NIGERIAN ONLINE JOURNAL OF
EDUCATIONAL SCIENCES AND TECHNOLOGY
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IMPACT OF DIGITAL FINANCIAL INCLUSION ON SMALL AND MEDIUM ENTERPRISE (SME) GROWTH AND JOB CREATION IN LAGOS AND OGUN STATES

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Abstract

Small and Medium Enterprises (SMEs) play a central role in employment generation and economic growth in Nigeria, yet limited access to finance continues to constrain their expansion. This study examines the impact of digital financial inclusion on SME growth and job creation in Lagos and Ogun States, using firm-level data from 400 SMEs across key economic sectors. Digital financial inclusion is measured through the usage of mobile banking, USSD services, fintech applications, and digital payment platforms. Employing a mixed-methods approach, the study applies descriptive statistics, multiple regression, and mediation and moderation analyses to evaluate growth and employment outcomes. The results reveal that digital financial inclusion has a positive and significant effect on SME growth and job creation. SME growth partially mediates the relationship between digital financial inclusion and employment generation, indicating that labour expansion largely occurs through improved business performance. Furthermore, digital literacy and trust in digital platforms strengthen these relationships. The findings provide empirical evidence that effective use of digital financial services can promote inclusive economic development by enhancing SME scalability and labour absorption. Policy implications highlight the need for capability-building, consumer protection, and infrastructure support to maximise the developmental impact of Nigeria's digital finance ecosystem.

Keywords: *Digital financial inclusion; SMEs; job creation; fintech; Lagos; Ogun State; Nigeria*

Introduction

Small and Medium Enterprises (SMEs) are universally recognised as the backbone of economic development, particularly in emerging economies where they drive employment creation, income generation, and poverty reduction. In Nigeria, SMEs account for a substantial share of total employment and contribute significantly to gross domestic product, especially within the non-oil sector (SMEDAN & NBS, 2021). In the Southwest geopolitical zone, Lagos and Ogun States represent two of the most dynamic SME ecosystems in the country. Lagos functions as Nigeria's commercial and financial hub, while Ogun State has emerged as a strategic manufacturing and agro-industrial corridor due to its proximity to Lagos and expanding industrial clusters. Despite

their importance, SMEs in these states continue to face persistent structural constraints, with limited access to finance remaining one of the most critical barriers to growth and job creation.

In recent years, digital financial inclusion has gained prominence as a potential catalyst for overcoming traditional financial access barriers faced by SMEs. Digital financial inclusion refers to the use of digital technologies—such as mobile banking platforms, USSD services, fintech applications, digital savings tools, and online credit systems—to provide affordable, accessible, and efficient financial services to individuals and enterprises that are otherwise excluded from the formal financial system (Demirgüç-Kunt et al., 2022). By lowering transaction costs, reducing reliance on physical bank branches, and enabling rapid financial interactions, digital finance is expected to enhance liquidity management, expand access to credit, and improve business efficiency for SMEs.

Nigeria has witnessed a rapid expansion of its fintech ecosystem, particularly in Lagos State, which hosts the majority of the country's fintech startups and attracts significant domestic and foreign investment. Digital payment platforms, mobile money operators, and app-based lending services have reshaped how SMEs conduct transactions, manage cash flows, and engage with customers. Ogun State has also experienced increased adoption of digital financial services, especially among SMEs operating in peri-urban and semi-industrial zones. These developments suggest strong potential for digital finance to stimulate SME expansion and employment generation. However, the extent to which digital financial inclusion translates into measurable SME growth and job creation outcomes remains insufficiently understood.

Existing empirical studies provide mixed evidence on the developmental impact of digital financial inclusion. While some studies report positive effects on firm performance, productivity, and market access (Ajibade & Khayundi, 2020; Ofori & Boateng, 2022), others highlight persistent exclusion driven by digital illiteracy, trust deficits, high transaction costs, and inadequate infrastructure (Kazeem et al., 2022; Nwankwo & Okeke, 2022). In Nigeria, Obadare and Oyelade (2023) observed that although digital financial tools are widely available, many SMEs fail to leverage them effectively due to weak financial capability and regulatory uncertainty. These inconsistencies suggest that access alone may not be sufficient; rather, the developmental outcomes of digital finance depend on usage intensity, institutional context, and complementary capabilities.

From a policy perspective, digital financial inclusion has been positioned as a central pillar of Nigeria's economic transformation agenda. The Central Bank of Nigeria's National Financial Inclusion Strategy emphasises the expansion of digital channels as a means of promoting inclusive growth, enterprise development, and employment generation. However, policy implementation has often outpaced empirical evaluation, creating a gap between strategic intent and evidence-based outcomes. In particular, there is limited region-specific analysis examining how digital financial inclusion affects SME growth trajectories and labour absorption capacity within Nigeria's most economically active states.

Against this backdrop, this study investigates the impact of digital financial inclusion on SME growth and job creation in Lagos and Ogun States using firm-level data collected from SME operators across key sectors. By integrating quantitative analysis of business performance

indicators with qualitative insights from SME owners and stakeholders, the study provides a nuanced understanding of how digital financial tools influence revenue growth, operational efficiency, and employment expansion. The research contributes to the literature by offering context-specific empirical evidence from Nigeria's Southwest, while also informing financial inclusion policy, fintech regulation, and SME support frameworks aimed at fostering inclusive and sustainable economic development.

Literature Review

Financial inclusion has traditionally been defined as access to formal financial services such as bank accounts, credit, savings, and insurance through regulated institutions. However, the rapid diffusion of information and communication technologies has transformed this concept, giving rise to digital financial inclusion, which emphasises the delivery and use of financial services through digital platforms and channels (Demirgüç-Kunt et al., 2022). Digital financial inclusion goes beyond access to include active usage, affordability, convenience, and suitability of digital tools such as mobile banking, USSD transactions, fintech applications, mobile money, and digital credit systems for individuals and enterprises. In developing economies, digital finance has been widely promoted as a mechanism for overcoming structural barriers associated with conventional banking, including geographical distance, high transaction costs, stringent collateral requirements, and bureaucratic processes. Allen et al. (2021) argue that digital platforms reduce informational asymmetries between lenders and borrowers through transaction data, thereby improving credit allocation to small businesses. This is particularly relevant for SMEs, which often operate informally and lack the financial records required by traditional banks.

The growth of SMEs is closely tied to access to timely, affordable, and flexible financial services. SME growth is commonly measured using indicators such as revenue expansion, asset accumulation, customer base growth, productivity, and operational efficiency. According to Beck and Demirgüç-Kunt (2020), financial constraints are among the most binding obstacles to SME growth in developing countries, limiting investment, innovation, and scalability. Digital financial services provide SMEs with alternative financing channels that can mitigate these constraints. Mobile banking and digital payments improve liquidity management and transaction efficiency, while fintech lending platforms offer short-term working capital loans without the extensive documentation required by commercial banks (Ajibade & Khayundi, 2020). Empirical evidence from sub-Saharan Africa indicates that SMEs adopting digital payment systems experience higher sales volumes and improved cash-flow predictability, which supports business expansion decisions (Ofori & Boateng, 2022). In Nigeria, Adebayo and Obasan (2023) found that SMEs using digital banking platforms reported improved decision-making speed and operational flexibility. However, the authors caution that the magnitude of these benefits depends on digital literacy, transaction volume, and the stability of digital infrastructure. This suggests that digital financial inclusion is not a uniform driver of growth but operates through firm-specific and contextual factors.

Job creation is a critical channel through which SME growth contributes to inclusive economic development. Theoretically, digital financial inclusion affects employment through both direct and indirect mechanisms. Directly, improved access to finance enables SMEs to expand operations,

invest in capital equipment, and hire additional workers. Indirectly, digital payments and savings platforms stabilise cash flows, reduce business risk, and lower the likelihood of layoffs during periods of volatility (Allen et al., 2021). Empirical studies increasingly document a positive relationship between digital finance and employment outcomes. Ofori and Boateng (2022) reported that SMEs using mobile money services in West Africa were significantly more likely to increase their workforce than non-users. Similarly, Demirgüç-Kunt et al. (2022) highlight that digital credit facilitates labour absorption by easing liquidity constraints, especially among growth-oriented SMEs. In the Nigerian context, however, evidence remains fragmented. While some studies suggest positive employment effects, others find that digital finance adoption does not automatically translate into job creation due to automation effects, scale limitations, and skills mismatches (Nwankwo & Okeke, 2022).

Despite the potential benefits, adoption of digital financial services among SMEs is uneven. One of the most persistent challenges is digital literacy, which affects SMEs' ability to understand, trust, and effectively use digital platforms. Kazeem et al. (2022) observe that many SME owners lack the skills required to navigate fintech applications, interpret transaction records, or manage cybersecurity risks, leading to underutilisation or avoidance of digital services. Trust and perceived risk also play a critical role. SMEs often express concerns about fraud, data privacy, hidden charges, and regulatory protection, particularly in relation to digital lenders and app-based credit platforms (Nwankwo & Okeke, 2022). These concerns are amplified in contexts where consumer protection frameworks are weak or poorly enforced. Infrastructure constraints—such as unstable internet connectivity, unreliable electricity supply, and limited agent networks—further restrict adoption, especially in peri-urban and semi-formal business clusters common in Ogun State.

Nigeria has made significant policy commitments toward digital financial inclusion. The Central Bank of Nigeria's National Financial Inclusion Strategy emphasises digital channels as a means of extending financial services to underserved populations, including SMEs. Key policy instruments include agent banking, payment system interoperability, and the promotion of fintech–bank partnerships. However, several scholars argue that policy implementation has lagged behind innovation, creating regulatory uncertainty for digital lenders and fintech operators (Obadare & Oyelade, 2023). Moreover, most policy evaluations focus on access indicators—such as the number of accounts opened—rather than developmental outcomes like SME growth and employment generation. This creates a gap between policy objectives and measurable economic impact, particularly at sub-national levels such as Lagos and Ogun States, where digital ecosystems and SME characteristics differ substantially.

Although the literature broadly supports the role of digital financial inclusion in enhancing SME performance, three critical gaps remain. First, empirical studies linking digital financial inclusion directly to job creation are limited, especially in Nigeria. Second, few studies adopt a regional focus that captures the heterogeneity between highly digitalised environments like Lagos and emerging industrial zones like Ogun State. Third, existing research often treats SME growth and employment as parallel outcomes, rather than examining the mediating and moderating mechanisms that connect them. This study addresses these gaps by providing firm-level empirical evidence on the impact of digital financial inclusion on SME growth and job creation in Lagos and Ogun States. By integrating growth indicators, employment outcomes, and contextual adoption

barriers within a unified analytical framework, the study advances understanding of how digital finance contributes to inclusive economic development in Nigeria's most dynamic SME corridor.

Methodology

This study employed a cross-sectional mixed methods design to examine the impact of digital financial inclusion on SME growth and job creation in Lagos and Ogun States. The target population comprised registered and semi-formal SMEs operating in trading, manufacturing, agro-processing, and services. A multi-stage stratified sampling technique was used: first, the two states were purposively selected due to their fintech intensity and SME concentration; second, sectors were stratified; third, SMEs were randomly selected within strata. A total of 400 SME operators were surveyed. Primary quantitative data were collected using a structured questionnaire adapted from validated constructs grounded in the Technology Acceptance Model (TAM) and the Financial Inclusion Framework, capturing dimensions of digital financial access and usage (mobile banking, USSD, fintech apps, digital payments/savings), SME growth (revenue growth, customer base expansion, operational efficiency), and job creation (changes in employment size). Control variables included firm age, size, sector, and owner education. The instrument was pilot-tested ($n \approx 30$) to ensure clarity; content validity was confirmed by expert review, and reliability assessed using Cronbach's alpha ($\alpha \geq 0.70$). Complementary in-depth interviews were conducted with a purposive subsample of SME owners, fintech providers, and regulators to contextualise adoption barriers and policy issues.

Quantitative data were analysed using SPSS v27. Descriptive statistics summarised adoption patterns; Pearson correlation assessed bivariate relationships; and multiple regression models estimated the effects of digital financial inclusion on SME growth and job creation. Mediation analysis tested whether SME growth mediated the digital finance–job creation relationship, while moderation tests examined the roles of digital literacy, infrastructure quality, and trust. Assumptions of normality, multicollinearity, and heteroskedasticity were checked, and significance was evaluated at 5%. Qualitative data were analysed thematically to triangulate quantitative findings and enrich interpretation. Ethical approval was obtained prior to data collection, informed consent was secured from all participants, and confidentiality was strictly maintained.

Results and Discussion

Table 1

Descriptive Statistics of Key Variables (N = 400)

Variable	Mean	Std. Dev.	Min	Max
Digital Financial Inclusion Index (DFI)	3.62	0.71	1.20	4.95
Mobile/USSD Usage Frequency	3.74	0.68	1.00	5.00
Fintech App Usage Intensity	3.41	0.83	1.00	5.00
SME Growth Index	3.48	0.76	1.10	4.90
Revenue Growth (last 24 months)	3.52	0.81	1.00	5.00
Operational Efficiency	3.45	0.73	1.20	4.85
Job Creation (Δ employees)	2.91	1.02	0	12
Digital Literacy	3.37	0.79	1.00	5.00
Trust in Digital Platforms	3.29	0.84	1.00	5.00

Note: Indices are standardised composite scores (Likert 1–5 unless stated).

The positive and statistically significant effect of DFI on SME growth ($\beta = 0.523$, $p < 0.001$) indicates that SMEs with higher usage of digital financial services experience superior performance in revenue growth, customer expansion, and operational efficiency. This aligns with the financial intermediation perspective that digital platforms reduce transaction costs and information asymmetries, thereby improving access to working capital and financial management (Demirgüç-Kunt et al., 2022). The result corroborates prior evidence from Nigeria and other African contexts showing that mobile banking and fintech tools enhance liquidity management and decision-making speed among SMEs (Ajibade & Khayundi, 2020; Adebayo & Obasan, 2023). The relatively high explanatory power of the growth model (Adj. $R^2 = 0.40$) underscores the substantive role of digital finance beyond firm characteristics such as age and size.

Table 2

Correlation Matrix

Variable	DFI	SME Growth	Job Creation	Digital Literacy	Trust
DFI	1.000	0.612***	0.458***	0.531***	0.497***
SME Growth		1.000	0.566***	0.482***	0.451***
Job Creation			1.000	0.409***	0.388***
Digital Literacy				1.000	0.524***
Trust					1.000

****p < 0.01*

DFI also exerts a positive direct effect on job creation ($\beta = 0.314$, $p < 0.001$), suggesting that digital financial tools facilitate employment expansion by easing financing constraints and stabilising

cash flows. This finding is consistent with inclusive growth theory, which posits that improved access to productive finance enables enterprises to scale operations and increase labour demand. Comparable results have been reported in West Africa, where SMEs using mobile money are more likely to hire additional workers (Ofori & Boateng, 2022). In the Lagos–Ogun corridor, where labour markets are dynamic, digital finance appears to support both employment creation and retention.

Table 3

Regression Results: Effect of Digital Financial Inclusion on SME Growth

Predictor	β	Std. Error	t	p
Digital Financial Inclusion (DFI)	0.523	0.041	12.76	<0.001
Firm Size (control)	0.117	0.028	4.18	<0.001
Firm Age (control)	0.084	0.024	3.50	<0.001
Sector Dummies	—	—	—	—
R^2 / Adj. R^2	0.41 / 0.40			
F-statistic	(6, 393) = 45.3			<0.001

The mediation analysis reveals that SME growth partially mediates the relationship between DFI and job creation. The significant indirect effect indicates that a substantial portion of employment gains occurs through business expansion channels—higher revenues, improved efficiency, and market reach enabled by digital finance. This finding advances the literature by empirically demonstrating the mechanism linking digital inclusion to labour outcomes, addressing a gap noted in earlier studies that examined growth and employment as parallel but disconnected outcomes (Allen et al., 2021). The persistence of a smaller but significant direct effect suggests additional pathways, such as improved payroll management and access to short-term digital credit for staffing needs.

Table 4

Regression Results: Effect of Digital Financial Inclusion on Job Creation

Predictor	β	Std. Error	t	p
Digital Financial Inclusion (DFI)	0.314	0.052	6.04	<0.001
SME Growth	0.372	0.049	7.59	<0.001
Firm Size (control)	0.146	0.031	4.71	<0.001
Firm Age (control)	0.063	0.026	2.42	0.016
R^2 / Adj. R^2	0.36 / 0.35			
F-statistic	(7, 392) = 31.9			<0.001

The moderation results highlight the importance of capability and institutional factors. Digital literacy strengthens the DFI–growth relationship, implying that SMEs with better skills to navigate digital platforms extract greater performance benefits. This supports Technology Acceptance

Model (TAM) assertions that perceived ease of use and competence shape outcomes, not just adoption. Similarly, trust in digital platforms amplifies the effect of DFI on job creation, reflecting the role of perceived security and regulatory assurance in sustaining usage intensity. These findings echo concerns raised by Nwankwo and Okeke (2022) and Kazeem et al. (2022) regarding fraud risks and trust deficits as constraints on digital finance effectiveness.

Table 5

Mediation and Moderation Tests

Test	Effect	Coefficient	95% CI	p
Mediation: DFI → SME Growth → Job Creation	Indirect	0.195	[0.132, 0.271]	<0.001
Direct Effect (DFI → Job Creation)	Direct	0.119	[0.041, 0.197]	0.003
Moderation: Digital Literacy × DFI → SME Growth	Interaction	0.084	[0.032, 0.136]	0.002
Moderation: Trust × DFI → Job Creation	Interaction	0.071	[0.018, 0.124]	0.009

Note: Bootstrapped CIs (5,000 resamples).

Taken together, the results suggest that Lagos's mature fintech ecosystem and Ogun's industrial expansion create conducive conditions for DFI-driven SME development, but benefits are uneven without complementary investments in digital skills, infrastructure, and consumer protection. The findings lend empirical support to Nigeria's National Financial Inclusion Strategy while cautioning that access metrics alone are insufficient; usage quality and capability-building are critical for translating digital finance into inclusive economic outcomes.

Conclusion

This study provides robust empirical evidence that digital financial inclusion significantly enhances SME growth and job creation in Lagos and Ogun States. Using firm-level data and rigorous econometric techniques, the findings show that SMEs with greater adoption and usage of digital financial tools such as mobile banking, USSD services, fintech applications, and digital payments record higher revenue growth, improved operational efficiency, and stronger employment outcomes. Importantly, the results demonstrate that SME growth partially mediates the relationship between digital financial inclusion and job creation, indicating that employment gains largely materialise through business expansion enabled by improved financial access and liquidity management.

Recommendations

Based on the findings, the following recommendations are proposed:

1. Public agencies and private stakeholders should implement targeted training programmes to enhance SMEs' digital and financial capabilities, enabling effective use of fintech platforms.

2. Regulators should strengthen oversight of digital lenders and payment platforms, enforce data privacy standards, and enhance dispute-resolution mechanisms to build SME confidence.
3. Financial inclusion strategies should move beyond account ownership to focus on sustained and productive use of digital financial services by SMEs.
4. Investments in internet connectivity, power supply, and agent networks are critical to extending the benefits of digital finance, particularly in Ogun State.
5. Policymakers should incentivise partnerships between fintech firms and SME support institutions to deliver tailored products that support growth and employment.

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