



Green Business Strategy: Comparative Implementation Study among SMEs in Indonesia and Malaysia for Competitiveness

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Abstract

The urgency of climate change has driven businesses worldwide to adopt sustainable practices aimed at minimizing environmental impact and ensuring long-term competitiveness. The Green Business Strategy has emerged as an effective framework by integrating environmental considerations into corporate policies and operations. This study sets out three main objectives: first, to examine the theoretical foundations of the Green Business Strategy and related concepts such as environmental orientation, environmental performance, and managerial awareness; second, to evaluate the extent of government policy support and SME adoption in Indonesia and Malaysia; and third, to propose strategic recommendations for enhancing the competitiveness of SMEs through sustainable business practices. This study presents a comparative analysis of Green Business Strategy implementation among SMEs in Indonesia and Malaysia. By examining policy frameworks, institutional support, environmental orientation, environmental performance, and managerial awareness, the study identifies the opportunities and barriers faced by SMEs. A comparative literature-based approach is employed, utilizing sources from 2019 to 2025. The findings indicate that Indonesia has a very large SME sector and is gradually strengthening its sustainability regulations, such as the Carbon Economic Value regulation and the IDX carbon trading platform. However, implementation remains fragmented due to weak institutional coordination and financial constraints. In contrast, Malaysia benefits from more established institutional support, including the National Green Economy Policy and the Green Technology Financing Scheme, which provide SMEs with clearer pathways for adopting green business practices. The study reveals that Green Business Strategy adoption enhances operational efficiency, stakeholder trust, and competitive advantage. Policy recommendations include the need for stronger financial instruments and more streamlined regulatory processes, while managerial implications highlight the importance of leadership and environmental awareness. Ultimately, adopting green business strategies is not only a social responsibility but also a strategic imperative for SMEs to remain competitive in an increasingly sustainability-driven global market.

Keywords: *Green Business Strategy, SMEs, Environmental Orientation, Environmental Performance, Managerial Awareness, Indonesia, Malaysia, Sustainability*

INTRODUCTION

Climate change has emerged as one of the most pressing global issues in the twenty-first century, with profound implications for ecological stability, economic development, and social systems (Sadeghi, 2022). Increasingly, firms are required to embed environmental considerations into their strategic decisions, moving beyond corporate social responsibility toward treating sustainability as a core driver of competitiveness (Zhao et al., 2024). Within this context, the notion of the Green Business Strategy has become significant, providing companies with a framework to reconcile ecological commitments with profitability and long-term resilience (Sabihaini et al., 2024).

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SMEs form the backbone of the economy in Southeast Asia. In Indonesia, the sector consists of more than 64 million enterprises, contributing about 60 percent of GDP and employing nearly 97 percent of the workforce (Yoo et al., 2018). In Malaysia, SMEs represent 97 percent of registered businesses, generate 38.2 percent of GDP, and account for almost half of national employment (Nordin & Hassan, 2019).

Despite this crucial role, SMEs face persistent challenges in embracing sustainability. Constraints such as limited financing, inadequate environmental literacy, outdated production technology, and inefficiency in resource management often hinder the adoption of Green Business Strategy (Alvarez et al., 2019; Abe et al., 2015). On top of these internal barriers, SMEs are also confronted with increasingly strict environmental regulations that demand compliance with both national and international standards (Lee et al., 2023).

Both Indonesia and Malaysia have made efforts to accelerate the green transition among SMEs. In Indonesia, notable measures include the enactment of Presidential Regulation No. 98 of 2021 concerning the Carbon Economic Value, the introduction of carbon trading through the IDX Carbon platform, and the biodiesel blending policy (Fatimah & Biswas, 2016). Malaysia, on the other hand, has introduced structured initiatives such as the National Green Economy Policy, the Green Technology Financing Scheme administered by Bank Negara Malaysia, and Eco-Label certification to support SMEs' competitiveness in global markets (Bakar et al., 2020).

Based on this background, this study has three main objectives: first, to examine the theoretical foundations of the Green Business Strategy and related concepts such as environmental orientation, environmental performance, and managerial awareness; second, to evaluate the extent of government policy support and SME adoption in Indonesia and Malaysia; and third, to propose strategic recommendations for enhancing the competitiveness of SMEs through sustainable business practices.

LITERATURE REVIEW

Stakeholder theory suggests that firms should not restrict their focus to shareholders alone but must also account for the interests of other parties such as employees, customers, regulators, communities, and the natural environment (Freeman et al., 2023). Within the SME sector, the influence of stakeholders is often a decisive factor for sustainability practices, as enterprises seek legitimacy and continuity in increasingly competitive markets (Li et al., 2025).

The Green Business Strategy is designed to embed environmental considerations into every aspect of organizational operations. It emphasizes practices such as improving eco-efficiency, minimizing waste, adopting renewable energy, and strengthening sustainable supply chain management (Sabihaini et al., 2024). Six interrelated dimensions are typically highlighted within the Green Business Strategy framework: green human resource management, green finance, green marketing, green production, green research and development, and green purchasing.

Environmental orientation reflects how organizations perceive ecological challenges and how willing they are to respond to them. Internally, this involves corporate values, culture, and managerial commitment, while externally it includes engagement with customers, suppliers, and regulatory authorities (Perez-Castillo & Vera-Martinez, 2021). When firms adopt strong environmental orientations, they tend to enjoy a more positive reputation, greater trust from stakeholders, and more consistent sustainable performance outcomes (Sabihaini et al., 2024).

Environmental performance refers to the measurable results of a company's actions to address ecological concerns. These include efficient use of resources, adherence to environmental standards, collaboration with stakeholders, and gains in productivity (Akhtar et al., 2024). Companies that perform well environmentally often benefit from lower costs, improved competitiveness, and stronger reputations in the marketplace (Nikam & Melati, 2024).

Leadership commitment is also crucial in this context. Managers and owners who are environmentally conscious are more likely to incorporate sustainability into their business models, invest in eco-friendly innovations, and motivate employees to adopt environmentally responsible behavior (Cao & Chen, 2019; Akhtar et al., 2024). On the other hand, weak managerial awareness often results in passive compliance rather than active innovation (Lee et al., 2023).

Finally, the Balanced Scorecard provides a framework to evaluate organizational performance beyond traditional financial metrics. When applied to sustainability, the Balanced Scorecard enables firms to assess how environmental initiatives influence customer satisfaction, internal processes, learning and growth, as well as financial outcomes simultaneously (Sabihaini et al., 2024).

RESEARCH METHOD

This study adopts a comparative, literature-based research design aimed at evaluating how SMEs in Indonesia and Malaysia implement Green Business Strategy. Data sources include official government regulations and policy documents (Imanuella et al., 2025; Fatimah & Biswas, 2016), peer-reviewed academic publications (Sabihaini et al., 2024; Durrani et al., 2024), as well as international reports addressing sustainability practices and SME competitiveness (Bakar et al., 2020; Abe et al., 2015).

The analytical procedure comprised three principal stages. First, central themes were identified, focusing on GBS, environmental orientation, environmental performance, and managerial awareness. Second, the regulatory frameworks, institutional support mechanisms, and SME preparedness for adopting sustainable practices were compared between the two countries. Finally, the findings were synthesized to generate implications for policymakers, practitioners, and the academic community.

FINDINGS AND DISCUSSION

In Indonesia, the regulatory framework supporting green business development includes Presidential Regulation No. 98 of 2021 on Carbon Economic Value, the establishment of the IDX Carbon trading market, and the B40 biodiesel blending program (Hartono et al., 2023). Additional initiatives, such as green financing schemes and incentives from the state-owned electricity provider, demonstrate the government's commitment to steering SMEs towards sustainable operations (Indonesia, 2024). Nonetheless, several obstacles persist, particularly related to SMEs' limited financial literacy, low awareness of sustainability benefits, and the complexity of regulatory requirements (Yoo et al., 2018).

In contrast, Malaysia demonstrates relatively stronger institutional arrangements. Programs such as the National Green Economy Policy, the Green Technology Financing Scheme, and the Eco-Label certification system create a more enabling environment for SMEs to transition towards sustainability (Bakar et al., 2020). These initiatives provide greater access to funding, clearer incentives, and structured mechanisms for enhancing competitiveness at the global level (Low et al., 2020). Malaysia's policy framework reflects a more advanced and coordinated integration of environmental sustainability within its economic agenda (Awuah-Gyawu et al., 2024).

A cross-country comparison shows that Indonesia benefits from the large scale of its SME sector, yet struggles with inconsistent and fragmented implementation. Conversely, Malaysia leverages its more mature institutional capacity to foster SME engagement in sustainability (Bakar et al., 2020; Yoshino et al., 2023). When considering the six dimensions of Green Business Strategy, both countries exhibit uneven progress: green human resource management and green finance are gaining momentum, while green R&D and green purchasing remain underdeveloped (Sabihaini et

al., 2024).

Further evidence suggests that SMEs with a stronger environmental orientation can achieve better ecological and financial outcomes. For instance, Indonesian SMEs that have adopted green production methods report reductions in waste generation and energy consumption (Yoo et al., 2018). Meanwhile, Malaysian SMEs that obtain Eco-Label certification have access to greater opportunities to enter international markets (Bakar et al., 2020). Leadership is a critical factor: SME owner-managers who demonstrate environmental commitment tend to pursue sustainability certifications, seek green financing, and integrate ecological principles into their core business models (Cao & Chen, 2019; Sabihaini et al., 2024). Conversely, when managerial awareness is weak, firms are more likely to adopt a compliance-oriented rather than innovation-driven approach (Lee et al., 2023).

From a policy perspective, Indonesia would benefit from streamlining regulatory processes to reduce complexity, while Malaysia could focus on expanding outreach to enhance SME participation (Yoshino et al., 2023). On the managerial side, capacity-building programs aimed at strengthening leadership awareness and skills are essential to accelerate Green Business Strategy adoption (Sabihaini et al., 2024). At the regional level, collaboration between Indonesia and Malaysia could be leveraged to establish sustainable value chains, thereby enhancing the overall competitiveness of Southeast Asia (Bakar et al., 2020).

CONCLUSIONS

This comparative analysis underscores the pivotal role of the Green Business Strategy in enhancing both competitiveness and sustainability among SMEs in Indonesia and Malaysia. Evidence indicates that Indonesia, despite its vast SME base, remains in the process of consolidating its regulatory and institutional frameworks and thus continues to encounter significant implementation barriers (Tambunan, 2007). In contrast, Malaysia benefits from comparatively more mature policy instruments and incentive mechanisms, although its SME sector is smaller in scale (Bakar et al., 2020).

Theoretical Contributions

This study advances stakeholder theory by demonstrating that even resource-constrained SMEs can create shared value through the adoption of Green Business Strategy (Freeman et al., 2023). Furthermore, environmental orientation and leadership awareness are identified as key mediating factors linking stakeholder expectations to firm-level outcomes (Perez-Castillo & Vera-Martinez, 2021; Cao & Chen, 2019).

Practical Implications

For SMEs, adopting a proactive stance toward sustainability is essential. Integrating Green Business Strategy practices into daily operations can enhance efficiency and competitiveness (Sabihaini et al., 2024). For policymakers, there is a need to expand accessible financial schemes, simplify complex regulations, and invest in capacity-building initiatives that enable SMEs to embed sustainability more effectively (Abe et al., 2015).

Policy Implications

Regional collaboration is crucial. Initiatives such as harmonizing sustainability certification systems and jointly utilizing carbon trading platforms could significantly strengthen the position of SMEs in Southeast Asian markets (Yoshino et al., 2023).

LIMITATIONS & FURTHER RESEARCH

This study has several limitations that should be acknowledged. First, the data used primarily derive from literature reviews and policy documents, which may be affected by limited access and source validity. Second, the scope of the research is restricted to SMEs in Indonesia and Malaysia, so the findings may not be generalizable to other Southeast Asian countries. Third, cultural factors and local policy differences have not been analyzed in depth. Future research is expected to utilize primary data and broaden the comparative scope to other regions.

REFERENCES

- Abe, M., Troilo, M., & Batsaikhan, O. (2015). Financing small and medium enterprises in Asia and the Pacific. *Journal of Entrepreneurship and Public Policy*, 4(1), 2–32. <https://doi.org/10.1108/JEPP-07-2012-0036>
- Akhtar, S., Li, C., Sohu, J. M., Rasool, Y., Hassan, M. I. U., & Bilal, M. (2024). Unlocking green innovation and environmental performance: The mediated moderation of green absorptive capacity and green innovation climate. *Environmental Science and Pollution Research*, 31(3), 4547–4562. <https://doi.org/10.1007/s11356-023-31403-w>
- Álvarez Jaramillo, J., Zarthia Sossa, J. W., & Orozco Mendoza, G. L. (2019). Barriers to sustainability for small and medium enterprises in the framework of sustainable development: Literature review. *Business Strategy and the Environment*, 28(4), 512–524. <https://doi.org/10.1002/bse.2261>
- Awuah-Gyawu, M., Abdul Muntaka, S., Owusu-Bio, M. K., & Otchere Fianko, A. (2024). Assessing the effects of sustainable supply chain management practices on operational performance: The role of business regulatory compliance and corporate sustainability culture. *Benchmarking: An International Journal*. <https://doi.org/10.1108/BIJ-10-2023-0721>
- Bakar, M. F. A., Talukder, M., Quazi, A., & Khan, I. (2020). Adoption of sustainable technology in the Malaysian SMEs sector: Does the role of government matter? *Information*, 11(4), 215. <https://doi.org/10.3390/info11040215>
- Cao, H., & Chen, Z. (2019). The driving effect of internal and external environment on green innovation strategy: The moderating role of top management's environmental awareness. *Nankai Business Review International*, 10(3), 342–361. <https://doi.org/10.1108/NBRI-05-2018-0028>
- Durrani, N., Raziq, A., Mahmood, T., & Khan, M. R. (2024). Barriers to adaptation of environmental sustainability in SMEs: A qualitative study. *PLOS ONE*, 19(5), e0298580. <https://doi.org/10.1371/journal.pone.0298580>
- Fatimah, Y. A., & Biswas, W. K. (2016). Remanufacturing as a means for achieving low-carbon SMEs in Indonesia. *Clean Technologies and Environmental Policy*, 18(8), 2363–2379. <https://doi.org/10.1007/s10098-016-1148-5>
- Freeman, R. E., Harrison, J. S., Wicks, A. C., Parmar, B. L., & de Colle, S. (2023). The problems that stakeholder theory tries to solve. In *R. Edward Freeman's selected works on stakeholder theory and business ethics* (pp. 3–27). Springer. <https://doi.org/10.1017/CBO9780511815768.002>
- Hartono, D., Indriyani, W., Iryani, B. S., Komarulzaman, A., Nugroho, A., & Kurniawan, R. (2023). Carbon tax, energy policy, and sustainable development in Indonesia. *Sustainable Development*, 31(4), 2332–2346. <https://doi.org/10.1002/sd.2511>
- Imanuella, S. F., Idris, A., & Kamaruddin, N. (2025). Social entrepreneurship and rural development in post-independence Indonesia. *Social Enterprise Journal*, 21(1), 46–66. <https://doi.org/10.1108/SEJ-12-2023-0155>

- Indonesia. (2024). *Indonesia green economy roadmap 2024–2030: Strengthening sustainable finance and energy transition policies*. Ministry of National Development Planning (Bappenas). <https://www.bappenas.go.id>
- Lee, J. Y., Yang, Y. S., & Ghauri, P. N. (2023). E-commerce policy environment, digital platform, and internationalization of Chinese new ventures: The moderating effects of COVID-19 pandemic. *Management International Review*, 63(1), 57–90. <https://doi.org/10.1007/s11575-022-00504-2>
- Li, W., Zhang, S., Gao, Y., & Xie, Q. (2025). Towards a mature body of knowledge: A meta-analysis of antecedents to infrastructure project environmental and social sustainability. *IEEE Transactions on Engineering Management*. <https://doi.org/10.1109/TEM.2025.3609335>
- Low, S., Ullah, F., Shirowzhan, S., Sepasgozar, S. M. E., & Lin Lee, C. (2020). Smart digital marketing capabilities for sustainable property development: A case of Malaysia. *Sustainability*, 12(13), 5402. <https://doi.org/10.3390/su12135402>
- Nikam, J., & Melati, K. (2024). Aiding circular business transitions in Southeast Asian small and medium-sized enterprises (SMEs) through identifying barriers and enablers: A case study of Thailand-based SMEs. *Circular Economy and Sustainability*, 4(4), 2889–2907. <https://doi.org/10.1007/s43615-023-00318-6>
- Nordin, R., & Hassan, R. A. (2019). The role of opportunities for green entrepreneurship towards investigating the practice of green entrepreneurship among SMEs in Malaysia. *Review of Integrative Business and Economics Research*, 8, 99–116.
- Perez-Castillo, D., & Vera-Martinez, J. (2021). Green behaviour and switching intention towards remanufactured products in sustainable consumers as potential earlier adopters. *Asia Pacific Journal of Marketing and Logistics*, 33(8), 1776–1797. <https://doi.org/10.1108/APJML-10-2019-0611>
- Sabihaini, Kurniawan, A., Eko Prasetyo, J., & Rusdiyanto. (2024). Environmental analysis and impact on green business strategy and performance in SMEs post the COVID-19 pandemic. *Cogent Economics & Finance*, 12(1), 2330428. <https://doi.org/10.1080/23322039.2024.2330428>
- Sadeghi, N. (2022). Continuity of small businesses when facing increased flood risk due to global climate change impacts: A systematic literature review. *International Journal of Disaster Risk Reduction*, 82, 103316. <https://doi.org/10.1016/j.ijdrr.2022.103316>
- Tambunan, T. (2007). Development of SMEs in a developing country: The Indonesian story. *Journal of Business and Entrepreneurship*, 19(2), 60–75.
- Yoo, H. S., Lee, C., & Jun, S.-P. (2018). The characteristics of SMEs preferring cooperative research and development support from the government: The case of Korea. *Sustainability*, 10(9), 3048. <https://doi.org/10.3390/su10093048>
- Yoshino, N., Rasoulinezhad, E., Phoumin, H., & Taghizadeh-Hesary, F. (2023). SMEs and carbon neutrality in ASEAN: The need to revisit sustainability policies. *Economic Research-Ekonomska Istraživanja*, 36(2), 1–17. <https://doi.org/10.1080/1331677X.2023.2177180>
- Zhao, M., Wang, X., & Cheng, L. (2024). Towards green development: Does business strategy affect enterprise green total factor productivity? *Journal of Environmental Planning and Management*, 1–34. <https://doi.org/10.1080/09640568.2024.2403770>