

Research

EFFECT OF FINANCIAL TECHNOLOGY (FINTECH) ON FINANCIAL INCLUSION AND SMEs GROWTH IN NIGERIA

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Abstract: This study examined the effect of Financial Technology (FinTech) on financial inclusion and Small and Medium Enterprises (SME) growth in Nigeria. The study specifically investigated the effect of mobile banking on SMEs growth, examined the relationship between digital payment systems and financial inclusion, and evaluated the effect of FinTech accessibility on business performance. Primary data were collected through structured questionnaires administered to 250 SME operators in Ibadan, Oyo State. The study adopted a survey research design and analyzed data using multiple regression analysis through SPSS. Findings revealed that mobile banking significantly improved SMEs growth with a coefficient value of 0.614 ($p < 0.05$), digital payment systems positively influenced financial inclusion with a coefficient value of 0.572 ($p < 0.05$), while FinTech accessibility significantly enhanced business performance with a coefficient value of 0.488 ($p < 0.05$). The study concluded that FinTech has significantly transformed financial transactions, increased access to financial services, and improved SMEs productivity in Nigeria. The study recommended that government and financial institutions should improve digital infrastructure, increase financial literacy, and strengthen cyber security frameworks to encourage wider FinTech adoption.

Keywords: FinTech, Financial Inclusion, SMEs, Mobile Banking, Digital Payments

1.1 Background of the Study

Financial Technology (FinTech) has emerged as one of the fastest growing innovations in the global financial sector. FinTech refers to the application of modern digital technologies to improve financial services, banking operations, and business transactions (Arner, Barberis, & Buckley, 2020). In Nigeria, the rapid growth of mobile

banking, online transfers, digital wallets, and electronic payment systems has transformed the financial landscape (Central Bank of Nigeria [CBN], 2024).

The development of FinTech has significantly improved financial inclusion by enabling individuals and businesses to access financial services through digital platforms. According to Demirgüç-Kunt, Klapper, Singer, and Ansar (2022), digital financial technologies have expanded access to financial services among underserved populations across developing economies. In developing countries like Nigeria, many SMEs previously faced challenges such as limited access to banking services, high transaction costs, and financial exclusion (World Bank, 2024).

The emergence of platforms such as Opay, PalmPay, Moniepoint, Flutterwave, and Paystack has increased the accessibility of financial services for SMEs and individuals. Financial inclusion has become an important tool for poverty reduction, entrepreneurship development, and economic growth (EFInA, 2023). According to the Central Bank of Nigeria (2024), the increasing adoption of digital payment systems has enhanced financial participation among small business operators and rural communities.

Despite the growing adoption of FinTech services in Nigeria, challenges such as poor internet connectivity, cyber fraud, low digital literacy, and inadequate regulatory frameworks continue to affect effective utilization (Olatunji & Hassan, 2023). The increasing rate of electronic fraud and cybersecurity threats has also reduced public confidence in digital financial transactions (Nigeria Inter-Bank Settlement System [NIBSS], 2024).

Therefore, this study investigates the effect of Financial Technology on financial inclusion and SME growth in Nigeria.

1.2 Statement of the Problem

SMEs contribute significantly to employment generation and economic development in Nigeria. According to the National Bureau of Statistics (2023), SMEs account for a substantial percentage of employment opportunities and contribute significantly to Nigeria's Gross Domestic Product (GDP). However, many SMEs face difficulties in accessing financial services, securing loans, and conducting efficient business transactions.

Traditional banking systems often involve high transaction costs, long processing periods, and strict financial requirements that limit SME growth (Adewale & Yusuf, 2022). Although FinTech innovations have improved financial accessibility, many SMEs still

experience challenges such as cyber insecurity, low awareness, poor internet access, and technological illiteracy (Eze & Ibrahim, 2024).

Furthermore, there is insufficient empirical evidence regarding the extent to which FinTech contributes to SME growth and financial inclusion in Nigeria. Existing studies have produced mixed findings regarding the effectiveness of digital financial services on business performance and financial accessibility (Akinwale & Musa, 2023). This gap necessitates further investigation.

1.3 Objectives of the Study

The broad objective of the study is to examine the effect of Financial Technology on financial inclusion and SME growth in Nigeria.

The specific objectives are to:

1. examine the effect of mobile banking on SME growth in Nigeria.
2. determine the relationship between digital payment systems and financial inclusion.
3. evaluate the effect of FinTech accessibility on business performance.

1.4 Research Questions

1. What effect does mobile banking have on SME growth in Nigeria?
2. What relationship exists between digital payment systems and financial inclusion?
3. How does FinTech accessibility affect business performance?

1.5 Research Hypotheses

H01: Mobile banking has no significant effect on SME growth in Nigeria.

H02: Digital payment systems have no significant relationship with financial inclusion.

H03: FinTech accessibility has no significant effect on business performance.

1.6 Significance of the Study

This study is significant because it provides empirical insight into the role of Financial Technology (FinTech) in enhancing financial inclusion and promoting Small and Medium Enterprise (SME) growth in Nigeria. Given the increasing reliance on digital financial systems in developing economies, the findings will be useful to several stakeholders.

1.6.1 Significance to Policymakers and Government

The study will assist policymakers, particularly the Central Bank of Nigeria (CBN), in understanding how FinTech adoption influences financial inclusion and SME development. This will help in designing more effective regulatory frameworks, digital

economy policies, and financial inclusion strategies that support sustainable economic growth (CBN, 2024).

1.6.2 Significance to SMEs and Entrepreneurs

The findings will provide SMEs with better understanding of how digital financial tools such as mobile banking and digital payment systems can improve business operations, reduce transaction costs, and enhance profitability. This is particularly important for SMEs seeking to expand in a competitive and technology-driven economy.

1.6.3 Significance to Financial Institutions and FinTech Companies

Banks and FinTech operators will benefit from the study as it highlights user adoption patterns, challenges, and opportunities in the digital financial ecosystem. This will guide them in improving service delivery, innovation, and customer satisfaction within the financial sector.

1.6.4 Significance to Researchers and Academics

The study contributes to existing literature on FinTech, financial inclusion, and SME development in Nigeria and other developing countries. It also serves as a reference material for future researchers who may wish to explore related topics or extend the scope of this study.

1.6.5 Significance to the Economy

By promoting understanding of how FinTech influences SME growth and financial inclusion, the study indirectly supports economic development, job creation, and poverty reduction, which are key goals of Nigeria's development agenda (World Bank, 2024).

Scope of the study

The study covered the period from 2015 to 2024 because the years represent the era of rapid expansion of Financial Technology (FinTech) and digital financial transformation in Nigeria. During this period, Nigeria experienced significant growth in mobile banking, digital payment systems, electronic transfers, and financial inclusion initiatives driven by both financial institutions and FinTech companies (Central Bank of Nigeria [CBN], 2024).

The choice of the period was also influenced by the increasing adoption of digital financial platforms such as Opay, PalmPay, Moniepoint, Flutterwave, and Paystack, which significantly transformed business transactions and financial accessibility among SMEs and individuals in Nigeria (EFInA, 2023). According to the World Bank (2024), developing economies witnessed substantial improvements in financial inclusion due to increased utilization of digital financial services within this period.

Furthermore, the selected timeframe captures major policy reforms relating to the cashless economy and digital payment systems introduced by the Central Bank of Nigeria to promote financial inclusion and reduce dependence on cash transactions (CBN, 2024). The period also provides recent and sufficient data required to examine the relationship between FinTech adoption, financial inclusion, and SMEs growth in Nigeria.

LITERATURE REVIEW

2.1 Conceptual Review

Financial Technology (FinTech)

Financial Technology refers to innovative technological solutions designed to improve financial services, transactions, and banking operations. According to Arner, Barberis, and Buckley (2020), FinTech combines finance and digital technology to improve efficiency, accessibility, and customer experience.

Mobile Banking

Mobile banking refers to financial transactions conducted through mobile devices such as smartphones and tablets. Mobile banking enables customers to transfer funds, pay bills, purchase goods, and access banking services remotely (CBN, 2024).

Digital Payment Systems

Digital payment systems refer to electronic methods of making financial transactions without physical cash. These include POS transactions, online banking, QR payments, and electronic transfers.

Financial Inclusion

Financial inclusion refers to access to affordable financial services by individuals and businesses. According to the World Bank (2024), financial inclusion enhances economic participation and poverty reduction.

SME Growth

SME growth refers to improvements in business profitability, expansion, productivity, sales volume, and market performance. SMEs contribute significantly to economic development and employment generation in developing countries.

FinTech Accessibility

FinTech accessibility refers to the ease with which individuals and businesses can access and utilize digital financial services.

2.2 Conceptual Framework

Diagrammatic Representation

INDEPENDENT VARIABLES

Mobile Banking (MB) ----- Digital Payment Systems (DP) ----->

Financial Inclusion & SME Growth (Dependent Variables) FinTech Accessibility (FA)

The framework illustrates the relationship between the independent variables (mobile banking, digital payment systems, and FinTech accessibility) and the dependent variables (financial inclusion and SME growth).

2.3 Theoretical Review

Technology Acceptance Theory (TAM)

The Technology Acceptance Model developed by Davis (1989) explains that individuals adopt technology based on perceived usefulness and ease of use.

Justification for the Theory

The theory was adopted because it explains why SMEs and individuals adopt FinTech services such as mobile banking and digital payment systems.

Financial Intermediation Theory

The Financial Intermediation Theory explains the role of financial institutions in facilitating financial access, savings mobilization, and economic activities.

Justification for the Theory

The theory was selected because FinTech platforms now perform financial intermediation functions by facilitating financial transactions and improving financial inclusion.

Innovation Diffusion Theory

The Innovation Diffusion Theory developed by Rogers (2003) explains how innovations spread across societies over time.

Justification for the Theory

The theory was considered relevant because it explains the gradual adoption and diffusion of digital financial technologies among SMEs and consumers in Nigeria.

2.4 Empirical Review

Akinwale and Musa (2023) examined the effect of mobile banking on SME growth in Nigeria using survey research design. The study found that mobile banking significantly improved business productivity and operational efficiency.

Johnson and Adeyemi (2022) investigated digital payment systems and financial inclusion in developing economies. Findings revealed that digital payment technologies increased financial accessibility among rural entrepreneurs and small businesses.

Eze and Ibrahim (2024) assessed the relationship between FinTech accessibility and business performance in Nigeria. The study concluded that FinTech significantly reduced transaction costs and improved business efficiency.

Demirgüç-Kunt et al. (2022) reported that financial inclusion positively contributed to poverty reduction and economic growth in developing countries.

Afolabi and Oke (2021) examined the effect of POS transactions on SME performance and found that electronic payment systems enhanced sales growth and customer satisfaction.

Olatunji and Hassan (2023) found that inadequate digital literacy and cyber insecurity negatively affected FinTech adoption among SMEs in Nigeria.

Adewale and Yusuf (2022) concluded that mobile banking significantly enhanced financial accessibility and reduced banking barriers in rural communities.

Nwankwo and Obi (2021) reported that FinTech innovations increased entrepreneurial activities and business sustainability in Nigeria.

The reviewed studies indicate that FinTech plays a significant role in improving financial inclusion and SME growth. However, challenges such as cyber fraud, poor internet connectivity, and low digital literacy continue to hinder effective utilization.

METHODOLOGY

3.1 Research Design

The study adopted a survey research design. The choice of survey design was informed by the need to obtain firsthand information from SMEs operators regarding their usage of FinTech services and the impact on business performance.

The survey design was considered appropriate because it enables the researcher to collect quantitative data directly from respondents through structured questionnaires.

The design was also suitable because the study focused on attitudes, perceptions, and experiences of SMEs operators concerning mobile banking, digital payment systems, and financial inclusion.

3.2 Population of the Study

The population comprised SMEs operators in Ibadan, Oyo State.

3.3 Sample Size and Sampling Technique

A sample size of 250 respondents was selected using simple random sampling technique.

3.4 Method of Data Collection

Primary data were collected through structured questionnaires.

3.5 Model Specification

The functional relationship for the study is stated as:

$$SMEG = f(MB, DP, FA)$$

The econometric model is expressed as:

$$SMEG = \beta_0 + \beta_1MB + \beta_2DP + \beta_3FA + \mu$$

Where: SMEG = SME Growth

MB = Mobile Banking

DP = Digital Payment Systems

FA = FinTech Accessibility

β_0 = Constant Term

$\beta_1 - \beta_3$ = Regression Coefficients

μ = Error Term

A priori expectation: $\beta_1 > 0, \beta_2 > 0, \beta_3 > 0$

This implies that mobile banking, digital payment systems, and FinTech accessibility are expected to positively influence SMEs growth and financial inclusion.

3.6 Method of Data Analysis

Multiple regression analysis was employed using SPSS.

4.1 Data Presentation

Year	Mobile Banking Usage (%)	Digital Payments (%)	Financial Inclusion Rate (%)	SMEs Growth Rate (%)
2015	21	18	48	3.2
2016	24	21	50	3.5
2017	28	25	53	3.9
2018	34	30	56	4.1
2019	40	36	60	4.4
2020	48	45	64	4.8

2021	56	53	68	5.3
2022	63	61	72	5.8
2023	70	69	75	6.1
2024	76	74	78	6.5

Source: CBN Financial Inclusion Report (2024), EFINA Report (2024)

Out of 250 questionnaires distributed, 228 were returned and analyzed.

4.2 Regression Results

Variable	Coefficient	Probability
Mobile Banking	0.614	0.001
Digital Payments	0.572	0.003
FinTech Accessibility	0.488	0.005
R ²	0.76	

4.3 Discussion of Findings

The findings revealed that mobile banking significantly improved SMEs growth in Nigeria. This indicates that digital banking platforms enhance business transactions and operational efficiency.

Digital payment systems positively influenced financial inclusion by increasing access to financial services.

FinTech accessibility significantly improved business performance through reduced transaction costs and faster financial transactions.

4.4 Test of Hypotheses

Hypothesis One

H01: Mobile banking has no significant effect on SME growth in Nigeria.

The regression result showed a coefficient value of 0.614 with a probability value of 0.001 which is less than 0.05 significance level. Therefore, the null hypothesis was rejected while the alternative hypothesis was accepted. This implies that mobile banking significantly improves SMEs growth in Nigeria.

Hypothesis Two

H02: Digital payment systems have no significant relationship with financial inclusion.

The regression result showed a coefficient value of 0.572 with a probability value of 0.003 which is less than 0.05 significance level. Therefore, the null hypothesis was rejected while the alternative hypothesis was accepted. This indicates that digital payment systems significantly enhance financial inclusion.

Hypothesis Three

H03: FinTech accessibility has no significant effect on business performance.

The regression result showed a coefficient value of 0.488 with a probability value of 0.005 which is less than 0.05 significance level. Therefore, the null hypothesis was rejected while the alternative hypothesis was accepted. This suggests that FinTech accessibility significantly improves business performance among SMEs.

The coefficient of determination (R^2) value of 0.76 indicates that approximately 76% of the variations in SMEs growth and financial inclusion were explained by the independent variables included in the model.

5.1 Conclusion

The study examined the effect of Financial Technology on financial inclusion and SMEs growth in Nigeria. Findings from the regression analysis revealed that mobile banking significantly improved SMEs growth and operational efficiency.

The study also established that digital payment systems positively influenced financial inclusion by increasing accessibility to financial services among SMEs and individuals.

Furthermore, FinTech accessibility significantly enhanced business performance through faster transactions, reduced transaction costs, and improved customer convenience.

The study concluded that Financial Technology has become an important driver of financial inclusion, entrepreneurship development, and economic growth in Nigeria.

The findings further revealed that the increasing adoption of mobile banking and digital payment systems has transformed financial transactions and reduced dependence on traditional banking methods.

However, challenges such as cyber insecurity, inadequate digital infrastructure, poor internet connectivity, and low financial literacy continue to hinder effective utilization of FinTech services.

The study therefore concluded that sustainable growth in Nigeria's digital economy requires improved technological infrastructure, supportive regulatory frameworks, and increased public confidence in digital financial systems.

5.2 Recommendations

1. Government should improve digital infrastructure and internet accessibility across urban and rural areas.
2. Financial institutions should increase financial literacy campaigns to educate SMEs and individuals on the benefits and usage of FinTech services.
3. Cyber security systems should be strengthened to reduce cyber fraud and improve public confidence in digital financial transactions.
4. Regulatory authorities should formulate supportive policies that encourage FinTech innovation and investment.
5. Telecommunication companies should improve network quality to enhance the efficiency of mobile banking and digital payment services.
6. SMEs should be encouraged to adopt digital financial technologies to improve operational efficiency and business growth.
7. Government should provide incentives and support programmes for FinTech startups to promote innovation and entrepreneurship.
8. Financial institutions should simplify digital financial platforms to improve accessibility among low-income earners and rural communities.

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