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# Islamic financial inclusion and sustainability mindset: Pathways to MSME performance and SDG achievement

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#### Abstract

The growth of micro, small, and medium enterprises (MSMEs) is crucial for Indonesia's economic and environmental sustainability. However, little is known about how Islamic financial inclusion and sustainability mindsets work together to enhance sustainable business performance in this sector. This study explores the combined impact of Islamic financial inclusion and sustainability mindset on the financial sustainability of East Java's MSMEs, with green entrepreneurial orientation as a mediating factor. Using a quantitative approach, data was gathered from 115 sharia-compliant MSMEs through structured surveys and analyzed using Structural Equation Modeling (SEM). The results confirm that both Islamic financial inclusion and a sustainability mindset positively influence sustainable financial performance, with green entrepreneurial orientation playing a partial mediating role. Interestingly, the strength of these relationships varies depending on business models. The study bridges Islamic finance principles with sustainability theories, offering empirical evidence for policymakers designing Islamic finance initiatives to support MSME sustainability. It also emphasizes the need for MSMEs to integrate financial accessibility with eco-conscious thinking. These findings contribute to the ongoing discussion on aligning Islamic finance with sustainable development in emerging markets, providing practical guidance for businesses and regulators alike.

**Keywords:** Islamic finance; sustainability mindset; entrepreneurial orientation; MSME development; sustainable performance

#### Introduction

The sustainability of micro, small, and medium enterprises (MSMEs) serves as a fundamental pillar in fostering inclusive economic growth and advancing the local-level implementation of the Sustainable Development Goals (SDGs) (Miranda et al., 2024; Harnida et al., 2024; Vásquez et al., 2021). In East Java, MSMEs contribute over 60% to the Gross Regional Domestic Product (GRDP) and absorb approximately 97% of the labor force. However, structural challenges—such as unequal access to finance and limited adaptive capacity toward sustainability principles—continue to hinder the full optimization of their potential contribution. Within the framework of the Islamic economy, MSMEs are not merely business actors; they are also entities expected to internalize the values of maqashid al-shariah—particularly in maintaining economic balance (tahdzib alfard), promoting social justice (al-'adl), and ensuring environmental preservation (hifzh al-bi'ah) (Alhammadi et al., 2022; Hasibuan et al., 2024).

Islamic financial inclusion emerges as a strategic solution that not only facilitates access to financing but also promotes ethical and sustainable business practices (Abdul Razak & Asutay, 2022; Abbas et al., 2023; Ozdemir et al., 2023). Unlike conventional financial approaches, which tend to be profit-oriented, Islamic finance offers risk-sharing models and linkage programs that are more adaptive to the needs of MSMEs (Mahmoud et al., 2024; Lawhaishy & Othman, 2023; Disli et al., 2023). Nevertheless, its implementation in East Java remains fragmented—with only 12% of MSMEs currently engaged with Islamic financial institutions due to limited financial literacy and disparities in service infrastructure. Moreover, a sustainability mindset has yet to become mainstream in MSME business strategies (Gao et al., 2023; Zemlyak et al., 2022). Most entrepreneurs continue to prioritize short-term survival without considering the

long-term impact on the environment and society (Bongomin et al., 2020; Achi et al., 2022). In fact, the Resource-Based View (RBV) theory posits that the ability to integrate sustainability principles into business models can serve as a source of competitive advantage in an era of disruption (Bhuiyan et al., 2023; Wang et al., 2023; Kahupi et al., 2021).

The integration of Islamic financial inclusion and a sustainability mindset holds the potential to generate a double impact: enhancing MSME performance while simultaneously contributing to the achievement of the Sustainable Development Goals (SDGs), particularly SDG 8 (Decent Work and Economic Growth) and SDG 12 (Responsible Consumption and Production). However, there remains a lack of comprehensive research that specifically examines, first, how Islamic financial mechanisms can transform access to capital into sustainable business performance, and second, the extent to which a sustainability mindset functions as a catalyst within this relationship.

Based on the aforementioned background, this research is designed to address several critical questions concerning the role of Sharia-based financial inclusion in strengthening MSME performance in East Java. The primary focus of this study is to examine the extent to which Islamic financial inclusion influences MSME performance and how the sustainability mindset operates as a mediating variable in this relationship. Additionally, the study seeks to explore the integration of Islamic financial inclusion and the sustainability mindset in supporting the achievement of the SDGs at the local level, particularly in the context of community-based economic empowerment grounded in Sharia and sustainability values.

Previous studies have made significant contributions to understanding the dynamics of Islamic financial inclusion, sustainability mindset, and MSME performance, although each has approached the topic from distinct angles. In the context of Islamic financial inclusion and regulatory policies, research by Sofilda et al., (2022) found that economic growth and the number of Islamic bank branches significantly influence Islamic financial inclusion, whereas the Human Development Index does not show a statistically significant effect. This suggests that financial infrastructure plays a more dominant role in driving inclusion than the quality of human capital. Conversely, a study by Saifurrahman & Kassim, (2024) highlights regulatory barriers that limit MSME access to Islamic financing—particularly in the implementation of profit-and-loss sharing (PLS) schemes—and emphasizes the urgency of regulatory reform to promote more equitable financial inclusion.

In the discourse on the mediating role and integration of Islamic finance, Qizam et al., (2025) found that the halal value chain (HVC) mediates the relationship between Islamic financial inclusion and the socio-economic transformation of communities. Another study by Mujiatun et al., (2023) demonstrated that Islamic financial literacy significantly influences both Islamic financial inclusion and MSME performance, whereas marketing communication strategies showed no significant effect. This indicates that education and financial understanding are more essential than promotional efforts.

Regarding the sustainability mindset and MSME performance, research by Tjahjadi et al., (2024) confirmed that human capital and information readiness play a pivotal role in supporting the sustainability of MSMEs, with market orientation acting as the primary mediator. These findings are reinforced by Syamsari et al., (2022), who emphasized the importance of entrepreneurial orientation in enhancing MSME resilience. However, neither study explicitly explored the role of the sustainability mindset as a cognitive variable mediating the relationship between financial access and business performance.

Furthermore, in the context of Islamic fintech and MSME sustainability, studies by Anggara & Nuraeni, (2025) and Menne et al., (2022) revealed that Islamic fintech holds substantial potential for supporting sustainable financing for MSMEs. However, challenges such as low digital literacy and weak financial management remain critical barriers. Similar findings were reported by Hasibuan

et al., (2024), who argued that Islamic financial literacy exerts a stronger influence than mere access to financial services, underscoring the need for an integrated approach that combines education and financial accessibility.

Despite the growing body of literature addressing Islamic financial inclusion, sustainability mindset, and MSME performance, several research gaps remain unaddressed. First, theoretical integration in existing studies is still limited. Most research, such as that by Sofilda et al., (2022) and Qizam et al., (2025), tends to focus solely on financial access without systematically linking it to the sustainability paradigm based on magashid al-shariah. Conversely, studies on the sustainability mindset, such as those by Tjahjadi et al., (2024) and Syamsari et al., (2022), have yet to examine this construct as a mediating factor in the relationship between Islamic finance and MSME performance.

Second, the mediation approaches employed in previous studies remain partial in nature. For instance, studies by Mujiatun et al., (2023) and Hasibuan et al., (2024) primarily rely on financial literacy as a mediating variable, while the role of psychological capital—such as the sustainability mindset—has received limited attention as a critical factor in transforming financial access into sustainable business performance.

Third, the majority of existing studies have yet to thoroughly consider the specific context of East Java. Prior research, such as that conducted by Zunairoh & Wijaya, (2024) and Menne et al., (2022), has generally adopted a national perspective or focused on other regions outside East Java, such as Makassar and Takalar. This is despite the fact that MSMEs in East Java make a significant contribution to the region's Gross Regional Domestic Product (GRDP), while simultaneously facing Islamic financial inclusion challenges that remain underexplored in the academic literature.

Fourth, there is a lack of studies explicitly linking Islamic financial inclusion and the sustainability mindset with the contribution of MSMEs to the achievement of the Sustainable Development Goals (SDGs) – particularly SDG 8 (decent work and economic growth) and SDG 12 (responsible consumption and production)—at the regional level.

This study aims to address critical theoretical and practical gaps by proposing a novel conceptual framework that integrates the Islamic economic paradigm, cognitive sustainability psychology, and MSME performance within the context of sustainable development. It pursues several interrelated objectives. First, the study investigates the impact of Islamic financial inclusion on the performance of micro, small, and medium enterprises (MSMEs) in East Java by employing the magashid al-shariah framework, which provides a more holistic perspective by incorporating principles of justice (al-'adl) and environmental preservation (hifzh al-bi'ah) alongside profit-oriented goals. Second, it explores the mediating role of the sustainability mindset in the relationship between access to Islamic finance and sustainable business performance, drawing on Goal-Framing Theory to explain how sustainability values are internalized and reflected in entrepreneurial behavior. Third, the research seeks to generate empirical insights that inform evidence-based policy recommendations aimed at enhancing the synergy between Islamic financial systems and the transformation of entrepreneurial mindsets. In doing so, this study contributes to the optimization of local-level SDG implementation and supports the role of MSMEs as agents of a transformative, inclusive, and sustainability-driven economy. The findings are expected to serve as a benchmark for regulators in designing Sharia-compliant financial inclusion policies and to enrich academic discourse on the integration of Islamic finance and sustainable development strategies.

## Literature review

The concept of Islamic financial inclusion has evolved beyond merely expanding access to financial services; it also embodies the integration of Shariah

principles with broader sustainable development objectives (Mujiatun et al., 2023; Ismamudi et al., 2023; Khmous & Besim, 2020). According to the Financial Services Authority (OJK, 2023), Islamic financial inclusion emphasizes not only the accessibility of financial instruments but also the achievement of distributive justice (al-'adl) and inclusive economic growth. However, the implementation of Islamic financial inclusion in Indonesia still encounters several barriers, particularly in infrastructure readiness and financial literacy, as highlighted by Sofilda et al. (2022). These challenges suggest that Islamic financial services alone may not suffice to drive MSME development unless complemented by enabling psychological and behavioral factors.

One such factor is the sustainability mindset, a psychological construct that captures the cognitive orientation of entrepreneurs toward sustainable business practices (Suriyankietkaew et al., 2022; Araujo et al., 2022; Droup et al., 2024). Within the MSME context, this mindset reflects the extent to which business owners internalize and prioritize the integration of social, environmental, and economic dimensions into their strategic decision-making. Tjahjadi et al. (2024) identified three essential dimensions of sustainability mindset—long-term orientation, social responsibility, and environmental awareness—that collectively reflect the cognitive readiness of entrepreneurs to address sustainability challenges. Further supporting this view, Syamsari et al. (2022) found that MSMEs with a stronger sustainability mindset exhibit greater resilience when navigating external shocks and dynamic business environments. These findings suggest that sustainability mindset may serve as a crucial mediator that links financial access with actual sustainability outcomes in business performance.

In this regard, Green Entrepreneurial Orientation (GEO) offers a strategic extension of the sustainability mindset by translating internal values into proactive business behaviors. GEO encompasses entrepreneurial tendencies to adopt environmentally responsible innovation and to integrate ecological concerns into core business practices (Khan et al., 2023; Öztürk et al., 2024; Alshebami, 2023). For

MSMEs, GEO includes key dimensions such as green product innovation, proactive environmental strategy, and risk management related to ecological issues (Anggara & Nuraeni, 2025). These practices not only signal environmental awareness but also reflect strategic adaptation to evolving market demands and stakeholder expectations. As observed by Menne et al. (2022), MSMEs that embrace GEO often achieve superior environmental and financial performance, indicating that such orientation may act as a conduit through which values and resources are transformed into tangible sustainable outcomes.

Ultimately, the sustainable performance of MSMEs is best captured through the triple bottom line framework, which integrates economic viability, social impact, and environmental stewardship (Alshebami, 2023; Machado et al., 2024). This multidimensional approach provides a comprehensive measure of business sustainability. Qizam et al. (2025) have further contextualized this framework for MSMEs by proposing performance indicators such as revenue growth (economic), job creation (social), and environmental impact reduction (ecological). Supporting this, Hasibuan et al. (2024) demonstrated that MSMEs which embed sustainability principles into their operations are better equipped to withstand and adapt to economic and environmental disruptions. These insights reinforce the importance of integrating financial, psychological, and strategic factors in assessing MSME sustainability.

Synthesizing these streams of literature, it becomes evident that Islamic financial inclusion alone is insufficient to drive sustainable MSME performance unless it is accompanied by a strong sustainability mindset and reinforced through green-oriented entrepreneurial practices. The interrelationship among these variables suggests a dynamic pathway wherein financial access grounded in Sharia principles influences cognitive attitudes (sustainability mindset), which in turn shape strategic entrepreneurial behaviors (GEO), ultimately leading to improved sustainable business outcomes. This theoretical alignment provides the foundation for the development of research hypotheses that explore both the direct

and mediating effects of these constructs within the framework of sustainable development and SDG localization in the MSME sector.

### Research methodology

This study adopts a quantitative explanatory research design using a survey-based approach to investigate the causal relationships among the key variables: Islamic financial inclusion, sustainability mindset, green entrepreneurial orientation, and sustainable performance of MSMEs. This methodological choice is aligned with the objective of empirically examining both the direct and indirect effects among these constructs and testing the mediating role of green entrepreneurial orientation within the proposed framework.

The research population includes micro, small, and medium enterprises (MSMEs) operating in East Java, Indonesia, that have experience in utilizing Islamic financial services. A purposive sampling technique was applied to ensure that the selected respondents met the following inclusion criteria: the enterprise has been in operation for at least three years, actively uses Islamic financial products or services-such as Islamic microfinance, Sharia-compliant loans, or savings—and the owner or manager was willing to participate in the study. In total, 115 complete and valid responses were obtained, satisfying the minimum sample size requirement for Structural Equation Modeling (SEM), which is particularly suitable for models involving latent variables.

Primary data were collected through structured questionnaires administered both online via Google Forms and offline through face-to-face surveys. The questionnaire consisted of closed-ended items rated on a five-point Likert scale ranging from "strongly disagree" to "strongly agree." Secondary data were obtained from official publications, including financial reports of MSMEs and Islamic financial inclusion data released by the Financial Services Authority (OJK) and other credible government sources.

The variables used in this study were operationalized based on established constructs in the existing literature. Islamic financial inclusion was measured using four indicators: access, usage, service quality, and Islamic financial literacy. The sustainability mindset construct was assessed through three dimensions: environmental concern, long-term orientation, and social responsibility. Green entrepreneurial orientation was evaluated using five indicators, namely green innovation, environmental proactiveness, strategic environmental orientation, risk management capability, and eco-friendly product development. The sustainable performance of MSMEs was measured through four indicators: sales growth, profitability, resource efficiency, and social impact, reflecting the triple bottom line perspective.

Prior to full-scale data collection, a pilot test was conducted with 15 MSME respondents to refine the questionnaire items for clarity and relevance. Reliability and validity of the measurement model were tested using Cronbach's alpha, Composite Reliability (CR), and Average Variance Extracted (AVE), with acceptable thresholds above 0.70 and 0.50, respectively. Discriminant validity was confirmed using the Fornell-Larcker criterion to ensure that each construct was distinct from the others.

Data analysis was performed using SEM with the AMOS 26 software package. The overall model fit was evaluated using multiple indices, including the Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and the Chi-square to degrees of freedom ratio ( $\chi^2$ /df). Hypotheses were tested at a 95% confidence level, using a significance threshold of 0.05. To examine the mediating role of green entrepreneurial orientation, the Sobel test was applied to assess the significance of the indirect effect paths in the model.

This comprehensive and transparent methodological approach was designed to enhance the scientific credibility, replicability, and analytical rigor of

the study, thereby ensuring that the findings contribute meaningfully to both academic literature and practical policymaking.

### Results and discussion

### Structural analysis

Based on the instrument testing results from 115 respondents, all constructs employed in this study were found to meet the statistical criteria for measurement validity. The construct reliability test indicated that each construct demonstrated an adequate level of internal consistency. Furthermore, the results of the convergent validity test confirmed that the indicators within each construct exhibited strong correlations with their respective latent variables. Meanwhile, the discriminant validity test showed that each construct possessed sufficient distinctiveness and was able to be differentiated from the other constructs. Therefore, the constructs of Islamic Financial Inclusion, Sustainability Mindset, Green Entrepreneurial Orientation, and Sustainable MSME Financial Performance have been proven to be both valid and reliable for further analysis.

**Table 1.** Construct reliability and convergent validity test

Construct	Construct Reliability	AVE
Financial Inclusion Syariah (FIS)	0.905	0.603
Sustainability Mindset (SM)	0.906	0.614
Green Entrepreneurial Orientation (GEO)	0.932	0.709
Sustainable MSME Performance (SP)	0.949	0.787

Table 2. Discriminant validity test

0.385	0.722	0.308
0.784	0.299	0.328
0.299	0.842	0.267
0.328	0.267	0.887
	0.299	0.299 <b>0.842</b>

Based on the Structural Equation Modeling (SEM) analysis conducted using AMOS software on data from 115 MSME actors in East Java, several

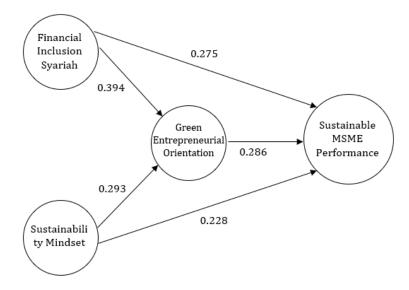
empirical findings revealed significant relationships among the studied variables. Islamic Financial Inclusion (IFI) was found to have a significant direct effect on Green Entrepreneurial Orientation (GEO) with a coefficient of  $\beta$  = 0.394 and a significance level of p < 0.05. Furthermore, IFI also demonstrated a significant direct effect on Sustainable MSME Financial Performance with a coefficient of  $\beta$  = 0.275 (p < 0.05).

Sustainability Mindset (SM) showed a significant influence on GEO with a coefficient of  $\beta$  = 0.293 (p < 0.05), as well as on Sustainable MSME Financial Performance with a coefficient of  $\beta$  = 0.228 (p < 0.05). Additionally, GEO was proven to have a significant direct effect on Sustainable MSME Financial Performance, with a coefficient of  $\beta$  = 0.286 (p < 0.05).

**Table 3.** Relationship between variables tests

	Estimate	S.E.	C.R.	P Value
GEO < FIS	0.394	0.123	3.199	0.001
GEO < SM	0.293	0.117	2.505	0.012
SP < FIS	0.275	0.091	3.016	0.003
SP < SM	0.228	0.085	2.697	0.007
SP < GEO	0.286	0.074	3.880	0.000

Regarding the indirect effects, the analysis results indicate that Green Entrepreneurial Orientation (GEO) serves as a significant mediator in the relationship between Islamic Financial Inclusion (IFI) and Sustainable MSME Financial Performance, as evidenced by the Sobel test statistic of 2.466. However, GEO was not found to mediate the relationship between the Regenerative Business Model and MSME Financial Performance, since the Sobel test value of 1.83 did not reach the required significance level. These findings reinforce the understanding of the strategic role of green entrepreneurial orientation in bridging sharia financial access and the achievement of sustainable financial performance.



Note: Chi-Square = 183.640, Probability = 0.072, CMIN/DF= 1.170, RMSEA= 0.039, AGFI= 0.814, GFI= 0.861, CFI= 0.990, TLI= 0.988, NFI= 0.937

Figure 1. Research model

#### Discussion

The discussion of the research findings reveals a robust theoretical integration between the Maqashid al-Shariah framework and the Resource-Based View (RBV). Empirical evidence demonstrates that Islamic financial inclusion not only plays a role in promoting equitable economic growth (tahdzib al-fard) but also contributes to the internalization of sustainability values (hifzh al-bi'ah) through the strengthening of Green Entrepreneurial Orientation (GEO). This supports the RBV premise that green entrepreneurial capacity is a strategic intangible resource in creating competitive advantage for MSMEs. Consequently, this study addresses a gap in the literature that has previously focused primarily on access aspects within Islamic financial inclusion without linking it to the transformation of sustainable business orientation, as reflected in the studies by Sofilda et al., (2022) and Qizam et al., (2025). Moreover, the theoretical contribution is further evidenced by reinforcing the argument that psychological capital, particularly in the form of a sustainability mindset, acts as a catalyst in the relationship between financial inclusion and MSME performance, filling a gap left unexplored by Mujiatun et al., (2023) and Hasibuan et al., (2024).

Furthermore, the significant role of the sustainability mindset on GEO and MSME financial performance strengthens the relevance of Goal-Framing Theory. In this context, normative motivation grounded in sustainability values can reframe business objectives towards more environmentally friendly practices. This explanation provides insight into why MSMEs with a high level of sustainability mindset tend to be more adaptive in implementing green practices despite resource constraints. These findings complement previous literature that focused more on structural human resource capacity (Tjahjadi et al., 2024; Syamsari et al., 2022), yet had not considered cognitive aspects as determining variables in sustainable business decision-making. Additionally, this study extends the work of Anggara & Nuraeni, (2025), which emphasized the importance of Islamic fintech but did not integrate the psychological aspects of business owners within the sustainability framework..

The insignificance of the mediating role of Green Entrepreneurial Orientation (GEO) in the relationship between the regenerative business model and MSME performance indicates that regenerative business models, such as those based on the circular economy, may require approaches beyond the scope of green entrepreneurial capacity. In this regard, the roles of technology, business model innovation, and collaboration within a broader ecosystem appear to be critical factors. These findings provide new directions for future research, particularly in developing multi-level mediation models that integrate entrepreneurial, institutional, and technological dimensions within the context of enhancing the competitiveness of sustainable MSMEs.

The practical implications of these findings involve various stakeholders who play strategic roles in fostering a sustainable MSME ecosystem. For regulators such as the Financial Services Authority (OJK) and Bank Indonesia, it is essential to design Islamic financial inclusion schemes that not only focus on financing aspects but also include mentoring and strengthening green entrepreneurial capacity through Green Entrepreneurial Orientation (GEO) training. Moreover,

campaigns to reinforce the sustainability mindset should be intensified through cross-sectoral collaborations, including pesantrens and local communities, to embed sustainability values into the entrepreneurial culture from an early stage.

For MSME actors, adopting a green entrepreneurial orientation can serve as a competitive differentiation strategy, for example, through the implementation of green halal certification, energy efficiency, or environmentally friendly product innovation. Regarding financing, the utilization of Shariah-based financial technology or Islamic fintech can offer solutions for accessing more inclusive and sustainable financing, particularly in the form of Shariah green financing.

Meanwhile, for academics, these research results open opportunities to advance further studies on regenerative business models using a mixed-methods approach that combines quantitative and qualitative analyses to achieve a more comprehensive understanding. The conceptual model employed can also be expanded by incorporating contextual variables such as digital maturity and government support to capture the more complex dynamics within the MSME ecosystem amid ongoing sustainable transformation.

This study makes significant theoretical and empirical contributions to the development of Islamic economics and sustainable entrepreneurship. Theoretically, it introduces an integrative model linking Islamic finance, sustainability mindset, and sustainable performance within the framework of the Sustainable Development Goals (SDGs). This model not only broadens the understanding of the relationship between financial access and sustainability but also validates the role of Green Entrepreneurial Orientation (GEO) as a crucial mediator in transforming sustainability values into competitive advantage. Nevertheless, the study also reveals limitations of GEO in the context of regenerative business, thereby opening avenues for exploring alternative approaches.

Empirically, this research provides the first quantitative evidence of the role of sustainability mindset in strengthening the impact of Islamic financial inclusion on MSME performance in East Java. These findings add a new dimension to the literature, which has previously focused predominantly on regulatory aspects and financial literacy. Thus, this study addresses gaps left by prior research, such as those highlighted by Saifurrahman & Kassim, (2024) and Zunairoh & Wijaya, (2024), which pointed out the limitations of regulation-based and conventional financial education approaches in meeting the complex needs of sustainable MSMEs.

### Conclusion

This study successfully achieves its research objectives by demonstrating that Islamic financial inclusion (IFI) and sustainability mindset (SM) have a significant positive effect on the sustainable financial performance of MSMEs, both directly and indirectly through the mediation of Green Entrepreneurial Orientation (GEO). These findings confirm that IFI functions not only as an enabler of financial access but also as a driver of green business orientation transformation among MSMEs, aligning with the maqashid al-shariah principle of maintaining economic and environmental balance (hifzh al-bi'ah). Meanwhile, SM is shown to be a critical psychological factor that reinforces the adoption of sustainable practices, supporting the goal-framing theory regarding the role of intrinsic values in shaping business behavior. However, the study also reveals limitations of GEO as a mediator in the relationship between regenerative business models and performance, indicating the complexity of applying circular economy principles at the MSME level, which requires a more holistic approach.

Based on these findings, key policy recommendations include: (1) the need for the Financial Services Authority (OJK) and Bank Indonesia to design tiered Islamic financing schemes integrated with GEO capacity-building programs, such as green certification training and environmental management assistance; (2) local governments should develop sustainability literacy campaigns rooted in pesantren and community-based initiatives to strengthen MSMEs' sustainability

mindset, given its role as a catalyst for business transformation; and (3) the necessity of triple helix collaboration (academia-business-government) to simplify circular economy standards for MSMEs, acknowledging that regenerative business models require approaches beyond GEO, including technology access and fiscal incentives. The implementation of these recommendations is expected accelerate MSMEs' contributions toward achieving the Sustainable Development Goals (SDGs), particularly Goal 8 (Decent Work and Economic Growth) and Goal 12 (Responsible Consumption and Production), while fostering an inclusive and resilient Islamic economic ecosystem.

#### References

- Abbas, A., Triani, N., Rayyani, W. O., & Muchran, M. (2023). Earnings growth, marketability and the role of Islamic financial literacy and inclusion in Indonesia. Journal of Islamic Accounting and Business Research, 14(7), 1088-1105. https://doi.org/10.1108/JIABR-12-2021-0322
- Abdul Razak, A., & Asutay, M. (2022). Financial inclusion and economic wellbeing: Evidence from Islamic Pawnbroking (Ar-Rahn) in Malaysia. Research 59, in International **Business** and Finance, 101557. https://doi.org/https://doi.org/10.1016/j.ribaf.2021.101557
- Achi, A., Adeola, O., & Achi, F. C. (2022). CSR and green process innovation as antecedents of micro, small, and medium enterprise performance: Moderating role of perceived environmental volatility. Journal of Business Research, 139, 771-781. https://doi.org/https://doi.org/10.1016/j.jbusres.2021.10.016
- Alhammadi, S., Khaled O., A., & and Hakam, D. F. (2022). Analysing Islamic banking ethical performance from Maqāṣid al-Sharī'ah perspective: evidence from Indonesia. Journal of Sustainable Finance & Investment, 12(4), 1171-1193. https://doi.org/10.1080/20430795.2020.1848179
- Alshebami, A. S. (2023). Green Innovation, Self-Efficacy, Entrepreneurial

- Orientation and Economic Performance: Interactions among Saudi Small Enterprises. *Sustainability*.
- Anggara, M. R., & Nuraeni, N. (2025). Enhancing the Sustainability of Small and Medium Enterprises (SMEs) through Islamic FinTech: A Comprehensive Review of Emerging Trends (2018-2024). *Civilization Research: Journal of Islamic Studies*, 4(1 SE-Article), 21–37. https://doi.org/10.61630/crjis.v4i1.50
- Araujo, C. L., Picavet, M. E. B., Sartoretto, C. A. P. de S., Dalla Riva, E., & Hollaender, P. S. (2022). Ecocentric management mindset: a framework for corporate sustainability. *Critical Perspectives on International Business*, 18(4), 518–545. https://doi.org/10.1108/cpoib-07-2020-0095
- Bhuiyan, F., Rana, T., Baird, K., & Munir, R. (2023). Strategic outcome of competitive advantage from corporate sustainability practices: Institutional theory perspective from an emerging economy. *Business Strategy and the Environment*, 32(7), 4217–4243. https://doi.org/10.1002/bse.3362
- Bongomin, G. O. C., Woldie, A., & Wakibi, A. (2020). Microfinance accessibility, social cohesion and survival of women MSMEs in post-war communities in sub-Saharan Africa: Lessons from Northern Uganda. *Journal of Small Business and Enterprise Development*, 27(5), 749–774. https://doi.org/10.1108/JSBED-12-2018-0383
- Disli, M., Aysan, A. F., & Abdelsalam, O. (2023). Favoring the small and the plenty:

  Islamic banking for MSMEs. *Economic Systems*, 47(1), 101051.

  https://doi.org/https://doi.org/10.1016/j.ecosys.2022.101051
- Droup, I., Jusoh, A., Alghamdi, S. A., & Nor, K. (2024). Sustainability Practices and Performance in the Manufacturing Sector: The Role of Paradoxical Mindset. 6798, 1064–1080.
- Gao, J., Siddik, A. B., Khawar Abbas, S., Hamayun, M., Masukujjaman, M., & Alam, S. S. (2023). Impact of E-Commerce and Digital Marketing Adoption on the Financial and Sustainability Performance of MSMEs during the COVID-19 Pandemic: An Empirical Study. Sustainability (Switzerland), 15(2).

- https://doi.org/10.3390/su15021594
- Harnida, M., Vasudevan, A., Mardah, S., Fajriyati, I., Mayvita, P. A., Hunitie, M. F. A., & Mohammad, S. I. S. (2024). Micro, Small, and Medium-Sized Enterprises (MSMEs) Sustainability: The Strategic Role of Digitalization, Financial Literacy, and Technological Infrastructure. Journal of Ecohumanism, 3(6 SE-Articles), 1248–1260. https://doi.org/10.62754/joe.v3i6.4097
- Hasibuan, B. K., Sadalia, I., Muchtar, Y. C., Irawati, N., Nurfitriani, W., Hasibuan, L. S., & Isa, N. M. (2024). Pathways to SME Sustainability Integrating: Islamic Finance, Islamic Finance Literature and Government Support for Small and Medium Enterprises. Journal of Ecohumanism, 3(8 SE-Articles), 6980 - 6989. https://doi.org/10.62754/joe.v3i8.5298
- Ismamudi, I., Alcoriza, G. B., Marzuki, M., & Bani, M. (2023). Islamic Fintech and Financial Inclusion: Innovations for Sustainable Economic Empowerment. DEAL: International Journal of Economics and Business, 1(01), 54-60. https://doi.org/10.37366/deal.v1i01.3303
- Kahupi, I., Eiríkur Hull, C., Okorie, O., & Millette, S. (2021). Building competitive advantage with sustainable products - A case study perspective of stakeholders. **Iournal** Cleaner Production, 289, 125699. https://doi.org/https://doi.org/10.1016/j.jclepro.2020.125699
- Khan, N. R., Ameer, F., Bouncken, R. B., & Covin, J. G. (2023). Corporate sustainability entrepreneurship: The role of green entrepreneurial orientation and organizational resilience capacity for green innovation. Journal of Business Research, 169, 114296. https://doi.org/https://doi.org/10.1016/j.jbusres.2023.114296
- Khmous, D. F., & Besim, M. (2020). Impact of Islamic banking share on financial inclusion: evidence from MENA. International Journal of Islamic and Middle Eastern Finance and Management, 13(4), 655-673. https://doi.org/10.1108/IMEFM-07-2019-0279
- Lawhaishy, Z. B., & Othman, A. H. A. (2023). Introducing an Islamic equity-based

- microfinance models for MSMEs in the State of Libya. *Qualitative Research in Financial Markets*, 15(1), 1–28. https://doi.org/10.1108/QRFM-01-2021-0017
- Machado, E. A., Scavarda, L. F., & Goyannes, R. (2024). Industry 4 . 0 and Sustainability Integration in the Supply Chains of Micro, Small, and Medium Enterprises through People, Process, and Technology within the Triple Bottom Line Perspective.
- Mahmoud, M. A., Umar, U. H., Ado, M. B., & Kademi, T. T. (2024). Factors influencing the financial satisfaction of MSME owners: the mediating role of access to Islamic financing. *Management Research Review*, 47(3), 422–440. https://doi.org/10.1108/MRR-01-2022-0047
- Menne, F., Surya, B., Yusuf, M., Suriani, S., Ruslan, M., & Iskandar, I. (2022).

  Optimizing the Financial Performance of SMEs Based on Sharia Economy:

  Perspective of Economic Business Sustainability and Open Innovation. *Journal of Open Innovation: Technology, Market, and Complexity, 8*(1).

  https://doi.org/10.3390/joitmc8010018
- Miranda, L. F., Saunila, M., Cruz-Cázares, C., & Ukko, J. (2024). Business digitalisation as a driver of environmental and economic sustainability in micro, small, and medium-sized enterprises. Sustainable Development, December 2023, 7036–7050. https://doi.org/10.1002/sd.3084
- Mondal, S., Singh, S., & Gupta, H. (2024). Exploring the impact of green entrepreneurial orientation on sustainable performance: insights from CSR, policy and innovation. *Management Decision*, 62(12), 3946–3977. https://doi.org/10.1108/MD-10-2023-1816
- Muangmee, C., Dacko-Pikiewicz, Z., Meekaewkunchorn, N., Kassakorn, N., & Khalid, B. (2021). Green Entrepreneurial Orientation and Green Innovation in Small and Medium-Sized Enterprises (SMEs). In *Social Sciences* (Vol. 10, Issue 4). https://doi.org/10.3390/socsci10040136
- Mujiatun, S., Trianto, B., Cahyono, E. F., & Rahmayati. (2023). The Impact of Marketing Communication and Islamic Financial Literacy on Islamic

- Financial Inclusion and MSMEs Performance: Evidence from Halal Tourism in Indonesia. *Sustainability (Switzerland)*, 15(13). https://doi.org/10.3390/su15139868
- Ozdemir, M., Savasan, F., & Ulev, S. (2023). Leveraging financial inclusion through Islamic microfinance: A new model proposal for participation banks in Turkiye. *Borsa Istanbul Review*, 23(3), 709–722. https://doi.org/https://doi.org/10.1016/j.bir.2023.01.011
- Öztürk, R., Öztürk, M., & Kızılkan, Z. (2024). Meta-Analysis of the Relationship Between Green Entrepreneurial Orientation and Sustainable Firm Performance. In *Sustainability* (Vol. 16, Issue 24). https://doi.org/10.3390/su162411224
- Qizam, I., Berakon, I., & Ali, H. (2025). The role of halal value chain, Sharia financial inclusion, and digital economy in socio-economic transformation: a study of Islamic boarding schools in Indonesia. *Journal of Islamic Marketing*, 16(3), 810–840. https://doi.org/10.1108/JIMA-03-2024-0108
- Saifurrahman, A., & Kassim, S. H. (2024). Regulatory issues inhibiting the financial inclusion: a case study among Islamic banks and MSMEs in Indonesia.

  \*\*Qualitative Research in Financial Markets, 16(4), 589–617. https://doi.org/10.1108/QRFM-05-2022-0086
- Sofilda, E., Hamzah, M. Z., & Ginting, A. M. (2022). Analysis of determining the financial inclusion index of composite, conventional and sharia banking in Indonesia. *Banks and Bank Systems*, 17(1), 38–48. https://doi.org/10.21511/bbs.17(1).2022.04
- Suriyankietkaew, S., Krittayaruangroj, K., & Iamsawan, N. (2022). Sustainable Leadership Practices and Competencies of SMEs for Sustainability and Resilience: A Community-Based Social Enterprise Study. *Sustainability* (*Switzerland*), 14(10), 1–36. https://doi.org/10.3390/su14105762
- Syamsari, S., Ramaditya, M., Andriani, I., & Puspitasari, A. (2022). Selecting Priority Policy Strategies for Sustainability of Micro, Small, and Medium

- Enterprises in Takalar Regency. *Sustainability (Switzerland)*, 14(23). https://doi.org/10.3390/su142315791
- Tjahjadi, Bambang, Soewarno, Noorlailie, Anwar, Dewi Nabilah, & Fairuzi, Atika. (2024). Effect of Human Capital and Information Capital Readiness on Business Sustainability: Do Market Orientation and Business Performance Matter? SAGE Open, 14(1), 21582440231221320. https://doi.org/10.1177/21582440231221320
- Vásquez, J., Aguirre, S., Puertas, E., Bruno, G., Priarone, P. C., & Settineri, L. (2021).

  A sustainability maturity model for micro, small and medium-sized enterprises (MSMEs) based on a data analytics evaluation approach. *Journal of Cleaner Production*, 311, 127692.

  https://api.semanticscholar.org/CorpusID:236245897
- Wang, W., Zhang, D., Wang, H., Zhu, Q., & Morabbi Heravi, H. (2023). How do businesses achieve sustainable success and gain a competitive advantage in the green era? *Kybernetes*, 52(9), 3241–3260. https://doi.org/10.1108/K-07-2021-0614
- Yen, Y. Y., & Wei, C. C. (2025). RESEARCH ARTICLE A pro-environmental survey of Malaysian micro, small and medium enterprises: a cross-sectional study. F1000Research, 1–21.
- Zemlyak, S., Naumenkov, A., & Khromenkova, G. (2022). Measuring the Entrepreneurial Mindset: The Motivations behind the Behavioral Intentions of Starting a Sustainable Business. *Sustainability (Switzerland)*, 14(23). https://doi.org/10.3390/su142315997
- Zunairoh, & Wijaya, Liliana Inggrit. (2024). Fintech, Social Capital and Performance of Indonesian MSMEs. *Millennial Asia*, 09763996241284692. https://doi.org/10.1177/09763996241284692