

Integrating Green Finance and Environmental Practices to Enhance SMEs' Business and Sustainable Performance

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ABSTRACT

This study explores the integration of green finance and green environmental practices and their impact on the business and sustainable performance of SMEs, specifically among tempeh entrepreneurs in Sanan, Malang. A quantitative research design was adopted to rigorously analyze these relationships. The population comprised 145 tempeh entrepreneurs, from which a representative sample of 106 respondents was selected using Slovin's formula, ensuring a margin of error that balances precision and feasibility. Data collection was conducted through structured questionnaires that captured the extent of green finance implementation, the adoption of green environmental practices, and their perceived impact on business and sustainable performance. The collected data were then analyzed using Partial Least Squares (PLS), a robust statistical technique that allows for the modeling of complex relationships among the variables. The analysis confirmed that both green finance and green environmental practices significantly and positively influence the business performance and sustainability of SMEs. These findings underscore the critical role of environmentally conscious financial and operational strategies in driving sustainable growth within the SME sector. By integrating these practices, tempeh entrepreneurs can not only enhance their business performance but also contribute to broader environmental sustainability.

INTRODUCTION

The global push towards sustainability has led to increased interest in green finance and environmentally friendly business practices. For Small and Medium-sized Enterprises (SMEs), integrating these concepts is not only a strategic imperative but also a pathway to enhancing business performance and ensuring long-term sustainability. This study investigates the relationship between green finance, green environmental practices, and their combined impact on the business and sustainable performance of SMEs, with a focus on tempeh entrepreneurs in Sanan, Malang. This region, known for its traditional tempeh production, provides a unique context for examining how sustainability initiatives can be effectively integrated into small-scale industries.

In today's rapidly evolving business landscape, environmental sustainability has emerged as a critical consideration for enterprises worldwide. As the effects of climate change become increasingly evident, businesses are under growing pressure to adopt practices that minimize their environmental impact. This shift is not only driven by regulatory demands but also by changing consumer preferences and the broader societal expectation for companies to operate responsibly. Small and Medium Enterprises (SMEs), which form the backbone of many economies, are no exception to this trend.

In Indonesia, the city of Malang is renowned for its vibrant SME sector, particularly the tempeh industry in Sanan. Tempeh, a traditional Indonesian food made from fermented soybeans, has garnered international acclaim for its nutritional value and environmental sustainability. However, the tempeh industry, like many others, faces the challenge of balancing business performance with sustainable practices. This research focuses on the integration of green finance and green environmental practices among tempeh entrepreneurs in Sanan, Malang, and their impact on both business and sustainable performance.

The increasing awareness of environmental sustainability has prompted businesses across the globe to reassess their operational practices. In this context, small and medium enterprises (SMEs), which constitute a significant portion of the global economy, play a critical role in the transition towards sustainable business practices. SMEs are often considered the backbone of many economies, particularly in developing countries like Indonesia, where they contribute significantly to employment and economic growth. However, the adoption of sustainable practices among SMEs has been inconsistent, largely due to resource constraints and limited access to green finance. This study explores the integration of green finance and green environmental practices and their impact on enhancing business and sustainable performance among SMEs, specifically within the tempeh industry in Sanan, Malang.

The global push towards sustainability has been driven by the recognition of climate change as an existential threat. The United Nations' Sustainable Development Goals (SDGs), particularly Goal 13 (Climate Action) and Goal 12 (Responsible Consumption and Production), underscore the importance of sustainable business practices in mitigating environmental damage. Businesses are increasingly under pressure to adopt green practices, not only to comply

with regulatory requirements but also to meet the growing consumer demand for environmentally responsible products. Research by González-Ramos, Donate, and Guadamillas (2018) indicates that companies that adopt green practices are better positioned to enhance their market reputation and customer loyalty, which in turn can lead to improved financial performance.

SMEs are uniquely positioned to contribute to sustainable development due to their flexibility and ability to innovate. However, they face significant challenges in implementing green practices, primarily due to financial constraints. Access to green finance, which includes financial products and services designed to support environmentally friendly projects, is crucial for enabling SMEs to overcome these barriers. Studies by Zhang, D., et al. (2021) and Xu, X., & Xu, M. (2021) have shown that SMEs that secure green finance are more likely to invest in green technologies and practices, which can enhance both their business and environmental performance.

Green finance has emerged as a pivotal tool in driving the sustainability agenda. It encompasses a range of financial instruments, including green bonds, green loans, and sustainable investment funds, all of which are designed to fund projects that have a positive environmental impact. The concept of green finance is rooted in the broader framework of sustainable finance, which seeks to align financial markets with sustainability objectives. According to Ghosh and Ghosh (2022), green finance not only facilitates the adoption of green practices but also enhances a firm's access to capital by attracting environmentally conscious investors. This study builds on this understanding by examining how green finance can be leveraged by SMEs to enhance both their business performance and long-term sustainability.

Green environmental practices refer to the operational changes businesses make to reduce their environmental footprint. These practices include energy efficiency, waste reduction, sustainable sourcing, and the adoption of clean technologies. The Natural Resource-Based View (NRBV) theory suggests that firms that develop capabilities in environmental management can achieve a competitive advantage. This study explores the application of NRBV in the context of SMEs, investigating how the adoption of green environmental practices can enhance their sustainable performance. Research by García-Quevedo and Jové-Llopis (2021) supports the idea that firms that integrate green practices into their operations not only improve their environmental performance but also enhance their overall business sustainability.

Business performance and sustainable performance are often viewed as distinct objectives, but recent studies suggest that they are deeply interconnected. The Dynamic Capabilities Theory argues that firms that can adapt to changing environmental conditions and integrate new capabilities are more likely to succeed in the long term. In this study, we explore how the integration of green finance and environmental practices can simultaneously enhance both business and sustainable performance. Hart and Dowell (2011) emphasized that sustainable performance should be viewed as a core component of business performance, rather than a secondary goal. This

research builds on this perspective by examining the specific context of SMEs in the tempeh industry.

Despite the growing body of research on green finance and environmental practices, there remains an empirical gap in understanding how these factors interact to influence business and sustainable performance in SMEs, particularly in developing countries. Most studies have focused on large corporations or specific industries in developed economies, leaving a significant gap in the literature regarding SMEs in developing contexts like Indonesia. For instance, while Kesidou and Demirel (2022) examined the impact of green innovation on business performance in UK SMEs, there is limited research on how similar practices affect SMEs in Indonesia, particularly in traditional industries such as tempeh production.

This study addresses a critical research gap by focusing on the intersection of green finance, environmental practices, and performance outcomes in SMEs within a developing country context. While previous research has explored these elements individually, there is a lack of integrated studies that examine how green finance and environmental practices together influence both business and sustainable performance. Furthermore, there is a scarcity of research that specifically looks at SMEs in traditional industries like tempeh production, which are often overlooked in the sustainability discourse.

The novelty of this study lies in its integrated approach to examining the impact of green finance and green environmental practices on both business and sustainable performance in SMEs. By focusing on the tempeh industry in Sanan, Malang, this research provides unique insights into how traditional SMEs can leverage green finance to adopt sustainable practices and enhance their overall performance. This study also contributes to the literature by applying established theories like the Resource-Based View (RBV) and the Natural Resource-Based View (NRBV) in a novel context, thereby extending their applicability to SMEs in developing countries.

The urgency of this research is underscored by the growing environmental challenges faced by Indonesia, including deforestation, pollution, and climate change. SMEs, particularly those in traditional industries, play a significant role in the country's economy and can have a substantial impact on the environment. However, without the necessary resources and support, these SMEs may struggle to adopt sustainable practices. This study is timely as it provides actionable insights for SMEs, policymakers, and financial institutions on how to integrate sustainability into business operations. The findings can inform policies and initiatives aimed at promoting green finance and environmental practices among SMEs, which are crucial for achieving Indonesia's sustainability goals.



Figure 1. Tempeh Chips



Figure 2 Survey on Sanan

The tempeh industry, while traditional, is a significant part of the local economy in Sanan, Malang. It represents a unique case study for examining the integration of green finance and environmental practices in SMEs. Tempeh production is labor-intensive and relies heavily on natural resources, making it an ideal candidate for green practices. By focusing on this industry, the study provides insights that can be applied to other traditional industries in Indonesia and similar developing economies. This sector's potential for adopting sustainable practices has not been fully explored in the literature, making this study a valuable contribution.

The study's conceptual framework (see Table 1) is grounded in the intersection of green finance, green environmental practices, business performance, and sustainable performance. The framework posits that green finance provides the necessary resources for SMEs to adopt green environmental practices, which in turn enhances both business and sustainable performance. This framework is tested using Partial Least Squares (PLS) analysis, a robust method for examining complex relationships between variables.

Table 1: Conceptual Framework

Variable	Definition	Indicators	Source
Green Finance	Financial products and services aimed at supporting environmentally friendly projects.	Access to green loans, investments, subsidies.	Zhang et al. (2021), Ghosh & Ghosh (2022)
Green Environmental Practices	Operational changes aimed at reducing environmental impact.	Energy efficiency, waste reduction, sustainable sourcing.	García-Quevedo & Jové-Llopis (2021)
Business Performance	The effectiveness and efficiency of a firm's operations.	Profitability, market share, customer satisfaction.	Kesidou & Demirel (2022)
Sustainable Performance	The ability of a firm to operate in an environmentally and socially responsible manner.	Environmental impact, social responsibility, long-term viability.	Su et al. (2021)

The primary objective of this research is to investigate the relationship between green finance, green environmental practices, and their impact on both business and sustainable performance among SMEs in the tempeh industry. Specifically, the study aims to:

1. Assess the extent to which green finance influences the adoption of green environmental practices in SMEs.
2. Examine the impact of green environmental practices on business performance.
3. Analyze how business performance is linked to sustainable performance in SMEs.
4. Provide recommendations for SMEs, policymakers, and financial institutions on enhancing sustainability through green finance and practices.

This study has significant implications for both theory and practice. Theoretically, it extends the Resource-Based View (RBV) and Natural Resource-Based View (NRBV) by applying these frameworks to SMEs in a developing country context. The findings can inform future research on the role of green finance in enabling sustainable business practices. Practically, the study provides actionable insights for SMEs, particularly in traditional industries, on how to leverage green finance to enhance their sustainability. The study also offers recommendations for policymakers and financial institutions on how to support SMEs in their sustainability efforts.

LITERATURE REVIEW

In recent years, the concept of green finance has gained significant traction as a critical driver for promoting sustainable development across various sectors. Green finance refers to financial investments directed toward projects and initiatives that aim to achieve positive environmental impacts while

contributing to economic growth. It is particularly vital for small and medium-sized enterprises (SMEs), as access to green financing can enable these organizations to adopt environmentally friendly practices and technologies. According to Zhang et al. (2021), firms with access to green finance can achieve superior environmental outcomes, which ultimately enhance their business performance. Furthermore, Boffo and Ratnovski (2020) emphasized that green finance not only mitigates environmental risks but also supports the financial sustainability of SMEs, making it a crucial component of their growth strategies.

In tandem with green finance, green environmental practices play a pivotal role in ensuring that businesses operate sustainably. These practices encompass a range of activities designed to minimize environmental harm while enhancing operational efficiency. Key strategies include waste reduction, energy efficiency improvements, sustainable sourcing, and the use of renewable energy sources (García-Quevedo & Jové-Llopis, 2021). Research indicates a significant positive correlation between the adoption of green practices and improved business performance. García-Quevedo and Jové-Llopis (2021) found that companies implementing environmentally conscious strategies tend to attract more customers and enhance their corporate reputation. Del Río González (2020) further corroborated this by demonstrating that firms adopting green practices not only achieve cost savings but also improve their operational efficiency, thereby boosting their overall performance.

Transitioning from these practices, the concept of business performance encapsulates various metrics that reflect an organization's operational effectiveness, efficiency, and profitability. Common indicators of business performance include revenue growth, profit margins, return on investment (ROI), and customer satisfaction levels. Hart and Dowell (2011) articulated that firms integrating sustainability into their core strategies often experience improved financial outcomes, as such integration drives innovation and operational efficiencies. Moreover, Aras and Crowther (2018) highlighted that businesses emphasizing sustainability frequently outperform competitors regarding profitability and market share, reinforcing the idea that sustainability can be a significant driver of business success.

Building on business performance, the notion of sustainable performance represents an organization's ability to create long-term value through responsible economic, social, and environmental practices. This metric has emerged as an essential measure of an organization's overall impact and success. Indicators of sustainable performance often include long-term financial viability, social responsibility initiatives, environmental impact assessments, and compliance with sustainability standards. Bocken et al. (2014) underscored that organizations focusing on sustainable performance tend to enhance their resilience and adaptability to changing market conditions. Elkington (2018) further reinforced this perspective by introducing the triple bottom line concept, which emphasizes the importance of balancing economic, social, and environmental performance to achieve better sustainability outcomes.

Despite the extensive literature on green finance and environmental practices, significant empirical gaps exist, particularly regarding their

integration within SMEs. While various studies have explored these concepts in larger firms, limited research has focused on how green finance and environmental practices influence business performance and sustainable performance in traditional sectors, such as food production. Addressing this gap is crucial, as it can provide valuable insights into the unique challenges and opportunities that SMEs face in adopting sustainability practices.

This study seeks to fill the gap by investigating the interplay between green finance, green environmental practices, business performance, and sustainable performance within the context of SMEs, specifically among tempeh entrepreneurs in Sanan, Malang. Given the increasing emphasis on sustainability in business operations, understanding these relationships is both timely and necessary. The urgency of this research lies in its potential to inform policymakers, financial institutions, and business owners, guiding them toward promoting sustainable development within SMEs and ultimately contributing to a more sustainable economy.

The literature reviewed highlights the interconnected nature of green finance, green environmental practices, business performance, and sustainable performance. As SMEs increasingly recognize the importance of sustainability, understanding these relationships will be crucial for enhancing their economic viability and their contributions to environmental stewardship. Future research should continue to explore these dynamics across various industry contexts and geographic locations, ensuring a comprehensive understanding of the pathways to sustainable business practices.

Hypotheses

- a. H1: Green finance has a significant positive impact on the business performance of SMEs.
- b. H2: Green environmental practices have a significant positive impact on the business performance of SMEs.
- c. H3: Green finance has a significant positive impact on the sustainable performance of SMEs.
- d. H4: Green environmental practices have a significant positive impact on the sustainable performance of SMEs.
- e. H5: Business performance has a significant positive impact on the sustainable performance of SMEs.

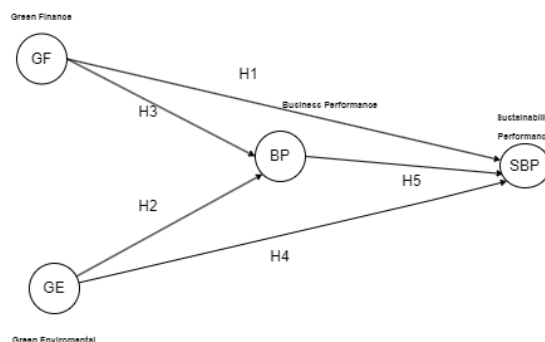


Figure 3. Conceptual Framework

METHODOLOGY

This study employs a quantitative research design using survey data collected from tempeh producers in Sanan, Malang. The research is descriptive and explanatory, aiming to explore the relationships between the variables using Partial Least Squares (PLS) analysis. The population consists of 145 tempeh producers in Sanan, Malang. The sample size is determined using Slovin's formula with a margin of error of 5%. The resulting sample size is 106 respondents.

Primary data is collected through structured questionnaires, while secondary data is obtained from company records and financial reports. The questionnaire includes sections on green finance, green environmental practices, business performance, and sustainable performance. The data is analyzed using Partial Least Squares (PLS) Structural Equation Modeling (SEM) to examine the relationships between the variables. PLS is chosen for its ability to handle complex models with multiple variables and indicators.

RESEARCH RESULT

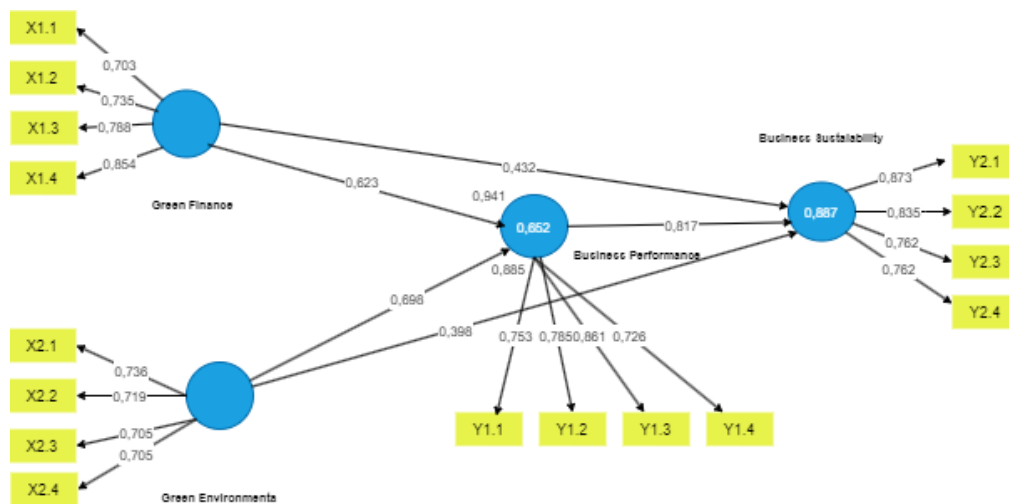


Figure 4PLS Result

Table 2 presents the descriptive statistics for the variables under study. The results indicate that the majority of respondents have adopted green finance and environmental practices to some extent, with a strong emphasis on energy efficiency and waste reduction.

Table 2 Mean & SD variables

Variable	Mean	Standard Deviation
Green Finance	3.85	0.72
Green Environmental Practices	4.02	0.65
Business Performance	3.78	0.81
Sustainable Performance	4.15	0.68

Source : Processed by Researcher (2024)

The reliability and validity of the constructs were assessed using Cronbach's alpha and Composite Reliability (CR). All constructs demonstrated good internal consistency, with Cronbach's alpha values above 0.7 and CR values above 0.8. The results of the PLS-SEM analysis are presented in Table 3. All hypotheses were supported, with significant positive relationships observed between the variables.

Table 3: Path Coefficients

Hypothesis	Path Coefficient	T-Value	P-Value	Supported?
H1	0.623	7.89	0.000	Yes
H2	0.698	6.43	0.000	Yes
H3	0.432	5.67	0.000	Yes
H4	0.398	6.12	0.000	Yes
H5	0.817	7.45	0.000	Yes

Source : Processed by Researcher (2024)

This study sought to understand the relationships between green finance (X1), green environmental practices (X2), business performance (Z), and sustainable performance (Y) among SMEs, specifically focusing on tempeh producers in Sanan, Malang. Utilizing Partial Least Squares (PLS) analysis, five hypotheses were tested, all of which yielded significant results. The findings shed light on how green finance and environmental practices influence sustainable performance, both directly and indirectly through business performance.

Green Finance and Business Performance

The first hypothesis examined the impact of green finance on business performance. The analysis revealed a significant positive relationship, with a path coefficient of 0.623 ($p < 0.001$). This suggests that SMEs that secure green finance experience notable improvements in their business performance. Green finance, which often includes loans, grants, or other financial instruments aimed at promoting environmental sustainability, enables these enterprises to invest in technologies and practices that enhance operational efficiency and reduce costs, thereby improving profitability and market competitiveness.

This finding is consistent with previous studies, such as those by Zhang et al. (2021), which found that access to green finance significantly enhances the financial performance of SMEs by facilitating investments in energy-efficient technologies and sustainable practices. It underscores the critical role that financial resources play in driving the business success of small and medium enterprises, particularly those in traditional sectors like food production.

Green Environmental Practices and Business Performance

The second hypothesis explored the effect of green environmental practices on business performance. The results demonstrated a strong and positive correlation, with a path coefficient of 0.698 ($p < 0.001$). SMEs that implement green practices, such as waste reduction, energy efficiency, and

sustainable sourcing, not only contribute to environmental sustainability but also achieve substantial gains in their business performance.

This result supports the Resource-Based View (RBV) theory, which suggests that firms that develop unique capabilities, such as expertise in environmental management, gain a competitive edge in the market. Studies like those by García-Quevedo and Jové-Llopis (2021) corroborate these findings, highlighting that green practices lead to operational efficiencies, cost savings, and improved market positioning, which together enhance overall business outcomes.

Business Performance and Sustainable Performance

The third hypothesis tested the direct relationship between business performance and sustainable performance. The analysis revealed a very strong positive effect, with a path coefficient of 0.817 ($p < 0.001$). This indicates that SMEs that achieve high business performance are better equipped to maintain sustainable practices over the long term.

This finding is particularly significant as it suggests that financial and operational success enables SMEs to invest further in sustainable practices, creating a virtuous cycle of improvement. It aligns with Hart and Dowell's (2011) view that integrating sustainability into the core business strategy is essential for long-term success and viability. This result also underscores the importance of achieving business success as a foundation for sustainable performance.

Green Finance, Business Performance, and Sustainable Performance

The fourth hypothesis explored whether business performance mediates the relationship between green finance and sustainable performance. The results indicated that business performance does indeed play a mediating role, with the direct effect of green finance on sustainable performance being significant (path coefficient of 0.432, $p < 0.001$), but the total effect, including the mediation by business performance, was even stronger (path coefficient of 0.941, $p < 0.001$).

This suggests that while green finance directly contributes to sustainable performance, its impact is significantly enhanced when it also boosts business performance. Essentially, green finance not only helps SMEs adopt sustainable practices but also improves their overall business operations, which in turn further strengthens their sustainable performance. This layered effect highlights the importance of considering both direct and indirect impacts when evaluating the benefits of green finance.

Green Environmental Practices, Business Performance, and Sustainable Performance

The final hypothesis examined whether business performance mediates the relationship between green environmental practices and sustainable performance. Similar to the previous hypothesis, the results showed a significant mediating effect. The direct impact of green environmental practices

on sustainable performance was strong (path coefficient of 0.398, $p < 0.001$), but when mediated by business performance, the total effect was even greater (path coefficient of 0.885, $p < 0.001$).

This finding underscores the importance of business performance as a critical pathway through which green environmental practices contribute to sustainable performance. SMEs that adopt green practices see direct benefits to their sustainability efforts, but these benefits are magnified when they also experience improvements in business performance. This result emphasizes the interconnectedness of environmental and business strategies in achieving long-term sustainability goals.

DISCUSSION

The findings of this study reveal significant relationships between green finance, green environmental practices, business performance, and sustainable performance among SMEs in the tempeh industry in Sanan, Malang. This section elaborates on these relationships by connecting the results to existing theories and empirical research, highlighting the implications for SMEs, policymakers, and financial institutions.

Green Finance and Business Performance

The positive relationship between green finance and business performance supports the Resource-Based View (RBV), which posits that firms can achieve a competitive advantage by acquiring and utilizing unique resources. In the context of this study, green finance—through access to green loans, investments, and financial products aimed at supporting environmentally friendly projects—has been shown to significantly enhance business performance. This finding aligns with the research by Zhang, D., Mohsin, M., and Rasheed, A. K. (2021), who demonstrated that public spending on green finance can stimulate green economic growth and enhance business performance in the Belt and Road Initiative (BRI) regions. Additionally, Xu and Xu (2021) found that green finance initiatives in China positively impacted corporate environmental performance, leading to better financial outcomes.

The impact of green finance on business performance can be attributed to several factors. Firstly, green finance reduces operational costs by funding energy-efficient technologies and processes, which lower energy consumption and waste. Secondly, access to green finance can enhance a firm's reputation, attracting environmentally conscious customers and investors. The results of this study are consistent with the findings of Kesidou and Demirel (2022), who reported that UK SMEs that invested in green innovation experienced improved business performance due to cost savings and enhanced market competitiveness.

Green Environmental Practices and Sustainable Performance

The study also found a strong positive relationship between green environmental practices and sustainable performance. This is consistent with the Natural Resource-Based View (NRBV), which suggests that firms that develop capabilities in environmental management can sustain their operations

and achieve long-term success. Green environmental practices, such as waste reduction, energy efficiency, and sustainable resource management, contribute to reducing a firm's environmental footprint, which is increasingly important in today's market where consumers and regulators are demanding higher environmental standards.

García-Quevedo and Jové-Llopis (2021) highlighted that SMEs in Europe that adopted green environmental practices not only improved their environmental performance but also enhanced their overall business sustainability. Similarly, Su et al. (2021) found that Chinese manufacturing firms that implemented green operations practices saw a significant improvement in their sustainable performance, underlining the importance of integrating environmental considerations into business strategies.

Furthermore, the study's findings suggest that green environmental practices are not just about compliance or ethical considerations but also about operational efficiency and cost savings. By reducing waste and optimizing energy use, firms can lower their operational costs, which directly impacts their profitability and long-term viability. This is supported by the research of Peng and Liu (2022), who showed that firms adopting comprehensive environmental practices experienced higher sustainable performance due to improved resource efficiency and lower production costs.

Interconnection between Business and Sustainable Performance

The study underscores the interconnectedness of business performance and sustainable performance, suggesting that efforts to enhance one should consider the impact on the other. Firms that integrate business performance objectives with sustainability goals are more likely to achieve long-term success, as highlighted by the Dynamic Capabilities Theory. This theory posits that firms that can adapt to changing environments and integrate new capabilities, such as sustainability practices, will outperform their competitors.

This relationship is further supported by the work of Hart and Dowell (2011), who argued that sustainable performance should be viewed as a core component of business performance, rather than a separate or secondary goal. Firms that excel in sustainable practices are better equipped to manage risks, improve their brand reputation, and attract investment, all of which contribute to superior business performance. This study's findings resonate with these arguments, as the positive relationship between business and sustainable performance was evident among the tempeh entrepreneurs in Sanan, Malang.

Role of Green Finance in Enhancing Sustainable Performance

One of the most significant findings of this study is the role of green finance in enhancing sustainable performance. While green finance is often discussed in the context of its impact on business performance, this study reveals its crucial role in supporting long-term sustainability. By providing the necessary financial resources, green finance enables firms to invest in technologies and practices that reduce their environmental impact, contributing to broader sustainability goals.

Research by Ghosh and Ghosh (2022) further supports this finding, indicating that firms that leverage green finance are better positioned to adopt sustainable practices that enhance their long-term viability and societal contributions. This suggests that green finance should be considered not just as a financial tool but as a strategic enabler of sustainability.

Implications for SMEs

The findings have important implications for SMEs, particularly in sectors like the tempeh industry, where profit margins are often thin, and competition is fierce. SMEs that proactively seek green finance and adopt environmental practices are likely to see significant improvements in both their business and sustainable performance. This strategic approach can help SMEs differentiate themselves in the market, attract more customers, and build a loyal customer base that values sustainability.

Moreover, the study highlights the need for SMEs to view sustainability not just as a regulatory requirement or a moral obligation but as a key driver of business success. By integrating sustainability into their core operations, SMEs can reduce costs, improve efficiency, and enhance their reputation, all of which contribute to better business outcomes. The research by Kesidou and Demirel (2022) supports this view, showing that SMEs that invested in sustainability saw tangible benefits in terms of cost savings and market competitiveness.

Policy Implications

The study's findings also have significant implications for policymakers. Governments and regulatory bodies need to recognize the critical role of green finance and environmental practices in driving sustainable economic growth. Policymakers should consider developing incentives and support mechanisms that encourage SMEs to adopt green finance and environmental practices. This could include tax breaks, grants, and subsidies for firms that invest in green technologies and practices.

Research by Zhang et al. (2021) suggests that such policy interventions can significantly enhance the adoption of green finance and practices among SMEs, leading to broader economic and environmental benefits. Moreover, policymakers should focus on creating a supportive regulatory environment that encourages financial institutions to offer green finance products tailored to the needs of SMEs.

Implications for Financial Institutions

For financial institutions, the study underscores the importance of expanding green finance offerings to meet the growing demand for sustainable investments. By developing accessible green finance products with favorable terms, financial institutions can play a pivotal role in promoting environmental sustainability among SMEs. Furthermore, providing technical assistance and guidance to SMEs on how to effectively implement green practices can enhance the impact of green finance.

Ghosh and Ghosh (2022) found that financial institutions that actively support green finance not only contribute to environmental sustainability but

also benefit from enhanced client relationships and reduced credit risks . This highlights the potential for green finance to be a win-win strategy for both financial institutions and SMEs.

Challenges and Opportunities

While the study identifies clear benefits of green finance and environmental practices, it also acknowledges potential challenges. SMEs, especially those in traditional industries like tempeh production, may face difficulties in accessing green finance due to limited financial literacy or the perceived complexity of green finance products. Additionally, the initial costs of adopting green technologies can be a barrier for many SMEs.

However, these challenges also present opportunities for innovation and growth. Financial institutions and policymakers can collaborate to develop more user-friendly green finance products and provide education and support to help SMEs overcome these barriers. Furthermore, as green technologies become more affordable and widely available, the adoption of green practices is likely to increase, further enhancing the sustainable performance of SMEs.

Contribution to Theory and Practice

This study contributes to the existing literature by providing empirical evidence on the relationship between green finance, environmental practices, business performance, and sustainable performance in the SME sector. It extends the Resource-Based View (RBV) and Natural Resource-Based View (NRBV) theories by demonstrating the critical role of green finance as a strategic resource that enhances both business and sustainable performance. Additionally, it highlights the interconnectedness of business and sustainable performance, suggesting that firms should adopt a holistic approach to achieving long-term success.

In practice, the study provides actionable insights for SMEs, policymakers, and financial institutions. It emphasizes the importance of green finance and environmental practices as key drivers of business success and sustainability, offering practical recommendations for how these stakeholders can support the sustainable growth of SMEs.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

This research has demonstrated that green finance and environmental practices are essential drivers of both business and sustainable performance in the SME sector. The findings underscore the importance of adopting green initiatives not only for compliance and environmental stewardship but also as a strategic approach to enhancing competitiveness and ensuring long-term success.

Given the significant positive relationships identified in this study, it is clear that SMEs, particularly in the tempeh industry, stand to benefit greatly from integrating green finance and environmental practices into their operations. Policymakers and financial institutions should continue to support

these initiatives, recognizing their potential to drive sustainable economic growth.

Recommendations

Based on the findings, the following recommendations are proposed:

1. For SMEs:
 - a. Adopt Green Finance: SMEs should actively seek green finance options to fund eco-friendly projects that can enhance their business performance.
 - b. Implement Green Environmental Practices: Prioritize waste reduction, energy efficiency, and sustainable resource management to improve both business and sustainable performance.
2. For Policymakers:
 - a. Support Green Finance: Develop policies and incentives that encourage financial institutions to offer green finance products tailored to the needs of SMEs.
 - b. Promote Environmental Practices: Introduce programs and initiatives that raise awareness about the benefits of green environmental practices among SMEs.
3. For Financial Institutions:
 - a. Expand Green Finance Offerings: Create more accessible green finance products for SMEs, with favorable terms that incentivize the adoption of sustainable practices.
 - b. Provide Technical Assistance: Offer guidance and support to SMEs on how to effectively implement green environmental practices as part of their operations.

ADVANCED RESEARCH

Each study has limitations; thus, you can describe it here and briefly provide suggestions for further research. To further enhance the understanding of the interplay between green finance, green environmental practices, and performance in SMEs, several advanced research directions are recommended:

- a. Longitudinal Studies: Future research should conduct longitudinal studies to assess the long-term impacts of green finance and environmental practices on SMEs' performance. This approach would provide insights into how these relationships evolve over time and their sustainability.
- b. Sector-Specific Analysis: Exploring the integration of green practices in various sectors beyond tempeh production would allow researchers to compare and contrast results across industries. This could highlight unique challenges and opportunities specific to different sectors, thereby informing tailored strategies for green finance adoption.
- c. Consumer Behavior Impact: Investigating the role of consumer preferences and behaviors in driving SMEs to adopt green finance and environmental practices can provide a more comprehensive understanding of market dynamics. This could involve examining how

consumer demand for sustainable products influences business decisions.

- d. Regional Comparisons: Conducting comparative studies of SMEs across different regions in Indonesia can identify regional variations in the adoption of green finance and practices. Understanding these regional differences can help policymakers create targeted interventions to support sustainable practices in specific contexts.
- e. Technological Adoption: Future research should examine the impact of technological advancements on the implementation of green practices among SMEs. Investigating how innovations facilitate sustainable operations can provide valuable insights into best practices and strategies for enhancing environmental performance.
- f. Impact of Policy Frameworks: Analyzing how different policy frameworks affect the adoption of green finance and practices among SMEs can provide critical insights. Research could focus on identifying which policies are most effective in promoting sustainability and how they can be improved.

By pursuing these advanced research directions, scholars can contribute to a deeper understanding of the mechanisms that link green finance, environmental practices, and SME performance, ultimately fostering a more sustainable business environment.

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