

Is Sustainability a Competitive Advantage For Small and Medium Businesses? A cross-cultural and cross-sectional review

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ABSTRACT

This paper presents a global literature review on the role of sustainability as a source of competitive advantage and resilience for small and medium enterprises (SMEs). Drawing from over 30 interdisciplinary studies across regions including Southeast Asia, Sub-Saharan Africa, Europe, and Oceania, from a cross-sectional perspective, this paper explores how internal capabilities, such as ethical leadership, human capital, local embeddedness, and knowledge management, interact with external forces such as government support, institutional logics, stakeholder pressure, and crisis conditions to improve competitiveness. Particular emphasis is placed on SME's sustainability strategies during times of crisis (e.g. Covid-19, recessions), the tension between resilience and growth, and the practical implications of adopting triple-bottom-line frameworks. Findings reveal that SMEs are most sustainable when they employ long term thinking, people-first leadership, and strategic resource use into their core operations, especially in resource-constrained or culturally embedded settings. The review also identifies key limitations in current research, including over-reliance of self reported data, geographic concentration, and the need for longitudinal validation. Ultimately, the paper highlights the need for integrated, context-sensitive policy support and capacity-building to unlock the full sustainability potential of SMEs and community-based social enterprises (CBSE's), especially in vulnerable and underserved regions.

Keywords: Sustainability, Competitive Advantage, SMEs competitiveness, Resilience, Crisis Management, Ethical Leadership, Local Embeddedness, Triple Bottom Line.

INTRODUCTION

In her 2021 conceptual paper, Galli-Debicella explores how small and medium-sized enterprises (SMEs) can develop sustainable competitive advantages by leveraging non-scalable core competencies within niche (focus) strategies, offering a compelling counterpoint to the notion that scalability is essential for success. Drawing on foundational strategy literature—from Porter’s competitive advantage framework to Prahalad and Hamel’s core competency theory—the author proposes four key propositions that together form a new theoretical lens for SME strategy. First, SMEs are most defensible when they root their competitive edge in non-scalable competencies that larger firms cannot easily imitate. Second, people-based and differentiation-focused process competencies—those hardest to scale—tend to offer the greatest protection, albeit with fragility over time. Third, SMEs with scalable competencies (like technology-based advantages) must pursue broad differentiation strategies, often out of necessity, to avoid encroachment from well-resourced competitors. Finally, SMEs with non-scalable core competencies are better suited to grow through a “string of opportunities”—a series of adjacent niche markets that leverage the same internal strengths without requiring scale. These insights have practical implications for SMEs seeking to compete in globalized economies, suggesting that defensibility, not growth speed, may be the more vital factor in long-term survival. However, the paper’s conceptual nature limits empirical generalizability. It lacks real-world case studies or quantitative testing and provides only a high-level treatment of how SMEs might mitigate sustainability risks like talent loss or overreliance on tacit knowledge. The author calls for future research using interviews, economic modeling, and success metrics to evaluate how scalable and non-scalable competencies influence SME outcomes. Overall, her work reframes “smallness” as a strategic strength, offering a meaningful contribution to the literature on SME competitiveness and sustainable growth.

1. Sustainability as a competitive advantage for SMEs?

In order to understand the competitive implications of sustainability for the SMEs, an initial assessment of the underlying elements needs to be made. Das, Rangarajan, and Dutta in 2020 investigate the drivers, barriers, and outcomes of corporate sustainability (CS) adoption among SMEs in the Asian context, with a particular emphasis on bridging the research-practice gap in emerging economies. The paper’s primary aim is to propose a conceptual model that captures the multi-dimensional nature of sustainability performance in Asian SMEs—social, environmental, institutional, and financial—while drawing from a global meta-analysis of 100 peer-reviewed papers (2010–2017) and a pilot survey of 30 SMEs in India’s leather and chemical industries. Methodologically, the authors combine a structured literature review (sourced from EBSCO, Emerald, and ProQuest databases using “SMEs,” “CS,” “CSR,” and “performance” as keywords) with exploratory factor analysis to refine their model, identifying three key independent

variables—government policy and external facilitation (GPEF), partnership and communication (PCC), and supporting organizational culture (SOC)—and their relationship to three outcome constructs: social, environmental, and financial sustainability performance. Key findings suggest that regulatory pressure, owner-manager values, cluster-based collaboration, and stakeholder demand are major sustainability drivers, while resource constraints, lack of contextualized tools, and limited awareness remain persistent barriers, especially in developing Asian nations. The paper also reveals that sustainability practices among Asian SMEs are often informal and philanthropy-driven, unlike the strategic branding orientation seen in Western firms. Importantly, the authors posit that improved sustainability performance correlates with long-term financial gains—though this remains under-tested empirically in Asia. Among the novel contributions is the insight that collaboration across clusters and value chains, if supported by transparent communication and institutional backing, can significantly enhance SMEs' sustainability capacities. However, the study is not without limitations. The conceptual model, while well-grounded in literature, lacks robust empirical validation across diverse Asian geographies, and the pilot sample ($n=30$) is too small and regionally concentrated to support generalization. Additionally, most of the reviewed literature originates from developed countries, limiting the contextual depth of insights into Asian SME dynamics. Future research should test the proposed model across a broader, cross-industry Asian sample, account for firm size and age as moderating variables, and explore how institutional environments mediate the CS-performance relationship. Ultimately, the authors call for a shift from fragmented sustainability actions to institutionalized, collaborative, and performance-oriented frameworks tailored to SMEs' cultural and operational realities in Asia.

Ogbari, Ogulu, and Kehinde (2023) further examine how competitive advantage affects SME sustainability in Nigeria's manufacturing sector, leveraging both resource-based view (RBV) and market-based view (MBV) theories. Using a descriptive quantitative survey of 264 managerial staff from three firms in Lagos and Ogun States, the authors employed multiple regression and ANOVA tests to analyze the impact of four key competitive advantage indicators—innovation, product quality, environmental scanning, and product price—on sustainability outcomes such as sales volume, market share, customer satisfaction, and return on investment. All four hypotheses tested were statistically significant ($p < 0.05$), affirming that innovation increases sales volume ($F = 10.372$, $p = 0.001$), product quality enhances market share ($F = 40.952$, $p = 0.000$), environmental scanning supports customer satisfaction ($F = 3.696$, $p = 0.048$), and product pricing boosts ROI ($F = 9.263$, $p = 0.003$). These findings empirically reinforce the RBV notion that internal capabilities—like human capital, superior processes, and firm-specific assets—are critical to sustaining long-term advantage. Simultaneously, MBV theory is validated through the emphasis on external responsiveness, particularly in dynamic or recession-impacted environments like Nigeria's. The authors conclude that competitive advantage is vital for

sustainability, especially when firms actively cultivate innovation, maintain high product standards, monitor external conditions, and adapt pricing to consumer capacity. They recommend that SMEs foster creativity, invest in quality-enhancing machinery and raw materials, and align offerings with customer purchasing power. However, the study is limited by its small geographic and industrial scope, reliance on self-reported questionnaire data, and absence of longitudinal analysis, which restrict its generalizability across Nigeria's diverse SME landscape. Additionally, while it successfully integrates RBV and MBV, the study could further explore how interactions between internal and external factors evolve over time. Nonetheless, the paper makes a substantive contribution to SME strategy literature by empirically demonstrating that competitive advantage is not just relevant but foundational to sustaining business performance in volatile, resource-constrained markets.

Considering the above, attention must be drawn to the Cantele and Zardini (2018) study that has developed a model that illustrates how sustainability practices affect financial performance in small and medium-sized enterprises (SMEs). Their study aims to explore the mediating roles of strategic drivers—specifically competitive advantage, customer satisfaction, reputation, and organizational commitment—in the relationship between sustainability practices and financial performance.

The study employed a quantitative research methodology, specifically using structural equation modeling (SEM) to analyze the relationships between various constructs, and the data collected was through a survey targeting 348 small and medium-sized enterprises (SMEs) in the manufacturing sector in Italy. Their research found that social, economic, and formal sustainability practices significantly enhance competitive advantage for SMEs. In particular, higher sustainability practices led to higher customer satisfaction, enhanced corporate reputation, improved employee engagement that led to a stronger organisation culture, and finally improved financial performance. The authors conclude that adopting sustainability practices is not merely an ethical obligation but a strategic asset that can enhance competitive advantage and financial performance, aligning with prior research that emphasized its role in enhancing a competitive edge and financial outcomes.

SMEs should focus on building their competitive edge through sustainable initiatives, improving customer satisfaction and corporate reputation through sustainability, and these efforts can significantly contribute to better financial outcomes, which in turn can further assist with integrating sustainability practices into core business strategies (Caldene & Zardini, 2018). The results of the above study also further confirm the point that sustainability efforts translate into strategic benefits, showing the interplay between sustainability practices and financial outcomes. Despite the fact that the study's findings reinforce the growing consensus that sustainability is not merely an ethical imperative but a strategic advantage, questions can be raised about

methodological aspects of it. For example, the process that was followed for the development of the SEM is not provided, raising questions about the rigor of the analysis and replicability. In addition, the study focuses on Italian manufacturing SMEs, which limits the generalizability of the study's findings to other industries, sectors and country's contexts. Not to mention, the sole reliance on surveys could raise significant concerns regarding the possibility of self-reporting bias, as business owners may attempt to overstate their sustainability practices and outputs.

Darcy, Hill, McCabe and McGovern (2013) explored how small and medium-sized enterprises (SMEs) can strategically manage their talent pool to enhance sustainability, despite inherent structural limitations such as informal decision-making, limited resources, and reactive business approaches. By overlaying Wright et al. 's (2001) and Boudreau and Ramstad (2005) talent management models with Carson's (1985, 1990) characterization of SMEs, the study investigates the feasibility of applying large-firm sustainability principles within an SME context. Darcy, Hill, McCabe and McGovern (2013) highlight the difficulty SMEs face in implementing structured, long-term talent management strategies for sustainability due to their lack of formalized processes. The authors also examine how external stakeholders, such as SME support agencies and consultants, can reposition interventions to align with SMEs' immediate survival and growth needs while fostering sustainable business practices. The research employs a qualitative methodology, utilizing a conceptual analysis approach to examine the intersection of SME characteristics and organizational sustainability models, and hence conducts a theoretical exploration rather than an empirical investigation. The analysis focuses on identifying commonalities and gaps in applying large-firm sustainability principles to SMEs, particularly in talent management. Additionally, the study incorporates insights from existing literature on SME decision-making, resource constraints, and strategic workforce planning to develop practical implications for SME owner-managers and external stakeholders. It is found that while SMEs face structural and resource limitations, they can still adopt strategic approaches to sustainability and talent management by leveraging their unique characteristics. The overlay of organizational sustainability models with SME characteristics reveals significant commonalities, particularly in recognizing the importance of human capital as a competitive differentiator. However, SMEs struggle with formalized processes, making it difficult to align sustainability strategies with long-term planning. The study highlights the need for SMEs to proactively identify skills gaps, recruit strategically, and manage their talent pools effectively. Additionally, it underscores the role of external stakeholders—such as SME support agencies and consultants—in tailoring interventions that align with SME priorities, particularly their focus on immediate survival and growth. Ultimately, the research emphasizes that harnessing employee commitment and discretionary effort is crucial for SME sustainability, given their reliance on lean, adaptable teams.

Darcy, Hill, McCabe and McGovern (2013) research concludes that while SMEs face inherent structural and resource constraints, they can still implement strategic sustainability and talent management practices tailored to their unique characteristics. The study emphasizes that SMEs must shift from a reactive to a proactive approach in identifying and addressing skills gaps, as effective talent management is a key differentiator in competitive markets. However, due to their informal decision-making structures, SMEs require customized interventions from external stakeholders, such as support agencies and consultants, who must align their strategies with SMEs' immediate growth and survival priorities. As per the study, SMEs should focus on maximizing employee commitment and discretionary effort, as their success depends on engaged and adaptable teams. The authors propose that a compelling business case must be built to persuade SME owners/managers of the long-term value of strategic talent and sustainability management, thereby fostering more resilient and competitive enterprises.

With the above observations in mind, Burlea-Schiopoiu and Mihai (2019) investigate the relationship between corporate social responsibility (CSR) and sustainable factors, by focusing on the financial performance of small and medium sized enterprises (SMEs) in Romania. The primary purpose of their research is to investigate how innovation, driven by Corporate Social Responsibility (CSR) and training practices, influences the financial performance and competitive advantage of SMEs. The study seeks to understand the mechanisms through which CSR initiatives, such as environmental and social investments, not only contribute to positive societal outcomes but also stimulate innovation within SMEs, ultimately enhancing their market performance. Specifically, the specific research aims to explore the mediating role of innovation between CSR and competitiveness, while also evaluating the impact of internal investments. Recognizing the inherent resource limitations that SMEs face, the research underscores the importance of leveraging external networks, strategic partnerships, and collaborative technologies to drive innovation. The study is based on a review and synthesis of existing academic literature and empirical studies, offering a more conceptual and theoretical analysis rather than a direct primary data collection approach. The study draws on a wide array of previously published works that explore the relationships between innovation, CSR, training, and performance in SMEs, incorporating both qualitative insights and quantitative data when available. It reviews case studies and research conducted across various contexts, including Japanese, Chinese, and European SMEs, to identify patterns and correlations that support the development of a testable hypothesis. Key indicators such as innovation budgets, profit margins, debt ratios, and employee productivity are discussed, often referencing the statistical relationship found in the literature. Furthermore, the research incorporates findings from human resource management studies that examine formal and informal training practices, and their influence on organization innovation and employee retention. The inclusion of hypotheses- such as the direct association between innovation budgets and SME profitability-suggests that the research

provides a foundational framework for further empirical investigation using financial performance metrics, R&D investments, and training data in SMEs.

The study by Burlea-Schiopoui and Mihai (2019) found that investments in corporate social responsibility (CSR), innovation, and employee training are strongly and positively associated with the financial performance of SMEs in Romania's South-West Oltenia region. Using the data from 200 SMEs across 2 major industries, the research showed that higher budgets allocated to those sustainable practices correlated to increased profit, improved profit per employee, and lower debt ratios. Among the 3 factors, training had the strongest predictive impact on financial outcomes, closely followed by innovation and CSR. The variables also showed strong mutual reinforcement, suggesting that investing in one area often supports the growth of others. Ultimately, the findings confirm that sustainability-oriented strategies are not only socially responsible, but also economically advantageous for small and medium enterprises. The study concludes that corporate social responsibility, innovation, and training are essential components of financial sustainability and long-term competitiveness for small and medium enterprises (SME's). The authors found that allocating budgets towards these areas leads to measurable improvements in the organisation's profit, the profit per employee, whilst reducing the debt ratio, reinforcing the idea that sustainability is not just an ethical responsibility, but also a financially strategic decision. Moreover, the study highlights the strong interdependence between CSR, innovation, and training, suggesting that investment in one area can enhance the outcome in others. The authors propose that SME owners and managers should view these practices as integrated elements of business development rather than isolated or secondary concerns. They also emphasize the need for future policies and support systems to promote sustainable practices across a wider range of industries and regions, recognizing their proven value in improving both financial performance and organizational resilience.

2. Ethics, Leadership and Sustainability in SMEs from a cross-cultural perspective

A study conducted by Hajar, Omar, Bilal and Khaoula (2023) systematically assessed how business ethics are addressed within cross-cultural organizational contexts by defining dominant perspectives, identifying recurring themes, and proposing future directions for research and practice. The authors aim to clarify how ethical principles operate across different cultural environments and what conceptual frameworks best capture the challenges of navigating ethics in globalized business settings. The study employed a qualitative research methodology through a systematic literature review (SLR) based on PRISMA guidelines. Using the Scopus database, the authors identified and analyzed 74 peer-reviewed articles published between 2018 and 2023 within the fields of business, management, economics, and social sciences. The final selection was made through a rigorous filtering process involving keyword searches and inclusion/exclusion criteria. To identify patterns and thematic groupings, the researchers used

VOSviewer software to perform bibliographic coupling, which grouped the literature into five thematic clusters based on shared citations and conceptual similarities. The five key thematic clusters identified are the following:

- Business ethics & behavioral economics in a cross-cultural context
- International business
- CSR across cultures
- Ethical leadership in multicultural environments
- Unethical behavior and virtue ethics

Each cluster offered insights into how ethics are interpreted and applied across cultures, fulfilling the purpose of synthesising fragmented literals proposing a future research agenda aligned with the global business challenges. The results reveal that ethical standards are deeply influenced by cultural norms, and business conduct must be adapted accordingly. Ethical leadership, cultural sensitivity in CSR, and the integration of behavioral frameworks like social cognitive theory are essential to ethical decision-making in global contexts. The authors concluded that business ethics in cross-cultural contexts cannot rely on universal norms alone. Effective ethical practices require contextual sensitivity, cultural adaptability, and a deeper understanding of how values and behaviors differ across regions. In particular, cross-cultural ethics must be embedded in leadership and corporate decision-making, corporate social responsibility should be tailored to local contexts to maintain legitimacy and effectiveness, and organizations must move beyond ethnocentric frameworks and adopt inclusive ethical standards to succeed globally. Considering the aforementioned, future research should integrate multidisciplinary approaches and consider cultural nuances in ethical reasoning. While the study offers valuable insights into cross-cultural organisations and the implications of business ethics, it does not come without limitations. Firstly, the bibliographic coupling method only clustered 22 of the 74 articles, as the technique required a minimum of five shared citations per article, which may exclude valuable outliers. Secondly, the research relied solely on Scopus, potentially missing relevant studies in other databases. Finally, the authors note that the clustering reflects conceptual proximity, which may not always align with methodological or practical relevance.

Recently, a study by Belas, Dvorsky, Balcerzak, and Bencsik (2025) provided an empirical output of the VEGA project “The Theoretical Model of ESG in the SME Segment in the V4 Countries” (VEGA 1/0109/25)—a Slovak government-funded initiative aimed at building a region-specific ESG framework for small and medium-sized enterprises in Slovakia, Poland, Hungary, and Czechia. This study contributes to a larger scope by examining how three critical organizational factors—Corporate Social Responsibility (CSR), Business Ethics (BE), and Human Resource Management (HRM)—impact the sustainable development (SD) in SMEs, by

exploring gender-based differences in how these impacts are perceived by SME owners and managers. To do so, the researchers conducted a large-scale quantitative survey of 1,056 SMEs across the V4 region and used Structural Equation Modeling (SEM) to identify and compare causal pathways between CSR, BE, HRM, and sustainability outcomes for male and female respondents. The findings reveal that all three factors have statistically significant positive effects on SME sustainability. Among them, business ethics had the strongest overall influence, particularly for female entrepreneurs, who rated its importance 73% higher than their male counterparts. HRM showed a moderate positive effect, with women perceiving it as 25.5% more impactful than men. CSR, while still significant, had the weakest effect and was the only factor where gender-based differences were not statistically significant. The authors conclude that ethical leadership and inclusive, employee-centered HR practices, especially when emphasized by female leaders, are critical drivers of sustainability in SMEs. These results underscore the need for gender-sensitive ESG strategies that recognize the value of diverse leadership in shaping organizational outcomes. While the study's modeling was statistically robust (as evidenced by high Comparative Fit Index (CFI), Goodness of Fit Index (GFI), and low Real Mean Square Error of Approximation (RMSEA) values). However, the authors acknowledged some limitations; the study's regional confinement to the V4 context, the use of self-reported data, and a binary view of gender. Additionally, the model leaves 19–22% of the variance in sustainability unexplained, indicating room for future research to explore other influential factors such as firm size, sectoral dynamics, or ESG policy maturity.

Through a closer examination of the role of ethical leadership, Amisano (2017) examined the correlation between ethical leadership behaviors in small business owners or managers with regards to financial, social, and environmental sustainability. The researcher aimed to determine if specific ethical leadership behaviors relate to a business's overall sustainability. While the study is based on the premise that ethical leadership, it is difficult to define definitively, how it influences organizational outcomes. In the study there was evidence of an attempt to clarify the link between ethical leadership behaviors and sustainability outcomes, particularly in the context of small businesses. While the study focused on identifying specific ethical leadership behaviors that correlate with different aspects of sustainability, it also provided information that can help leaders understand how their actions impact social and environmental responsibility by highlighting the importance of ethical leadership for overall business success.

Even though the study did not find a direct correlation with financial sustainability, it emphasizes that ethical leadership can contribute to a more responsible and sustainable business environment, which may have indirect, long-term financial benefits. It is worth noting that the study did not explore individual or group experiences, and no significant correlation between ethical leadership and financial sustainability was found, as financial metrics like return on assets

(ROA) and net profit margin did not show direct benefits from ethical leadership. There was no significant correlation found with financial metrics, suggesting that ethical leadership does not directly lead to financial gains in the short term. This inconclusive financial result highlights the need for further research on long-term financial impacts. The absence of a financial correlation also supports the nuanced understanding of ethical leadership's broader impact. (Amisano, 2017). However, ethical leadership was positively linked to corporate social responsibility (CSR), with behaviors such as fairness, trustworthiness, compliance with ethical codes, and acting in others' best interests were strongly linked to CSR practices that consider societal well-being, greater environmental concern and sustainable practices. These findings align with existing research, suggesting that ethical leadership enhances CSR and environmental responsibility. In addition, the study adds to the debate on whether ethical leadership yields long-term indirect financial benefits, a topic of ongoing interest in sustainability and leadership literature (Amisano, 2017). The study used self-reported data from small business leaders, with the definition of a "small business" based on employee count. While using self-reported data is common in leadership studies, it introduces the risk of self-reporting bias. Additionally, defining small businesses solely by employee count may oversimplify the diversity of small firms across industries and revenue levels. Expanding the criteria or diversifying the sample geographically could improve the robustness of the findings. The lack of specific details about statistical measures (e.g., correlation coefficients, significance levels) makes it difficult to fully evaluate the rigor of the analysis.

Moving into the role of leadership in understanding sustainability in organisations, a study conducted by Suriyankiekaew, Krittayaruangroj, and Iamsawan (2022) examines how sustainable leadership theories and sustainability competencies can be effectively applied in practice within the context of community-based social enterprises (CBSE's), particularly during times of crisis like the COVID-19 Pandemic. Using the Tung Yee Peng (TYP) village in Thailand as a case study, the researchers aimed to identify the essential sustainable leadership practices and competencies that contribute to corporate sustainability and resilience in a CBSE settings, as well as demonstrate how these practices and competencies can be practically implemented to help CBSEs survive and thrive - economically, socially, and environmentally, even in high-risk and resource constrained environments. Data was collected through a qualitative case study methodology to explore how sustainable leadership practices and competencies are applied in the context of a community-based social enterprise (CBSE), focusing on the Tung Yee Peng (TYP) village in Thailand. Further data was collected through in-depth semi-structured interviews, focus groups, nonparticipant observations, and document analysis involving over 30 stakeholders, including community leaders, members, tourists, and government officials. The research was guided by Avery & Bergsteiner's 23 sustainable leadership practices (grouped into six categories) and five key sustainability leadership

competencies (strategic, systems thinking, anticipatory, interpersonal, and ethical). Thematic analysis was used to identify patterns in the data, with leadership practices rated based on their degree of conformity—least, moderate, or most evident. Triangulation of multiple data sources ensured validity and reliability, allowing the researchers to assess how theoretical leadership frameworks were practically implemented to foster sustainability and resilience during the COVID-19 pandemic.

The study found that sustainable leadership practices and competencies significantly enhance resilience and long-term sustainability for CBSEs like Tung Yee Peng (TYP). The study revealed a strong alignment with all 23 sustainable leadership (SL) practices, and multiple key practices emerged as central to TYP's resilience. Long-term thinking contributed directly to the community's ability to withstand and adapt during COVID-19, while a people-first leadership approach enhanced stakeholder trust and collaboration. A strong organizational culture promoted emotional commitment and shared ownership, and local innovation, such as the Baan Buak initiative, supported local job creation and social cohesion. Emphasis on environmental and social responsibility helped gain national recognition and increase tourist satisfaction, and ethical conduct was evident through transparent profit-sharing and preservation of cultural integrity. The study concluded that sustainable leadership practices and competencies are essential for the success, resilience, and long-term sustainability of community-based social enterprises (CBSEs), particularly in developing and crisis-affected settings. SL practices such as long-term thinking, stakeholder care, ethics, innovation enable CBSEs to survive and thrive during crises (e.g., COVID-19). The five key leadership competencies (strategic, systems thinking, anticipatory, interpersonal, ethical) empower leaders to make informed, values-driven decisions. Furthermore, bottom-up, participatory leadership strengthens community ownership and self-reliance, enabling CBSE's to achieve triple-bottom-line outcomes: social, environmental, and economic. Ultimately, the study shows that theoretical SL models are both applicable and actionable in real-world CBSE settings and presents a replicable roadmap for policymakers, social entrepreneurs, and SME leaders aiming for sustainable development and resilience. Despite the important contributions made by Suriyankiekaew, Krittayaruangroj, and Iamsawan (2022), the research is based on a single case study—the Tung Yee Peng (TYP) community-based social enterprise in Thailand. As a result, the findings are context-specific and may not be generalizable to all CBSEs, SMEs, or social enterprises in other countries or cultural settings. The authors also recognize that the research took place during a specific crisis period (COVID-19), which may have shaped both behaviors and responses in ways not typical of non-crisis conditions. Lastly, the study relied heavily on qualitative methods—interviews, focus groups, and observations—which, while rich and insightful, may be subject to researcher interpretation bias or participant subjectivity.

Further, a study conducted by Aishah, Ahmad, and Thurasamy (2020) investigated how entrepreneurial leadership (EL) influences the sustainable performance of manufacturing SMEs in Malaysia across three dimensions: economic, environmental, and social. The study also examined whether entrepreneurial bricolage (EB)—the ability to creatively use available resources—strengthens the relationship between EL and each dimension of sustainability. Grounded in Upper Echelon Theory and Effectuation Theory, the study addressed existing gaps in the sustainability literature by integrating all three aspects of the triple bottom line (economic prosperity, environmental responsibility, and social equity) into one empirical model and focusing on a population (SMEs) that is often overlooked in sustainability research. The authors seek to clarify the role of leadership and resourcefulness in advancing holistic sustainability within the SME sector. A quantitative research methodology is employed, using Partial Least Squares Structural Equation Modeling (PLS-SEM) to test the hypothesized relationships between EL, EB and sustainable performance. Data was collected through a cross-sectional survey targeting owners and managers of manufacturing SMEs in Peninsular Malaysia. Using purposive sampling, 146 valid responses were obtained—surpassing the minimum sample size required for PLS-SEM. Constructs were measured using previously validated multi-item scales, and responses were recorded on a 5-point Likert scale. The analysis included: a Measurement model assessment (validity, reliability, collinearity), Structural model testing for direct and interaction effects, Bootstrapping (5,000 resamples) to evaluate significance, and testing for common method variance and predictive power.

Aishah, Ahmad, and Thurasamy's (2020) study found that EL helps improve environmental and social performance in small manufacturing companies, reinforcing the idea that innovative and forward-thinking leadership contributes to eco-friendly practices and stronger community engagement. The strongest effects of EL were observed in social outcomes, such as employee well-being and community health, followed by environmental outcomes, including pollution reduction and responsible resource use. However, EL did not have a strong impact on economic performance such as profits or market share, indicating that strong leadership alone may not translate into short-term financial gains. Additionally, the study found that EB did not strengthen the effects of leadership on sustainability. As leaders relied more on bricolage, the positive effects of leadership became weaker. The bottom line is that good leadership helps SMEs become more sustainable socially and environmentally, but just "making do" with limited resources (bricolage) does not really help—and might even get in the way. Critically, the above study is limited by its reliance on self-reported data from a single informant within each SME, which may introduce bias and restrict the objectivity of the findings. Additionally, its cross-sectional design prevents any assessment of causality or long-term sustainability outcomes. The geographic and sectoral focus on Malaysian manufacturing SMEs also limits the generalizability of the results to other industries or countries. The authors' final recommendation is that SME

owners must focus on building leadership skills and align their values with long-term sustainability goals—especially when it comes to environmental and social responsibility.

3. SMEs and local embeddedness versus international sustainability development

A study conducted by Sharafizad, Redmond and Parker (2022) on the influence of local embeddedness on the economy aimed to explore how and why regional small firms' local embeddedness influenced their economic, social, and environmental sustainability practices. Their study is critical, as previous studies had not effectively integrated the concepts of local embeddedness, sustainability embeddedness, and sustainability practices in the context of SMEs. The authors aimed to establish a theoretical framework to explain the interplay between these elements, focusing on small businesses in the Southwest region of Western Australia (WA). This region was selected due to its heavy reliance on tourism and its high concentration of small firms compared to other areas in WA. Through semi-structured interviews with 26 small business owners (employing 1–20 people), the study provided insights into how local embeddedness shapes sustainability practices. The findings revealed that regional small firms' sustainability practices were significantly influenced by their embeddedness within local communities, with business owners adopting economic, social, and environmental practices aligned with community values. The specific study employed a qualitative methodology to delve into the intricacies of how local embeddedness affects sustainability practices in regional small firms in order to capture the nuanced reasons behind business owners' choices and implementations of sustainability practices. The authors aimed to understand how economic, social, and environmental sustainability practices were perceived and enacted by small business owners. The study provides a deeper understanding of how small business owners interpreted and integrated sustainability practices into their operations, by highlighting the interconnectedness of local values, geography, and sustainability. Nevertheless, economic sustainability was a top priority for small business owners in the region, reflecting the emphasis on economic survival. Business owners displayed an embedded economic sustainability orientation by strategically choosing ventures with growth potential, leveraging management software for operational efficiency, and adapting to market changes. These practices underscored the importance of economic resilience as a foundation for other sustainability dimensions. Shared community values fostered an environment where specific sustainability practices became normalized. Business owners demonstrated this alignment by supporting local suppliers, collaborating with community groups, and engaging in eco-tourism activities. These actions reflected a collective commitment to sustainability that transcended individual business interests (Sharafizad, Redmond and Parker, 2022).

Additionally, geographic isolation emerged as a significant factor shaping sustainability practices in the region. Limited local talent pools prompted small businesses to adopt diverse hiring

practices to meet workforce needs. Additionally, environmental challenges such as declining rainfall spurred businesses to prioritize water conservation efforts. This spatially driven approach to sustainability highlighted the influence of local environmental and geographic conditions on business strategies. Sharafizad, Redmond and Parker's (2022) study coined the term "spatially-driven sustainability" to describe this phenomenon, emphasizing the role of geography in shaping sustainability practices. Ultimately, the study concluded that the alignment between regional sustainability values and the practices of small business owners created a supportive environment for sustainability. The region's focus on economic survival, local supplier support, community engagement, and eco-tourism translated into tangible actions by businesses. This alignment demonstrated how shared community values could foster widespread adoption of sustainability practices. It provided a comprehensive understanding of how local embeddedness influences the sustainability practices of regional small firms. By aligning their economic, social, and environmental practices with community values and adapting to geographic and environmental challenges, small businesses in the Southwest region of Western Australia demonstrated the power of local embeddedness as a driver of sustainability and economic resilience.

More recently, Ike's (2025) study explores how sustainable entrepreneurs in Nigeria strategically utilize social embeddedness as a survival and growth strategy in contexts marked by weak formal institutions. Drawing on a multiple-case study of eight sustainable startups in sectors like recycling and clean energy, the study investigates how entrepreneurs leverage relational, structural, and transnational embeddedness at different stages of business development. In the startup phase, entrepreneurs embed in personal, professional, ethnic, and competitor networks to overcome the liability of newness and access informal capital and legitimacy. During the early development stage, they shift toward structural embeddedness, engaging with government agencies and private organizations to access institutional legitimacy, infrastructure, and funding—despite regulatory inconsistency and policy underdevelopment. As their firms grow, the entrepreneurs increasingly rely on transnational embeddedness, drawing on global connections to access expertise, funding, technologies, and export markets. Notably, these embeddedness strategies are not static; once introduced, each dimension—relational, structural, and transnational—continues to shape business operations beyond its entry point. The study advances the sustainable entrepreneurship literature by conceptualizing social embeddedness not merely as a contextual factor but as a deliberate strategic resource. It also contributes to the embeddedness literature by mapping how different forms of social capital are mobilized across stages of firm growth in a resource-constrained, institutionally weak setting. Practically, the findings offer a roadmap for entrepreneurs to tactically embed themselves into networks to navigate barriers to sustainability and growth. For policymakers, the study suggests building an enabling ecosystem through regulatory reforms, improved funding access, diaspora engagement

programs, and platforms for mentorship and knowledge transfer. However, there are limitations that temper the study's generalizability. First, the research is geographically bound to Nigeria, an emerging economy with specific institutional dynamics, limiting transferability to more developed contexts. Second, as a qualitative study, the findings are exploratory and theory-building; future research should adopt mixed methods to validate these insights through quantitative analysis. Lastly, the study notes the need to further examine the long-term effects of relational embeddedness during growth phases and the evolving role of structural embeddedness in later-stage sustainability performance. Despite these limitations, Ike's (2025) work offers a compelling model of how sustainable entrepreneurs in the Global South turn social capital into strategic infrastructure, challenging the traditional resource-dependence narratives and expanding the understanding of sustainability-driven entrepreneurship under constraint.

Moving to the Global North, Kraus et al. (2020) explore how moral identity, regional cultural norms, and micro-level behavioral values shape sustainability practices within manufacturing SMEs in Baden-Württemberg, Germany—a region historically associated with the “Mittelstand” ethos. The purpose of the study is to move beyond the dominant macro-level, positivist analyses of sustainability (which often emphasize environmental metrics, efficiency, and competitiveness) and instead investigate how owner-managers' moral reasoning and regional cultural embeddedness act as antecedents to both tangible and intangible forms of sustainability. Adopting an interpretive, qualitative methodology, the researchers conducted 30 semi-structured interviews with owner-managers and managing directors, employing thematic and template analysis to extract a hierarchical structure of themes, subthemes, and codes. These included personal managerial attitudes, regional and firm-level identity, employee relations, ecological considerations, and embedded moral values. The findings revealed that while legal and financial constraints often drive ecological practices such as energy efficiency or waste reduction (tangible sustainability), a more profound, less visible layer of sustainability emerges from deeply held moral commitments. These intangible dimensions include a sense of duty to employees, a focus on long-term firm stability overgrowth, and a commitment to the social fabric of the local community. Participants emphasized Swabian values—such as thrift, fairness, diligence, and autonomy—as guiding principles and rejected short-termism and shareholder-value logic in favor of sustaining livelihoods and regional cohesion. Relationships with other SMEs were preferred due to shared values and mutual trust, in stark contrast to impersonal and extractive interactions with large corporations, which were often characterized as arrogant and exploitative. The study concludes that sustainability in the Mittelstand context is less about explicit branding or CSR signaling and more about enacting a value-driven, socially embedded way of doing business. These findings contribute to the literature by theorizing the distinction between “tangible” and “intangible” sustainability and demonstrating how moral identity operates as a micro-foundational mechanism within specific geo-cultural contexts. However, the study does

acknowledge its limitations: the sample was regionally concentrated, primarily male, and limited to manufacturing SMEs, which constrains generalizability. The qualitative design also relies heavily on self-reported data, raising the possibility of social desirability bias. Additionally, only one participant per firm was interviewed, which may not capture internal diversity of views. Despite these constraints, the research offers a compelling alternative lens for understanding SME sustainability—one that foregrounds moral agency, community rootedness, and culturally embedded notions of responsibility that may otherwise be overlooked in mainstream sustainability frameworks.

Dahles, Prabawa, and Koning (2020) research shed light on an important aspect to explore how small, tourism-based enterprises can serve as agents of crisis-resilient and sustainable development, particularly in light of the United Nations Sustainable Development Goals (SDGs). The authors focus on the silver souvenir industry in Kotagede, Yogyakarta, during Indonesia's "decade of crisis" (1996–2006), to understand how firms embedded in local social and economic systems navigated financial collapse, political upheaval, natural disaster, and tourism volatility. Methodologically, the study adopts a qualitative, longitudinal approach grounded in the interpretive tradition. Data were collected over three distinct research phases spanning 20 years, including semi-structured interviews, observations, and business-life histories from 11 purposively sampled silver enterprises. The research is framed through a mixed-embeddedness lens, integrating micro-level (entrepreneurial behavior and networks), meso-level (opportunity structures), and macro-level (institutional and policy environments). The study found that firms survived by leveraging savings, shifting to domestic markets, and restructuring employment through informal subcontracting, often relying on family labor. While these strategies sustained business continuity and preserved some local employment, they also led to the decline of traditional Kotagede silver craftsmanship as production was outsourced to rural and external suppliers. The authors conclude that embedded social networks and flexible labor arrangements enabled remarkable resilience and alignment with certain SDGs, particularly those related to poverty alleviation (SDG 1), decent work (SDG 8), reduced inequality (SDG 10), and sustainable communities (SDG 11). However, limitations remain: the study is context-specific, limiting generalizability; it does not quantitatively measure economic impact; and it raises concerns about increased reliance on unpaid labor, particularly among women, which undermines progress toward gender equity (SDG 5). Ultimately, the paper calls for targeted policy support and formal recognition of small enterprises' contributions to sustainable development, particularly in crisis-prone environments where their social embeddedness becomes a vital asset.

When considering local embeddedness and sustainability, one additional aspect that is also considered, is that of religion. A study by Vu, Discua Cruz, and Burton (2025) investigated how Buddhist religious logics shape the ways family-owned small and medium enterprises (SMEs) in

Northern Vietnam engage with Corporate Social Responsibility (CSR) and the Sustainable Development Goals (SDGs). Employing a qualitative, interview-based methodology grounded in institutional logics theory, the study analyzes narratives from both religious and non-religious family SMEs to understand how different constellations of logic—family, market, community, professional, and religious—guide sustainability actions. The authors find that non-religious firms typically pursue CSR through an instrumental market logic, emphasizing short-term, tangible contributions such as financial literacy workshops or local job training, which simultaneously enhance firm reputation and profitability. In contrast, religious family firms, particularly those rooted in Buddhist philosophy, mobilize religious logics such as the Middle Way, karmic reasoning, and skilful means to reinterpret CSR as a long-term moral obligation grounded in community well-being rather than firm interest. These firms shift the primacy of decision-making from family-centered goals to community stewardship and transform market logic from an economic tool into a normative force for sustained, locally embedded social impact. The study concludes that religious logics can deepen SME commitments to sustainability, enabling firms to engage meaningfully with SDGs such as good health (SDG 3), quality education (SDG 4), gender equality (SDG 5), decent work (SDG 8), and responsible consumption (SDG 12), even in the absence of strong institutional support. However, the authors acknowledge limitations: the findings are context-specific to Northern Vietnam's Mahayana Buddhist traditions and may not generalize across different religious or cultural settings. The study also does not quantitatively assess the long-term outcomes of these CSR practices. Vu et al. call for future research into how other religious traditions influence SDG engagement and how institutional tensions—such as weak governance or bureaucratic barriers—shape or constrain the integration of multiple logics in SME sustainability strategies. Ultimately, the paper contributes a significant theoretical advancement by showing that in certain contexts, religious worldviews are not just ethical add-ons but core strategic logics that can transform how small enterprises conceptualize and practice sustainability.

Lastly, the importance of how SMEs navigate the challenges and opportunities of internationalization while contributing to sustainable development is also important. A study by Baù, Block, Discua Cruz, and Naldi (2021) particularly focused on family firms—organizations deeply embedded in their local contexts—on this matter. The article's central purpose is to position family firms as bridge-builders between local rootedness and global engagement, emphasizing their unique potential to address Sustainable Development Goals (SDGs) through strategies that preserve authenticity and social cohesion. Methodologically, the article is a conceptual synthesis of existing literature and an editorial introduction to a special issue, which includes diverse empirical studies employing qualitative case studies, panel data, and cross-country datasets to explore the intersection of locality and internationalization in family firms. Key findings across the issue reveal that family firms often derive identity, legitimacy, and

resilience from their connection to local institutions, traditions, and community values. This embeddedness drives inclusive practices like workforce retention, philanthropy, and gender equity, but it can also lead to overembeddedness, reducing adaptability and innovation in high-tech or fast-paced global environments. The authors also highlight how family firms leverage local heritage to build authentic global brands, and how diaspora networks, transnational resources, and entrepreneurial households enable internationalization while maintaining a local touch. The conclusion proposes a dynamic conceptual model placing family firms at the nexus of local and global systems, with four research pillars: how local roots impact regional economies and firm strategy, how family firms go global, and how global environments in turn influence family firm identity. While the paper does not conduct original empirical analysis, it clearly identifies limitations in current research, including a lack of understanding around how governance, digital tools, and changing institutional contexts mediate the local-global balance. The article calls for future research to investigate how family firms can harness their embeddedness and long-term orientation to advance inclusive, sustainable growth—locally and globally—especially in light of rising inequality, regional decline, and climate challenges.

4. Government's role in sustainability initiatives and practices for SMEs - A cross-cultural approach

A study conducted by Ogujuiba, Olamide, Agholar, Boshoff, and Samosa (2022) investigated how three key interrelated factors - government support mechanisms, business operational styles, and entrepreneurial sustainability practices - influence SME location decisions in Mpumalanga Province (eastern South Africa) across urban versus rural settings. The data derived from structured questionnaires administered to SME owners/managers and the targeted sample included diverse business sectors across Mpumalanga in a comparative analysis manner. The study's results emphasized the critical role government support plays in shaping business success, with a noticeably stronger presence and effectiveness in urban areas compared to rural regions. Urban businesses often benefit from greater access to government resources, funding programs, and advisory services, leading to a direct correlation between the availability of support and higher business success rates. In contrast, rural businesses face challenges due to limited accessibility to these resources, which can hinder their growth and resilience. This disparity in support also influences business styles, with urban areas fostering more diverse and innovative business models. The results align with existing literature emphasizing the significance of localized policy interventions and tailored support mechanisms to bridge urban-rural disparities. At the same time the study reinforces the resource-based view and location theory by highlighting how access to resources and support networks influences business success.

The abundance of resources and a competitive urban environment encourage businesses to adopt adaptive strategies, explore new markets, and integrate technology-driven solutions. On the other hand, rural businesses tend to maintain more traditional operational approaches, often grounded in long-established community practices and limited by fewer resources. The difference in support accessibility and business styles also impacts entrepreneurial sustainability. Urban businesses are better positioned to implement sustainability practices due to stronger support networks, access to specialized expertise, and a broader pool of resources (Ogujuiba, Olamide, Agholar, Boshoff, and Samosa, 2022). This ultimately results in stronger long-term business outcomes in urban settings, where sustainability initiatives are more feasible and integrated into business operations. The success of small and medium enterprises (SMEs) is heavily influenced by their geographic location, which affects access to resources, government support, and business adaptability. Particularly, SMEs in urban areas benefit from greater government support, diverse market opportunities, and access to extensive networks, while rural SMEs often face limited accessibility to these critical resources. This discrepancy impacts not only business success rates, but also the adaptation of business models to local market conditions. Urban SMEs are more likely to adopt innovative and diverse business styles, whereas rural SMEs often rely on traditional approaches, driven by their community-oriented environments and limited support. Additionally, sustainability practices are strongly influenced by location-specific factors, with urban businesses better positioned to integrate sustainable strategies due to broader access to resources and expertise (Ogujuiba, Olamide, Agholar, Boshoff & Samosa, 2022).

To address the above identified challenges, policy measures should focus on developing targeted support mechanisms for rural SMEs, including location-specific business development programs and enhanced access to resources and networks. For SMEs, strategic business planning must account for location-based factors, emphasizing the need for tailored government support and adaptive sustainability practices. Ogujuiba, Olamide, Agholar, Boshoff, and Samosa's (2022) study ultimately supports that by aligning policy and business strategies with regional needs, both urban and rural SMEs can enhance their resilience and long-term success. Despite the fact that this study did reinforce the idea of aligning government support in the pursuit of a sustainable economy, questions could be raised regarding the methodology of the study. While the use of diverse sampling improved the generalizability of the results, the effectiveness of the sampling depends on the representativeness of the respondents and the size of the sample. For example, clarifying how participants were selected (e.g., random sampling, convenience sampling) would strengthen the evaluation of its appropriateness and replicability. In addition, there is a risk of self-reported biases in the responses from the business owners, hence the conclusions of the study need further investigation. Furthermore, providing specific statistical outcomes (e.g., correlation coefficients, significance levels) could enhance the transparency and

overall robustness of the analysis. And lastly, the study focuses primarily on external factors without delving into internal organizational dynamics.

Through a more specific lens, the study by Abu Bakar, Talukder, Quazi, and Khan (2020) explores how government interventions—specifically policies, support, and subsidies—influence the adoption of sustainable technology among Malaysian SMEs, with a particular focus on the mediating roles of organizational ethics and attitudes. Using a structured questionnaire and analyzing 263 valid responses through Partial Least Squares Structural Equation Modeling (PLS-SEM), the authors found that both ethics and attitudes significantly drive sustainable technology adoption. Government policies were shown to positively shape attitudes, and subsidies had a strong effect on ethics, while government support had no significant influence—challenging assumptions in prior literature. The model accounted for 72.2% of the variance in adoption behavior, highlighting the centrality of internal organizational values in sustainability decisions. The study contributes to sustainability research by extending the Theory of Reasoned Action (TRA) to SME contexts and offering a framework that connects institutional action with internal behavioral drivers. However, limitations include its cross-sectional design, Malaysia-specific focus, and the omission of potentially influential variables like organizational culture and structure. Future studies are encouraged to test the model across sectors and countries, and to explore psychological and contextual antecedents of sustainable behavior more deeply.

From a different angle, a paper by Yacob, Wong, and Khor (2020) investigates how green initiatives—specifically energy management, water conservation, and waste management—impact the adoption of sustainable green practices in Malaysian manufacturing SMEs, with particular attention to the mediating role of owner/managers' intention toward green and the moderating role of green technology adoption. Based on survey data from 260 SMEs and analyzed using Structural Equation Modeling (SEM), the study finds that all three green initiatives significantly enhance sustainable green practices, but only when mediated by a strong internal intention toward sustainability—indicating full mediation. Among the initiatives, energy management was the most influential, likely due to cost-saving and regulatory incentives. Interestingly, green technology adoption did not significantly moderate the relationship between intention and practice, suggesting that internal behavioral commitment outweighs technological tools alone. Theoretically, the paper extends sustainability research by empirically validating intention as a crucial cognitive driver linking policy and environmental outcomes. It also highlights that SMEs' sustainable performance depends more on internal managerial values than external investments. Practically, the findings encourage firms to prioritize awareness, education, and internal engagement over costly green technologies. However, the study is limited by its cross-sectional design, reliance on self-reported data, and focus on a single national context. Future research could broaden the scope by incorporating longitudinal designs, comparative

international samples, and deeper exploration of cultural or organizational variables shaping SME sustainability behavior.

Kaur and Sharma (2016) compare the sustainability initiatives of global organizations and Indian SMEs, aiming to assess the extent and nature of sustainability integration across organizational scales. Using a structured questionnaire based on GRI guidelines and collecting responses from 81 mid- to senior-level managers, they employed the Mann-Whitney U test to evaluate differences in sustainability performance. The results revealed a significant disparity: global firms demonstrated stronger integration of environmental and social sustainability—particularly in areas such as emissions, biodiversity, and fair labor practices—while SMEs showed minimal engagement beyond compliance and basic survival needs. Though both groups emphasized economic performance, global organizations more actively incorporated sustainability into strategic operations, driven by stakeholder expectations and global risk management priorities. Theoretically, the study reinforces the idea that scale, international exposure, and regulatory pressure significantly influence sustainability behavior. Practically, it highlights the need for policy frameworks, incentives, and capacity-building to foster sustainability in India's SME sector. However, the study is limited by a small, non-random sample and reliance on self-reported data, which may restrict generalizability and invite social desirability bias.

Together, these studies present a nuanced and cross-cultural understanding of the dynamics shaping SME sustainability across diverse global contexts. A consistent finding is that government support—whether through direct subsidies, strategic policies, or advisory services—can catalyze sustainable behavior, yet its effectiveness is highly contingent on location, institutional capacity, and internal organizational readiness. In Malaysia and South Africa, as seen in the work of Abu Bakar et al. (2020), Yacob et al. (2020), and Ogujuiba et al. (2022), external governmental interventions play a crucial role in initiating sustainability adoption, though internal values and managerial intent ultimately determine long-term integration. In contrast, the studies from Germany (Sohns et al., 2023) and India (Kaur & Sharma, 2016) show how resource availability, business scale, and structural barriers either enable or hinder operationalizing green practices, with SMEs often struggling despite a positive mindset. These findings affirm that while government can set the stage, the sustainability performance of SMEs largely hinges on internal commitment, organizational maturity, and context-sensitive support. Thus, future efforts must combine localized policy design with capacity-building and internal empowerment to close the gap between sustainability awareness and implementation, especially in rural and resource-constrained environments.

Lastly, in a study by Sohns, Aysolmaz, Figge, and Joshi (2023) the barriers, benefits, and pressures surrounding the implementation of Green Business Process Management (Green BPM) initiatives among ten German manufacturing SMEs have been investigated. Utilizing a multiple

case study approach, the authors develop and apply a Green BPM maturity model—an integration of Dyllick and Muff's (2016) BST framework and Opitz et al.'s (2014) readiness model—to assess organizational and operational sustainability practices across six core factors. Findings reveal that while many SMEs possess a positive green attitude and awareness, implementation remains limited due to significant barriers: high upfront costs, time constraints, resource scarcity, bureaucratic obstacles, and a lack of expertise. Despite these challenges, the study emphasizes that most SMEs view these as hurdles rather than insurmountable barriers, especially when motivated by internal values and customer relationships. Theoretical contributions include the first SME-specific, process-focused Green BPM maturity model, which not only enriches the literature but also offers a practical roadmap for SMEs to self-assess and incrementally improve their sustainability efforts. However, the study's insights are constrained by its regional focus (Eifel-Mosel, Germany), purposive sampling, and qualitative design, limiting generalizability. Future research is encouraged to validate the model quantitatively, expand across sectors, and explore comparative dynamics with large firms to further support SMEs in their transition to sustainable business practices.

5. SMEs, sustainability, the business cycle and the times of crisis

A study by Battisti, Deakins and Perry (2013), examined the effects of recession on small and medium-sized enterprises (SMEs) in New Zealand, with a specific focus on the dynamics between urban, rural, and independent urban areas. The study highlights the emerging significance of independent urban areas—small towns—as vital for local economic vitality and business performance. These settlements play a critical role in servicing their surrounding rural hinterlands, demonstrating a mutual interdependence between urban and rural communities. By analyzing the strategic behaviors of SMEs in these interconnected areas, the research challenges the traditional urban-rural binary and addresses gaps in previous studies regarding the role of SMEs in independent urban settlements. The study employs a quantitative methodology, analyzing data from the 2009 Business Measure survey, a national survey of SMEs in New Zealand. Rural SMEs demonstrated greater resilience during recession times compared to their urban counterparts. Rural and independent urban SMEs identified their geographical context as a competitive advantage, providing some protection against recessionary impacts. The study concluded that rural SMEs tend to be smaller, family-owned, and longer-established, with older, less formally educated owners. These characteristics align with the resource-limited and less diverse environments. They showed unexpected resilience during the recession, leveraging strong community ties, operational flexibility, and the attractiveness of rural settings for tourism or niche markets. Many reported increased turnover despite the economic downturn. Unlike urban SMEs, rural and independent urban firms viewed location as an advantage during the recession. Benefits included proximity to natural resources, a stable customer base, and the

unique appeal of rural lifestyles. Independent urban areas, or small towns, emerged as a distinct segment within the urban-rural continuum. These areas demonstrated a delayed recessionary impact, blending the resilience of rural areas with the growth strategies of urban firms. Their dual characteristics ultimately highlight their importance in supporting interconnected urban and rural economies. By highlighting location-specific strategies and advantages, the research provides valuable insights into how SMEs can navigate economic downturns, emphasizing the interplay of geography, community ties, and strategic adaptability.

In their 2019 study, Martínez-López, Ariza-Camacho, and Pérez-de-la-Cruz empirically examine how the financial influence of key stakeholders—employees, customers, suppliers, lenders, and shareholders—affects the likelihood of business failure among Spanish SMEs, highlighting the importance of stakeholder dynamics in achieving long-term sustainability. Using classification tree models over a four-year pre-failure period (t-4 to t-1), the authors find that stakeholder salience shifts over time: customers' delayed payments and lenders' financial terms dominate in the earlier years (t-3, t-4), while internal financial indicators like liquidity and profitability become most critical in the final stages (t-2, t-1). Trade credit from suppliers appears to mitigate early-stage distress, whereas high-cost financial debt exacerbates risks closer to collapse. Interestingly, the study finds no significant predictive role for shareholders' financial slack, challenging previous assumptions. Grounded in stakeholder theory and the Viable Systems Approach (VSA), the paper conceptualizes SMEs as relational systems, where aligning stakeholder interests over time is key to sustainability. Methodologically, the use of decision-tree models (rpart) allows nuanced identification of variable importance, with robustness checks confirming generalizability across samples.

Martínez-López et al. (2019) conclude that strategic, time-sensitive stakeholder engagement—particularly around credit and liquidity—can reduce SME vulnerability and support sustainable performance. Limitations include the absence of qualitative variables and macroeconomic context, suggesting future research should explore broader institutional and behavioral dynamics influencing SME resilience. The paper by Caputo, Zocchi, Cristofaro, and Pellitteri (2020) explores how knowledge management (KM) strategies and performance measurement systems (PMS) influence the economic sustainability of small and medium-sized enterprises (SMEs), particularly in knowledge-intensive industries. Using a survey-based quantitative methodology and regression analysis, the authors find that SMEs benefit most from an explorative KM approach—one focused on innovation, problem-solving, and adaptability—which is positively associated with profitability. The moderating role of PMS is also highlighted, showing that when performance measurement tools are aligned with KM strategies, firms experience more effective decision-making and better outcomes. This supports the knowledge-based view of the firm, suggesting that intangible assets like knowledge and performance data are critical for long-term

survival. The study adds to the literature by confirming that innovation-driven KM, supported by strategic PMS, enhances SME resilience even under uncertainty. However, the study acknowledges limitations such as reliance on cross-sectional survey data, the exclusion of qualitative insights, and potential model specification issues like reverse causality. Future research is encouraged to adopt longitudinal and mixed method designs to deepen understanding of how KM and PMS interact over time to drive sustainable SME performance.

In their 2018 study, Schwab, Gold, and Reiner explore how periods of rapid production growth can paradoxically undermine the financial sustainability of small and medium-sized enterprises (SMEs). Using a discrete-event simulation model grounded in a real SME case from the manufacturing sector, the authors examine how the interplay of cash flow timing, customer payment delays, and inventory expansion can create liquidity bottlenecks—even as revenues increase. Their findings reveal that SMEs may become financially fragile during growth phases due to rising working capital requirements outpacing incoming cash flows, particularly under conditions of delayed customer payments and limited access to external financing. The study contributes to sustainability and operations literature by highlighting growth-related financial risks and advocating for integrated planning that aligns production scaling with financial management. While the simulation offers useful insights, a key limitation is its single-case scope and reliance on fixed behavioral assumptions, which may limit generalizability across sectors and contexts. Nonetheless, the paper emphasizes the need for SMEs to view growth not just as an opportunity but as a financial risk scenario requiring careful, data-driven mitigation strategies.

In 2022 the study by Prastian, Setiawan, and Bachtiar investigates which factor—business resilience or business growth—is more critical for SMEs' sustainability during crises, with the COVID-19 pandemic as the contextual backdrop. Using a quantitative approach, they surveyed 98 contemporary food and beverage SMEs in Magelang, Indonesia, and applied multiple linear regression to assess the impact of resilience, growth, and digital business models (DBM) on sustainability. Findings reveal that resilience ($\beta = 0.746$) has a stronger and more significant effect on sustainability than growth ($\beta = 0.334$), while DBM showed no significant direct or moderating influence. Interestingly, many business owners lacked digital literacy, undermining DBM's potential despite broader assumptions in the literature. The study's strengths lie in its timely focus and contextual relevance, especially its contribution to TBL theory by highlighting the primacy of resilience (social and operational) over profit-centered growth in crisis settings. However, limitations include a geographically narrow sample, reliance on self-reported Likert-scale data, and potential generalizability issues beyond the F&B sector. The authors recommend future research to expand scope and industry variety to further test the resilience-growth dynamic under different crisis scenarios.

And to conclude on the same point, Bordeianu, Grigoraş-Ichim, and Moroşan-Danila (2022) investigates how SMEs in Suceava County, Romania responded to the COVID-19 crisis with an emphasis on sustainability, financial performance, and the role of accounting information in decision-making. Through an empirical methodology involving structured questionnaires sent to 240 SMEs, the researchers assess correlations—using Spearman coefficients—between the importance of financial reporting and shifts in company performance indicators such as employee count, revenue, profit, and turnover. Results show strong, statistically significant correlations, suggesting that firms relying on financial reports were better positioned to adapt operations, downsize strategically, and maintain business continuity. The study finds that while many companies faced severe operational restrictions during the pandemic, approximately 70% acknowledged the value of financial reporting in guiding sustainable practices and future growth planning. The authors recommend two key strategies: integrating financial data into decision-making and adopting forward-looking performance evaluation tools, including specialized software to support organizational resilience and sustainable development. The study contributes theoretically by reinforcing the central role of financial reporting systems in crisis response and long-term sustainability. However, limitations include its regional and sector-specific focus, potential self-reporting biases, and limited longitudinal depth. Further studies are encouraged to test these findings across different regions and crisis contexts, while a more holistic approach needs to be implemented when it comes to assessing sustainability in the SMEs. The next section consolidates these findings into a comprehensive analysis.

6. Consolidating the internal and the external factors impacting sustainability practices in SMEs - A holistic approach

A study conducted by Vanpetch and Sattayathatmrongtham (2024) investigates the challenges of balancing sustainability and profitability in SMEs in the Nakhon Pathom region of Thailand. The research specifically aimed to explore how internal factors such as resource optimization, cost efficiency, and other dynamic capabilities as well as external factors (institutional pressures, stakeholder demands, environmental regulations) can influence sustainable business practices. The primary problem identified by the authors is that while SMEs continue to face increasing pressure to adopt sustainability measures due to regulations and consumer expectations, they often grapple with limited resources, financial constraints, and short-term survivor priorities. The study ultimately highlights the point that efforts are often deprioritized unless they provide direct cost savings. The study employed a qualitative research design to explore how SMEs balance sustainability and profitability. Semi-structured interviews with 45 SME business operators from agriculture, manufacturing, and commerce sectors served as the primary data collection method, allowing for more in-depth insights into motivations, financial impacts, and barriers to sustainable practices. The data is analyzed through thematic analysis and revealed that SMEs in

Nakhon Pathom, Thailand, face both opportunities and challenges in balancing sustainability and profitability. Key findings indicate that institutional pressures, including environmental regulations and stakeholder demands, play a crucial role in driving sustainable practices. SMEs that proactively adopt sustainability initiatives, such as pollution prevention, eco-friendly product design, and resource efficiency, often experience cost savings and enhanced market competitiveness. However, financial constraints, lack of knowledge, and cognitive biases—such as prioritizing short-term gains over long-term benefits—remain significant barriers. The research also highlights that firms leveraging unique internal resources, such as skilled labor and green technologies, gain a competitive advantage through sustainability. Additionally, businesses that align with the growing market demand for sustainable products enhance customer loyalty and brand reputation. While some SMEs struggle to justify initial sustainability investments, the long-term financial benefits, including reduced operational costs and improved regulatory compliance, contribute to overall profitability.

Vanpetch and Sattayathatmrongtham's (2024) study concludes that SMEs can successfully balance sustainability and profitability by strategically integrating sustainable practices into their business models. Institutional pressures, including regulatory requirements and stakeholder expectations, serve as strong motivators for adopting environmental initiatives. SMEs that leverage their internal resources, such as knowledge, technology, and dynamic capabilities, are better positioned to implement sustainability measures without compromising financial performance. Their research also emphasizes that sustainability should not be viewed as a cost but as an opportunity for competitive advantage, particularly in response to the growing market demand for eco-friendly products. While financial constraints and short-term thinking pose challenges, SMEs that invest in pollution prevention, resource efficiency, and sustainable product development tend to achieve long-term cost savings and increased profitability. The study proposes that SMEs adopting a proactive sustainability approach, rather than responding reactively to regulations, are more likely to gain legitimacy, customer trust, and business resilience.

A study conducted by Syntia and Mulya (2018) explored the effects of internal and external environmental factors on the empowerment of SMEs in implementing environmentally sustainable practices. Specifically, it investigates how internal factors like human resources, organizational culture, and management systems, along with external factors such as government regulations, competition, and globalization, influence the adoption of these environmental management systems while contributing to the SMEs ability to implement eco-friendly practices. The problem identified is that despite the rapid growth of SMEs in Aceh Tamiang, many businesses are not adopting environmental management systems due to challenges such as low education levels, lack of awareness, and insufficient government support, hindering the transition

to sustainable operations. In terms of the main findings, the research indicates that both the internal and external environments significantly impact the empowerment of SMEs in adopting environmentally sustainable business practices. It shows that the internal environment (human resources and organisational culture) has a strong impact on the success of environmental management in SMEs. The internal environment, which also includes aspects such as business owners' education levels, income, and commitment to environmental management, play a crucial role in enabling businesses to transition towards eco-friendly practices. The external environment, including government regulations, eco-friendly programs, and globalization, also influences SMEs empowerment, but to a lesser extent compared to internal factors. However, factors like government policy, competition, and technological advancements through globalization were found to positively impact the implementation of sustainable practices. The structural equation modelling (SEM) confirmed that both internal ($p=0.006$, estimation = 0.522) and external ($p=0.001$, estimation = 0.336) environmental factors significantly influence the empowerment of SMEs in environmental management. This suggests that effective empowerment requires a comprehensive approach involving both internal organizational development and external support for the government and other stakeholders. The research concludes that skilled business owners and employees are a key asset to transitioning to eco-friendly operations. To succeed, SMEs need a balanced approach that includes both internal capacity-building and external support, such as training, guidance, and incentives from the government.

Further, a study conducted by Darcy, Hill, McCabe, and McGovern (2014) explores how organisational sustainability can be meaningfully developed within small- to medium-sized enterprises (SMEs) through the application of a resource-based view (RBV). Recognizing that most sustainability research is rooted in large firm contexts, the study seeks to develop a composite conceptual model tailored to the SME setting by overlaying four influential frameworks: Carson's SME evolution and limitations model (Carson, et., 1995) , Wright et al.'s (2001) strategic HRM model, Boudreau and Ramstad's (2005) talentship framework, and the RBV of the firm. This theoretical overlay, illustrated in their Figure 1, maps SME growth stages against HR effectiveness, efficiency, and strategic impact, emphasizing the evolution from operational to strategic orientations as firms mature. Rather than employing empirical data, the study utilizes a conceptual methodology to integrate these models.

The key findings from Darcy, Hill, McCabe, and McGovern's (2014) study, suggest that human resource capabilities, particularly intangible assets like employee commitment, adaptability, and organizational citizenship behaviors, are pivotal to SME sustainability—especially given their often informal, resource-constrained structures. The model reveals that while larger firms may institutionalize HR systems, SMEs must rely on discretionary effort and emergent strategy to

survive and grow. Among the three HR anchors proposed by Boudreau and Ramstad—impact, effectiveness, and efficiency—the first two are particularly critical in early SME stages. Impact refers to how talent quality shapes strategic success, while effectiveness encompasses how employee behaviors extend beyond formal job roles. The overlay also underscores how Wright et al.'s (2001) HR pool and employee relationship elements directly align with SME realities. Despite the constraints outlined by Carson (1995)—such as lack of formal planning, specialist expertise, and generalist owner-managers—SMEs can foster sustainability by strategically developing their internal talent pools and recognizing the long-term value of adaptive HR practices. The authors conclude that the RBV, when applied through a lens sensitive to SME characteristics, offers actionable and context-specific guidance for building sustainable small firms. Their composite model serves as a roadmap for owner-managers, helping them recognize that strategic talent management—though often informal—can be a powerful differentiator. The study calls for a mindset shift among SME leaders, urging them to move beyond crisis-driven survivalism and toward intentional sustainability planning rooted in human capital development. However, there are various limitations that are acknowledged. The model is theoretical and lacks empirical testing, making its practical validity unproven. It is also based on Western-centric assumptions that may not translate to SMEs in developing economies. Furthermore, the capacity for strategic HR investment assumed by the model may exceed what most micro- or early-stage SMEs can realistically implement. The authors recommend future research that focuses on the intangible, human-centered aspects of the resource base, incorporates social constructionist and post-positivist methodologies, and investigates how SME culture and entrepreneurial personality traits affect sustainability outcomes. Ultimately, the paper provides a rich conceptual contribution, offering a novel HR-focused pathway for SMEs to achieve sustainable competitive advantage in increasingly dynamic market environments.

The purpose of the study by Tsvetkova, Bengtsson, and Durst (2020) is to explore how small and medium-sized enterprises (SMEs) in Sweden are able to maintain environmental and social sustainability practices over time, rather than merely initiate them. Using a qualitative methodology, the researchers conducted semi-structured interviews with representatives from nine Swedish SMEs, all of which had previously demonstrated a commitment to sustainability. The findings show that both external and internal drivers play key roles in sustaining sustainability practices. External drivers include pressure or encouragement from suppliers, customers, and—in some cases—the broader community. Internal drivers, however, were found to be more central, encompassing employee involvement, a sustainability-oriented organizational culture, and competitive strategy. One of the study's most distinctive findings is the influence of business longevity thinking, where long-term survival and owner vision serve as motivation for maintaining sustainable operations. The study contributes to existing sustainability literature by shifting the focus from initiation to maintenance, and by offering a more nuanced understanding

of how internal organizational dynamics shape long-term sustainability. In conclusion, the authors argue that SMEs are not inherently limited by their size in pursuing sustained sustainability and that internal culture and long-term strategic vision may outweigh formal institutional support. Limitations of the study include its small sample size, lack of diversity in firm types, and its national context (Sweden), which may restrict the transferability of its insights to other geographic or institutional settings.

Across the five studies—by Vanpotech & Sattayathatmrongtham (2024), Syntia & Mulya (2018), Darcy et al. (2014), Tsvetkova et al. (2020), and a conceptual overlay of resource-based theories—a shared theme emerges: while SMEs face persistent constraints in adopting sustainable practices, both internal and external factors offer critical leverage points. Vanpotech and Sattayathatmrongtham emphasize that institutional pressures and stakeholder expectations push SMEs toward eco-friendly practices, yet financial constraints and short-term thinking remain barriers unless sustainability directly reduces costs. Similarly, Syntia and Mulya affirm that internal capabilities—such as skilled human capital and environmental awareness—have a stronger impact on SME sustainability than external forces, although government policy and globalization do contribute. Darcy et al. argue from a conceptual standpoint that intangible internal resources, especially HR capabilities like employee commitment and adaptability, can serve as strategic differentiators for long-term sustainability. Meanwhile, Tsvetkova, Bengtsson, and Durst provide evidence from Sweden that internal cultural drivers, long-term vision, and employee engagement are vital for sustaining sustainability over time—underscoring that initial adoption is insufficient without maintenance. Collectively, these studies highlight that while external pressures may initiate sustainability efforts, enduring success depends more heavily on internal alignment, strategic vision, and human-centered resource development. However, limitations remain, such as the geographic context, the sample sizes, the theoretical (vs. empirical) approaches, and the assumptions about resource availability may affect broader applicability. Still, the consolidated findings offer a holistic view that balancing sustainability and profitability in SMEs requires proactive internal capability-building, adaptive leadership, and long-term commitment, rather than compliance alone.

CONCLUSION

This paper explored how sustainability can serve as a strategic asset for small and medium-sized enterprises (SMEs), particularly in resource-constrained, crisis-prone, and culturally embedded environments. Drawing on over thirty global studies, the present study synthesizes how internal capabilities—such as ethical leadership, employee commitment, organizational culture, and knowledge systems—interact with external forces like government support, stakeholder salience, and institutional logics to shape SME sustainability outcomes. The literature collectively suggests that SMEs are most successful when sustainability is embedded not only in business

models, but in values, practices, and adaptive leadership. Importantly, this paper highlights that resilience, more than growth, is critical for sustainability during crises such as the COVID-19 pandemic. However, limitations persist. Much of the literature remains geographically specific, often lacking longitudinal scope or generalizability beyond national or sectoral contexts. Many studies rely on self-reported or cross-sectional data, and few integrate both internal and external dynamics comprehensively. Additionally, theoretical contributions often lack empirical testing, especially in low-income or rural settings. Future research should pursue mixed-method, longitudinal studies across diverse regions and industries, with a focus on SMEs in informal economies. There is also a need to develop measurable frameworks linking sustainability competencies to performance metrics, and to further examine underexplored drivers such as religious logics, digital capability, and gendered leadership perspectives. Researchers are encouraged to build interdisciplinary models that combine organizational behavior, environmental economics, and public policy to design locally appropriate, scalable strategies for SME sustainability—particularly during periods of systemic disruption.

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