming from companies with environmental, social, and economic sustainability (2*)
3. Ceynowa <i>et al.</i> (2023)	Impact of digital transformation and infrastructure on SME sustainability (T3*)	(1*) Implementation of technology at different scales and adapted to the environment allows better management towards sustainability and facing external challenges (3*)
4. Graafland (2020)	(T2*)	Instrumentalization of environmental issues for the improvement of business sustainability (7*) (1*)
5. Manzaneque-Lizano <i>et al.</i> (2019)	The environment as an influencer for SME sustainability (T4*)	Establishing a clear, organized, and harmonious relationship with stakeholders provides a lifeline for SMEs in times of financial crisis (4*)
6. Das <i>et al.</i> (2020)	(T3*)	(3*)
7. Dwiputri <i>et al.</i> (2023)	Green innovation and technology and their relationship with sustainability (T5*)	Behavior and characteristics of an SME towards the environment and its adoption within the business model (5*) Importance of learning, training, and practice generates sustainable innovation and commercial success (6*)
8. Saunila <i>et al.</i> (2019)	(T5*)	(7*) (5*)
9. Xin <i>et al.</i> (2020)	(T1*)	(6*)
10. Fonseca and Carnicelli (2021)	(T1*)	(7*)
11. Nasiri <i>et al.</i> (2022)	(T4*)	(3*)
12. Cantele <i>et al.</i> (2020)	(T2*)	Business sustainability understood as good reputation and commitment to the environment, besides referring to the company as visionary (8*) The implementation of sustainability in an SME should start with exact knowledge and training on the subject (9*)
13. Park <i>et al.</i> (2019)	(T1*)	(6*) Business strategy plays an important role in future performance and growth potential (10*)
14. Alayon <i>et al.</i> (2022)	(T4*)	(6*) (9*)
15. Arsic <i>et al.</i> (2020)	(T1*)	Export generating liquidity, with attributes such as exporting various products to various places and belonging to a supply chain as an influence on SME sustainability (11*)
16. de la Fuente-Cabrero <i>et al.</i> (2019)	Financial education and inclusion, financing, and their influence on SME financial sustainability (T6*)	Improving risk analysis against SME indebtedness, when only based on size, as there are other factors such as the purpose of the debt and the sector involved (12*)
17. Elshaer <i>et al.</i> (2023)	(T2*)	(5*) (6*)
18. Ranabahu and Wickramasinghe (2022)	(T6*)	(12*) (4*)
19. Alfarizi <i>et al.</i> (2023)	(T3*)	(3*)
20. Demjanovičová and Varmus (2021)	(T4*)	(5*) (8*)
21. Eneh <i>et al.</i> (2023)	(T1*)	(6*)
22. Hofmann <i>et al.</i> (2022)	(T4*)	(2*)
23. Emilsson <i>et al.</i> (2020)	(T1*)	For sustainable innovation, co-creation and involvement of all actors is indispensable (13*) Entrepreneurship generation through business incubation backed by investment funds ensures sustainability (14*)
24. Sharafizad <i>et al.</i> (2022)	(T1*)	(1*)

TABLE I (Cont.)
MAIN THEMES, PROPOSALS AND/OR CONTRIBUTIONS OF THE ARTICLES REVIEWED

Author	Research Topic	Proposals and/or Contributions
25. Tang (2022)	(T6*)	(5*) (6*)
26. Kornilaki <i>et al.</i> (2019)	(T2*)	(1*) (5*)
27. Forrest <i>et al.</i> (2023)	(T4*)	Success factors for the development of sustainable business ecosystems are sustainability, experience, inclusion, stability, integration (15*) (13*)

T1 to T6 represent the different existing categories. 1* to 15* represent the different categories of proposals and/or contributions.

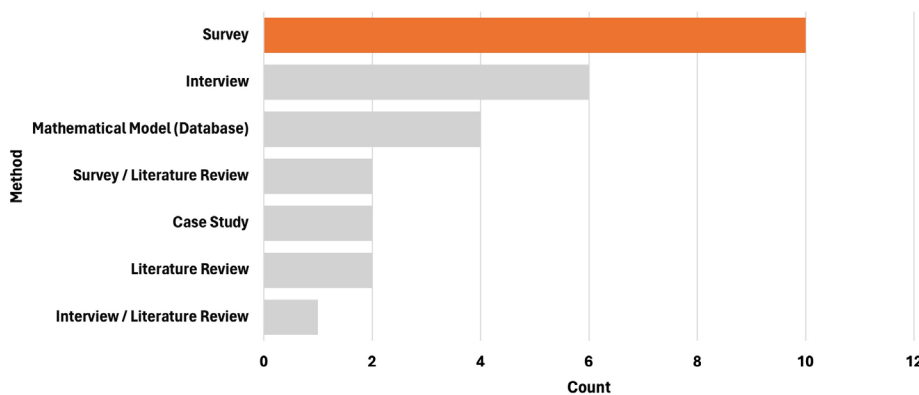


Figure 2: Methodologies used by the analyzed documents.

The first column on the left of Figure 3 presents the category "Best Practices in Management and Strategy for SME Sustainability," which is investigated in eight articles. The first article analyzes the critical performance factors of small businesses generated by Latinos in Silicon Valley within the context of management and ethnic minority (Starbird *et al.*, 2022). This article establishes the differences and management styles between small businesses managed by Latinos and those managed by other majority ethnic groups in the area, along with recommended areas improvement. The second, third, and fourth articles

TABLE II
MAIN CONTRIBUTIONS AND/OR PROPOSALS OF THE RESEARCH ON SMALL BUSINESS SUSTAINABILITY

Category of Contributions and/or Proposals	Frequency
Commitment, values, good leadership, and the path of business formality as good practices for business success and SME sustainability	6
Education and promotion to customers and stakeholders on the importance of consuming from companies with environmental, social, and economic sustainability	2
Implementation of technology at different scales and adapted to the environment allows better management towards sustainability and facing external challenges	4
Instrumentalization of environmental issues for the improvement of business sustainability	3
Establishing a clear, organized, and harmonious relationship with stakeholders provides a lifeline for SMEs in times of financial crisis	2
Behavior and characteristics of an SME towards the environment and its adoption within the business model	6
Importance of learning, training, and practice generates sustainable innovation and commercial success	7
Business sustainability understood as good reputation and commitment to the environment, besides referring to the company as visionary	2
The implementation of sustainability in an SME should start with exact knowledge and training on the subject	2
Business strategy plays an important role in future performance and growth potential	1
Export generating liquidity, with attributes such as exporting various products to various places and belonging to a supply chain as an influence on SME sustainability	1
Improving risk analysis against SME indebtedness, when only based on size, as there are other factors such as the purpose of the debt and the sector involved	2
For sustainable innovation, co-creation and involvement of all actors is indispensable	2
Entrepreneurship generation through business incubation backed by investment funds ensures sustainability	1
Success factors for the development of sustainable business ecosystems are sustainability, experience, inclusion, stability, integration	1

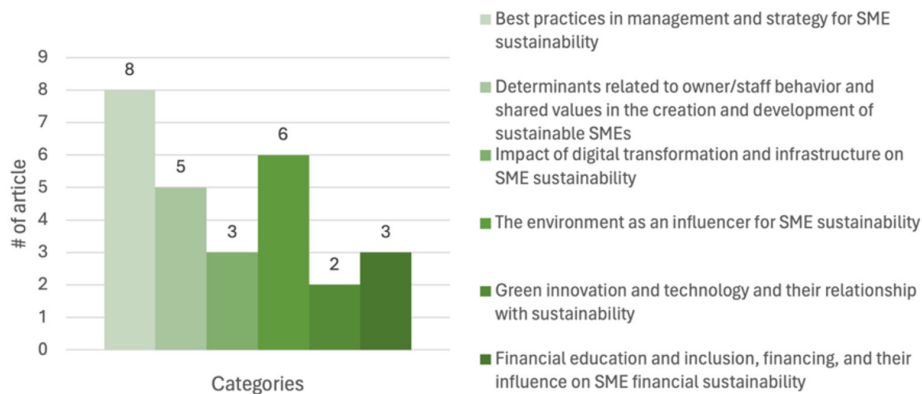


Figure 3: Categories of the main research topics on small business sustainability.

address the capacity for learning and commercialization in an SME for sustainable innovation, the development of innovations in products and services for the health sector for business sustainability, and the prospecting and defensive strategies in corporate performance and future growth of SMEs (Emilsson *et al.*, 2020; Park *et al.*, 2019; Xin *et al.*, 2020). These authors highlight the importance of learning through exploration, co-creation for innovation, research, and development, and choosing the right strategy to boost growth from the business model idea as well as product development, which generates greater sustainability for the SME.

In the fifth and sixth articles, two different and important business practices for the sustainability of small businesses are observed. The fifth article addresses "Corporate Social Responsibility" in small businesses as a key agent and driver for sustainable business practices (Fonseca and Carnicelli, 2021), while the sixth article examines the logistics capacity of an SME in relation to business sustainability (Arsic *et al.*, 2020).

The last two articles in this category address the topic from a regional perspective. The seventh article aims to analyze learning and growth practices within a family business for its sustainability (Eneh *et al.*, 2023). The authors delve into the proper management of human talent within a family business from its inception, starting with technical training and respecting personal life outside of work and how this contributes to sustainability. On the other hand, the last article aims to explore business sustainability in locally rooted SMEs (Sharafizad *et al.*, 2022). The research provides insights into the behavior of this type of business, which is fully committed to meeting the needs of visitors, understanding them as

their source of income and expression of their locality.

The second column from the left of Figure 3 presents the category "Determinants related to owner/staff behavior and shared values in the creation and development of sustainable SMEs," which is investigated in five articles. The first, second, and third articles work on the drivers that enable the implementation of sustainability practices in SMEs and large companies. These practices focus on ecological management and sustainable performance with a moderating role of pro-environmental behavior by employees, as well as personal and contextual factors that enable the adoption of sustainability practices in tourism SMEs (Cantele *et al.*, 2020; Elshaer *et al.*, 2023; Kornilaki *et al.*, 2019). The articles show how sustainability is approached in SMEs from motivational drivers such as the entrepreneur's image to real drivers such as the SME's own workers and the personality of managers and/or owners to facilitate its implementation. Finally, they describe sustainability as a factor of differentiation and innovation, causing a positive impact on the SME's environment.

The fourth article aims to analyze the passion and social, environmental, and economic values as determining axes for the creation of sustainable fashion ventures (Su *et al.*, 2022). This article attempts to elucidate why textile entrepreneurs undertake sustainably, aiming not only for economic goals but also social and environmental achievements, despite the challenge of re-educating the population to choose their products. On the other hand, the fifth and last article in this category examines women as a reference point in the environmentally responsible and sustainable performance and leadership of SMEs (Graafland, 2020). This article emphasizes that sustainability

is enhanced through a balanced gender board and that the presence of a woman brings positive consequences to this element, promoting the instrumentalized use of sustainability.

Continuing with the third column from the left of Figure 3, the category "Impact of digital transformation and infrastructure on SME sustainability" is investigated in three articles. The first one analyzes good practices, including technology and process improvement, to achieve sustainability in the Hospitality, Restaurant, and Catering (HORECA) sector (Ceynowa *et al.*, 2023). The researchers analyze the construction of a technological platform that inserts functionality for the HORECA sector. The second and third articles analyze the ideal technological infrastructure that allows SME sustainability, as well as the implications of adopting technology for the digitalization and sustainable transformation of MSMEs (Alfarizi *et al.*, 2023; Das, 2019). The researchers identify the necessary preparation of the environment as well as the SME's interior for proper adaptation to digitalization, from technological infrastructure aspects to government-created scenarios to promote digitalization and technology use.

Regarding the fourth column of Figure 3, which presents the category "The environment as an influencer for SME sustainability," six articles were investigated. The first and second articles analyze the barriers and facilitators that allow the adoption of sustainable manufacturing in SMEs, as well as the main obstacles faced by sustainable ventures in the fashion industry and identify approaches to mitigate urgent problems (Alayon *et al.*, 2022; Hofmann *et al.*, 2022). The researchers provide information on the main barriers or obstacles such as the lack of access to external technical knowledge, unskilled labor, lack of awareness of the benefits of sustainable manufacturing practices, or lack of economies of scale, among others, that the SME encounters on its path to sustainability.

The third article aims to analyze the factors for developing a sustainable business ecosystem (Forrest *et al.*, 2023). In this document, the researchers generate lessons learned after the implementation of some projects, seeking more favorable scenarios for developing business ecosystems.

The fourth article seeks to show the environmental parameters included in the business models of SMEs for their sustainability (Demjanovičová and Varmus, 2021). The researchers document the actions that are susceptible to

implementation in companies that prioritize sustainability and analyze the environment involving customers. They also emphasize the applicability of environmental sustainability parameters in an SME and how simple or difficult implementation might be.

Continuing with the fifth article, which aims to present the findings of internal and external agents that affect SME sustainability (Manzaneque-Lizano *et al.*, 2019). This article seeks to elucidate the importance of stakeholders and interested parties that support the SME, as well as the strategies they must apply to maintain cordial and supportive relationships.

Finally, in this category, the sixth article seeks to analyze the factors that determine the adoption and development of sustainable innovation in an SME (Nasiri *et al.*, 2022). In this document, the researchers focus on a planned and strategic digital orientation that contributes to sustainable innovation in SMEs.

Continuing with the fifth column of Figure 3, we find the category "Green innovation and technology and their relationship with sustainability," which was investigated in two articles. The first one aims to analyze intellectual capital and green innovation as a competitive and sustainable advantage in SME growth (Dwiputri *et al.*, 2023). In this document, it is considered that both intellectual capital and green innovation contribute to the financial sustainability of SMEs. On the other hand, the second article aims to analyze how the commitment to sustainability drives companies towards investments in green technology (Saunila *et al.*, 2019). This article develops the stance of responsibility towards the environment and the economic, social, and innovation benefits it generates for SMEs.

Finally, the sixth column of Figure 3 presents the category "Financial education and inclusion, financing, and their influence on SME financial sustainability," which was investigated in three articles. The first article describes the behavior of mutual guarantee financing for SMEs for their financial sustainability (de la Fuente-Cabrero *et al.*, 2019). This article analyzes an SME's payment behavior towards a loan, documenting lessons learned to provide recommendations to financial entities that grant loans, especially mutual guarantee ones, to this type of company. The second article aims to analyze the support for SME sustainability from microfinance institutions (Ranabahu and Wickramasinghe, 2022). The mentioned article addresses microfinance

support from strategic, operational, and community leadership. Lastly, the third article aims to analyze financing and financial education as a push towards financial sustainability (Tang, 2022). This article addresses the importance of financial education in SMEs for their inclusion in the financial system, their business performance, and their behavior towards responsibilities.

The diversity of researched topics and methodologies used in these studies highlights the complexity and multifaceted nature of sustainability in SMEs. The research addresses everything from the importance of continuous education and training to the crucial role of technological innovation and environmental management. Additionally, it is highlighted how shared values, as well as the behavior of owners and employees can significantly influence the implementation of sustainable practices. This comprehensive approach is essential for developing effective strategies that not only promote the long-term sustainability of SMEs but also prepare them to face the dynamic and changing challenges of the modern business environment. Evidence suggests that a combination of good management practices, technological support, social commitment, and environmental responsibility can serve as a robust framework for the sustainability of SMEs in various regions and sectors.

Main Contributions and/or Proposals of the Research on Small Business Sustainability

In the analysis of the 27 articles, fifteen types of contributions and proposals related to SME sustainability were identified (Table II). These encompass strategies and practices that businesses can adopt to promote their sustainability. The most prominent category is "The importance of learning, training, and practice generates sustainable innovation and commercial success," mentioned seven times. This highlights the necessity of continuous training for human capital to achieve sustainable innovation and commercial success.

Another relevant category is "Commitment, values, good leadership, and the path of business formality as best practices for business success and SME sustainability," with six mentions. This emphasizes the significance of formalizing business activities alongside adopting strong values and leadership. It also discusses "The behavior and characteristics of an SME towards the environment and its adoption within the business model."

The implementation of technology is crucial, mentioned in four articles under "The implementation of technology on different scales and adapted to the environment allows better management towards sustainability." It underscores how technology can enhance operational efficiency and tackle environmental and market challenges.

The "Instrumentalization of environmental issues to improve business sustainability," mentioned in three articles, highlights the adoption of specific environmental practices such as prioritizing local suppliers and proper waste management.

The "Education and promotion to clients and stakeholders about the importance of consuming from companies with environmental, social, and economic sustainability," mentioned twice, highlights the need to educate and raise awareness among clients and stakeholders about the benefits of supporting sustainable companies.

Other categories include business strategy, exporting, business incubation, and the development of sustainable business ecosystems.

The primary contributions suggest that SME sustainability relies on a combination of staff education and training, leadership, business formalization, technology integration, and environmental practices. These strategies can strengthen SMEs' capacity to achieve long-term sustainable growth. Among the most researched topics are best management practices, digital transformation, and the impact of the environment on SME sustainability. These areas provide a solid foundation for future research and innovative solutions.

Discussion

The results of this study reflect a notable agreement among different authors on the factors influencing SME sustainability. First, the formalization of economic activity is a recurring theme. Starbird *et al.* (2022) point out that formalization is crucial for the performance of small businesses, particularly those managed by ethnic minorities. This viewpoint is supported by Su *et al.* (2022) who stress the importance of establishing clear social and environmental objectives within the company.

Another area of consensus is the management of human talent and the need for continuous training. Emilsson *et al.* (2020) and Xin *et al.* (2020) point out the importance of ongoing exploratory learning and co-creation for sustainable innovation. Eneh *et*

al. (2023) reinforce this by emphasizing the effective management of human talent in family businesses for their long-term sustainability.

Regarding technology and digitalization, Ceynowa *et al.* (2023) and Alfarizi *et al.* (2023) discuss the implementation of suitable technological infrastructures as vital for sustainability. They agree that preparing the environment and embracing new technologies, such as artificial intelligence and big data, are essential for addressing modern challenges and improving SME sustainability.

Corporate social responsibility (CSR) also emerges as a central theme. Fonseca and Carnicelli (2021) argue that CSR can be a crucial driver of sustainable practices, while Graafland (2020) notes that a balanced gender board can enhance company sustainability.

Regarding barriers and facilitators for sustainability, Alayon *et al.* (2022) identify challenges such as limited access to technical knowledge and economies of scale, aligning with the findings of Hofmann *et al.* (2022), who emphasize the need to overcome these barriers for sustainable manufacturing.

Furthermore, the studies by Manzanque-Lizano *et al.* (2019) and de la Fuente-Cabrero *et al.* (2019) highlight the significance of support from stakeholders and financial institutions for SME sustainability. These studies suggest that maintaining strong, supportive relationships with stakeholders is essential for the financial and operational stability of SMEs.

In summary, while the reviewed studies vary in approach and context, there is a broad consensus on the importance of formalization, human talent management, technology adoption, CSR, and stakeholder support as key elements for SME sustainability. These findings not only provide a solid foundation for future research but also offer a strong framework for SMEs to develop effective long-term strategies.

Practical Implications for Management

The findings of this study offer valuable practical implications for the field of management, particularly for small and medium-sized enterprises (SMEs) aiming to achieve sustainability. The following areas are highlighted as essential for managers and business leaders:

Formalization of Economic Activities: Adopting formal management practices not only enhances competitiveness but also facilitates adaptation to changes in the business

environment, reducing the vulnerability of SMEs to economic and regulatory crises.

Human Talent Management: Investing in continuous training and effective management of human talent is crucial for fostering sustainable innovation and improving commercial performance. Managers should prioritize the development and training of their teams as a key strategy for long-term growth.

Technology Implementation: The adoption of appropriate technological infrastructures and the use of advanced technologies, such as artificial intelligence and big data, are fundamental for improving operational efficiency and strengthening the capacity for adaptation and growth in a competitive environment.

Corporate Social Responsibility (CSR): Integrating CSR practices not only enhances corporate reputation but also strengthens relationships with stakeholders, creating a more favorable environment for sustainable growth.

Conclusions

The research has identified various critical strategies that small businesses must adopt to face internal and external challenges and ensure their long-term sustainability. First, the formalization of economic activity stands out as a fundamental factor. The adoption of formal practices improves management and increases competitiveness, facilitating adaptation to a changing environment.

Furthermore, human talent management and continuous training are essential. Constant training of personnel, from managerial to operational levels, promotes sustainable innovation and commercial success, allowing businesses to respond effectively to market demands.

The implementation of technologies and digitalization emerge as fundamental pillars for sustainability. The adoption of adequate technological infrastructures and the use of advanced technologies such as artificial intelligence and big data improve operational efficiency and strengthen the capacity of businesses to adapt and grow in a competitive environment.

CSR is identified as a key strategy for improving corporate reputation and strengthening relationships with stakeholders. Integrating specific environmental practices, such as prioritizing local suppliers and proper waste management, is crucial for achieving sustainability.

The support of stakeholders and financial institutions also plays a vital role. Maintaining solid and supportive relationships with stakeholders and accessing adequate financing

significantly contribute to the stability and sustainable growth of small businesses.

Recommendations for Future Research

While this study has addressed several critical aspects of sustainability in small and medium-sized enterprises (SMEs), there are still areas that require further exploration. In particular, future research should focus on:

Deepening the impact of digitalization on SME sustainability: Although the importance of technology for sustainability has been recognized, more studies are needed to examine how specific digitalization processes, such as artificial intelligence and big data, can be adapted by SMEs across different sectors and regions.

Exploring the relationship between corporate social responsibility (CSR) and long-term financial performance: While CSR has been identified as a key factor, evidence regarding its long-term financial impact on SMEs is still limited. Future studies could focus on specific cases and different economic contexts to evaluate this relationship.

Evaluating talent management strategies in family-owned SMEs: Given that talent management has been highlighted as crucial for innovation and sustainability, it would be valuable to further explore how family-owned SMEs, in particular, handle this issue and what best practices could be applied in different cultural contexts.

Comparative research across different regions and sectors: It is recommended to conduct comparative studies to assess how sustainability strategies vary depending on the geographical context and sector, which could help develop more specific and effective policies.

REFERENCES

- Alayon CL, Safsten K, Johansson G (2022) Barriers and Enablers for the Adoption of Sustainable Manufacturing by Manufacturing SMEs. *Sustainability* 14: 2364. <https://doi.org/10.3390/su14042364>
- Alfarizi M, Widiastuti T, Ngatindriatun N (2023) Exploration of Technological Challenges and Public Economic Trends Phenomenon in the Sustainable Performance of Indonesian Digital MSMEs on Industrial Era 4.0. *Journal of Industrial Integration and Management* 9: 65-96. <https://doi.org/10.1142/S2424862223500045>
- Arsic M, Jovanovic Z, Tomic R, Tomovic N, Arsic S, Bodolo I (2020) Impact of Logistics Capacity on Economic Sustainability of SMEs. *Sustainability* 12: 1911. <https://doi.org/10.3390/su12051911>
- Baque MA, Ronquillo JM, Villafuerte PG (2022) Estrategias financieras para el fortalecimiento de la reactivación económica en las microempresas del cantón Dúran post COVID-19.

- Recimundo* 6: 456-466. [https://doi.org/10.26820/recimundo/6.\(4\).octubre.2022.456-466](https://doi.org/10.26820/recimundo/6.(4).octubre.2022.456-466)
- Cantele S, Vernizzi S, Campedelli B (2020) Untangling the origins of sustainable commitment: New insights on the small vs. large firms' debate. *Sustainability* 12: 671. <https://doi.org/10.3390/su12020671>
- Ceynowa W, Przybylowski A, Wojtasik P, Ciskowski L (2023) ICT Adoption for Sustainable Logistics Development in the HoReCa and Wholesale Sectors. *Sustainability* 15: 3746. <https://doi.org/10.3390/su15043746>
- Das K (2019) Integrating lean, green, and resilience criteria in a sustainable food supply chain planning model. *International Journal of Mathematical, Engineering and Management Sciences* 4: 259-275. <https://doi.org/10.33889/ijmems.2019.4.2-022>
- de la Fuente-Cabrero C, de Castro-Pardo M, Santero-Sánchez R, Laguna-Sánchez, P. (2019) The Role of Mutual Guarantee Institutions in the Financial Sustainability of New Family-Owned Small Businesses. *Sustainability* 11: 6409. <https://doi.org/10.3390/su11226409>
- Demjanovičová M, Varmus M (2021) Changing the Perception of Business Values in the Perspective of Environmental Sustainability. *Sustainability* 13: 5226. <https://doi.org/10.3390/su13095226>
- Dini M, Stumpo G (2020) *MIPYMES en América Latina. Un frágil desempeño y nuevos desafíos para las políticas de fomento* (Vol. 1). CEPAL. Santiago, Chile. 489 pp. <https://repositorio.cepal.org/server/api/core/bitstreams/2c7fec3c-c404-496b-a0da-e6a14b-1cee48/content>
- Dourojeanni A (2000) *Procedimientos de gestión para el desarrollo sustentable*. CEPAL. Santiago, Chile. 372 pp. <https://repositorio.cepal.org/server/api/core/bitstreams/1406569e-48fb-4215-87e8-f65c00f35c0d/content>
- Dwiputri RM, Suyono E, Laksana RD (2023) Intellectual capital, green innovation, and financial performance: The mediating role of sustainability. *International Journal of Management and Sustainability* 12: 448-462. <https://doi.org/10.18488/11.v12i3.3477>
- Elshaer IA, Azazz AMS, Fayyad S (2023) Green Management and Sustainable Performance of Small- and Medium-Sized Hospitality Businesses: Moderating the Role of an Employee's Pro-Environmental Behavior. *International Journal of Environmental Research and Public Health* 20: 2244. <https://doi.org/10.3390/ijerph20032244>
- Emilsson M, Ernstson U, Gustavsson L, Svensson A (2020) Sustainable innovations in small enterprises for the transformation of the primary healthcare sector. *Sustainability* 12: 6391. <https://doi.org/10.3390/SU12166391>
- Eneh S, Effiong C, Olufemi A, Okongo J, Omosebi M (2023) Apprenticeships and sustainable growth of family businesses: A regional assessment. *Problems and Perspectives in Management* 21: 415-429. [https://doi.org/10.21511/ppm.21\(4\).2023.32](https://doi.org/10.21511/ppm.21(4).2023.32)
- Fonseca AP, Carnicelli S (2021) Corporate social responsibility and sustainability in a hospitality family business. *Sustainability* 13: 7091. <https://doi.org/10.3390/su13137091>
- Forrest N, Wiek A, Keeler LW (2023) Accelerating the transformation to a sustainable food economy by strengthening the sustainable entrepreneurial ecosystem. *Frontiers in Sustainable Food Systems* 6. <https://doi.org/10.3389/fsufs.2022.970265>
- Graafland J (2020) Women in management and sustainable development of SMEs: Do relational environmental management instruments matter? *Corporate Social Responsibility and Environmental Management* 27: 2320-2328. <https://doi.org/10.1002/csr.1966>
- Hofmann KH, Jacob A, Pizzingrilli M (2022) Overcoming Growth Challenges of Sustainable Ventures in the Fashion Industry: A Multinational Exploration. *Sustainability* 14: 10275. <https://doi.org/10.3390/su141610275>
- Kornilaki M, Thomas R, Font X (2019) The sustainability behaviour of small firms in tourism: the role of self-efficacy and contextual constraints. *Journal of Sustainable Tourism* 27: 97-117. <https://doi.org/10.1080/09669582.2018.1561706>
- Manzaneque-Lizano M, Alfaro-Cortes E, de la Cruz A (2019) Stakeholders and Long-Term Sustainability of SMEs. Who Really Matters in Crisis Contexts, and When. *Sustainability* 11: 6551. <https://doi.org/10.3390/su11236551>
- Nasiri M, Saunila M, Rantala T, Ukko J (2022) Sustainable innovation among small businesses: The role of digital orientation, the external environment, and company characteristics. *Sustainable Development* 30: 703-712. <https://doi.org/10.1002/sd.2267>
- Park W, Sung CS, Byun CG (2019) Impact of unlisted small and medium-sized enterprises' business strategies on future performance and growth sustainability. *Journal of Open Innovation: Technology, Market, and Complexity* 5: 60. <https://doi.org/10.3390/joitmc5030060>
- Ranabahu N, Wickramasinghe A (2022) Sustainable Leadership in Microfinance: A Pathway for Sustainable Initiatives in Micro and Small Businesses? *Sustainability* 14: 5167. <https://doi.org/10.3390/su14095167>
- Saunila M, Rantala T, Ukko J, Havukainen J (2019) Why invest in green technologies? Sustainability engagement among small businesses. *Technology Analysis and Strategic Management* 31: 653-666. <https://doi.org/10.1080/09537325.2018.1542671>
- Sharafizad J, Redmond J, Parker C (2022) The influence of local embeddedness on the economic, social, and environmental sustainability practices of regional small firms. *Entrepreneurship and Regional Development* 34: 57-81. <https://doi.org/10.1080/08985626.2021.2024889>
- Starbird SA, Martin JM, Posadas Y, Gutiérrez A (2022) The Impact of Formality, Integration, and Commitment on the Performance of Latino-Owned Small Businesses. *Administrative Sciences* 12: 105. <https://doi.org/10.3390/admsci12030105>
- Su J, Wood AM, Gargeya VB (2022) Sustainable entrepreneurship in the apparel industry: Passion and challenges. *Journal of the Textile Institute* 113: 1935-1941. <https://doi.org/10.1080/00405000.2021.1957276>
- Tang X (2022) New Schemes for Investment in of Small and Medium-Sized Enterprises of China: Role of Access to Finance, Innovation, and Sustainability. *Frontiers in Psychology* 13. <https://doi.org/10.3389/fpsyg.2022.857193>
- Xin L, Tang F, Zhang S, Pan Z (2020) Social capital and sustainable innovation in small businesses: Investigating the role of absorptive capacity, marketing capability and organizational learning. *Sustainability* 12: 3759. <https://doi.org/10.3390/su12093759>

PEQUEÑAS EMPRESAS, GRANDES DESAFÍOS: FACTORES DETERMINANTES PARA LA SOSTENIBILIDAD EN UN MUNDO CAMBIANTE

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RESUMEN

Este estudio investiga las dinámicas que influyen en la sostenibilidad de pequeñas y medianas empresas (PMEs) y las estrategias clave para lograr una sostenibilidad a largo plazo. Basado en una revisión de 206 artículos científicos publicados entre 2019 y 2023, los resultados destacan la importancia de formalizar las actividades económicas, gestionar el talento humano, ofrecer formación continua, implementar tecnologías avanzadas y adoptar la responsabilidad social corporativa (RSC). Estas prácticas son esenciales para mejorar la competitividad, fomentar la innovación sostenible y aumentar la adaptabilidad de las PYMEs.

La formalización de las actividades económicas no solo mejora la gestión, sino que también aumenta la competitividad. La formación continua del capital humano, desde los niveles gerenciales hasta los operativos, promueve la innovación sostenible y el éxito comercial. La RSC es crucial para mejorar la

reputación corporativa y fortalecer las relaciones con las partes interesadas. La integración de prácticas ambientales, como priorizar proveedores locales y asegurar una adecuada gestión de residuos, es vital para la sostenibilidad empresarial. El apoyo de las partes interesadas y de las instituciones financieras es fundamental, ya que mantener relaciones sólidas y acceder a financiamiento adecuado contribuye significativamente a la estabilidad y al crecimiento sostenible.

Las PYMEs pueden lograr la sostenibilidad a largo plazo adoptando un enfoque integral que combine la formalización de actividades, la gestión del talento humano, la implementación de tecnología, la RSC y el apoyo de las partes interesadas. Estas estrategias les permiten navegar por desafíos internos y externos, asegurando la sostenibilidad en un entorno empresarial dinámico y competitivo.

PEQUENAS EMPRESAS, GRANDES DESAFIOS: FATORES DETERMINANTES PARA A SUSTENTABILIDADE EM UM MUNDO EM TRANSFORMAÇÃO

Emilio José Medrano-Sánchez e Claudia Maria Hospina Fuster

RESUMO

Este estudo investiga as dinâmicas que influenciam a sustentabilidade de pequenas e médias empresas (PMEs) e as principais estratégias para alcançar a sustentabilidade a longo prazo. Com base em uma revisão de 206 artigos científicos publicados entre 2019 e 2023, os resultados destacam a importância de formalizar atividades econômicas, gerenciar o talento humano, oferecer treinamento contínuo, implementar tecnologias avançadas e abraçar a responsabilidade social corporativa (RSC). Essas práticas são essenciais para melhorar a competitividade, fomentar a inovação sustentável e aumentar a adaptabilidade das PMEs.

A formalização das atividades econômicas não apenas melhora a gestão, mas também aumenta a competitividade. O treinamento contínuo do capital humano, desde os níveis gerenciais até os operacionais, promove a inovação sustentável e o sucesso comercial. A RSC é crucial para melhorar a reputação

corporativa e fortalecer relacionamentos com as partes interessadas. A integração de práticas ambientais, como priorizar fornecedores locais e garantir uma adequada gestão de resíduos, é vital para a sustentabilidade empresarial. O apoio das partes interessadas e das instituições financeiras é fundamental, já que manter relacionamentos sólidos e acessar financiamento adequado contribui significativamente para a estabilidade e o crescimento sustentável.

As PMEs podem alcançar a sustentabilidade a longo prazo adotando uma abordagem abrangente que combine a formalização das atividades, a gestão do talento humano, a implementação de tecnologia, a RSC e o apoio das partes interessadas. Essas estratégias permitem que elas naveguem por desafios internos e externos, garantindo a sustentabilidade em um ambiente empresarial dinâmico e competitivo.