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LINKING ENVIRONMENTAL ORIENTATION, PERFORMANCE, GREEN BUSINESS STRATEGY: ON MEDIATING ROLE OF TOP MANAGEMENT ENVIRONMENTAL AWARENESS FINANCIAL BASED IN SMEs

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Abstract

This study has a topic regarding the role of top management environmental awareness (TMEA) in mediating the correlation between environmental orientation (EO) and environmental performance (EP) with the adoption of green business strategy (GBS) among small and medium enterprises (SMEs) in Gresik, Indonesia. Using a quantitative approach, there is 151 SMEs data collected then analyzed with Partial Least Squares Structural Equation Modeling (PLS-SEM). The results reveal that EO and EP do not directly influence GBS. Instead, both significantly affect TMEA, which in turn mediates their impact on GBS. Moreover, SMEs' performance (SP) demonstrates a significant effect on GBS, underscoring the importance of firm performance as a control variable. These findings contribute to the Resource-Based View (RBV) and Dynamic Capabilities theory by positioning managerial awareness as a critical intangible capability that enables firms to translate environmental orientations into strategic actions. Stakeholder Theory is also supported, as external pressures prove effective only when internalized by top managers. The study provides practical implications for SME managers, highlighting the need to enhance managerial environmental awareness through training and leadership development. Limitations include the geographic focus on Gresik and the cross-sectional design, which restricts generalizability and causal inference. Future research should extend to broader contexts and adopt longitudinal methods. Overall, the study advances theoretical and practical understanding of how managerial awareness fosters green strategies in SMEs.

Keywords: Environmental Orientation, Environmental Performance, Top Management Environmental Awareness, Green Business Strategy, Financial Based

INTRODUCTION

The global business is undergoing a profound transformation driven by urgent circumstances such as climate change, environmental degradation, and resource scarcity. Many countries now incorporate green business and sustainable business strategies into their national agendas. Businesses, including small and medium enterprises (SMEs), must adopt environmentally friendly practices to following the regulations but also to maintain competitiveness. SMEs form the backbone of the Indonesian business, representing over 99% of business units and accounting for approximately 61% of the non-oil and gas Gross Domestic Product (GDP) as of 2023, according to the Central Statistics Agency (BPS, 2023). These figures highlight the centrality of SMEs in sustaining economic growth, while at the same time underlining the priority of aligning their operations with environmental goals.

Indonesia has committed to reach zero emissions and has introduced multiple regulatory frameworks to guide the transition to a sustainable business. Key among them are the Roadmap for Sustainable Finance Phase II (2021–2025) by the Otoritas Jasa Keuangan (OJK, 2023)and the Green Taxonomy to classify environmentally sound economic activities. Presidential Regulation No. 112/2022 mandates the gradual phasing out of coal-fired power plants and supports renewable energy development (Pemerintah Republik Indonesia 2022) while Government Regulation No. 26/2025 emphasizes long-term protection and management of the environment (Pemerintah Republik Indonesia, 2025). These policies increase pressure on enterprises, including SMEs, to enhance environmental orientation and performance in their operations.

Gresik Regency, East Java, provides an illustrative context. In 2022, the number of SMEs in Gresik reached 19,351 business units, accounting for about 2.21% of all SMEs in East Java, and employing 35,874 workers, or 1.74% of the provincial labor force(BPS, 2023). While these figures show the strong presence of SMEs in the local business, many still lack financial resources, technological capacity, and managerial awareness to fully implement green business strategies. This disparity reveals a critical gap between national policy frameworks and practical adoption at the local SME level.

Recent SME evidence indicates that top-management environmental awareness significantly mediates the translation of environmental efforts into strategic action (Sabihaini et al. 2024). In the other hand, researchers want to know whether the results obtained are the same in other areas, which is why this research creates a research gap in this research. Furthermore, management commitment has been shown to mediate the impact of sustainability on environmental performance in SMEs (Madrid-Guijarro and Duréndez 2024). This local evidence resonates with broader scholarly debates, where the leadership and cognitive dimensions of SMEs' sustainability transitions remain insufficiently theorized and empirically tested.

Although research on green business strategies has expanded, most empirical studies focus on large firms, particularly in manufacturing such as PT. Semen Indonesia, PT. Petrokimia and energy sectors such as PLN and Pertamina. Studies on SMEs, especially in Indonesia, remain limited. Even among existing SME studies, there is little exploration of how top management environmental awareness (TMEA), particularly when linked to financial considerations, mediates correlation between environmental orientation,

environmental performance, and green business strategy. This under explored leadership and cognitive dimension reflects both an empirical and theoretical gap in the literature.

From a theoretical standpoint, the Resource-Based View (RBV) emphasizes valuable, rare, inimitable, and non-substitutable resources as sources of sustained competitive advantage (Barney 1991). The Dynamic Capabilities framework highlights how firms adapt, integrate, and reconfigure resources in response to environmental change (Teece, 2020). However, prior research often operationalizes these frameworks primarily through tangible resources, such as technology and capital. Less attention has been given to intangible leadership awareness, especially TMEA, as a mediator that can translate environmental orientation and performance into effective green business strategies. This opens an avenue to advance both RBV and Dynamic Capabilities perspectives.

This study aims to examine whether TMEA based on financial considerations mediates correlation between environmental orientation, environmental performance, and green business strategy in SMEs in Gresik. Specifically, the research examines (1) whether environmental orientation and performance directly influence green business strategy, and (2) whether TMEA strengthens this relationship by acting as a mediator.

This study contributing of two-fold both as theoretically, it deepens the literature on green business strategies by incorporating TMEA as a mediating variable, thereby extending RBV and Dynamic Capabilities perspectives into leadership awareness. In Practice, the findings provide insights for SME owners, managers, and leader in Gresik and beyond on how to align business practices with national environmental regulations and strengthen managerial financial awareness to support the green business.

REVIEW OF LITERATURE

Green Business Strategy

The concept of green business strategy has arisen as a response to growing global environmental concerns and regulatory pressures. It refers to the merges of environmental objectives into the design strategic and operational processes of firms, enabling them to achieve both competitive advantage and environmental sustainability. The primary goals of green strategies include resource efficiency, regulatory compliance, and long-term value creation. While so many of the literature focuses on substantial corporations, particularly in manufacturing and energy-intensive industries, studies on SMEs remain limited. Yet, SMEs are increasingly recognized as important actors in driving green transformation because of their sheer number and their aggregate environmental impact (Novitarini and Sudana 2024). Research shows that SMEs adopting green strategies can enhance not only their ecological footprint but also their market reputation and financial resilience (Laily et al. 2025).

Environmental Orientation

Environmental orientation refers to a company strategic stance toward environmental concerns, integrating ecological considerations into decision-making and long-term goals. It shapes corporate values and guides organizational responses to environmental pressures. Early work by Banerjee (2002) defines EO as a managerial philosophy embedding ecological awareness into strategic processes, while in the Indonesian SME context, EO reflects growing regulatory and market demands

Environmental Performance

Environmental performance denotes the extent to which firms reduce their environmental impact through operational practices. Klassen and Whybark (1999) highlight that effective EP results from pollution prevention and resource efficiency, which also foster competitiveness. Recent findings from Sabihaini et al. (2024) confirm that Indonesian SMEs improving environmental performance through green innovation achieve both ecological and financial benefits, reinforcing its relevance in emerging economies.

Top Management Environmental Awareness (TMEA)

Top management environmental awareness (TMEA) referring to the cognitive and attitudinal orientation of senior executives toward environmental issues, particularly in linking ecological concerns with financial implications. TMEA plays a major role in shaping organizational culture and aligning resources for environmental initiatives. Recent studies emphasize that TMEA fosters green innovation and strategic responsiveness. For example, Y. Wang & Liu, (2024) find that top management attention to environmental issues significantly drives green innovation within firms. Similarly, Wang, Liu, and Li (2024) highlight the mediating role of top management awareness in explaining digital capabilities into green innovation outcomes. Despite these insights, empirical evidence on TMEA remains scarce in the SME context, especially in developing economies. This gap underscores the importance of examining TMEA as a mediator that channels environmental orientation and performance into green business strategies.

SMEs and the Green Business in Indonesia

SMEs dominate the Indonesian business, contributing over 61% to GDP and employing more than 97% of the labor force (BPS, 2023). However, their participation in the green business remains underdeveloped. Many SMEs lack access to finance, technology, and managerial expertise required to implement sustainability strategies. In regions like Gresik, East Java, where industrialization poses significant environmental challenges, the role of SMEs in achieving local and national sustainability goals becomes critical. Previous research indicates that Indonesian SMEs are aware of environmental issues but often view them as secondary to immediate financial survival (Novitarini and Sudana 2024). This suggests that managerial awareness, particularly when linked to financial considerations, could be the key to bridging this gap.

SMEs Performance (SP/KI)

Firm performance has long been assessed in sureness on financial and non-financial indicators periods (Venkatraman and Ramanujam, 1986). In this study, SME performance (SP) serves as a control variable, recognizing its role in shaping strategic adoption. Laily et al. (2025) demonstrate that higher-performing SMEs in Indonesia are better positioned to invest in sustainable strategies, suggesting that financial strength underpins environmental responsiveness.

RBV, Dynamic Capabilities, and Stakeholder Theory

The Resource-Based View (RBV) emphasizes that firms achieve sustained competitive advantage through valuable, rare, inimitable, and non-substitutable resources (Barney, 1991). In the context of SMEs, intangible resources such as managerial cognition and environmental awareness are particularly critical, as they shape the ability of firms to translate orientation and performance into strategic outcomes. This perspective highlights

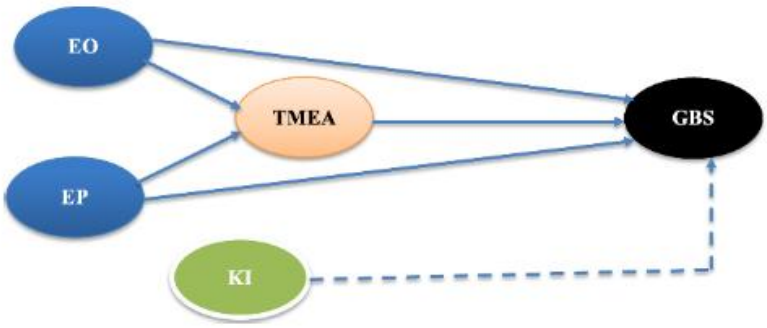
that resources like financial performance or environmental initiatives hold strategic value only when supported by top management's awareness and commitment.

Complementing RBV, the Dynamic Capabilities (DC) framework extends this view by focusing on the firm's ability to sense environmental challenges, seize emerging opportunities, and reconfigure resources to adapt to uncertainty (Teece, 2007). In SMEs, top management environmental awareness reflects these dynamic capabilities, enabling rapid strategic adjustments in response to stakeholder expectations. Stakeholder Theory (Freeman, 1984) adds another dimension by explaining that external pressures from regulators, communities, and customers become effective drivers of change only when internalized by decision-makers. Together, RBV, DC, and Stakeholder Theory offer a comprehensive lens: resources provide the foundation, capabilities ensure adaptability, and stakeholder demands create legitimacy for adopting green business strategies.

Integrating RBV, DC, and Stakeholder Theory

Integrating these theoretical perspectives provides a comprehensive framework. RBV identifies EO and EP as critical resources, DC explains how these resources are deployed and transformed into green strategies, and Stakeholder Theory highlights the external legitimacy pressures that motivate such adoption. TMEA emerges as a form of intangible dynamic capability that mediates this process. It reflects the ability of top management to sense environmental opportunities and threats, seize strategic options, and reconfigure organizational resources to align with green strategies (Y. Wang & Liu, 2024; Wang, Liu and Li. 2024). Thus, combining RBV, DC, and Stakeholder Theory ensures that both internal resource mobilization and external stakeholder.

Figure 1. Conceptual Framework



Based on the literature, this study when the figure above witch has specifically explain on Tabel 1, where EO and EP serve as antecedents of green business strategy, while TMEA acts as a mediator. EO is expected to drive both EP and green strategy adoption, while EP reinforces the translation of environmental goals into practice. TMEA is posited to strengthen these relationships by ensuring that environmental considerations are integrated into financial and strategic decision-making. This framework reflects an integration of RBV, DC, and Stakeholder Theory, supported by financial perspectives, offering a comprehensive lens for analyzing SME behavior in the context of green business transitions.

Hypotheses Development

From the literature and theoretical framework, the following hypotheses are proposed:

a. H1: Environmental orientation is suspected has a significant influence on green business strategy.

b. H2: Environmental performance is suspected has a significant influence on green business strategy.
c. H3: Environmental orientation is suspected has a significant influences top management environmental awareness.
d. H4: Environmental performance is suspected has a significant influence on top management environmental awareness.
e. H5: Top management environmental awareness is suspected has a significant influence on green business strategy.
f. H6: SMEs Performance is suspected has a significant influence on green business strategy.
g. H7: Top management environmental awareness is suspected become mediates the relationship between environmental orientation, environmental performance, and green business strategy.

RESEARCH METHOD

Research Design

This study employs a quantitative research design with an explanatory and causal approach to examine the correlations among environmental orientation (EO), environmental performance (EP), top management environmental awareness (TMEA), green business strategy (GBS), and SMEs performance (SP). A cross-sectional survey was used to collect data from small and medium-sized enterprises (SMEs) in Gresik Regency, East Java, Indonesia. The research design is explanatory in nature because it seeks to test causal hypotheses derived from the Resource-Based View (RBV), Dynamic Capabilities (DC), and Stakeholder Theory.

To analyze the proposed model, this study applied Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS 4 software. PLS-SEM is particularly suitable for this research for three reasons. First, the model involves multiple latent constructs with mediating effects, making covariance-based SEM less optimal for small to medium sample sizes. Second, PLS-SEM does not require strict assumptions about data normality, which is advantageous given the heterogeneity of SMEs. Third, PLS-SEM provides strong predictive capabilities, which align with the objective of exploring how environmental orientation and performance influence green strategies through managerial awareness.

Population and Sample

The population of this study consists of SMEs registered with the Gresik Regency government. According to official records, there were 537 SMEs identified as active business units with a valid Nomor Induk Berusaha (NIB) at the time of data collection. Given the focus of this research, SMEs eligible for sampling were required to meet specific criteria: (1) operating legally with a registered NIB, (2) managed by owners or executives who directly influence business strategy, and (3) engaged in business activities with environmental implications, such as manufacturing, food processing, or services with significant energy use.

The sampling technique employed was purposive sampling-based selection among the SMEs that meet the criteria. Out of the population, a total of 151 valid responses were obtained, representing the final sample for analysis. This sample size exceeds the minimum threshold recommended by Heir et al. (2022) for PLS-SEM, which suggests a minimum of

ten times the maximum number of structural paths directed at any construct. In this model, the most complex construct, GBS, has four predictors (EO, EP, TMEA, SP), suggesting a minimum sample of 40. Thus, the sample of 151 respondents not only meets but substantially exceeds this requirement, ensuring adequate statistical power (Chin and Newsted, 1998; Kline, 2023).

Data Collection

The study relies on primary data obtained through a structured questionnaire. The questionnaire was distributed between September and December 2025, aligning with the approved research timeline. Data collection was conducted through both online (Google Forms) and offline channels to ensure inclusivity of SMEs with varying levels of digital access.

Respondents were primarily owners or top managers of SMEs, ensuring that the data reflected strategic-level perspectives rather than operational-level routines. The questionnaire used a five-point Likert scale ranging from 1 by all mean is strongly disagree to 5 is strongly agree to capture perceptions of environmental orientation, performance, managerial awareness, green strategy, and business performance. This scale is consistent with previous studies on sustainability in SMEs (Laily et al., 2025;C. Wang et al., 2024).

The questionnaire design underwent expert validation to ensure content validity. Pre-testing with a small group of SMEs in Gresik confirmed clarity and comprehensibility of items. Ethical considerations were followed, with participants informed about the purpose of the research and anonymity of responses guaranteed. Measurement of Variables is specifically explained on Tabel 1. All constructs were reflective in nature, modeled with multiple items to capture latent variables.

Data Analysis Technique

The analysis was conducted using Smart PLS program. The process involved two stages: assessment of the measurement model (outer model) and the structural model (inner model). For the measurement model, validity and reliability were tested through; Indicator reliability: Outer loadings should exceed 0.70, Internal consistency reliability: Cronbach's Alpha and Composite Reliability (CR) above 0.70, Convergent validity: Average Variance Extracted (AVE) above 0.50, Discriminant validity: Heterotrait-Monotrait ratio (HTMT) below 0.90. For the structural model, the following assessments were performed: Coefficient of determination (R^2): Evaluating the explanatory power of independent variables on dependent constructs, Predictive relevance (Q^2): Testing the predictive accuracy of the model, Effect size (f^2): Assessing the relative impact of exogenous constructs.

The mediation effect of TMEA was examined by testing indirect paths from EO and EP to GBS through TMEA. The presence of partial or full mediation was determined by analyzing the significance of both direct and indirect paths. In addition, SMEs performance (SP) was included as a control variable in the model to ensure that the effects of EO, EP, and TMEA on GBS were not confounded by firm performance. This approach enhances the robustness of the findings and aligns with methodological recommendations for SEM studies in strategic management (Heir et al., 2022).

RESULTS AND DISCUSSION

Descriptive Analysis of Respondents

The demographic profile of respondents provides an important foundation to understand the distribution of small and medium enterprises (SMEs) in Gresik. Table 2 presents respondent characteristics, including gender, age, education, business age, number of employees, and monthly sales turnover.

Table 2. Respondents' Characteristics

Aspect	Category	Outcome	Persentence
Gender	Male	92	61%
	Female	59	39%
Age	< 25 Years	30	20%
	25–40 Years	55	36%
	40–55 Years	46	30%
	> 55 Years	20	13%
Last Educations	Junior high	5	3%
	Senior High	78	52%
	Certification	9	6%
	Undergraduate	51	34%
	Postgraduate	5	3%
	Other	3	2%
Length of business activity	< 3 Years	30	20%
	3–5 Years	44	29%
	5–10 Years	34	23%
	> 10 Years	43	28%
Number of Employee	< 5 People	92	61%
	5 - 19 People	42	27%
	20 - 50 People	13	9%
	> 50	5	3%
Monthly Sales Turnover	< 10 M	72	48%
	10 - 25 M	30	20%
	25 - 100 M	26	17%
	100 - 300 M	14	9%
	300 M - 1 B	5	3%
	> 1 B	4	3%

Source: Data Processed by researchers, 2025

The results indicate that most SME owners are male (61%), while female respondents account for 39%. In terms of age, the majority are between 25–40 years (36%), followed by those aged 40–55 years (30%). Education levels are dominated by high school graduates (52%), but a substantial share also holds undergraduate degrees (34%). Most businesses have been established for more than three years, with 28% operating for over ten years. In terms of firm size, a majority employ fewer than five workers (61%), consistent with the SME classification. Regarding monthly sales, 48% report revenues below IDR 10 million, while

only 3% surpass IDR 1 billion. This profile illustrates the relatively small scale and resource constraints of SMEs in Gresik, conditions that shape their strategic orientation toward green business practices.

Descriptive Statistics of Main Constructs

Table 3 summarizes descriptive statistics for the study variables: Environmental Orientation (EO), Environmental Performance (EP), Top Management Environmental Awareness (TMEA), SMEs Performance (SP), and Green Business Strategy (GBS).

Table 3. Descriptive Statistics

	Mean	Min	Max	Standard Deviation	Excess Kurtosis	Skewness
Environmental Orientation (EO)	0	-3,197	1,529	1	-0,156	-0,69
Environmental Performance (EP)	0	-3,222	1,448	1	-0,109	-0,731
Green Business Strategy (GBS)	0	-2,928	1,339	1	-0,324	-0,675
SMEs Performance (SP)	0	-3,079	1,399	1	-0,239	-0,674
Top Management of Environmental Awareness (TMEA)	0	-2,835	1,317	1	-0,452	-0,715

Source: Data Processed by researchers, 2025

The data show that EO and EP exhibit negative skewness, suggesting that most SMEs score relatively high on these constructs. TMEA also indicates negative skewness (–0.715), reflecting a tendency among top managers to report higher levels of environmental awareness. Meanwhile, SP and GBS demonstrate moderate distribution patterns, with kurtosis values close to zero, indicating normality. Overall, the descriptive results suggest that environmental consciousness has started to emerge within SMEs, though variation remains across firms.

Measurement Model (Outer Model) Evaluation

The assessment of the outer model focuses on two points: reliability and validity. Reliability was assessed using factor loadings, Cronbach's Alpha, and Composite Reliability (CR). As shown in the table below, all item loadings exceeded the recommended threshold of 0.70, indicating that each indicator strongly represents its underlying latent construct (Hair et al., 2021). Cronbach's Alpha values were above 0.70, and CR values ranged between 0.82 and 0.94, well above the minimum requirement of 0.70. These Outcome confirm that the constructs are internally consistent and reliable.

Table 4. Validity, Reliability, R Square

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)	R Square	R Square Adjusted
Environmental Orientation (EO)	0,934	0,936	0,948	0,752		
Environmental Performance (EP)	0,97	0,971	0,974	0,755		

Green Business Strategy (GBS)	0,98	0,98	0,981	0,746		
SMEs Performance (SP)	0,973	0,973	0,976	0,771		
Top Management of Environmental Awareness (TMEA)	0,96	0,962	0,966	0,76		
Green Business Strategy (GBS)					0,742	0,735
Top Management of Environmental Awareness (TMEA)					0,700	0,696

Source: Data Processed by researchers, 2025.

Convergent validity was evaluated using the Average Variance Extracted (AVE). As presented in Table 3, All constructs reported AVE values above 0.50, which implies that more than half of the variance in their indicators is explained by the underlying latent (Fornell and Larcker 1981). confirming that each construct captures more than half of the variance of its indicators. This supports convergent validity for the measurement model.

Discriminant validity was then assessed through the Heterotrait-Monotrait Ratio (HTMT), as shown in table below. HTMT values ranged from 0.748 to 0.898. The highest correlation was between Environmental Performance (EP) and SMEs Performance (SP) with HTMT = 0.898, which is still below the threshold of 0.90. These results confirm that each construct measures a distinct concept, thereby supporting discriminant validity (Henseler, Ringle, and Sarstedt 2015). This is particularly important in this study, given the conceptual proximity between environmental orientation, environmental performance, and top management environmental awareness. The HTMT results provide confidence that these constructs are not redundant but capture different aspects of SMEs' green business dynamics.

Table 5. Discriminant Validity (HTMT Results)

	EO	EP	GBS	SP	TMEA
Environmental Orientation (EO)	0.861				
Environmental Performance (EP)	0.861				
Green Business Strategy (GBS)	0.764	0.748			
SMEs Performance (SP)	0.898	0.881	0.832		
Top Management of Environmental Awareness (TMEA)	0.803	0.849	0.856	0.863	

Source: Data Processed by researchers, 2025.

Taken together, the outer model meets all reliability and validity requirements. These outcomes provide a robust foundation for testing the structural model and evaluating hypothesized relationships among environmental orientation, environmental performance, top management environmental awareness, SMEs' performance, and green business strategy.

Structural Model (Inner Model) Evaluation

The structural model was assessed using R^2, f^2, and predictive relevance (Q^2). Table 5 reports effect size values (f^2), showing that TMEA has a strong effect (0.282) on GBS, while EP has the strongest effect (0.384) on TMEA.

Table 5. Effect Size (f^2) Results

	Green Business Strategy (GBS)	Top Management of Environmental Awareness (TMEA)
Environmental Orientation (EO)	0,006	0,083
Environmental Performance (EP)	0,009	**0,384**
Green Business Strategy (GBS)		
SMEs Performance (SP)	0,099	
Top Management of Environmental Awareness (TMEA)	**0,282**	

Source: Data Processed by researchers, 2025.

The R^2 value indicates that 74% of the variance in TMEA is explained by EO and EP, while GBS is explained by a combination of EO, EP, SP, and TMEA. These values suggest strong explanatory power of the model in predicting green business strategy adoption.

Hypothesis Testing (Bootstrapping Results)

Bootstrapping results are summarized in Tables 6 and 7, presenting both direct and indirect effects.

Table 6. Bootstrapping Results – Direct Effects

Hypotheis		Beta (β)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Hypotheis Result
H1	EO ➔ GBS	0.083	0.081	0.085	0.978	**0.328**	**NOT SUPPORTED**
H2	EP ➔ GBS	-0.107	-0.108	0.102	1.052	**0.294**	**NOT SUPPORTED**
H3	EO ➔ TMEA	0.276	0.283	0.089	3.098	**0.002**	**SUPPORTED**
H4	EP ➔ TMEA	0.595	0.588	0.081	7.382	**0.000**	**SUPPORTED**
H5	TMEA ➔ GBS	0.530	0.543	0.122	4.336	**0.000**	**SUPPORTED**
H6	SP ➔ GBS	0.390	0.380	0.112	3,476	**0,001**	**SUPPORTED**

Source: Data Processed by researchers, 2025

Results indicate that EO → GBS (β = 0.083, p = 0.328) and EP → GBS (β = –0.107, p = 0.294) are not significant. However, EO → TMEA (β = 0.276, p = 0.002) and EP → TMEA (β = 0.595, p < 0.001) are significant, confirming that both EO and EP influence GBS indirectly via TMEA. SP → GBS (β = 0.390, p = 0.001) is also significant, suggesting that firm performance enhances adoption of green business strategies.

Table 7. Bootstrapping Results – Indirect (Mediation) Effects

Hypotheis		Specific Indirect Effects (B)	P-Value	Hypotheis Result
H7	EO →TMEA → GBS	0,146	**0.015**	**Mediate**
	EP → TMEA → GBS	0,316	**0.000**	**Mediate**

Source: Data Processed by researchers, 2025.

The mediation tests reveal that TMEA mediates the effect of EO on GBS ($\beta = 0.146$, $p = 0.015$) and the effect of EP on GBS ($\beta = 0.316$, $p < 0.002$). Since the direct effects of Environmental Orientation (EO) on Green Business Strategy (GBS) and Environmental Performance (EP) on GBS are not significant, the results indicate full mediation. This means that Environmental Orientation (EO) and Environmental Performance (EP) can only influence Green Business Strategy (GBS) through Top Management of Environmental Awareness (TMEA)(Henseler et al. 2015).

The results present several important insights that deepen our understanding of how environmental orientation (EO), environmental performance (EP), and managerial awareness (TMEA) interact to influence green business strategy (GBS) in SMEs, particularly under the contextual pressures of regulatory and market expectations in Indonesia. Below I integrate these findings with theory and recent empirical studies to illuminate both convergence and divergence. The hypothesis testing results reveal a complex set of relationships among the constructs. Environmental orientation (EO) does not show a significant direct effect on green business strategy (GBS), while environmental performance (EP) has an indirect influence mediated by top management environmental awareness (TMEA). In contrast, SMEs' performance (SP) demonstrates a strong and significant relationship with GBS, indicating that financial outcomes remain a critical driver of green strategic adoption.

The findings of this study confirm that environmental orientation and environmental performance significantly influence the adoption of green business strategies (GBS) among SMEs, with top management environmental awareness (TMEA) acting as a mediator. These results resonate with the Resource-Based View (RBV), which posits that unique internal resources such as managerial awareness create sustained competitive advantage (Barney, 1991). At the same time, the Dynamic Capabilities (DC) perspective explains how SMEs can reconfigure resources in response to environmental demands, highlighting that TMEA enhances the adaptability of firms in uncertain contexts (Teece, 2007).

In addition, the results align with Stakeholder Theory, which emphasizes that firms respond to pressures from diverse stakeholders—including regulators, communities, and customers—by embedding environmental considerations into strategy (Freeman, 1984). The significant role of TMEA suggests that leaders' environmental values and awareness are crucial in reconciling stakeholder expectations with internal business practices, particularly for SMEs with limited structural capacity.

Compared with prior studies, our findings extend the literature. For example, Bianchi and Testa (2022) demonstrated that managerial cognition strongly influences environmental strategy adoption in SMEs across emerging markets. Similarly, Tjahjadi et al. (2020) found that Indonesian SMEs engaging in green innovation improved both environmental and financial performance, supporting our evidence that strategic environmental orientation yields tangible outcomes when mediated by leadership awareness. By situating our results within RBV, DC, and Stakeholder Theory, this study provides both theoretical reinforcement and practical insights for SME green strategy adoption (Bianchi and Testa 2022).

Overall, the discussion highlights that while financial performance remains a foundational factor driving SMEs' commitment to green strategies, the mediating role of TMEA is central in ensuring that environmental orientation and performance translate into

long-term strategic behavior. This reinforces the importance of managerial awareness as both a theoretical construct and a practical lever for policy and training interventions aimed at strengthening SMEs' capacity for sustainable development.

CONCLUSION

This study examined the influence of environmental orientation (EO) and environmental performance (EP) on green business strategy (GBS) adoption in SMEs, mediated by top management environmental awareness (TMEA) and controlled by SMEs' performance (SP). The results show that EO and EP do not directly predict GBS but significantly influence TMEA, which in turn strongly drives strategic adoption. SP also enhances GBS adoption, underscoring the dual importance of managerial awareness and performance capacity as critical enablers of sustainability.

Theoretically, this study contributes to the Resource-Based View (RBV) by emphasizing the strategic role of intangible resources such as managerial cognition in creating competitive advantage (Barney, 1991). It also supports the Dynamic Capabilities framework (Teece, 2007), with TMEA reflecting SMEs' ability to sense, seize, and reconfigure resources in response to environmental demands. Furthermore, the findings align with Stakeholder Theory (Freeman, 1984), demonstrating that external pressures become effective only when internalized by top management. By focusing on SMEs in Gresik, Indonesia, the study extends sustainability research to an underexplored Southeast Asian context.

Practically, the findings suggest that cultivating managerial environmental awareness through training, workshops, and leadership initiatives is essential for SMEs. Policymakers should complement regulatory measures with programs that strengthen managerial capacity, while financial institutions can integrate environmental criteria into financing schemes to incentivize green strategies. Future research could extend this study by adopting longitudinal approaches, expanding to other sectors or regions, and incorporating additional variables such as green innovation or ESG disclosure to deepen insights into SMEs' sustainable business practices.

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