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The influence of Green Marketing Orientation and Innovation capability on Sustainable Performance among SMEs in Kaduna metropolis

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Abstract
This study investigates the influence of Green Marketing Orientation and Innovation Capability on Sustainable Performance among SMEs in Kaduna Metropolis, Nigeria. Drawing on Stakeholder Theory and the Resource-Based View, the research explores both direct and mediated relationships across three dimensions of Internal green marketing orientations (IGMO), Strategic green marketing orientation (SGMO), and Tactical green marketing orientation (TGMO). A cross-sectional survey design was adopted, and data were collected from 382 valid responses using structured questionnaires administered to SME owner-managers. Partial Least Squares Structural Equation Modelling (PLS-SEM) was employed for data analysis. The findings reveal that Strategic Green Marketing Orientations significantly enhances sustainable performance, both directly and through innovation capability. Tactical Green Marketing Orientations also influences performance indirectly via innovation, while Internal Green Marketing Orientations shows no significant direct or mediated effect. Innovation capability emerged as a key driver of sustainability outcomes, supporting the Research Base View's emphasis on internal resources. These results highlight that while Small Medium Enterprises SMEs engage in various green initiatives, only those embedded in strategic frameworks and linked to innovation lead to meaningful sustainability gains. The study concludes that Small Medium Enterprises SMEs must move beyond isolated green efforts and invest in innovation-oriented strategies to achieve long-term environmental, economic, and social performance. Practical and theoretical implications are discussed, offering insights for policymakers, Small Medium Enterprises SME managers, and sustainability advocates in emerging markets.

Keywords: Green Marketing Orientation, Innovation Capability, Sustainable SME Performance, Nigeria.

1. Introduction

Small and Medium Enterprises (SMEs) are widely acknowledged as key drivers of economic growth, innovation, and employment across the globe. Representing about 90% of businesses and over half of global employment (World Bank, 2020), SMEs play a vital role in both developed and developing economies. In advanced nations like the United States and Germany, they are central to technological advancement and account for significant R&D investment (OECD, 2019), while in the European Union, they generate more than 56% of total economic output (Eurostat, 2021).

Their contributions go beyond economics, serving to reduce regional disparities and support balanced development. In Africa, SMEs are critical to socio-economic transformation, making up around 80% of all businesses and providing about 60% of employment, especially in informal sectors and youth-dominated regions (IFC, 2020). Countries like South Africa, Kenya, and Ghana see SMEs contributing between 20% and 40% of GDP (UNDP, 2021; Aluko et al., 2024), underlining their foundational role in inclusive growth and industrialization (Mugano & Dorasamy, 2024). In Nigeria, SMEs specifically Micro, Small and Medium Enterprises (MSMEs) are integral to national economic development, comprising 96.9% of all businesses and contributing 46.32% to GDP (NBS-SMEDAN, 2021). They are also key to employment generation, accounting for 87.9% of jobs and 6.21% of national exports, thereby fostering economic resilience and global trade integration (PwC MSME Survey, 2024). With over 39.7 million MSMEs supporting 86% of employment and nearly half of nominal GDP, these enterprises form the backbone of Nigeria's non-oil economy (World Bank, 2022), especially in agro-processing and local technology sectors (Nyika et al., 2024). Yet, despite their significance, Nigerian SMEs are burdened by structural challenges such as limited financing, inadequate infrastructure, and inconsistent policies (Mer & Virdi, 2024; Djidjik & Muragu, 2024). The growing urgency of environmental and social demands has further prompted SMEs to adopt green and innovative practices including renewable energy and sustainable products as a means to enhance resilience and competitiveness in both local and global markets (Omowole et al., 2024; Sharma et al., 2024). Sustainable performance encompasses more than just financial outcomes; it integrates environmental, social, and economic dimensions to ensure long-term value creation (Kensiwi, 2024). This comprehensive approach highlights the importance of balancing profitability with environmental responsibility and ethical practices (Chehimi & Naro, 2024). For SMEs, sustainability involves actions such as reducing carbon emissions, conserving energy, minimizing waste, and upholding fair labour standards (Feng et al., 2024). Aligning operations with sustainable performance not only helps address global ecological concerns but also enhances competitiveness in markets increasingly shaped by consumer awareness and regulatory pressure (Abdelkareem et al., 2024; El-Kassar & Singh, 2019). In the Nigerian context, these benefits are even more pronounced as SMEs confront challenges such as unstable infrastructure and resource limitations (NBS-SMEDAN, 2021). Embracing sustainable performance allows Nigerian SMEs to enhance productivity, satisfy evolving consumer preferences, and access green funding and international markets (Atstaja et al., 2024; Gorina et al., 2024; Toromade & Chiekezie, 2024). A significant catalyst in this transformation is Green Marketing Orientation (GMO), which has gained momentum as a strategic response to environmental pressures and shifting stakeholder expectations (Piccolo, 2024). GMO promotes eco-conscious product development, messaging, and delivery, distinguishing firms that prioritize

environmental responsibility from competitors. This orientation encapsulates internal and external marketing efforts rooted in sustainability (Jiang et al., 2024), encouraging innovation and ecological stewardship over mere profit maximization (Braik et al., 2024).

2. Literature Review

Conceptualization

Internal Green Marketing Orientation (IGMO) emphasizes the integration of environmental values into an organization's internal culture, policies, and employee practices. Numerous studies affirm its influence on sustainable performance.

For instance, Elshaer et al. (2024) and Rashid et al. (2023) demonstrated that Internal Green Marketing Orientations enhances business outcomes when supported by employee environmental commitment. Similarly, El-Kassar and Singh (2019) showed that Strategic Green Marketing Orientations improves resource efficiency and reduces environmental impact by up to 25% in SMEs. Chen et al. (2020) found that SMEs with strong Strategic Green Marketing Orientations recorded a 30% increase in energy efficiency, while Singh and Sharma (2020) reported a 40% reduction in waste. These internal strategies also promote compliance with regulations (Polonsky & Jevons, 2019), reduce operational costs (Islam et al., 2021), and enhance customer satisfaction (Bansal et al., 2021). Despite strong international evidence, limited empirical validation exists for Internal Green Marketing Orientations role in sustainable performance within Nigerian SMEs.

Hypotheses Development

H_{01}: Internal Green Marketing Orientation (IGMO) does not significantly affect the sustainable performance of SMEs in Kaduna Metropolis. Strategic Green Marketing Orientation (SGMO) involves embedding sustainability into a firm's long-term strategies and aligning core objectives with environmental values. SGMO promotes innovation, regulatory compliance, and competitive positioning. Choudhury et al. (2019) and Ismail et al. (2023) showed that SGMO enhances sustainable performance through eco-innovation and the development of green absorptive capacity. Kumar et al. (2022) confirmed that SGMO leads to the adoption of green technologies and more efficient operations, while Leonidou et al. (2013) emphasized its role in improving customer loyalty and market share. Fatoki (2022) and Rashid et al. (2023) further identified SGMO as a bridge between environmental regulation and improved operational outcomes. However, the application of SGMO in Nigeria's SME landscape, especially in Kaduna, remains under-researched.

H_{02}: Strategic Green Marketing Orientation (SGMO) does not significantly affect the sustainable performance of SMEs in Kaduna Metropolis. Tactical Green Marketing Orientation (TGMO) refers to short-term, action-based sustainability practices such as eco-labelling, green advertising, and sustainable packaging. These tactical activities have proven effective in building brand reputation and consumer trust. Chen et al. (2020) and Setyaningrum and Muafi (2023) reported increased customer loyalty and better market positioning through TGMO strategies.

Leonidou et al. (2013) found that TGMO enhances consumer engagement and environmental awareness, while Kumar et al. (2022) emphasized its effectiveness in promoting trust and purchase intentions through green certifications. Fatoki (2022) and Rashid et al. (2023) highlighted TGMO's role in brand differentiation and regulatory compliance. Despite its proven benefits, TGMO's impact on SMEs in Kaduna Metropolis is yet to be comprehensively validated.

H_{03}: Tactical Green Marketing Orientation (TGMO) does not significantly affect the sustainable performance of SMEs in Kaduna Metropolis. Innovation capability plays a central role in the effective execution of green strategies and in achieving sustainable performance outcomes. As an enabler of eco-innovation, it allows firms to adopt renewable energy solutions, create sustainable products, and optimize resource use. El-Kassar and Singh (2019) linked internal green marketing with innovation that improves operational efficiency. Zhang and Walton (2017) found that internal environmental commitment enhances the relationship between innovation and performance. Setyaningrum and Muafi (2023) noted that green product innovation, driven by internal policies, leads to improved business performance.

H_{04}: Innovation capability does not significantly influence the sustainable performance of SMEs in Kaduna Metropolis. As regard to mediation effects, Internal Green Marketing Orientation (IGMO) not only influences sustainable performance directly but also fosters internal mechanisms such as environmental commitment, employee engagement, and knowledge sharing, which are critical precursors for innovation. Studies by Rashid et al. (2023) and Elshaer et al. (2024) emphasize that IGMO creates a culture conducive to environmental innovation by motivating employees and aligning internal values with sustainability goals. Setyaningrum and Muafi (2023) and Zhang and Walton (2017) further establish that internal practices driven by green values enhance firms' capacity to develop innovative products and processes. These innovations, in turn, lead to cost efficiency, energy conservation, and reduced environmental impact (Islam et al., 2021; Zhang et al., 2020).

H_{05}: Innovation capability does not mediate the relationship between Internal Green Marketing Orientation (IGMO) and sustainable performance among SMEs in Kaduna Metropolis. Strategic Green Marketing Orientation (SGMO) is inherently tied to long-term planning and innovation development. Studies show that firms adopting SGMO often invest in sustainable technologies and eco-friendly product development as part of their strategic positioning (Kumar et al., 2022; Ismail et al., 2023). These strategic investments build innovation capability, allowing firms to proactively respond to environmental challenges and evolving customer preferences. Fatoki (2022) and Rashid et al. (2023) identified that SGMO enhances innovation and regulatory alignment, while El-Kassar and Singh (2019) linked it to improved environmental and operational outcomes via innovation. While TGMO is often seen as operational, studies such as those by Chen et al. (2020), Leonidou et al. (2013), and Fatoki (2022) have shown

that it also fosters incremental innovation by encouraging the adoption of sustainable materials, processes, and customer engagement strategies. Setyaningrum and Muafi (2023) noted that tactical green actions often trigger product or process innovation as firms attempt to meet both regulatory expectations and consumer demands. These innovation responses can improve environmental outcomes and enhance firm competitiveness. Therefore, innovation capability may mediate the effect of TGMO on sustainable performance, particularly in dynamic SME environments like Kaduna.

H_{07}: Innovation capability does not mediate the relationship between Tactical Green Marketing Orientation (TGMO) and sustainable performance among SMEs in Kaduna Metropolis.

Research Model

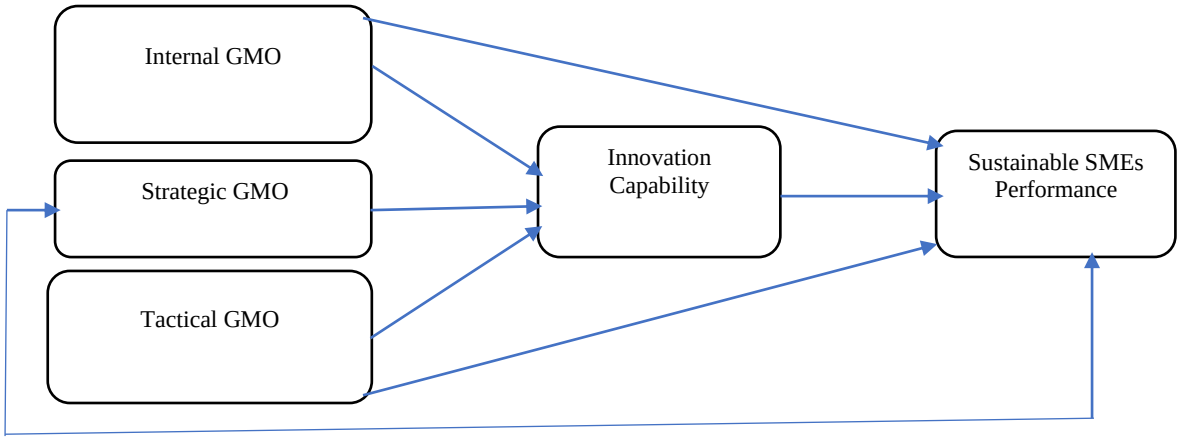


Figure1 Research Model

These green marketing dimensions are theorized to influence sustainability outcomes economic, environmental, and social both directly and indirectly through Innovation Capability. IGMO focuses on fostering a culture of internal sustainability, encouraging staff commitment and environmentally responsible operations (Leonidou et al., 2013). SGMO emphasizes the integration of sustainability into long-term business strategies, such as green product innovation and sustainable supply chain management (Polonsky, 2011). TGMO involves short-term, action-oriented practices like eco-labelling, green advertising, and sustainable packaging that enhance consumer engagement and brand perception (Chen et al., 2020). Positioned as a mediating variable, Innovation Capability captures a firm's ability to transform green marketing strategies into operational outcomes through new product development, resource efficiency, and adaptability to changing market conditions (Rashid et al., 2023; Wang & Ahmed, 2021). Sustainable SME Performance is conceptualized in three dimensions: economic (profitability, market share), environmental (waste reduction, energy efficiency), and social (employee engagement, community involvement, ethical conduct) (Zhang et al., 2020; Chen et al., 2020; Leonidou et al., 2013).

Theoretical Framework

This study is grounded in two complementary theoretical frameworks Stakeholder Theory and the Resource-Based View (RBV)which together offer a comprehensive lens for analysing how GMO, innovation capability, and sustainable performance interact within SMEs. Stakeholder Theory, as proposed by Freeman (1984), emphasizes the need for organizations to address the expectations of diverse stakeholders such as customers, employees, communities, suppliers, and regulators in order to ensure long-term success. Within this context, the adoption of internal (IGMO), strategic (SGMO), and tactical (TGMO) green marketing practices reflects an alignment with evolving stakeholder demands for sustainability, transparency, and ethical operations. By engaging with stakeholder concerns through green initiatives, SMEs can enhance trust, reputation, and compliance, which are crucial for reducing reputational and regulatory risks (Leonidou et al., 2013). Stakeholder Theory thus provides a normative rationale for embedding sustainability into the core of marketing and operational strategies.

3. Methodology

This study adopts a cross-sectional survey design to explore the relationships among green marketing orientations, innovation capability, and sustainable performance among SMEs in Kaduna State (Saunders et al., 2019). A cross-sectional approach is suitable for examining phenomena at a specific point in time and enables efficient data collection across a broad respondent base. The study targets 21,615 SMEs in Kaduna (SMEDAN, 2021), focusing on owner-managers who serve as key decision-makers. A purposive sampling technique is employed to ensure inclusion of SMEs actively engaged in marketing and innovation practices, justified by the lack of a comprehensive SME registry in the region (Etikan et al., 2016). The sample size is calculated using Krejcie and Morgan's (1970) formula, resulting in 377, with an additional 30% added for non-response, bringing the final sample size to 491 respondents (Israel, 2013). Data will be collected using structured questionnaires administered by trained research assistants to ensure completeness and accuracy. This approach supports the collection of rich, context-specific data relevant to the study's objectives. The research instrument comprises two sections: demographic details and constructs measuring Internal, Strategic, and Tactical Green Marketing Orientation (IGMO, SGMO, TGMO), Innovation Capability, and Sustainable SME Performance. The green marketing scale is adapted from Papadas et al. (2017); innovation capability items are drawn from Hogan et al. (2015) and Calik (2017); and sustainable performance is measured using items from Phan (2022). A 5-point Likert scale is employed to gauge respondents' perceptions. Statements for SGMO include targeting environmentally conscious consumers and the use of renewable energy; TGMO items reflect digital marketing and paperless procurement practices; while IGMO items capture internal environmental commitment and reward systems. For data analysis, the study applies Partial Least Squares Structural Equation (PLSSE)

4. Results and Discussion

As outlined in in the methodology, a total of 491 questionnaires were distributed to SME owner-managers across Kaduna Metropolis. Out of these, 406 questionnaires were returned, reflecting a raw return rate of 82.7%, which is commendable and indicative of a high level of respondent engagement with the research topic. However, 24 copies of the returned questionnaire were excluded from further analysis, resulting in 382 valid and usable questionnaires.

Table 1 Profile of Respondents

Category	Frequency	Percentage
Gender – Male	252	65.97
Gender – Female	130	34.03
Position – Owner	213	55.76
Position – Manager	137	35.86
Position – Other	30	7.85
Education - Degree/HND	158	41.36
Education - Master's	84	21.99
Education – PhD	21	5.5
Education - Diploma/NCE	74	19.37
Education - Secondary/Other	35	9.16
Sector – Trading	139	36.39
Sector – Services	84	21.99
Sector – Manufacturing	77	20.16
Sector – Agriculture	64	16.75
Sector – Others	16	4.19
Years in Business - <5 Years	77	20.16
Years in Business – 5 to 10 Years	124	32.46
Years in Business – 11 to 15 Years	98	25.65
Years in Business - >15 Years	82	21.47
Firm Size – 10 to 49 Employees	296	77.49
Firm Size – 50 to 199 Employees	85	22.25

The demographic characteristics of the respondents, as summarized in Table 1, offer a robust foundation for analysing green marketing and sustainability practices among SMEs in Kaduna Metropolis.

Descriptive Statistics of Key Constructs

Descriptive statistics of variables of the study help to understand how respondents perceive the constructs in practice as seen in Table 2.

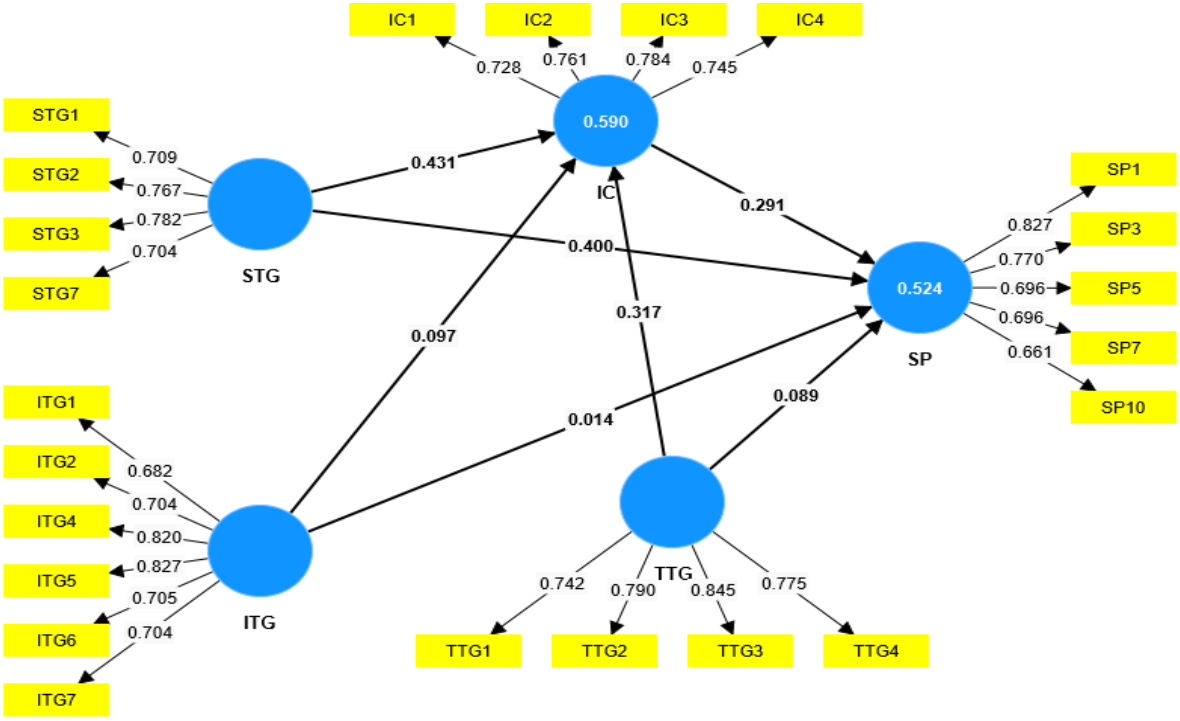
Table 4.8 Descriptive Statistics of Key Constructs

Variables	Mean	Standard Deviation
IGMO	3.84	0.62
SGMO	3.76	0.59
TGMO	3.69	0.64
Innovation Capability	3.87	0.58
Sustainable Performance	3.91	0.60

Table 2 presents the descriptive statistics of the study's key constructs, revealing that respondents generally expressed moderate to high agreement across all variables, with mean scores ranging from 3.69 to 3.91 on a 5-point Likert scale. Sustainable Performance had the highest mean (3.91, SD = 0.60), indicating that SMEs in Kaduna Metropolis are increasingly aligning their practices with sustainability goals in economic, environmental, and social dimensions. Innovation Capability followed closely (Mean = 3.87, SD = 0.58), suggesting a strong perception that SMEs possess the ability to innovate and adapt to dynamic market and environmental demands. Among the green marketing orientation constructs, Internal Green Marketing Orientation (IGMO) scored highest (Mean = 3.84, SD = 0.62), reflecting a strong internal commitment to sustainability through staff engagement and green policies. Strategic Green Marketing Orientation (SGMO) and Tactical Green Marketing Orientation (TGMO) recorded slightly lower means of 3.76 (SD = 0.59) and 3.69 (SD = 0.64) respectively, implying that while strategic alignment with sustainability is growing, short-term external marketing practices like green promotions are still evolving. These results highlight the prominence of innovation and internal sustainability efforts among SMEs and provide a robust base for further inferential analysis.

Assessment of Measurement Model

In structural equation modelling (SEM), assessing the measurement model is a critical first step to ensure that the constructs used in the study are both reliable and valid before testing hypothesized relationships (Hair et al., 2021). The measurement model evaluation focuses on examining the relationships between observed indicators and their respective latent constructs, ensuring that the constructs accurately reflect the theoretical concepts they represent. In Partial Least Squares Structural Equation Modelling (PLS-SEM), key criteria for assessing the measurement model include internal consistency reliability, convergent validity, and discriminant validity (Hair et al., 2023; Henseler et al., 2015). This process is essential in validating the psychometric properties of the scales used to measure green marketing orientations (IGMO, SGMO, TGMO), innovation capability, and sustainable performance. Ensuring a robust measurement model provides the foundation for reliable and meaningful interpretation of the structural relationships in the research model (Sarstedt et al., 2017).



As recommended by Hair et al. (2021), item loadings were expected to exceed 0.70, composite reliability (CR) to be above 0.70, and average variance extracted (AVE) to be greater than 0.50. The results indicated that all constructs met these thresholds: the CR values ranged from 0.83 to 0.88, and AVEs were all above the 0.50 benchmark, confirming internal consistency and convergent validity. Although a few items (e.g., ITG1 and SP10) had slightly lower loadings, they were retained due to their theoretical relevance and because their removal would not significantly improve the model. These results support the conclusion that the latent variables were well represented by their observed indicators, validating the use of the measurement model in the structural model estimation (Fornell & Larcker, 1981; Hair et al., 2021). Discriminant validity refers to the degree to which a construct is truly distinct from other constructs in a model, both conceptually and empirically. In this study, discriminant validity was assessed using the Heterotrait-Monotrait Ratio (HTMT), as proposed by Henseler et al. (2015).

Table 4.11 Discriminant Validity using HTMT ratio

	IC	ITG	SP	STG	TTG
IC					
ITG	0.763				
SP	0.845	0.674			
STG	0.868	0.798	0.895		
TTG	0.86	0.758	0.722	0.899	

As shown in Table 3, all HTMT values are below the critical threshold of 0.90, thereby confirming that discriminant validity is acceptable across all latent

constructs in the study. For instance, the HTMT between Innovation Capability (IC) and Internal Green Marketing (ITG) is 0.763, indicating moderate association without redundancy. Similarly, the HTMT between IC and Sustainable Performance (SP) is 0.845, and between STG and TTG is 0.899, both of which are within acceptable bounds. The highest observed HTMT value is 0.899 (between Strategic Green Marketing and Tactical Green Marketing), which is close to the threshold but still acceptable, suggesting these constructs are conceptually distinct yet closely related in practice.

These results imply that each construct in the model captures a unique aspect of the theoretical framework and is empirically distinguishable from others. Therefore, the measurement model demonstrates adequate discriminant validity, reinforcing the credibility of the constructs and supporting the robustness of the structural model estimations (Henseler et al., 2015; Hair et al., 2021).

Assessment of Structural Model

Following the validation of the measurement model, the structural model was evaluated to test the study's hypotheses.

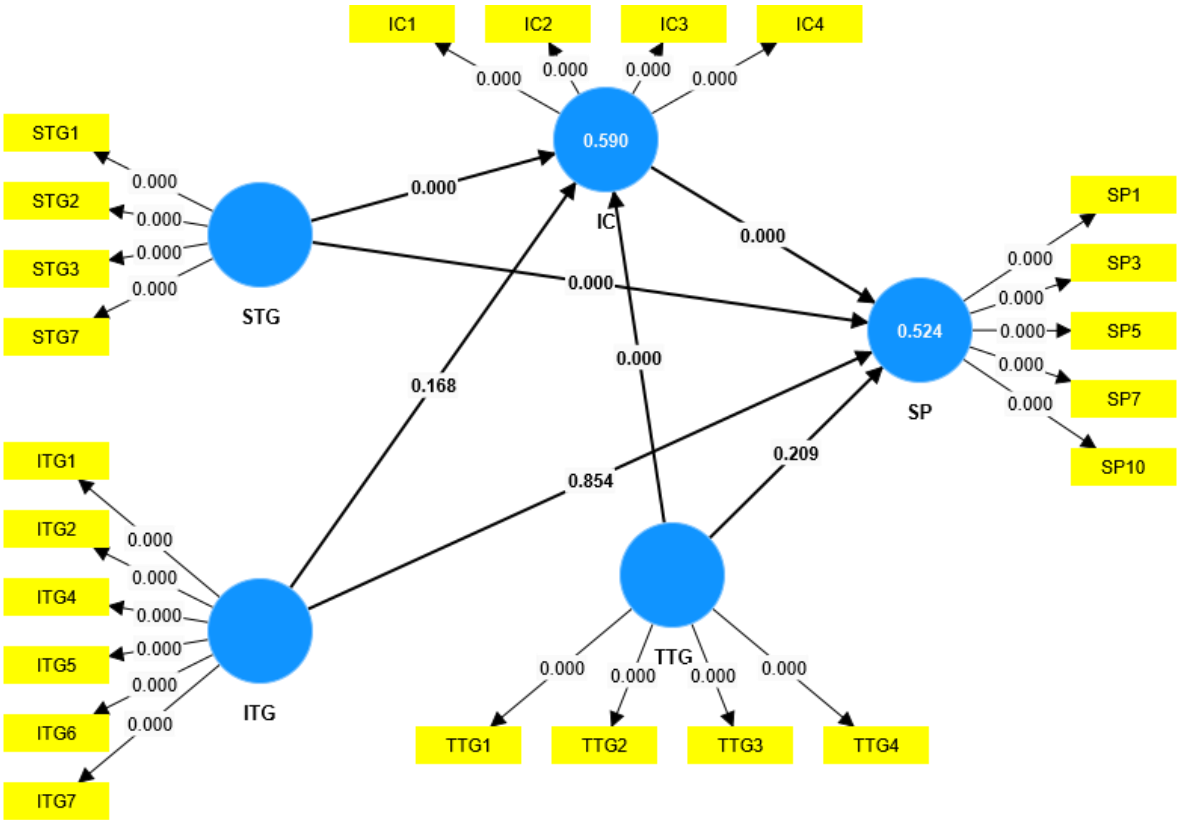


Figure 2. test of hypotheses

Table 4.12: Direct Relationships

Path	Original Sample (O)	T Statistics	P Values	Significance
IGMO > SP	0.014	0.185	0.854	Not Significant
SGMO > SP	0.400	4.295	0.000	Significant
TGMO > SP	0.089	1.257	0.209	Not Significant
IC > SP	0.291	3.697	0.000	Significant

For the first hypothesis (H_{01}) in Table 4.12, the relationship between IGMO and sustainable performance is found to be weak and statistically insignificant. The path coefficient is very low ($\beta = 0.014$) with a p-value of 0.854, suggesting that internal green marketing practices on their own do not contribute meaningfully to sustainability outcomes in SMEs. This result implies that while internal environmental efforts such as employee engagement and internal sustainability training may be present, they might not translate into improved environmental or economic performance unless complemented by external strategies or innovation capabilities. Therefore, H_{01} is not rejected. In contrast, the second hypothesis (H_{02}), which examines the influence of SGMO on sustainable performance, reveals a significant and positive relationship. The path coefficient is $\beta = 0.400$ and highly significant ($p < 0.001$). This means that when SMEs integrate sustainability into their long-term strategic planning such as developing environmentally friendly products, incorporating green supply chains, or setting sustainability goals they experience measurable improvements in sustainable performance. These results support the strategic importance of aligning organizational vision with green values and provide empirical backing to reject H_{02}. The third hypothesis (H_{03}) focuses on the impact of TGMO on sustainable performance. The results indicate a positive but statistically insignificant relationship ($\beta = 0.089$, $p = 0.209$). This suggests that while tactical green marketing practices like green advertising, eco-labelling, and environmentally friendly packaging may contribute to market visibility, they do not independently drive sustainable performance. This could be because tactical activities tend to be short-term and promotional in nature, and without integration into broader strategic and operational frameworks, their effects are limited. As such, H_{03} is not rejected. The final direct relationship tested in H_{04} investigates whether innovation capability influences sustainable performance. The analysis confirms a statistically significant and moderate positive effect ($\beta = 0.291$, $p < 0.001$). This finding validates the proposition that innovation capability plays a pivotal role in enhancing sustainability outcomes among SMEs. Firms that can generate, adapt, or implement new solutions are better positioned to meet environmental regulations, improve resource efficiency, and respond to consumer demand for green products. This supports the

resource-based view that internal capabilities such as innovation are crucial for building sustainable competitive advantage, thereby justifying the rejection of H_{04}.

Table 4 Mediation Effects

Path	Original Sample (O)	T Statistics	P Values	Significance
IGMO > IC > SP	0.097	1.379	0.168	Not Significant
SGMO > IC > SP	0.431	5.146	0.000	Significant
TGMO > IC > SP	0.317	4.580	0.000	Significant

The mediation analysis presented in Table 4 reveals varying effects of innovation capability in the relationship between green marketing orientations and sustainable performance. For H_{05}, which tests whether innovation capability mediates the link between Internal Green Marketing Orientation (IGMO) and sustainable performance, the results show a non-significant path ($\beta = 0.097$, $p = 0.168$). This suggests that internal green practices such as employee involvement and internal sustainability communication do not significantly enhance SMEs' capacity to innovate in ways that translate into improved sustainability outcomes. It implies that while internal practices may promote awareness and environmental values, they lack the strategic leverage necessary to drive meaningful innovation. Therefore, H_{05} is not rejected, highlighting the limited indirect influence of IGMO through innovation capability. Conversely, both H_{06} and H_{07} demonstrate statistically significant mediation effects. For H_{06}, the path from Strategic Green Marketing Orientation (SGMO) to innovation capability and then to sustainable performance is strong and highly significant ($\beta = 0.431$, $p < 0.001$), confirming that long-term strategic sustainability initiatives such as investment in green technology and environmentally conscious supply chains enhance innovation, which in turn improves sustainability outcomes. This validates the mediating role of innovation in converting strategic intentions into performance gains, and H_{06} is rejected. Similarly, H_{07} confirms a significant mediation effect between Tactical Green Marketing Orientation (TGMO) and sustainable performance via innovation ($\beta = 0.317$, $p < 0.001$). Thus, H_{07} is also rejected, supporting the notion that both strategic and tactical green efforts can drive sustainability indirectly when they foster innovation.

The findings of this study provide nuanced insights into how different dimensions of green marketing orientation internal, strategic, and tactical interact with innovation capability to influence sustainable performance among SMEs in Kaduna Metropolis. Unlike previous studies by El-Kassar and Singh (2019) and Rashid et al. (2023), internal green marketing orientation (IGMO) showed no significant impact on sustainable performance, suggesting that internal environmental practices in Kaduna SMEs may not yet be robust or institutionalized enough to translate into measurable outcomes. In contrast, strategic green marketing orientation (SGMO) demonstrated a strong direct and indirect

effect on sustainable performance, in line with Leonidou et al. (2013), Chen and Chang (2013), and Wang and Ahmed (2021), reinforcing the view that long-term environmental planning combined with innovation capability enhances competitiveness and sustainability. Tactical green marketing orientation (TGMO), while not significant on its own, influenced sustainability indirectly through innovation, echoing findings by Chen et al. (2020) and Peattie and Charter (2003), who emphasized that tactical tools must align with innovation to generate value. The independent influence of innovation capability further supports the Resource-Based View (RBV), aligning with Saunila (2016) and Zhang et al. (2020), as it was shown to be a critical asset enabling SMEs to adapt and improve sustainability performance.

5. Conclusion and Recommendation

Conclusion

The study concludes that sustainable performance among SMEs cannot be achieved through fragmented or superficial green marketing efforts alone; instead, it requires the integration of sustainability into the firm's long-term strategic vision and core operations. While internal awareness initiatives and tactical actions such as eco-labelling or employee training are important, they must be complemented by a deliberate strategic orientation that aligns environmental goals with corporate mission and decision-making processes. The findings underscore that innovation capability serves as a vital bridge, enabling SMEs to transform green intentions into actionable innovations ranging from eco-friendly products to efficient resource use that drive both environmental and economic value.

Recommendation

Strategic Green Marketing Orientation (SGMO) is the most significant influence on sustainable performance, reaffirming the importance of proactive and planned environmental strategies over reactive or short-term promotional activities. For SMEs in Kaduna Metropolis and similar emerging markets, the implication is clear: lasting sustainability and competitive advantage lies in fostering innovation ecosystems, building organizational capacity, and embedding green values into long-term strategic planning to move beyond compliance and toward sustainability leadership. Using such an ecosystem will enhance more to the Strategic, Internal, and Tactical green marketing orientations should adopt the use of digital platform in creating an innovative mind-set.

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