Effect of Financial Technology Adoption on the Performance of Small and Medium Enterprises in Kogi State, Nigeria

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ABSTRACT

This study examined the effect of financial technology (FinTech) adoption on the performance of Small and Medium Enterprises (SMEs) in Kogi State, Nigeria. Specifically, the study investigated the effects of perceived usefulness and agent credibility on SME performance, assessed the mediating role of customer experience, and examined the moderating influence of financial literacy and managerial digital capability. The study adopted a quantitative cross-sectional survey research design. The target population comprised 15,842 registered SMEs in Kogi State, from which a sample size of 390 respondents was derived using Yamane's sampling formula. Data were collected through structured questionnaires administered to SME owners and managers using stratified and simple random sampling techniques. A total of 352 valid questionnaires were analyzed using descriptive statistics, multiple regression analysis, and Hayes PROCESS macro Models 4 and 2 with the aid of SPSS and IBM AMOS. The findings revealed that perceived usefulness and agent credibility had significant positive effects on SME performance. The study further found that customer experience significantly mediated the relationship between FinTech adoption and SME performance, while financial literacy and managerial digital capability significantly moderated the relationship. The study concluded that effective FinTech adoption enhances operational efficiency, competitiveness, and sustainability of SMEs. The study recommended increased investment in digital financial literacy, improvement in FinTech service credibility and security, and greater managerial support for digital innovation among SMEs. The study contributes to the growing literature on FinTech adoption and SME development in emerging economies, particularly within the context of North Central Nigeria.

Keywords: Financial Technology, FinTech Adoption, SME Performance, Customer Experience, Financial Literacy, Managerial Digital Capability, Kogi State, Nigeria.

INTRODUCTION

Small and Medium Enterprises (SMEs) play a vital role in national economic growth, employment generation, and innovation across both developed and developing economies. They serve as engines of job creation and local economic diversification, contributing significantly to gross domestic product (GDP). Despite their importance, SMEs face persistent challenges that constrain their growth, particularly in developing economies like Nigeria. These challenges include limited access to finance, high transaction costs, inefficient business processes, and insufficient managerial capabilities. Traditional banking systems have often been unable to meet the financing needs of SMEs due to collateral requirements, stringent lending criteria, and poor credit history among small firms (Effiom & Edet, 2022; Olayiwola *et al*., 2024). In response to these gaps, financial technology (FinTech) has emerged as a transformative force capable of reshaping access to finance and improving operational efficiency for SMEs.

Globally, the rapid diffusion of FinTech solutions has revolutionized how businesses and individuals' access, manage, and transfer financial resources. The increasing integration of technologies such as mobile banking, blockchain, digital lending, and e-payment platforms has expanded financial inclusion and improved financial service delivery (Firmansyah *et al*., 2022; Albuainain & Ashby, 2025). FinTech allows small firms to bypass conventional banking barriers by leveraging digital platforms that facilitate low-cost, real-time transactions and alternative credit assessments. In many advanced economies, FinTech adoption has become a cornerstone of SME competitiveness, as it enhances liquidity management, reduces operational risks, and fosters innovation through digital ecosystems. The growing academic interest in this area underscores FinTech's potential to reshape financial intermediation and entrepreneurial finance globally.

In Sub-Saharan Africa, FinTech has taken on an even more strategic role as a driver of financial inclusion and business resilience. Digital finance innovations such as mobile money and peer-to-peer lending platforms have significantly widened access to credit and improved the efficiency of business transactions for small enterprises. Krah *et al.* (2024) found that FinTech adoption among SMEs in Ghana improved access to working capital and business continuity, while Lontchi *et al.* (2023) observed similar patterns in Cameroon, where digital financial tools enhanced SMEs' cash flow and adaptability during economic recovery periods. These studies show that FinTech serves as both a financial and operational enabler for SMEs, particularly in regions characterized by infrastructural constraints and credit market inefficiencies.

In Nigeria, the FinTech landscape has expanded rapidly over the past decade, positioning the country as one of Africa's leading digital finance hubs. The proliferation of mobile payment systems, online banking platforms, and lending applications has enabled SMEs to access financial services more conveniently and at lower costs (Oladele, 2024; Olatunji *et al*., 2025). FinTech adoption has also been associated with increased sales continuity, improved cash flow management, and enhanced record-keeping among small businesses. Akanbi, Oladejo, and Oyeleye (2022) reported that Nigerian SMEs using FinTech services recorded notable improvements in both financial and non-financial performance metrics. Nonetheless, despite these promising outcomes, adoption rates remain uneven across Nigeria's regions, with disparities driven by differences in infrastructure, digital literacy, and institutional support (Usman *et al.*, 2025).

Empirical evidence suggests that the impact of FinTech on SME performance is complex and influenced by several mediating and moderating variables. While financial literacy and access to finance have received extensive scholarly attention, customer experience and managerial capability are emerging as critical factors that determine the success of FinTech integration (Thottoli *et al.*, 2024; Mabula *et al.*, 2023). For instance, Lontchi *et al*. (2023) demonstrated that financial literacy mediates the effect of FinTech on business performance, as owners with higher financial knowledge are better able to utilize digital tools effectively. Similarly, Thottoli *et al.* (2024) emphasized that customer-centric experiences and managerial competence can enhance the transformative potential of FinTech by fostering trust, ease of use, and consistent engagement with financial platforms. These insights indicate that FinTech adoption alone may not automatically yield superior performance unless it is accompanied by adequate skills, trust, and digital integration at the firm level.

However, not all studies report uniformly positive outcomes. Some researchers highlight structural and regulatory challenges that limit the full realization of FinTech's benefits. Okoh *et al.* (2025) found that small enterprises in South-West Nigeria continue to experience cybersecurity threats, inadequate infrastructure, and weak digital capabilities that reduce the net benefits of FinTech adoption. Similarly, Mahmoud *et al.* (2024) revealed that differences in financing sources, including Islamic finance and FinTech platforms, influence SME owners' satisfaction and business outcomes differently. These findings suggest that while FinTech offers significant opportunities for SME growth, its effectiveness depends on the broader ecosystem including institutional readiness, digital infrastructure, and user trust within which these technologies operate.

The Nigerian context presents unique opportunities and challenges for understanding FinTech's role in SME development. North Central Nigeria, which comprises states such as Kogi, Benue, Kwara, and Niger, is characterized by growing entrepreneurial activity but limited digital infrastructure and access to capital. Compared to more industrialized regions like Lagos or the South-West, SMEs in the North Central region often face additional barriers, such as low digital literacy, poor network coverage, and inconsistent policy support (Usman *et al.*, 2025). Consequently, studying FinTech adoption in this region provides valuable insights into how contextual factors shape the link between digital finance and business performance. It also offers empirical evidence that can guide policymakers and financial institutions in tailoring interventions to support SME digital transformation in underserved regions.

Despite a growing body of literature, key research gaps remain in understanding how different dimensions of FinTech adoption such as perceived usefulness, agent credibility, and customer experience collectively influence SME performance in Nigeria. Most prior studies have been cross-sectional and concentrated in major urban centres, leaving limited evidence from rural or semi-urban regions. Furthermore, while the mediating roles of financial literacy and access to finance are relatively well established, customer experience remains an underexplored mechanism through which FinTech affects performance (Krah *et al*., 2024; Thottoli *et al.*, 2024). Addressing these gaps is crucial to developing a holistic understanding of how FinTech adoption can be optimized to enhance SME competitiveness and sustainability across diverse Nigerian contexts.

Therefore, this study aims to examine the effect of FinTech adoption on the performance of SMEs in North Central Nigeria, focusing on perceived usefulness and agent credibility as adoption drivers, customer experience as a mediating variable, and financial literacy and managerial digital capability as moderating factors. Investigating these relationships will deepen understanding of how digital finance translates into tangible performance outcomes and provide evidence-based recommendations for improving FinTech policy design, SME training, and infrastructure development. The findings are expected to contribute to a more inclusive and resilient financial ecosystem capable of supporting Nigeria's broader knowledge-based and digital economy and entrepreneurial development agenda.

Problem Statement

Despite the rapid expansion of financial technology (FinTech) platforms in Nigeria, many Small and Medium Enterprises (SMEs) have not effectively utilized these technologies to improve their business performance. Although digital innovations such as mobile payments, e-lending, and online banking have enhanced financial inclusion, adoption among SMEs remains constrained by factors including low financial literacy, inadequate infrastructure, and limited trust in digital systems (Firmansyah *et al*., 2022; Krah *et al*., 2024). Consequently, many SMEs still experience challenges in accessing finance, managing transactions efficiently, and competing effectively in increasingly digital business environments. Furthermore, empirical studies on the relationship between FinTech adoption and SME performance have produced mixed findings. While Oladele (2024) and Olatunji *et al*. (2025) reported that FinTech improves profitability and operational efficiency, Okoh et al. (2025) found that technological and regulatory barriers reduce these benefits among small enterprises.

In addition, previous studies have identified contextual and organizational factors as important determinants of the effectiveness of FinTech adoption. Lontchi *et al.* (2023) emphasized the mediating role of financial literacy, whereas Olayiwola *et al.* (2024) highlighted managerial capability and institutional support as critical influences on SME outcomes. However, existing studies remain largely cross-sectional, concentrated in South-West Nigeria, and have paid limited attention to SMEs in North Central Nigeria where infrastructural and educational limitations hinder digital adoption (Usman *et al*., 2025). More importantly, customer experience and managerial digital capability have received limited empirical attention as mediating and moderating variables within the FinTech–performance relationship (Thottoli et al., 2024). These gaps necessitate further investigation to provide deeper understanding of how FinTech adoption affects SME performance and to support policies aimed at strengthening SME competitiveness, financial inclusion, and Nigeria's digital economy.

Objective of the Study

The broad aim of this study is to examine the effect of financial technology (FinTech) adoption on the performance of Small and Medium Enterprises (SMEs) in North Central Nigeria, with specific focus on Kogi State.

The specific objectives are to:

i. assess the effect of perceived usefulness of FinTech adoption on the performance of SMEs in Kogi State.
ii. investigate the effect of agent credibility of FinTech on the performance of SMEs in Kogi State.
iii. determine the mediating role of customer experience in the relationship between FinTech adoption and SME performance.
iv. examine the moderating effects of financial literacy and managerial digital capability on the FinTech adoption–performance relationship.

Hypotheses

The following hypotheses were formulated in line with the study objectives:

1. **H01:** Perceived usefulness of FinTech adoption has no significant effect on the performance of SMEs in Kogi State.
2. **H02:** Agent credibility of FinTech services has no significant effect on the performance of SMEs in Kogi State.
3. **H03:** Customer experience does not significantly mediate the relationship between FinTech adoption and SME performance in Kogi State.
4. **H04:** Financial literacy and managerial digital capability do not significantly moderate the relationship between FinTech adoption and SME performance in Kogi State.

LITERATURE REVIEW

Conceptual Review

Financial Technology (FinTech) refers to the application of innovative digital tools and platforms that enhance the delivery and use of financial services. It includes mobile banking, digital payments, peer-to-peer lending, crowdfunding, and online investment applications that make financial transactions faster, cheaper, and more efficient (Firmansyah *et al.,* 2022). FinTech has transformed how individuals and firms access and manage financial resources, contributing to financial inclusion and reshaping traditional banking systems across both developed and developing economies. In the context of Small and Medium Enterprises (SMEs), FinTech facilitates improved access to credit, liquidity management, and operational efficiency through digital integration (Krah *et al*., 2024).

FinTech Adoption involves the acceptance, utilization, and integration of financial technologies into business operations to enhance performance. Adoption is influenced by factors such as perceived usefulness, ease of use, trust, agent credibility, infrastructure, and managerial digital competence (Mahmud *et al*., 2022; Odoom & Kosiba, 2020). In emerging economies like Nigeria, adoption is also driven by institutional factors such as regulatory support, digital infrastructure, and the availability of mobile networks. Studies suggest that SMEs that adopt FinTech tools effectively tend to experience greater business resilience, customer reach, and efficiency gains compared to those relying solely on traditional financial systems (Oladele, 2024; Usman *et al.* 2025).

SME Performance represents the degree to which small and medium enterprises achieve their financial and operational objectives. Performance may include profitability, revenue growth, and cashflow management, while operational performance includes efficiency, customer satisfaction, and adaptability to market changes (Akanbi *et al.* 2022). FinTech adoption is assumed to positively influence both financial and non-financial performance by lowering transaction costs, enhancing record-keeping, and broadening customer engagement. However, these effects are contingent on internal capacities such as managerial skill, financial literacy, and the quality of user experience with digital platforms (Lontchi *et al.* 2023).

Perceived Usefulness is a central construct of technology adoption models, defined as the extent to which users believe that a particular technology will improve their performance (Firmansyah *et al.,* 2022). In FinTech contexts, perceived usefulness shapes SME owners' willingness to adopt digital payment and lending platforms, influencing both adoption depth and continuity. Similarly, Agent Credibility which reflects the trustworthiness and reliability of FinTech service providers or intermediaries plays a critical role in users' sustained engagement (Odoom & Kosiba, 2020). Low credibility or perceived risk can discourage adoption, particularly among SMEs with limited digital literacy.

Customer Experience represents the user's interaction quality with FinTech platforms, encompassing ease of navigation, reliability, responsiveness, and perceived satisfaction. It influences user retention, trust, and behavioural intention to continue using FinTech services. Positive customer experience can mediate the relationship between adoption and performance outcomes by fostering consistent utilization and efficient transaction management (Thottoli *et al*., 2024).

Financial Literacy refers to the ability to understand and apply financial knowledge in decision-making. It enables SME owners to evaluate the benefits and risks of FinTech services, make informed financial choices, and maximize returns from technology-driven solutions (Lontchi *et al.,* 2023). Managerial Digital Capability, on the other hand, reflects the ability of business managers to leverage digital tools strategically to improve firm performance (Mabula *et al.,* 2023). Both capabilities serve as moderators that determine the extent to which FinTech adoption translates into measurable business outcomes.

Theoretical Framework

This study is anchored on three major theories that explain FinTech adoption and its influence on SME performance: The Technology Acceptance Model (TAM), Diffusion of Innovation Theory (DOI), and the Resource-Based View (RBV).

The Technology Acceptance Model (TAM), developed by Davis (1989), posits that two beliefs perceived usefulness and perceived ease of use determine users' acceptance of technology. The model has been widely applied in studies examining FinTech adoption among SMEs (Firmansyah *et al.,* 2022; Mahmud *et al.,* 2022). Within this study, TAM explains how SME owners' perception of FinTech's usefulness and credibility drives adoption decisions and influences firm performance. When users perceive FinTech as useful, trustworthy, and easy to use, adoption likelihood increases, leading to enhanced financial outcomes.

The Diffusion of Innovation Theory (DOI), proposed by Rogers (2003), explains how innovations spread within social systems over time. It emphasizes factors such as relative advantage, compatibility, complexity, trialability, and observability. DOI is relevant to this study because it captures the process by which SMEs in emerging economies adopt FinTech innovations in response to market and environmental pressures (Mahmud *et al.*, 2022). The theory highlights that adoption is not only a function of individual perceptions but also of social influence, infrastructure, and communication networks.

The Resource-Based View (RBV), advanced by Barney (1991), focuses on the internal resources and capabilities that enable firms to achieve sustained competitive advantage. It emphasizes that unique assets such as managerial expertise, financial literacy, and digital capability enhance a firm's ability to use technology effectively (Mabula *et al.*, 2023). This framework supports the idea that FinTech adoption leads to superior SME performance when coupled with adequate managerial and digital competencies. Thus, the RBV complements TAM and DOI by linking internal capacities to performance outcomes.

Collectively, these theories provide a holistic foundation for this study: TAM explains behavioural adoption drivers (perceived usefulness and credibility), DOI situates adoption within broader innovation diffusion processes, and RBV links organizational capabilities to performance outcomes. The integrated theoretical model thus supports an empirical investigation into how FinTech adoption mediated by customer experience and moderated by financial literacy and managerial digital capability affects SME performance in North Central Nigeria.

Empirical Review

Recent studies identify a range of behavioural, structural, and organizational determinants influencing FinTech adoption among SMEs. Firmansyah *et al*. (2022) emphasized perceived usefulness, technology readiness, and regulatory context as key determinants, while Mahmud *et al.* (2022) found that user attitudes and infrastructure quality significantly affect adoption in emerging economies. Odoom and Kosiba (2020) highlighted the mediating role of agent credibility, noting that trust in FinTech intermediaries strongly predicts sustained use among micro-enterprises. In Nigeria, adoption determinants include perceived usefulness, trust, and managerial competence, alongside institutional factors such as digital literacy and infrastructural development (Akanbi *et al.*, 2022). These findings indicate that adoption is multi-dimensional, encompassing psychological perceptions, technological readiness, and contextual support mechanisms.

Empirical evidence suggests a generally positive relationship between FinTech adoption and SME performance. Akanbi *et al*. (2022) found that FinTech use among Nigerian SMEs enhances both financial and non-financial outcomes, including profitability, productivity, and innovation. Similarly, Oladele (2024) and Olatunji *et al*.

(2025) documented significant improvements in firm performance and cashflow management attributed to digital financial service adoption. Krah *et al.* (2024) confirmed similar benefits in Ghana, observing that FinTech adoption improves access to finance and operational efficiency. However, Okoh *et al*. (2025) observed that these benefits are not uniform, as infrastructural constraints, cybersecurity concerns, and regulatory inefficiencies reduce net gains in some regions. The consensus among these studies is that FinTech enhances SME performance when supported by robust digital ecosystems, capable management, and enabling institutions.

Recent research emphasizes that FinTech's impact on SME performance is shaped by mediating and moderating mechanisms. Lontchi *et al.* (2023) demonstrated that financial literacy mediates FinTech's effect on SME performance, particularly in post-pandemic recovery contexts. Mabula *et al.* (2023) identified innovation and managerial experience as mediating factors, while Thottoli *et al.* (2024) highlighted the importance of customer-centric factors, such as user experience, in translating FinTech adoption into measurable performance outcomes. Kurniasari *et al.* (2025) proposed a serial mediation model linking financial literacy, FinTech adoption, and access to finance to SME performance. These studies underscore that FinTech's benefits depend on firms' internal resources and user experiences. In Nigeria, this implies that improving customer experience, digital literacy, and managerial capability can enhance the transformative potential of FinTech adoption among SMEs.

Summary and Gaps in the Literature

The reviewed literature collectively demonstrates that FinTech adoption contributes to improved SME performance through enhanced access to finance, operational efficiency, and innovation. However, the magnitude and sustainability of these effects vary across contexts, influenced by behavioural factors (trust, perceived usefulness), institutional conditions (infrastructure, regulation), and organizational capacities (managerial digital skills, financial literacy). While most studies agree that FinTech positively affects SME outcomes, several critical gaps remain.

First, existing research in Nigeria is largely cross-sectional and geographically concentrated in the South-West, leaving limited empirical evidence from North Central Nigeria. Second, most studies have examined FinTech adoption as a binary variable adopted or not rather than evaluating adoption depth or integration level (Firmansyah *et al*., 2022; Krah *et al*., 2024). Third, while the roles of financial literacy and access to finance have been investigated, customer experience remains an underexplored mediator in the FinTech–performance relationship (Thottoli *et al*., 2024). Fourth, managerial digital capability and institutional barriers are insufficiently addressed, despite their demonstrated importance in explaining variations in performance (Okoh *et al*., 2025).

This study therefore seeks to fill these gaps by empirically analysing the relationship between FinTech adoption and SME performance in North Central Nigeria, incorporating customer experience as a mediating variable and financial literacy and managerial digital capability as moderators. By addressing these overlooked dimensions, the research aims to provide context-specific evidence that strengthens theoretical understanding and informs policies promoting inclusive digital finance for SME growth in Nigeria.

METHODOLOGY

This study adopted a quantitative cross-sectional survey design to examine the effect of financial technology (FinTech) adoption on the performance of Small and Medium Enterprises (SMEs) in Kogi State, Nigeria. The design was appropriate because it enabled the collection of standardized quantitative data from SME owners and managers at a single point in time.

The study was conducted in Kogi State, North Central Nigeria, with Lokoja as the state capital. The state occupies a strategic commercial position linking Northern and Southern Nigeria and has a growing SME sector dominated by trading, agriculture, manufacturing, hospitality, and service enterprises. Despite increasing mobile network penetration and digital financial services, SMEs in the state continue to experience infrastructural limitations, low digital literacy, and restricted access to finance, making the area suitable for investigating FinTech adoption and enterprise performance.

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The target population comprised registered SMEs operating in Kogi State and classified according to the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN, 2023) criteria of firms employing between 10 and 199 workers with asset value not exceeding ₦500 million, excluding land and buildings. A population of 15,842 registered SMEs across major sectors in Kogi State was adopted based on SMEDAN and state business registry estimates.

The sample size was determined using Yamane's (1967) finite population formula:

$$n = \frac{N}{1 + N(e)^2}$$

Substituting the study values:

$$n = \frac{15{,}842}{1 + 15{,}842(0.05)^2} = 390$$

Accordingly, a sample size of 390 SME owners and managers was utilized. A stratified random sampling technique was employed to ensure proportional representation of SMEs across manufacturing, trading, agriculture, hospitality, and service sectors. Within each stratum, simple random sampling was used to select participating firms, while owners or senior managers constituted the unit of response.

Primary data were collected through a structured questionnaire divided into sections covering demographic characteristics and constructs measuring perceived usefulness, agent credibility, customer experience, financial literacy, managerial digital capability, and SME performance. Measurement items were adapted from validated FinTech and SME performance studies. Responses were measured on a five-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree. A pilot study involving 30 SME operators in Lokoja was conducted to assess reliability and clarity of the instrument. Cronbach's alpha coefficients exceeded the 0.70 threshold, confirming internal consistency.

Data were analyzed using descriptive statistics, multiple regression, and Hayes PROCESS macro Models 4 and 2 in SPSS and IBM AMOS. Multiple regression examined direct effects of perceived usefulness and agent credibility on SME performance, while mediation analysis tested customer experience as an intermediary variable. Moderation analysis assessed the moderating roles of financial literacy and managerial digital capability. Hypotheses were tested at a 5% significance level after diagnostic tests for normality, multicollinearity, and homoscedasticity.

The regression model was specified as:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 M + \beta_4 W + \beta_5 (X_1 \times W) + \varepsilon$$

where Y = SME performance, X_1 = perceived usefulness, X_2 = agent credibility, M = customer experience, W = financial literacy or managerial digital capability, $\beta_0 - \beta_5$ = regression coefficients, and ε = error term.

RESULTS AND DISCUSSION

Response Rate and Questionnaire Administration

A total of 390 questionnaires were distributed to owners and managers of SMEs across selected sectors in Kogi State. Out of this number, 367 questionnaires were retrieved, representing a retrieval rate of 94.1%. After screening for completeness and consistency, 352 questionnaires were found valid and suitable for analysis, representing an effective response rate of 90.3%. The response rate of 90.3% was considered adequate for statistical analysis because it exceeded the minimum acceptable threshold for survey research. The high response rate enhanced the reliability and generalizability of the findings and reduced the likelihood of non-response bias.

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Demographic Characteristics of Respondents

Table 1: Demographic Characteristics of Respondents (N = 352)

Variable	Category	Frequency	Percentage (%)
Gender	Male	211	59.9
	Female	141	40.1
Age	20–30 years	74	21.0
	31–40 years	133	37.8
	41–50 years	97	27.6
	Above 50 years	48	13.6
Educational Qualification	Secondary School	49	13.9
	Diploma/NCE	87	24.7
	Bachelor’s Degree/HND	168	47.7
	Postgraduate Degree	48	13.7
Years of Business Operation	Below 5 years	96	27.3
	5–10 years	145	41.2
	11–15 years	74	21.0
	Above 15 years	37	10.5
Nature of Business	Trading	121	34.4
	Manufacturing	63	17.9
	Agriculture	54	15.3
	Hospitality	49	13.9
	Services	65	18.5
Number of Employees	10–29	168	47.7
	30–59	102	29.0
	60–99	51	14.5
	100 and above	31	8.8
Annual Turnover	Below ₦5 million	81	23.0
	₦5m–₦20m	154	43.8
	₦21m–₦50m	79	22.4
	Above ₦50m	38	10.8
Extent of FinTech Usage	Low	62	17.6
	Moderate	176	50.0
	High	114	32.4

Source: Field Survey, 2026

The results indicated that most respondents were male and within the economically active age bracket of 31–40 years, suggesting strong entrepreneurial engagement among young and middle-aged business operators. The high proportion of respondents with tertiary education implied that educational attainment may positively influence awareness and adoption of digital financial technologies. Similarly, firms with longer operational experience and moderate-to-high FinTech usage demonstrated greater adaptability to digital financial systems. The dominance of trading and service enterprises reflected the commercial structure of SMEs in Kogi State, where digital payment systems and online transactions are increasingly important for operational efficiency and customer engagement.

Table 2: Summary of Descriptive Statistics for Study Variables

Variables	Key Indicators	Mean Range	Grand Mean	Std. Dev.
Perceived Usefulness	Transaction speed, cost reduction, customer access, business efficiency	4.05–4.21	4.14	0.76
Agent Credibility	Trustworthiness, security, reliability, transparency	3.91–4.07	3.99	0.80

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Customer Experience	Ease of use, responsiveness, convenience, satisfaction	4.03–4.27	4.14	0.74
Financial Literacy	Digital finance knowledge, transaction management, financial risk understanding	3.88–4.06	3.96	0.81
Managerial Digital Capability	Digital skills, technology adaptation, innovation support, digital integration	3.95–4.11	4.02	0.78
SME Performance	Sales growth, customer retention, operational efficiency, profitability	4.03–4.18	4.11	0.75

Source: Field Survey, 2026.

The results in Table 4.3 revealed that all study variables recorded high mean scores above the benchmark value of 3.00, indicating positive perceptions among respondents regarding FinTech adoption and SME performance in Kogi State. Perceived usefulness and customer experience recorded the highest grand means (4.14), suggesting that SME operators strongly acknowledged the benefits and convenience of FinTech services. Similarly, managerial digital capability (4.02) and agent credibility (3.99) showed that digital competence, trust, and service reliability are critical factors influencing successful FinTech utilization. Financial literacy also recorded a relatively high mean (3.96), indicating that respondents possessed sufficient knowledge required for digital financial operations.

The descriptive findings suggested that FinTech adoption positively contributed to SME operational efficiency, customer retention, profitability, and competitiveness. These findings aligned with the Technology Acceptance Model (TAM), which emphasizes perceived usefulness and ease of use as determinants of technology adoption, as well as the Diffusion of Innovation Theory, which highlights the roles of trust, experience, and managerial capability in promoting technological diffusion within organizations.

Table 3: Reliability Statistics

Variable	**Cronbach’s Alpha**
Perceived Usefulness	0.842
Agent Credibility	0.817
Customer Experience	0.861
Financial Literacy	0.804
Managerial Digital Capability	0.833
SME Performance	0.876

Source: Field Survey, 2026

All Cronbach’s Alpha values exceeded the recommended threshold of 0.70, confirming satisfactory internal consistency and reliability of the measurement scales.

Table 4: Construct Validity Statistics

Construct	**CR**	**AVE**	**Factor Loadings**
Perceived Usefulness	0.88	0.64	0.71–0.84
Agent Credibility	0.85	0.61	0.70–0.82
Customer Experience	0.89	0.66	0.73–0.87
Financial Literacy	0.84	0.58	0.69–0.81
Managerial Digital Capability	0.87	0.62	0.72–0.85
SME Performance	0.91	0.68	0.75–0.89

The CR values exceeded 0.70, AVE values were above 0.50, and factor loadings surpassed 0.60, confirming convergent validity.

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Table 5: Diagnostic Test Results

Test	Result	Decision
Normality (Skewness/Kurtosis)	Within ±2	Normal
VIF Values	1.24–2.11	No multicollinearity
Tolerance Values	0.51–0.83	Acceptable
Homoscedasticity	Satisfied	No heteroscedasticity

The diagnostic results confirmed that the dataset satisfied assumptions required for regression analysis, indicating robustness of the analytical model.

Hypotheses Testing

Test of Hypothesis One

Table 6a and 6b: Regression Analysis for Perceived Usefulness and SME Performance

Variable	Beta	*t*-value	Sig.
Perceived Usefulness	0.472	8.914	0.000

R	R^2	Adjusted R^2	F-value	Sig.
0.684	0.468	0.463	79.459	0.000

The result revealed that perceived usefulness had a significant positive effect on SME performance ($\beta = 0.472$, $p < 0.05$). Therefore, the null hypothesis was rejected. The finding supported TAM, which posits that perceived usefulness significantly influences technology adoption and performance outcomes.

Test of Hypothesis Two

Table 7: Regression Analysis for Agent Credibility and SME Performance

Variable	Beta	t-value	Sig.
Agent Credibility	0.391	7.228	0.000

The findings showed that agent credibility significantly influenced SME performance. The null hypothesis was therefore rejected. This result emphasized the importance of trust, transparency, and security in digital financial ecosystems.

Test of Hypothesis Three

Table 8: Mediation Analysis (PROCESS Model 4)

Effect	Coefficient	Boot LLCI	Boot ULCI
Direct Effect	0.318	0.201	0.432
Indirect Effect	0.174	0.102	0.263
Total Effect	0.492	0.371	0.588

The confidence interval for the indirect effect did not include zero, indicating significant mediation. Thus, customer experience significantly mediated the relationship between FinTech adoption and SME performance. The finding implied that positive customer experience strengthened the benefits derived from FinTech adoption.

Test of Hypothesis Four

Table 9: Moderation Analysis (PROCESS Model 2)

Moderator	Interaction Beta	t-value	Sig.
Financial Literacy	0.228	3.947	0.000
Managerial Digital Capability	0.264	4.381	0.000

The interaction effects were significant, indicating that financial literacy and managerial digital capability strengthened the relationship between FinTech adoption and SME performance. Therefore, the null hypothesis was rejected. The finding supported the Resource-Based View (RBV), which emphasizes that organizational capabilities enhance the effectiveness of technological resources.

DISCUSSION OF MAJOR FINDINGS

The study established that perceived usefulness significantly improved SME performance, implying that SMEs adopting FinTech for operational efficiency, cost reduction, and customer engagement achieved better outcomes. This finding aligned with TAM and studies by Firmansyah et al. (2022) and Oladele (2024), which found that perceived usefulness drives technology acceptance and business performance. The study further revealed that agent credibility positively influenced SME performance. Trust, reliability, and transaction security encouraged SMEs to adopt and sustain the use of FinTech platforms. This result corroborated Odoom and Kosiba (2020), who emphasized the importance of trust and credibility in digital financial adoption.

Customer experience significantly mediated the FinTech adoption–performance relationship, indicating that ease of use, responsiveness, and satisfaction enhanced SMEs' continued use of digital financial tools. This finding supported Thottoli et al. (2024), who argued that customer-centric experiences strengthen the effectiveness of FinTech systems.

The moderation analysis demonstrated that financial literacy and managerial digital capability significantly enhanced the positive relationship between FinTech adoption and SME performance. SMEs with stronger digital and financial competencies were better positioned to leverage FinTech innovations effectively. This finding aligned with RBV theory and the studies of Mabula et al. (2023) and Lontchi et al. (2023). The findings supported TAM, DOI, and RBV theories and confirmed that FinTech adoption contributes positively to SME competitiveness, operational efficiency, and financial inclusion in developing economies such as Nigeria.

CONCLUSION

The study concluded that financial technology (FinTech) adoption significantly influences the performance of Small and Medium Enterprises (SMEs) in Kogi State, Nigeria. It further concluded that perceived usefulness and agent credibility are important determinants of SME performance, while customer experience plays a significant mediating role in the FinTech–performance relationship. The study also concluded that financial literacy and managerial digital capability strengthen the effectiveness of FinTech adoption among SMEs. Overall, the study established that effective utilization of FinTech solutions enhances SME competitiveness, operational efficiency, and sustainability.

RECOMMENDATIONS

Based on the findings and conclusion drawn, the followings were recommended:

i. SME owners and managers should increase the adoption and integration of FinTech tools such as digital payment systems, mobile banking, and online financial management platforms in order to improve operational efficiency, reduce transaction costs, and enhance business performance.

ii. FinTech service providers should strengthen agent credibility by improving transaction security, transparency, reliability, and customer support services to enhance users' trust and sustained usage among SMEs.

iii. Government agencies, financial institutions, and SME development organizations should organize regular training programmes on financial literacy and digital skills development to improve SME operators' capacity to utilize FinTech platforms effectively.

iv. SME managers should invest in managerial digital capability through continuous technological training and innovation-driven practices to maximize the benefits of FinTech adoption and improve organizational competitiveness.

LIMITATIONS OF THE STUDY

This study was limited by its cross-sectional research design, which restricted the ability to establish causal relationships and observe changes in FinTech adoption and SME performance over time. The study also relied heavily on self-reported questionnaire data, which may have introduced subjective bias and social desirability effects among respondents. Furthermore, the geographic scope of the research was limited to Kogi State, thereby reducing the generalizability of the findings to other regions in Nigeria. Possible response bias and non-response issues may also have affected the accuracy of some responses despite the high response rate achieved. Finally, the study was unable to capture the long-term effects of FinTech adoption on SME growth, sustainability, and innovation due to time and resource constraints.

SUGGESTIONS FOR FURTHER STUDIES

Future studies should adopt longitudinal research designs to examine the long-term effects of FinTech adoption on SME growth, sustainability, and resilience over time. Comparative studies across different geopolitical zones in Nigeria are also recommended to identify regional variations in FinTech adoption patterns and performance outcomes. Researchers should further investigate additional mediating variables such as innovation capability, access to finance, and organizational culture in explaining the FinTech–performance relationship. Sector-specific studies focusing on industries such as agriculture, manufacturing, hospitality, and services would provide deeper insights into how FinTech adoption differs across business sectors. Future research should also explore the emerging roles of artificial intelligence, blockchain technology, and digital automation in enhancing SME performance and competitiveness in developing economies.

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