

DETERMINANTS OF MARKETING INNOVATIONS IMPLEMENTATION AMONG MSMEs IN RESOURCE-CONSTRAINED ENVIRONMENTS: EVIDENCE FROM NORTHEAST NIGERIA

¹Inalegwu Friday Alapa (PhD), ²Ugbe Alexander Ugbe (PhD), ³Alidu John & ⁴Terkaa Felix Alakali

¹Department of Management, Nigerian Army University Biu, Borno State.

²Department of Business Administration, Prince Audu Abubakar University Anyigba,, Kogi State.

³Department of Marketing, Benue State Polytechnic, Ugbokolo.

⁴Department of Business Administration, Enugu State University of Science & Technology (ESUT), Enugu.

Correspondence: fridayinalegwu@gmail.com; +2348136634542

Abstract

Marketing innovation is increasingly recognized as a cost-effective strategy for MSMEs in resource-constrained environments. However, limited attention has been given to the drivers that enable its implementation in such contexts. This study examines the determinants of marketing innovation implementation among micro, small and medium enterprises (MSMEs) in Northeast Nigeria. Specifically, it investigates the influence of entrepreneurial orientation, digital capability and market intelligence capability on marketing innovation implementation among registered MSMEs in Bauchi, Gombe, and Borno States. A cross-sectional survey design was adopted. The population comprised 73,327 MSMEs, from which a minimum sample size of 398 was derived using the formula proposed by . To address potential non-response, the sample was increased by 10% in line with methodological recommendations of , yielding a final sample of 438. Bowley's proportional allocation and a multi-stage sampling technique were employed to ensure representativeness. Data were collected via structured questionnaires and analyzed using multiple regressions. Findings reveal that entrepreneurial orientation, digital capability and market intelligence capability have significant positive effects on marketing innovation implementation. The study concludes that firm-level capabilities drive marketing innovation in resource-constrained environments. It recommends that MSMEs strengthen entrepreneurial orientation, invest in digital capabilities and enhance market intelligence to improve innovation outcomes and competitiveness.

Keywords: marketing innovation, entrepreneurial orientation, digital capability, market intelligence capability, MSMEs, resource-constrained environments

Introduction

Micro, Small and Medium Enterprises (MSMEs) are widely acknowledged as critical drivers of economic development globally, accounting for a substantial share of employment, business activity and gross domestic product (United Nations Office for Partnerships, 2025; World Economic Forum, 2026). They play a pivotal role in promoting inclusive growth, poverty reduction and economic diversification, particularly in developing economies where they dominate the private sector (Organisation for Economic Co-operation and Development [OECD], 2022; World Bank, 2023). Across Africa, MSMEs constitute over 90% of businesses and generate more than 80% of

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employment, underscoring their importance in fostering entrepreneurship, innovation and economic resilience (United Nations Economic Commission for Africa [UNECA], 2020).

In Nigeria, MSMEs represent approximately 96% of businesses and contribute significantly to employment and national output (SMEDAN & National Bureau of Statistics [NBS], 2021). Despite their economic relevance, MSMEs operate under severe constraints, including limited access to finance, infrastructural deficiencies, regulatory bottlenecks and macroeconomic instability (Mbazulike *et al.*, 2023; Obi & Yusuf, 2023). These challenges are particularly acute in Northeast Nigeria, where insecurity, disrupted supply chains and weak institutional support further hinder business operations and growth (PwC, 2024). Such conditions create resource-constrained environments in which firms must rely on innovative and cost-effective strategies to remain competitive (Sharabati *et al.*, 2024).

Within this context, marketing innovation has emerged as a critical pathway for MSME survival and growth. Compared to capital-intensive technological innovations, marketing innovation such as digital promotion, creative branding and adaptive pricing strategies offers relatively accessible means for enhancing customer engagement and sustaining market presence (Bala, 2025). However, the successful implementation of marketing innovation depends largely on firm-specific capabilities and strategic orientations.

Drawing on the Resource-Based View (RBV), this study conceptualizes organizational capabilities as key determinants of marketing innovation implementation. RBV posits that firms achieve sustainable competitive advantage through valuable, rare, inimitable and non-substitutable resources and capabilities (Barney, 1991). In this regard, entrepreneurial orientation, digital capability, and market intelligence capability represent critical strategic resources that enable firms to identify opportunities, leverage digital technologies and respond effectively to changing market conditions (Covin & Wales, 2019; Kotler *et al.*, 2021; Sharabati *et al.*, 2024). These capabilities are particularly vital for MSMEs operating in uncertain and resource-constrained environments, where strategic flexibility and informed decision-making are essential for competitiveness (Narver & Slater, 1990; Zhou *et al.*, 2009).

Despite these insights, empirical evidence on marketing innovation implementation in fragile, resource-constrained regions such as Northeast Nigeria remains limited. Existing studies have

predominantly emphasized technological and product innovation, with insufficient attention to marketing innovation in developing contexts (Abubakar & Adhama, 2020; Audretsch & Guenther, 2023; Noer *et al.*, 2025). This creates a notable empirical gap in understanding the determinants of marketing innovation implementation among MSMEs operating in environments characterized by heightened vulnerability and operational constraints (Williams, 2025). Against this backdrop, this study investigates the determinants of marketing innovation implementation among MSMEs in resource-constrained environments, with specific emphasis on the roles of entrepreneurial orientation, digital capability and market intelligence capability in Northeast Nigeria.

The study is grounded in the Resource-Based View (RBV) and Dynamic Capability Theory (DCT) to explain how organizational capabilities shape marketing innovation implementation among MSMEs. While RBV emphasizes the strategic value of resource endowments, DCT extends this logic by explaining how such resources are reconfigured in volatile and uncertain environments. RBV posits that firms achieve sustainable competitive advantage by leveraging resources that are valuable, rare, inimitable and non-substitutable (VRIN), including organizational capabilities, knowledge, and skills (Barney, 1991; Newbert, 2007). Within this framework, entrepreneurial orientation, digital capability and market intelligence capability can be conceptualized as strategic assets that enhance firms' ability to implement marketing innovation despite resource constraints. However, RBV has been criticized for its static orientation and limited explanatory power in dynamic contexts, particularly in emerging economies where resource scarcity, institutional voids and environmental turbulence are prevalent (Priem & Butler, 2001; Kraaijenbrink *et al.*, 2010). Its inward-looking focus also underplays the role of external networks, institutional pressures and market dynamism - factors that are especially salient for MSMEs operating in fragile regions.

DCT complements RBV by emphasizing the firm's capacity to sense opportunities, seize them and reconfigure resources in response to environmental change (Teece *et al.*, 1997; Barreto, 2010). In resource-constrained settings such as Northeast Nigeria, dynamic capabilities enable MSMEs to adapt marketing strategies, leverage digital tools and utilize market intelligence to respond to shifting consumer demands and institutional uncertainties (Ambrosini *et al.*, 2009; Teece, 2020). Nonetheless, DCT is not without limitations. Critics argue that it suffers from conceptual ambiguity, measurement challenges and tautological tendencies, as capabilities are often inferred from successful outcomes

rather than independently observed (Arend & Bromiley, 2009; Barreto, 2010). Additionally, the theory provides limited guidance on how such capabilities can be developed in highly constrained environments where firms face severe financial, infrastructural and institutional limitations.

Despite these limitations, integrating RBV and DCT offers a more comprehensive theoretical lens. RBV explains the strategic importance of internal resources, while DCT accounts for the processes through which these resources are mobilized and transformed in dynamic environments. This integrated perspective is particularly relevant for MSMEs in Northeast Nigeria, where entrepreneurial orientation, digital capability and market intelligence capability function not only as strategic resources but also as dynamic enablers of marketing innovation implementation, thereby enhancing firm resilience and performance under conditions of uncertainty.

Entrepreneurial orientation and marketing innovation implementation

Entrepreneurial orientation (EO), encompassing innovativeness, Proactiveness and risk-taking, is widely recognized as a strategic capability that enables firms to identify and exploit market opportunities, experiment with novel approaches, and enhance competitiveness (Wales *et al.*, 2013; Covin & Lumpkin, 2011). Recent studies indicate that EO positively influences innovation outcomes in MSMEs, particularly in resource-constrained and dynamic environments (Ogbaini *et al.*, 2024; Iherobiem *et al.*, 2023). While most research has focused on product or technological innovation, emerging evidence highlights EO's critical role in marketing innovation implementation, enabling firms to adopt new pricing, promotion, distribution, and customer engagement strategies (Masuku *et al.*, 2023; Susanto *et al.*, 2023). Entrepreneurially oriented MSMEs are more likely to integrate digital tools, leverage market intelligence, and reconfigure limited resources to implement innovative marketing practices effectively, thereby improving market visibility and competitive performance (Sok *et al.*, 2017; Saura *et al.*, 2023). This relationship is especially salient in developing economies, where resource constraints make strategic orientation a key determinant of innovation adoption. Based on these findings, the study hypothesizes that:

H₁: Entrepreneurial orientation has a significant positive effect on marketing innovation implementation among MSMEs.

Digital capability and marketing innovation implementation

Digital capability refers to a firm's ability to effectively adopt and integrate digital technologies, platforms, and tools to support strategic activities, including marketing (Wielgos *et al.*, 2021). In contemporary business environments, digital capability has emerged as a key driver of marketing innovation, especially for MSMEs operating under resource constraints. Empirical evidence shows that firms with stronger digital capabilities are more likely to implement innovative marketing practices such as online promotion, social media engagement, personalized customer interactions, and e-commerce solutions that enhance market reach and performance (Wielgos *et al.*, 2021; Sharabati *et al.*, 2024; Noer *et al.*, 2025). Digital capability enables firms to integrate digital technologies into strategic activities, thereby improving customer engagement, market intelligence, and operational efficiency (Wielgos *et al.*, 2021).

For MSMEs in resource-constrained environments, digital tools provide cost-effective alternatives to traditional marketing, allowing them to overcome infrastructural limitations and expand their competitiveness (Sharabati *et al.*, 2024). Saura *et al.* (2023) found that digital marketing capabilities significantly predicted marketing innovation adoption in SMEs across multiple countries. Similarly, Mathews *et al.* (2021) reported that SME digital capabilities enabled more frequent use of digital channels and analytics for innovative marketing strategy implementation. Recent research also demonstrates that digital capability is positively associated with innovation outcomes in developing economies, where digital technologies allow small firms to overcome infrastructure and cost barriers (Dwivedi *et al.*, 2021; Zhang *et al.*, 2023). Collectively, these studies underscore that digital capability provides the technological foundation that supports effective marketing innovation implementation in MSMEs, leading to the following hypothesis:

H₂: Digital capability has a significant positive effect on marketing innovation implementation among MSMEs.

Market intelligence capability and marketing innovation implementation

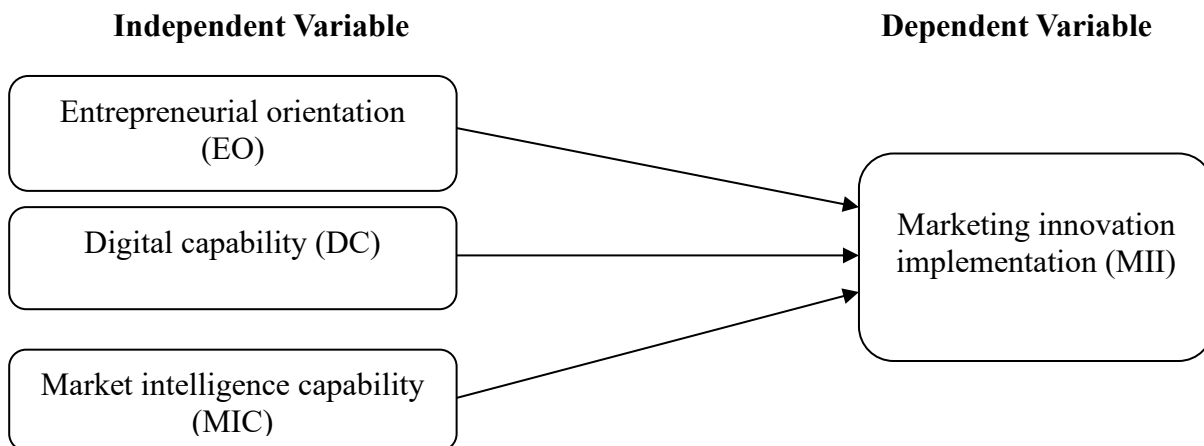
Market intelligence capability refers to a firm's ability to systematically collect, analyze, and apply information about customers, competitors, and market dynamics to inform strategic decisions (Hult *et al.*, 2005). In the context of MSMEs, this capability is particularly important for identifying unmet customer needs, anticipating competitive moves, and tailoring innovative marketing strategies

to dynamic market conditions. Recent empirical research provides strong evidence that market intelligence capability is a significant antecedent of marketing innovation implementation. For example, Gómez-Prado *et al.* (2022) found that start-ups in Peru leveraged market intelligence to enhance product and marketing innovation, thereby improving international competitiveness. Similarly, Wielgos *et al.* (2021) showed that market intelligence capability strengthens digital business capability, which in turn drives innovative marketing approaches such as personalization and digital channel optimization. Soykoth *et al.* (2025) further confirmed through a large-scale quantitative review that market intelligence is increasingly linked to marketing innovation outcomes, particularly in data-driven environments.

In the SME context, Sharabati *et al.* (2024) highlighted that market intelligence capability enables firms to adopt innovative practices like social media engagement and e-commerce solutions, reducing uncertainty and enhancing competitiveness in turbulent markets. Collectively, these findings validate the assertion that market intelligence capability is not merely supportive but a critical antecedent of marketing innovation implementation. Therefore, the following hypothesis is proposed: *H₃: Market intelligence capability has a significant positive effect on marketing innovation implementation among MSMEs.*

Figure 1

Conceptual framework showing the determinants of marketing innovation implementation among MSMEs in Northeast Nigeria



Source: Adapted from Alshanfari and Jantan (2022), Covin and Wales (2019), Dermonde *et al.* (2024).

The conceptual framework above proposes that marketing innovation implementation among MSMEs in Northeast Nigeria is influenced by three key strategic capabilities: Entrepreneurial orientation, digital capability and market intelligence capability. Entrepreneurial orientation reflects the firm's innovativeness, Proactiveness and risk-taking behaviour which encourage the adoption of innovative marketing practices. Furthermore, digital capability depicts the firm's ability to leverage digital tools such as social media to support marketing innovation. Finally, market intelligence capability implies the organization's ability to gather, critically analyze and then utilize market information relating to customers, clients, partners, competitor and trends to guide innovative marketing decisions. Together, these capabilities are expected to positively and significantly influence the implementation of marketing innovation among MSMEs operating in resource-constrained environment such as Northeast Nigeria.

Methods

A cross-sectional survey design was employed to empirically examine the determinants of marketing innovation implementation among MSMEs in Northeast Nigeria. This design was considered appropriate because it enables the collection of data at a single point in time from a large number of respondents, thereby facilitating the examination of relationships between organizational capabilities and innovation outcomes (Creswell & Creswell, 2017). The population comprised all registered MSMEs in Bauchi, Gombe and Borno States, totalling 73,327 enterprises (SMEDAN & NBS, 2021). Given the large population, the sample size was determined using the formula proposed by Yamane (1967), which yielded a minimum sample of 398. To account for potential non-response, the sample size was increased by 10% in line with established methodological recommendations (Israel, 1992), resulting in a final sample size of 438 respondents. To ensure proportional representation, Bowley's proportional allocation technique was applied. Accordingly, the sample was distributed as follows: Bauchi State (167 respondents), Gombe State (155 respondents), and Borno State (116 respondents). This proportional allocation enhances the representativeness and generalizability of the study findings.

A multi-stage sampling technique was adopted to ensure adequate coverage of the study area. In the first stage, purposive sampling was used to select the three states based on the concentration of MSMEs and the level of commercial activity. In the second stage, cluster sampling was employed to

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identify major urban centers and towns with high MSME presence. In the final stage, simple random sampling was used to select respondents who were available, willing to participate and possessed relevant experience. This multi-stage approach was appropriate given the wide geographical scope of the study and practical constraints such as time, cost and accessibility.

Structured questionnaires were administered to owners and managers of MSMEs, as they possess first-hand knowledge of the firm's strategic and operational practices. The instrument was designed based on validated scales from prior literature for the key constructs: entrepreneurial orientation, digital capability, market intelligence capability and marketing innovation implementation (Covin & Wales, 2019; Sharabati *et al.*, 2024; Noer *et al.*, 2025). To ensure content validity, the questionnaire was reviewed by experts in entrepreneurship and SME research and pre-tested with a small subset of respondents, resulting in minor adjustments to enhance clarity and comprehension. Pre-testing is a standard procedure in survey design to refine instruments and reduce measurement error (Saunders *et al.*, 2011).

Collected data were analyzed using multiple regression analysis, which is appropriate for testing the hypothesized relationships between multiple independent variables and a single dependent variable (Hair *et al.*, 2021).

Results and Discussion

Response Rate

Out of the 438 questionnaires administered, 405 were properly completed and returned, yielding a response rate of 92.5%. This rate is considered exceptionally high, as survey research typically reports average response rates around 52%, with 60% often regarded as acceptable (Baruch & Holtom, 2008). Achieving a rate above 90% substantially reduces the risk of nonresponse bias and enhances the reliability and validity of the findings, since higher participation strengthens representativeness and confidence in the data (Holtom *et al.*, 2022).

Demographic Statistics

The sample is predominantly male (61.2%), indicating gender imbalance in MSME ownership/management within the study area. Respondents are largely within the 25-44 age bracket, reflecting a concentration in prime entrepreneurial years and suggesting strong engagement in strategic decision-making (Babbie, 2020). Educational attainment is mainly at secondary and diploma

levels, with limited postgraduate representation, implying moderate human capital that may constrain the adoption of advanced marketing practices. Sectoral distribution is skewed toward trading and services, with minimal participation in manufacturing, consistent with the low entry barriers typical of developing economies (World Bank, 2020). Firm age is largely under 10 years, indicating a predominance of young enterprises. This suggests a dynamic yet potentially vulnerable MSME landscape, while still capturing variation across early-stage and more established firms.

Descriptive statistics of the study variables

Table 1: Descriptive statistics of determinants of marketing innovation implementation

Dimensions/Variables	Standard		Cronbach's
	Mean	Deviation	Alpha
EO	3.9685	.71500	.894
DC	3.9864	.71438	.888
MIC	3.9432	.72792	.897
MII	3.9719	.68412	.882

Source: SPSS Output (2026).

Table 1 presents the descriptive statistics and reliability estimates for the study variables. The results indicate that all constructs recorded relatively high mean scores, suggesting a strong presence of the examined phenomena among the respondents. Specifically, Digital Capability (DC) has the highest mean score (M = 3.9864, SD = 0.71438), closely followed by Marketing Innovation Implementation (MII) (M = 3.9719, SD = 0.68412), Entrepreneurial Orientation (EO) (M = 3.9685, SD = 0.71500) and Market Intelligence Capability (MIC) (M = 3.9432, SD = 0.72792). The closeness of the mean values indicates a relatively consistent perception of these constructs across respondents. The standard deviation values, which range from 0.68412 to 0.72792, suggest moderate variability in responses, implying that respondents' views are fairly homogeneous with no extreme dispersion. This enhances the stability and interpretability of the data. Furthermore, the reliability of the measurement scales, as assessed using Cronbach's alpha, ranges from 0.882 to 0.897 across all variables. These values exceed the commonly recommended threshold of 0.70, indicating high internal consistency and reliability of the constructs (Cronbach, 1951; Hair *et al.*, 2019). This implies that the items used to measure each construct are consistent and reliable for further statistical analysis.

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Overall, the results demonstrate that the data are robust, with strong internal consistency and relatively uniform responses, thereby providing a solid foundation for subsequent inferential analysis.

Table 2: Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.832a	.692	.689	.38123	1.839

a. Predictors: (Constant), MIC, EO, DC

b. Dependent Variable: MII

The regression results indicate a strong and statistically significant relationship between the predictors and the dependent variable. Specifically, the model produced a multiple correlation coefficient (R) of 0.832, suggesting a strong positive association between market intelligence capability (MIC), entrepreneurial orientation (EO) and digital capability (DC) with marketing innovation implementation (MII). The coefficient of determination ($R^2 = 0.692$) shows that approximately 69.2% of the variation in MII is explained by the combined influence of MIC, EO and DC. The adjusted R^2 value of 0.689 further attests to the robustness of the model, indicating minimal shrinkage between the sample and population estimates and suggesting a strong potential for generalizability to other similar samples. Additionally, the Durbin-Watson statistic of 1.839 is close to the ideal value of 2, which indicates the absence of autocorrelation in the residuals. This suggests that the assumption of independent errors is satisfied, thereby enhancing the reliability of the regression estimates. The Durbin-Watson test is widely recognized as a standard diagnostic for detecting serial correlation in regression residuals, with values near 2 implying independence (Durbin & Watson, 1950; Field, 2018). Overall, the findings demonstrate that MIC, EO and DC collectively provide a strong and reliable explanation of variations in marketing innovation implementation among the sampled firms.

Table 3: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	130.798	3	43.599	299.983	.000 ^b
	Residual	58.281	401	.145		
	Total	189.079	404			

a. Dependent Variable: MII

b. Predictors: (Constant), MIC, EO, DC

The ANOVA results in table 3 demonstrate that the overall regression model is statistically significant and provides a good fit for the data. The regression model explains a substantial portion of the variation in the dependent variable, marketing innovation implementation (MII), as indicated by the regression sum of squares (SSR = 130.798) relative to the total sum of squares (SST = 189.079). The F-statistic of 299.983 with a significance level of $p < 0.001$ indicates that the model is highly significant. This implies that the independent variables - (MIC, EO and DC) jointly have a statistically significant effect on MII. In other words, the model performs significantly better than a model with no predictors. Furthermore, the relatively small residual sum of squares (58.281) and mean square error (0.145) suggest that the model has a good predictive accuracy, with relatively low unexplained variation. Overall, the ANOVA results confirm that the regression model is valid and that MIC, EO and DC collectively make a meaningful contribution to explaining variations in marketing innovation implementation.

Table 4: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance VIF
1	(Constant)	.486	.118		4.120	.000	
	EO	.310	.041	.324	7.485	.000	.411 2.434
	DC	.256	.044	.267	5.854	.000	.368 2.716
	MIC	.313	.040	.333	7.849	.000	.426 2.348

a. Dependent Variable: MII

The coefficients table 4 provides insight into the individual contribution of each predictor variable to marketing innovation implementation (MII). The constant term ($\beta = 0.486$, $p < 0.001$) indicates that when all independent variables - entrepreneurial orientation (EO), digital capability (DC) and market intelligence capability (MIC) are held constant at zero, MII would still have a baseline value of 0.486. This value is statistically significant, suggesting that other factors not captured in the model may also contribute to MII. All three independent variables have positive and statistically significant effects on MII.

Specifically, entrepreneurial orientation (EO) has a positive coefficient ($\beta = 0.310$, $p < 0.001$), indicating that an increase in EO leads to a corresponding increase in marketing innovation implementation. Similarly, digital capability (DC) ($\beta = 0.256$, $p < 0.001$) significantly enhances MII, suggesting that firms with stronger digital capabilities are more likely to implement marketing innovations. Marketing intelligence capability (MIC) also shows a strong positive effect ($\beta = 0.313$, $p < 0.001$), implying that firms with higher internal intelligence capabilities are better positioned to implement marketing innovations.

Based on the standardized coefficients (Beta), MIC ($\beta = 0.333$) has the strongest relative influence on MII, followed closely by EO ($\beta = 0.324$), while DC ($\beta = 0.267$) has a comparatively lower, though still substantial, effect. This suggests that while all variables are important, MIC is the most influential predictor in the model. Overall, the results indicate that EO, DC and MIC each make significant and positive contributions to marketing innovation implementation, with MIC emerging as the most dominant predictor among the three.

Collinearity diagnostics show that tolerance values range from 0.368 to 0.426 and variance inflation factors (VIF) range from 2.348 to 2.716, all within acceptable thresholds (Tolerance > 0.10 ; VIF < 5). This indicates the absence of multicollinearity concerns and confirms that the independent variables contribute uniquely to the model.

Test of hypotheses

Table 4 presents the regression results examining the effects of EO, DC and MIC on MII among MSMEs. The findings indicate that all three predictors exert positive and statistically significant effects on MII. Specifically, EO has a significant positive effect on marketing innovation implementation ($\beta = 0.324$, $t = 7.485$, $p < 0.001$), thereby supporting the first hypothesis. This

suggests that firms with stronger entrepreneurial orientation are more likely to implement innovative marketing practices. Similarly, DC demonstrates a significant positive influence on MII ($\beta = 0.267$, $t = 5.854$, $p < 0.001$), leading to the acceptance of the second hypothesis. This implies that enhanced digital capabilities facilitate the adoption and execution of marketing innovations. Furthermore, MIC exhibits the strongest positive effect among the predictors ($\beta = 0.333$, $t = 7.849$, $p < 0.001$), confirming the third hypothesis and indicating that firms with superior market intelligence capabilities are better positioned to implement marketing innovations effectively.

Discussion of findings

The findings of this study demonstrate that entrepreneurial orientation (EO), digital capability (DC) and market intelligence capability (MIC) are significant determinants of marketing innovation implementation (MII) among MSMEs in Northeast Nigeria. Collectively, these results reinforce the argument that marketing innovation is capability-driven, particularly in resource-constrained and highly uncertain business environments. The positive effect of EO on MII supports the view that entrepreneurial firms are more proactive, opportunity-seeking and innovation-oriented, thereby enhancing their ability to implement novel marketing practices. This aligns with prior studies that associate EO with improved innovation outcomes in dynamic SME contexts (Iherobiem *et al.*, 2023; Ogbaini *et al.*, 2024). Recent evidence further extends EO beyond product and technological innovation to marketing innovation, including digital promotion, pricing innovation and customer engagement strategies (Masuku *et al.*, 2023; Susanto *et al.*, 2023). However, contrary evidence suggests that EO may not always translate into innovation outcomes in contexts where firms lack complementary capabilities such as knowledge integration and managerial capacity (Matsuo, 2022; Saunila, 2014). This implies that EO's effect is contingent rather than universal.

Similarly, the significant influence of DC confirms the growing importance of digital transformation in enabling marketing innovation. Digital capabilities enhance firms' ability to leverage cost-effective tools, expand market reach and respond to customer needs in real time (Saura *et al.*, 2023; Sharabati *et al.*, 2024). Prior studies also show that digital channels, analytics and online engagement tools help MSMEs overcome infrastructural and geographic constraints in developing economies (Mathews *et al.*, 2021; Zhang *et al.*, 2023). Nevertheless, contrasting evidence indicates that digital capability may not automatically yield innovation outcomes when firms lack absorptive

capacity, strategic alignment or skilled human capital to effectively utilize digital tools (Cenamor *et al.*, 2019). This highlights the risk of superficial digital adoption without corresponding innovation impact.

Furthermore, the positive effect of MIC underscores the critical role of information-driven decision-making in marketing innovation. Market intelligence enables firms to reduce uncertainty, anticipate customer needs and develop data-driven marketing strategies (Gómez-Prado *et al.*, 2022; Wielgos *et al.*, 2021; Soykoth *et al.*, 2025). In SMEs, MIC has been linked to enhanced adoption of digital marketing practices such as e-commerce and social media engagement (Sharabati *et al.*, 2024). However, contrary perspectives suggest that in the absence of analytical capability and structured data systems, market intelligence may lead to information overload rather than strategic insight (Arnold *et al.*, 2023; Bawden & Robinson, 2009). This reinforces the importance of interpretive capability in converting information into actionable innovation.

Overall, the findings indicate that EO, DC and MIC jointly constitute complementary capabilities that drive marketing innovation implementation. While EO provides the strategic intent, DC enables technological execution and MIC ensures market responsiveness. However, the effectiveness of these capabilities is context-dependent and influenced by the availability of complementary organizational resources. From a theoretical standpoint, the results reinforce the integration of the Resource-Based View and Dynamic Capability Theory by demonstrating that possessing resources alone is insufficient; firms must also possess the capability to integrate, adapt, and deploy them effectively in dynamic environments. In the context of Northeast Nigeria, where MSMEs operate under severe resource constraints and institutional instability, the synergy of EO, DC and MIC is particularly critical for sustaining marketing innovation and competitive resilience.

Conclusion and Recommendations

This study examined the influence of Entrepreneurial Orientation (EO), Digital Capability (DC) and Market Intelligence Capability (MIC) on Marketing Innovation Implementation (MII) among MSMEs in Northeast, Nigeria. The findings provide strong empirical evidence that all three predictors exert significant positive effects on marketing innovation implementation. Specifically, EO enhances firms' proactive and opportunity-driven behaviour, enabling them to embrace innovative marketing practices. Similarly, DC equips MSMEs with the technological capacity to adopt and

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implement cost-effective and dynamic marketing strategies, while MIC strengthens firms' ability to understand market dynamics and translate insights into actionable innovation. Collectively, the study concludes that marketing innovation implementation among MSMEs is fundamentally driven by a combination of entrepreneurial mindset, digital readiness and market intelligence capabilities. These factors jointly reinforce firms' competitiveness and adaptability in increasingly dynamic and resource-constrained business environments.

Based on the findings the following recommendations are proposed:

- i. MSME owners and managers should deliberately foster entrepreneurial mindsets by promoting risk-taking, Proactiveness and opportunity-seeking behaviour. Structured entrepreneurship development programs and targeted policy interventions can further strengthen these attributes, thereby equipping firms to design and implement innovative marketing strategies that enhance competitiveness in dynamic markets.
- ii. MSMEs are encouraged to invest in digital tools, platforms and workforces training that enable the effective deployment of digital marketing strategies. To reduce adoption barriers, government agencies and support institutions should expand digital literacy initiatives and provide subsidized access to relevant technologies. Such measures will empower MSMEs to leverage digitalization for cost-effective customer engagement and market expansion.
- iii. MSMEs should institutionalize mechanisms for continuous market scanning, customer feedback analysis and competitor monitoring. Developing internal systems or adopting affordable analytics tools will allow firms to transform market insights into actionable marketing innovations. By embedding intelligence-driven practices, MSMEs can improve responsiveness, reduce uncertainty and sustain competitiveness in rapidly changing business environments.

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