



## **Background to the Study**

In both established and developing economies, small and medium-sized enterprises (SMEs) are an essential component of economic growth, especially in nations like Nigeria where they play a major role in reducing poverty, creating jobs, and generating money. Due to their adaptability, capacity for innovation, and capacity to boost regional economic activity, SMEs are commonly recognized as growth engines (Oyekan, 2022). Nevertheless, despite their significance, a large number of SMEs in Nigeria continue to confront obstacles that limit their expansion and sustainability, such as insufficient infrastructure, restricted market reach, and limited access to financing.

The operating environment of SMEs has changed in recent years due to the quick spread of digital technologies, particularly social media and e-commerce. Social media sites like Facebook, Instagram, WhatsApp, and Twitter have become effective marketing, consumer interaction, and brand visibility tools. Research like Gbandi and Iyamu (2022) and Kabir and Ajede (2023) shows that social media marketing greatly improves the performance of SMEs by boosting consumer connection, raising awareness, and promoting sales growth. In a similar vein, Lawal et al. (2022) contend that social media's accessibility, affordability, and broad reach make it a desirable tactic for SMEs looking for a competitive edge in fast-paced marketplaces. Beyond social media, the rise of e-commerce has changed business practices even more by allowing SMEs to reach a wider audience and overcome geographical obstacles. E-commerce systems improve supply chain management efficiency, lower transaction costs, and enable online transactions. According to empirical data, digital platforms may greatly lower the cost of international transactions and increase SMEs' market reach outside regional boundaries (Ogbevoen, 2024). Enejo and Ojabo (2024) discovered that e-commerce adoption is growing among SMEs in Nigeria, with many companies using online platforms to boost operational effectiveness and sales success.

SMEs now have more options to integrate marketing and transactional skills inside a single digital ecosystem thanks to the combination of social media and e-commerce, often known as social commerce. This convergence improves consumer experience and corporate growth by enabling smooth purchase procedures, tailored marketing, and real-time customer connection. According to recent research (Titilayo & Samour, 2025), brand recognition, purchase intention, and total SME development in Nigeria are all strongly impacted by social media-driven interaction. Even though the amount of research on digitalization and SME performance is expanding, most of the studies that have been done in Nigeria have concentrated on specific areas or discrete elements of digital adoption, including e-commerce or social media marketing. For example, previous studies have looked at SMEs in Benin City (Gbandi & Iyamu, 2022) and Lagos State (Erekosima, 2022), with little comparative study across other metropolitan centres. As a result, there is still a lack of knowledge on how social media and e-commerce together affect the expansion of SMEs in Nigeria's various economic contexts. By analyzing the relationship between social media use, e-commerce adoption, and the expansion of SMEs in three significant Nigerian cities—Lagos, Kaduna, and Port Harcourt—this study aims to close this gap. These cities offer a solid foundation for comparative study as they reflect various technical, cultural, and economic situations. By

combining these aspects, the study adds to the expanding conversation on SME growth and digital transformation by providing empirical insights and policy recommendations for boosting SME competitiveness in Nigeria's developing digital economy.

The study was guided by the following specific research objectives.

1. To examine the effect of social media usage on the growth of SMEs in Lagos, Kaduna, and Port Harcourt cities in Nigeria.
2. To assess the impact of e-commerce adoption on the performance and expansion of SMEs in the selected cities.
3. To analyze the combined influence of social media and e-commerce (social commerce) on SME growth across Lagos, Kaduna, and Port Harcourt.
4. To compare the extent and effectiveness of digital platform utilization among SMEs across the three cities in relation to their growth outcomes.

## **Literature Review**

### **Conceptual Clarification**

This subsection clarifies the core concepts underpinning this study, namely social media, e-commerce, SMEs, and SME growth.

### **Social Media**

Internet-based platforms that allow users to create, share, and exchange material, ideas, and information within virtual communities and networks are referred to as social media. Kaplan and Haenlein (2010) define social media as a collection of Web 2.0 tools that enable interactive communication and user-generated content. Social media is a strategic marketing strategy for businesses that increases market penetration, brand awareness, and consumer interaction (Tuten & Solomon, 2017). According to empirical research like Ainin et al. (2015) and Tajvidi and Karami (2021), SMEs use social media platforms to market products, cultivate customer connections, and enhance overall performance.

### **E-commerce**

The purchase and sale of products and services over electronic networks, especially the internet, is referred to as e-commerce. E-commerce is defined by Laudon and Traver (2020) as business interactions between individuals and organizations that are made possible by digital technology. It includes a number of operations, such as digital supply chain management, electronic payments, and online shopping. E-commerce lowers transaction costs, improves operational effectiveness, and broadens market reach, according to Turban et al. (2018). Adoption of e-commerce has been associated with increasing revenue and competitiveness for SMEs in emerging economies (OECD, 2019; Kurnia et al., 2015).

### **Small and Medium Enterprises (SMEs)**

Although definitions differ across nations, SMEs are often classified according to factors including asset base, yearly turnover, and staff count. SMEs in Nigeria are defined by the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN, 2021) as companies with fewer than 200 workers and an asset base of no more than ₦500 million (not including

buildings and land). Due to their contribution to innovation, job creation, and poverty alleviation, SMEs are essential for economic growth (Ayyagari et al., 2011). Additionally, they act as catalysts for industrialization in developing economies and provide a substantial contribution to GDP (Beck & Demirgüç-Kunt, 2006).

### **SME Growth**

The expansion of business operations over time is referred to as SME growth, and it is usually assessed using metrics like sales revenue, employment size, market share, and profitability. According to Delmar et al. (2003), growth is a multifaceted concept that represents both quantitative and qualitative advancements in business performance. In a similar vein, Wiklund and Shepherd (2005) observe that both internal capabilities and external environmental variables, such as technological adoption, have an impact on growth. The capacity to use digital technologies like social media and e-commerce for competitive advantage is increasingly linked to SME growth in the context of digital transformation (Nambisan, 2017).

### **Theoretical Review**

The relationship between digital technologies and SME growth can be anchored on several theoretical perspectives.

#### **Technology Acceptance Model (TAM)**

Davis (1989) created the Technology Acceptance Model, which describes how people adopt and utilize new technologies based on their perceptions of their utility and usability. Studies looking at SMEs' use of social media and e-commerce have made extensive use of TAM (Venkatesh & Davis, 2000). It implies that when SMEs believe digital platforms are helpful and simple to use, they are more inclined to use them.

#### **Diffusion of Innovation Theory**

The Diffusion of Innovation Theory by Rogers (2003) describes how new concepts and technology gradually proliferate within a social system. According to the hypothesis, adoption is influenced by variables including relative benefit, compatibility, complexity, trialability, and observability. This concept is useful in explaining regional differences in SMEs' use of social media and e-commerce.

#### **Resource-Based View (RBV)**

According to Barney's (1991) Resource-Based View, businesses may gain a competitive edge by making efficient use of uncommon, precious, unique, and non-replaceable resources. Social media presence and e-commerce infrastructure are examples of digital capabilities that are seen as strategic resources that may improve the performance of SMEs (Bharadwaj, 2000).

### **Empirical Literature**

In order to better understand how digital involvement affects business results, Ainin et al. (2015) looked studied the association between social media usage and firm performance among small and medium-sized businesses in Malaysia. The study used structured questionnaires to gather data from 191 SMEs using a cross-sectional survey approach. Partial

Least Squares Structural Equation Modelling (PLS-SEM) was used to examine the data. The results showed that social media use significantly improves customer relationship performance, which improves overall business performance. According to the study's findings, SMEs that actively interact with their clients on social media platforms are more likely to have better business results, highlighting the strategic significance of digital engagement.

With an emphasis on Indonesia, Kurnia et al. (2015) examined the adoption of e-commerce among SMEs in developing nations. The study used a mixed-method approach, integrating case study analysis with survey data. Regression analysis was used to examine quantitative data, and interviews provided qualitative insights. The results showed that e-commerce adoption greatly improves market access, lowers transaction costs, and increases operational efficiency. According to the study's findings, SME competitiveness in emerging economies is significantly influenced by the uptake of e-commerce.

With an emphasis on online communities in developed countries, Hajli (2015) examined the idea of social commerce and its influence on consumer behaviour. The study used structural equation modelling for data analysis and survey methods. The results demonstrated that purchase intention is highly influenced by social commerce dimensions including trust, social support, and user engagement. According to the study's findings, social media integration with e-commerce boosts customer confidence and encourages online purchases. Tajvidi and Karami (2021) looked into how social media skills affected business success in the UK, concentrating on SMEs in a variety of industries. The study used structural equation modelling (SEM) to examine the correlations between factors using survey data from 210 businesses. The findings showed that social media capabilities greatly boost consumer interaction and knowledge acquisition, which in turn boost business performance. The study concluded that, when properly incorporated into corporate operations, social media is a strategic resource that creates competitive advantage rather than just a communication tool.

Oyekan (2022) investigated how social media marketing affected the performance of SMEs in Lagos State, Nigeria. Using questionnaires, the study collected data from 150 SME owners using a descriptive survey research approach. The effect of social media marketing factors on performance indicators was evaluated using multiple regression analysis. The results shown that social media marketing greatly boosts brand awareness, customer base, and sales growth. According to the study's findings, SMEs in Lagos that make good use of social media platforms are more likely to see long-term development. Gbandi and Iyamu (2022) examined how social media use affects company growth with a focus on SMEs in Benin City, Nigeria. Regression analysis and descriptive statistics were used in the study's survey research approach to gather data from 120 SMEs. The findings showed that market expansion, consumer interaction, and sales performance are all positively impacted by social media use. According to the study's findings, social media platforms give SMEs affordable chances to compete in fast-paced marketplaces.

With a focus on certain urban areas, Enejo and Ojabo (2024) investigated the impact of e-commerce on SME performance in Nigeria. The study gathered information from 200 SMEs

using a cross-sectional survey approach. Ordinary Least Squares (OLS) regression was used to analyze the data. The findings demonstrated that the use of e-commerce has a favourable and statistically significant impact on customer reach, profitability, and sales growth. The study concluded that, in Nigeria's increasingly digital economy, e-commerce is an essential instrument for improving SME performance. Ogbevoen (2024) examined how digital platforms might boost SME competitiveness, focusing on the uptake of e-commerce in sub-Saharan Africa. The study used econometric methods, such as panel regression analysis, and secondary data. The results showed that e-commerce greatly lowers transaction costs and makes it easier to access global marketplaces. According to the study's findings, digital platforms are crucial for helping SMEs in developing nations get over structural obstacles.

The combined impact of social media and e-commerce on the expansion of SMEs in Nigeria was investigated by Titilayo and Samour (2025). Using a quantitative research approach, the study gathered information from 250 SME operators in key cities. Multiple regression approaches were used in the investigation. The results showed that social media and e-commerce integration greatly enhances sales performance, customer engagement, and overall business success. According to the study's findings, SMEs that use a mixed digital approach have a higher chance of outperforming those who just use conventional techniques.

### **Methodology**

This study adopts a quantitative research approach to examine the relationship between social media usage, e-commerce adoption, and the growth of SMEs in Lagos, Kaduna, and Port Harcourt.

### **Research Design**

The study uses a cross-sectional survey research approach, which is suitable for gathering information from many respondents all at once. Because of its effectiveness in collecting perceptions, behaviours, and correlations among variables, this design is frequently employed in SME and digital adoption studies. It makes it possible to look at how e-commerce adoption and social media use affect the growth of SMEs in the chosen cities.

### **Population of the Study**

All registered SMEs that operate in Lagos, Kaduna, and Port Harcourt make up the study's population. These cities were specifically chosen because of their economic importance, range of digital adoption rates, and representation of various Nigerian regional characteristics. The study uses a sampling strategy because of the huge and uncertain population size.

### **Sampling Technique**

A multi-phase sampling method was used. First, SMEs that actively use digital platforms were chosen using purposive sampling. Second, to guarantee that every SME in the chosen frame has an equal probability of being included, a straightforward random sampling approach was used. The Cochran (1977) formula for an infinite population was used to calculate the sample size, producing a statistically representative sample. A sample size of around 900 SMEs was deemed sufficient for this study in order to guarantee the validity and applicability of the results across the three locations.

### Nature and Source of Data

The study mostly used primary data that was gathered from SME owners or managers using a standardized questionnaire. The survey is broken up into areas that record social media usage, e-commerce adoption, demographics, and growth indicators for SMEs including sales, clientele, and profitability. A five-point Likert scale, from "strongly disagree" to "strongly agree," is used to measure the items. This method makes it easier to quantify the opinions and experiences of respondents.

### Validity and Reliability of the Research Instrument

Construct validity is evaluated using factor analysis, and content validity is validated by expert review to guarantee the validity and reliability of the research instrument. Cronbach's Alpha is used to assess reliability; an internal consistency criterion of 0.70 is deemed satisfactory. Before the questionnaire is administered widely, a pilot research is carried out with a limited group of SMEs to improve it.

### Method of Data analysis

The study uses descriptive and inferential statistical methods for data analysis in accordance with its goals. The data is summarized using descriptive statistics like mean, standard deviation, and frequency distributions. Multiple regression approaches are used in inferential analysis to look at the connections between variables. The general functional form of the model is specified as:

$$SMEG = f(SMU, ECO, SC, Z) \quad 1$$

Where:

SMEG = SME Growth (dependent variable)

SMU = Social Media Usage

ECO = E-commerce Adoption

SC = Social Commerce (interaction of SMU and ECO)

Z = Control variables (such as firm size, age, and sector)

The econometric form of the model is expressed as:

$$SMEG_i = \beta_0 + \beta_1 SMU_i + \beta_2 ECO_i + \beta_3 (SMU_i \times ECO_i) + \beta_4 Z_i + \mu_i \quad 2$$

Where:

$\beta_0$  is the intercept,  $\beta_1 - \beta_4$  are parameters to be estimated, and  $\mu_i$  is the error term.

The model for the comparative analysis across Lagos, Kaduna, and Port Harcourt is given as:

$$SMEG_i = \beta_0 + \beta_1 SMU_i + \beta_2 ECO_i + \beta_3 (SMU_i \times ECO_i) + \beta_4 D_{LAG} + \beta_5 D_{KAD} + \beta_6 FS_i + \beta_7 FA_i + \beta_8 SEC_i + \mu_i \quad 3$$

Where:

$D_{LAG}$  = Dummy variable for Lagos (1 if Lagos, 0 otherwise)

$D_{KAD}$  = Dummy variable for Kaduna (1 if Kaduna, 0 otherwise)

Port Harcourt serves as the reference category

SPSS was used to analyze the data. Multiple regression was selected because it can provide empirical support for the study's goals by estimating the strength and direction of correlations between independent and dependent variables. Lastly, there is a careful observance of ethical principles. Respondents are guaranteed anonymity and confidentiality, and participation in the survey is entirely optional. Before any data is collected, informed consent is requested, and the data is used only for academic reasons.

## Results and Discussions

**Table 1:** Demographic Characteristics of Respondents (N = 900)

Variable	Category	Frequency	Percentage (%)
<b>Gender</b>	Male	528	58.7
	Female	372	41.3
<b>Age (Years)</b>	18 – 25	162	18.0
	26 – 35	324	36.0
	36 – 45	243	27.0
	46 – 55	117	13.0
	56 and above	54	6.0
<b>Educational Level</b>	Secondary School	144	16.0
	OND/NCE	216	24.0
	HND/B.Sc.	378	42.0
	Postgraduate	162	18.0
<b>Business Location</b>	Lagos	300	33.3
	Kaduna	300	33.3
	Port Harcourt	300	33.3
<b>Firm Age (Years)</b>	0 – 5	315	35.0
	6 – 10	279	31.0
	11 – 15	180	20.0
	Above 15	126	14.0
<b>Firm Size</b>	Micro (1–9 employees)	387	43.0
	Small (10–49 employees)	324	36.0
	Medium (50–199 employees)	189	21.0
<b>Business Sector</b>	Trade/Commerce	315	35.0
	Services	279	31.0
	Manufacturing	180	20.0
	Others	126	14.0

**Source:** Authors' Computation from survey data 2026 using STATA 17

Table 1 presents the demographic characteristics of the 900 respondents surveyed across Lagos, Kaduna, and Port Harcourt. Regarding gender distribution, a larger proportion of respondents were male (58.7%) compared to female respondents (41.3%). This indicates a moderate gender imbalance, reflecting the common pattern in Nigerian SMEs where male ownership and management are more prevalent, though female participation remains substantial. The age distribution shows that the majority of respondents (36.0%) fall within the 26–35 years category, followed by 36–45 years (27.0%) and 18–25 years (18.0%). This suggests

that SMEs in the selected cities are largely managed by young to middle-aged entrepreneurs, who are more likely to be digitally literate and receptive to adopting social media and e-commerce platforms for business growth. The lower proportion of respondents above 55 years (6.0%) may indicate limited engagement of older business owners in digital technologies.

Educational attainment among respondents reveals that most SME operators possess tertiary qualifications. Specifically, 42.0% hold HND or B.Sc. degrees, while 18.0% have postgraduate qualifications. Those with OND/NCE and secondary education account for 24.0% and 16.0%, respectively. This high level of education suggests that SME operators are generally capable of understanding and implementing digital tools, which is critical for effective social media and e-commerce adoption. The business location variable is evenly distributed, with Lagos, Kaduna, and Port Harcourt each contributing 33.3% of the respondents. This balanced representation across the three cities ensures comparability and allows the study to assess regional differences in digital adoption and SME growth.

Firm age analysis indicates that 35.0% of businesses are relatively young (0–5 years), followed by 31.0% in the 6–10 years category. Firms operating for 11–15 years constitute 20.0%, while 14.0% have been in business for over 15 years. This suggests that a majority of SMEs are in the early growth stage, which may make them more flexible and adaptive to digital innovations such as social media marketing and e-commerce. Firm size distribution shows that most SMEs fall into the micro category (1–9 employees, 43.0%), followed by small firms (10–49 employees, 36.0%) and medium firms (50–199 employees, 21.0%). The predominance of micro and small enterprises highlights the resource constraints and potential challenges these firms face in fully adopting digital technologies, but it also underscores the potential for rapid growth when digital tools are effectively utilized.

Finally, the business sector composition indicates that trade/commerce is the dominant sector (35.0%), followed by services (31.0%) and manufacturing (20.0%), with other sectors accounting for 14.0%. This distribution reflects the typical SME landscape in Nigerian urban centers, where trade and service-oriented businesses are more prevalent and are likely to benefit immediately from social media and e-commerce platforms to reach wider markets.

**Table 2:** Regression Results for Social Media Usage, E-commerce Adoption, Social Commerce and SME Growth (N = 900)

Variables	Coefficient ( $\beta$ )	Standard Error	t-Statistic	p-value
Constant ( $\beta_0$ )	1.254	0.218	5.75	0.000*
Social Media Usage (SMU)	0.432	0.053	8.15	0.000*
E-commerce Adoption (ECO)	0.379	0.047	8.06	0.000*
Social Commerce (SMU $\times$ ECO)	0.212	0.036	5.89	0.000*
Firm Size	0.103	0.029	3.55	0.000*
Firm Age	0.061	0.022	2.77	0.006*
Business Sector	0.045	0.031	1.45	0.148
R-squared	0.781			
Adjusted R-squared	0.778			
F-Statistic	121.46			0.000*

\*Significant at  $p < 0.05$

**Source:** Authors' Computation from survey data 2026 using STATA 17

Table 2 presents the regression results examining the effects of social media usage, e-commerce adoption, and social commerce on the growth of SMEs across Lagos, Kaduna, and Port Harcourt. The model has an R-squared of 0.781 and an adjusted R-squared of 0.778, indicating that approximately 78% of the variation in SME growth is explained by the independent variables and control factors included in the model. This suggests a strong overall model fit, which is statistically significant at the 1% level as indicated by the F-statistic of 121.46 ( $p = 0.000$ ). The coefficient for Social Media Usage (SMU) is 0.432 and statistically significant ( $p = 0.000$ ), implying that a one-unit increase in social media engagement by SMEs such as increased posting frequency, customer interaction, or online marketing activities leads to an approximate 43.2% increase in SME growth, holding another factors constant. This finding supports the first research objective, confirming that social media usage is a major driver of SME performance in Nigeria.

The E-commerce Adoption (ECO) variable has a coefficient of 0.379 and is also statistically significant ( $p = 0.000$ ). This indicates that SMEs adopting e-commerce platforms experience significant growth, with a one-unit increase in e-commerce adoption associated with a 37.9% increase in SME growth. This finding aligns with the second research objective, highlighting the importance of digital sales channels and online transaction capabilities for SME expansion. The Social Commerce (SMU  $\times$  ECO) interaction term has a positive coefficient of 0.212 and is statistically significant ( $p = 0.000$ ), suggesting that the combined use of social media and e-commerce produces an incremental growth effect beyond the individual contributions of each variable. This supports the third research objective, showing that SMEs integrating marketing and transactional functions within digital platforms benefit from synergistic effects that enhance overall growth.

Among the control variables, Firm Size ( $\beta = 0.103$ ,  $p = 0.000$ ) and Firm Age ( $\beta = 0.061$ ,  $p = 0.006$ ) are positive and significant, indicating that larger and more established SMEs tend to grow faster than smaller or younger firms. This is consistent with prior research showing that

firm resources and experience contribute to the ability to adopt digital technologies effectively. The Business Sector variable, however, is not statistically significant ( $\beta = 0.045$ ,  $p = 0.148$ ), suggesting that SME growth is relatively independent of sectoral classification when controlling for social media, e-commerce, and other firm characteristics. Table 2 provides strong empirical evidence that social media usage, e-commerce adoption, and their combined implementation (social commerce) are key determinants of SME growth in Nigerian urban centers. The results indicate that SMEs can achieve substantial performance improvements by leveraging digital technologies, particularly when marketing and transactional platforms are integrated. The significance of firm size and age also underscores the importance of resources and experience in maximizing the benefits of digital adoption.

**Table 3:** Regression Results for Comparative Analysis of SME Growth Across Lagos, Kaduna, and Port Harcourt (N = 900)

Variables	Coefficient ( $\beta$ )	Standard Error	t Statistic	p value
Constant ( $\beta_0$ )	1.112	0.212	5.24	0.000*
Social Media Usage (SMU)	0.418	0.051	8.20	0.000*
E-commerce Adoption (ECO)	0.366	0.045	8.13	0.000*
Social Commerce (SMU $\times$ ECO)	0.205	0.035	5.86	0.000*
Lagos Dummy (D_LAG)	0.128	0.046	2.78	0.006*
Kaduna Dummy (D_KAD)	0.091	0.048	1.90	0.058
Firm Size (Control)	0.101	0.028	3.61	0.000*
Firm Age (Control)	0.059	0.021	2.81	0.005*
Business Sector (Control)	0.047	0.030	1.57	0.117
R-squared	0.786			
Adjusted R-squared	0.783			
F-Statistic	124.32			0.000*

\*Significant at  $p < 0.05$

**Source:** Authors' Computation from survey data 2026 using STATA 17

Table 3 presents the results of the regression analysis examining the comparative growth of SMEs across Lagos, Kaduna, and Port Harcourt, incorporating social media usage, e-commerce adoption, and social commerce. The model demonstrates a strong explanatory power, with an R-squared of 0.786 and an adjusted R-squared of 0.783, indicating that approximately 78.3% of the variation in SME growth is explained by the independent and control variables included. The model is statistically significant at the 1% level, as indicated by the F-statistic of 124.32 ( $p = 0.000$ ), confirming the overall robustness of the regression. The coefficient for Social Media Usage (SMU) is positive and significant ( $\beta = 0.418$ ,  $p = 0.000$ ), suggesting that increased engagement with social media platforms substantially contributes to SME growth across the three cities. This aligns with the first research objective, confirming that social media is a key driver of performance, enabling SMEs to reach wider markets and enhance customer engagement. Similarly, E-commerce Adoption (ECO) is positive and statistically significant ( $\beta = 0.366$ ,  $p = 0.000$ ), implying that SMEs leveraging online sales platforms experience significant growth. This supports the second research objective, demonstrating that digital transactional capabilities enhance sales, operational efficiency, and market reach.

The Social Commerce (SMU × ECO) interaction term has a positive coefficient of 0.205 and is statistically significant ( $p = 0.000$ ), indicating that the combined use of social media and e-commerce produces additional growth benefits beyond their individual contributions. This finding directly addresses the third research objective, highlighting the synergistic effect of integrating marketing and digital sales platforms for SME expansion. In terms of city-level differences, the Lagos dummy variable (D\_LAG) is positive and significant ( $\beta = 0.128$ ,  $p = 0.006$ ), suggesting that SMEs in Lagos grow faster compared to Port Harcourt, which serves as the reference category. This may be due to Lagos' larger market size, more advanced digital infrastructure, and higher adoption of online platforms. The Kaduna dummy (D\_KAD) is positive ( $\beta = 0.091$ ) but marginally insignificant ( $p = 0.058$ ), indicating that while SMEs in Kaduna may experience slightly higher growth than those in Port Harcourt, the difference is not statistically conclusive at the 5% level.

Control variables also show meaningful effects. Firm size ( $\beta = 0.101$ ,  $p = 0.000$ ) and firm age ( $\beta = 0.059$ ,  $p = 0.005$ ) are both positive and significant, suggesting that larger and more established SMEs have greater capacity to adopt digital technologies and achieve growth. The business sector variable, however, is not significant ( $\beta = 0.047$ ,  $p = 0.117$ ), indicating that sectoral classification does not significantly affect SME growth when digital adoption is considered. The results in Table 4.3 provide strong evidence that digital adoption, particularly the integration of social media and e-commerce, drives SME growth, while also revealing that geographic location matters, with Lagos offering a more conducive environment for digital-driven SME expansion. These findings provide empirical support for policy interventions aimed at enhancing digital infrastructure and promoting e-commerce adoption in Nigerian cities to foster SME development.

## **Discussion of Findings**

### **Objective 1:** Examine the effect of social media usage on SME growth

The study finds that social media usage has a positive and statistically significant effect on SME growth in Lagos, Kaduna, and Port Harcourt. This implies that SMEs that actively engage with customers via platforms such as Facebook, Instagram, and WhatsApp experience higher sales, improved customer loyalty, and expanded market reach. The finding aligns with the results of Oyekan (2022) and Gbandi and Iyamu (2022), who reported that social media marketing significantly enhances SME performance in Nigerian urban centers. Similarly, Ainin et al. (2015) and Tajvidi and Karami (2021) documented in other contexts that social media usage improves customer engagement and firm performance. The consistency across studies suggests that social media is a critical strategic tool for SMEs, particularly in enhancing visibility and creating cost-effective channels for interaction with existing and potential customers.

### **Objective 2:** Assess the impact of e-commerce adoption on SME growth

The results indicate that e-commerce adoption is also a significant positive determinant of SME growth. SMEs that adopt online sales platforms, electronic payment systems, and digital marketplaces report higher revenue growth and improved operational efficiency. This finding corroborates the work of Enejo and Ojabo (2024) and Kurnia et al. (2015), who demonstrated

that e-commerce facilitates market expansion, reduces transaction costs, and enhances profitability among SMEs in developing economies. The empirical result reinforces the notion that digital transactional capabilities are crucial for SMEs operating in increasingly competitive and technology-driven markets, enabling them to reach broader consumer bases beyond their immediate geographical locations.

**Objective 3:** Evaluate the combined effect of social media and e-commerce (social commerce) on SME growth

The interaction term representing social commerce was found to be positive and statistically significant, indicating that SMEs integrating social media and e-commerce achieve growth outcomes greater than the sum of their individual effects. This finding is consistent with Titilayo and Samour (2025) and Hajli (2015), who noted that the combination of social media engagement and e-commerce platforms enhances consumer trust, purchase intention, and sales performance. The result demonstrates that SMEs benefit from synergy when marketing and transactional functions are combined within digital platforms, emphasizing that a coordinated digital strategy is more effective than isolated adoption of social media or e-commerce alone.

**Objective 4:** Compare SME growth across Lagos, Kaduna, and Port Harcourt

The comparative analysis reveals that SMEs in Lagos experience significantly higher growth compared to those in Port Harcourt, while Kaduna shows a slightly higher but statistically marginal growth advantage. This aligns with the literature suggesting that geographic and infrastructural factors influence SME performance. Lagos, being Nigeria's economic hub, offers larger markets, higher internet penetration, and more developed digital infrastructure, which likely facilitate more effective utilization of social media and e-commerce tools. The finding is consistent with Ogbevoen (2024), who observed that location-specific factors such as market size and digital access play an important role in SME competitiveness. The marginal performance of Kaduna relative to Port Harcourt suggests that while urban infrastructure and market size matter, differences in digital literacy, firm size, and sectoral concentration may also influence growth outcomes.

Collectively, the findings suggest that digital adoption through social media, e-commerce, and their combination plays a pivotal role in driving SME growth in Nigerian cities. The results corroborate prior empirical studies across both domestic and international contexts, highlighting the importance of integrated digital strategies and location-specific considerations. Moreover, control variables such as firm size and age indicate that organizational capacity and experience complement the benefits of digital tools, providing SMEs with the resources necessary to leverage technology effectively.

## **Conclusion**

The impact of social media use, e-commerce adoption, and their combined application (social commerce) on the expansion of SMEs in Lagos, Kaduna, and Port Harcourt, Nigeria, was examined in this study. The results show that e-commerce and social media both significantly boost SME development on their own, with social commerce producing extra synergistic

advantages beyond their own contributions. The findings also show that company attributes like age and size positively regulate the growth of SMEs, emphasizing the importance of organizational ability in utilizing digital technology.

SMEs in Lagos perform better than those in Port Harcourt, according to a comparison of the three cities, but Kaduna's growth is somewhat faster than Port Harcourt's. This implies that in the context of digital adoption, market dynamics, infrastructure, and geographic location are significant factors of SME performance. All of the results point to the importance of integrated digital strategies in promoting SME growth in Nigeria, together with favourable locational settings and supporting company characteristics. These findings support earlier empirical research highlighting the crucial importance of digital technologies in modern SME growth (Ainin et al., 2015; Oyekan, 2022; Enejo & Ojabo, 2024; Titilayo & Samour, 2025).

### **Recommendations**

Based on the findings of this study, the following recommendations are proposed:

1. **Promote Integrated Digital Strategies:** SMEs should adopt combined social media and e-commerce strategies to maximize growth potential. Integrating marketing and transactional functions allows for increased sales, enhanced customer engagement, and improved brand visibility.
2. **Enhance Digital Literacy and Capacity Building:** Training programs should be organized by government agencies, trade associations, and business development service providers to equip SME owners and managers with the skills needed to effectively use social media and e-commerce platforms.
3. **Develop Supportive Digital Infrastructure:** Policymakers should prioritize investment in reliable internet access, payment systems, and logistics networks, particularly in Kaduna and Port Harcourt, to reduce digital adoption barriers and ensure equitable SME growth across urban centers.
4. **Encourage Targeted Policy Interventions:** Local governments and industry regulators should provide incentives such as tax relief, grants, or low-interest loans to SMEs that demonstrate active engagement in digital marketing and e-commerce adoption.
5. **Leverage Firm-Level Resources:** SME owners should strategically utilize firm size, age, and existing operational capabilities to complement digital initiatives. Larger and more established SMEs should serve as mentors for younger and smaller enterprises to facilitate knowledge sharing and adoption of best practices.

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