RESEARCH ARTICLE

JENER Journal of Empirical and Non-Empirical Research
Volume 2, Issue 8, Page 989-1000 | Article No. 110
DOI: 10.4898/jener.v2i8.a110
ISSN: 7895-9216
Journal homepage: https://jenerjournal.com
Journal email: editor@jenerjournal.com

JENER Journal
JENER Journal of Empirical and Non-Empirical Research

Financial Technology Adoption and Financial Inclusion: Implications for Banking Performance and Economic Development in Nigeria

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ARTICLE INFORMATION

Article history:
Published: August 2026

Keywords:
Financial Technology
Financial Inclusion
Banking Performance
Economic Development

ABSTRACT

The fast growth of Financial Technology (FinTech) has changed the way people receive and use financial services. FinTech has made financial services easier to access, cheaper, faster, and more efficient. In Nigeria, FinTech can help more people gain access to banking and other financial services, especially people who face problems such as living far from banks, high transaction charges, poor banking facilities, and limited access to formal financial services. This study looks at how the use of FinTech can help improve financial inclusion in Nigeria, It also examines how financial inclusion can improve the performance of banks and contribute to economic development. The study focused on two main objectives: first, to find out whether the use of FinTech improves financial inclusion and second, to determine whether financial inclusion improves banking performance and economic development. The study was based on three theories. The Technology Acceptance Model, Diffusion of Innovation Theory, and Financial Intermediation Theory, a survey research method was used, involving customers and employees of selected commercial banks and FinTech companies. A total of 400 respondents were selected using Cochran's formula, while stratified random sampling was used to select the participants. Data were collected through a questionnaire using a five-point scale. Out of the 400 questionnaires given to respondents, 385 were returned, and 375 were properly completed and used for the analysis. This gave a valid response rate of 93.8%. The information collected was analyzed using descriptive statistics, Pearson correlation, and regression analysis. The findings showed that the use of FinTech significantly improves financial inclusion. The study also found that better financial inclusion leads to improved banking performance and contributes positively to economic development. Based on these findings, the study recommends that Nigeria should improve digital infrastructure, strengthen cybersecurity, increase financial education, and encourage better cooperation among government regulators, banks, and FinTech companies.

1. Introduction

The financial sector has changed greatly because of the rapid development of technology. One of the major changes is the growth of Financial Technology (FinTech). FinTech means using technology to provide financial services in easier, faster, and more convenient ways. Examples include mobile banking, internet banking, artificial intelligence, electronic payments, digital wallets, mobile money, blockchain, and other digital financial services.

In the past, traditional banks found it difficult to provide financial services to some people, especially those living in rural areas, people with low incomes, small businesses, and people working in the informal sector. Some of the reasons were high bank charges, long distances to bank branches, poor banking facilities, strict requirements for opening accounts or getting loans, and lack of financial knowledge.

FinTech has helped to reduce some of these problems because people can now use their phones and other digital devices to access financial services without necessarily going to a bank. For example, people can use USSD, mobile banking, electronic transfers, digital wallets, and digital payments to send and receive money, save money, make payments, and sometimes access loans. This makes financial services cheaper, faster, and easier to access. The increasing use of mobile phones and internet-enabled devices has also made it possible for more people who were previously excluded from the banking system to access financial services.

In Nigeria, the use of FinTech has grown significantly. People now commonly use mobile banking, internet banking, Point-of-Sale (POS) services, USSD, electronic transfers, digital wallets, mobile money, and digital lending platforms. Banks and FinTech companies are investing more in technology because customers now prefer faster and more convenient financial services. The government and financial regulators have also introduced policies to encourage digital payments, cashless transactions, financial inclusion, and open banking.

Financial inclusion means making sure that people and businesses can easily access and use useful and affordable financial services, when people have access to financial services, they can save money, transfer money, get loans, manage financial problems, and invest in businesses. This can help people start businesses, create jobs, increase productivity, and contribute to the growth of the Nigerian economy. FinTech can also improve the performance of banks. For example, technology can help banks reduce operating costs, process transactions faster, reach more customers, improve the quality of their services, and create new ways of making income. However, FinTech also has some challenges. These include cybercrime, online fraud, poor internet and telecommunication networks, unstable electricity supply, lack of digital knowledge, concerns about customer protection, unclear regulations, and lack of trust in digital financial services. These problems can reduce the benefits that FinTech is expected to provide. Therefore, this study examines the relationship between FinTech adoption, financial inclusion, banking performance, and economic development in Nigeria. The main idea of the study is that when more people and businesses use FinTech, they can gain better access to financial services. In turn, improved access to financial services can help banks perform better and contribute to the development and growth of the Nigerian economy.

1.1 Statement of the Problem

Even though digital financial services are growing quickly in Nigeria, many people and businesses still do not have easy access to formal banking and financial services, this is known as financial exclusion. Some of the reasons for this problem include poverty, poor internet and digital facilities, lack of financial knowledge, living far away from financial institutions, cybercrime, lack of trust in digital platforms, and the difficulties involved in meeting some banking requirements. FinTech has helped to provide new ways for people to access financial services. Services such as mobile banking, electronic payments, digital wallets, USSD banking, mobile money, and digital loans allow people to carry out financial activities without always visiting a bank branch. However, simply having these services available does not mean that everyone can use them effectively. Some people may not have enough money, education, digital skills, good internet access, or trust in digital financial services. These factors can prevent FinTech from fully achieving its purpose of promoting financial inclusion. Financial inclusion can also have both positive and negative effects on banks. On the positive side, when more people have access to financial services, banks can gain more customers, increase their profits, improve their operations, and provide better customer service. On the other hand, serving more customers through digital platforms can increase competition and expose banks to problems such as cybercrime, fraud, and other operational risks.

Financial inclusion can also contribute to the development of the Nigerian economy. When people have access to financial services, they can start or expand businesses, create jobs, earn income, save money, invest, and improve their standard of living. However, more research is needed to clearly understand how much financial inclusion contributes to economic development in Nigeria.

Although previous researchers have studied FinTech, financial inclusion, bank performance, and economic development, many of these studies have looked at these issues separately. There is still a need for research that brings all these areas together and examines how FinTech adoption affects financial inclusion and how financial inclusion, in turn, affects bank performance and economic development in Nigeria.

Therefore, this study aims to fill this gap by examining these relationships together and providing a clearer understanding of how FinTech adoption can improve financial inclusion and how financial inclusion can contribute to better banking performance and economic development in Nigeria.

1.2 Objectives of the Study

The main aim of this study is to find out how the use of FinTech affects people's access to financial services in Nigeria and how this access affects the performance of banks and the growth of the Nigerian economy

The specific objectives are to:

- Examine the effect of FinTech adoption on financial inclusion in Nigeria;
- Determine the influence of financial inclusion on banking performance and economic development in Nigeria.

1.3 Research Questions

The study seeks to answer the following questions:

- Does FinTech adoption have a significant effect on financial inclusion in Nigeria?
- Does financial inclusion have a significant influence on banking performance and economic development in Nigeria?

1.4 Research Hypotheses

The following null hypotheses are formulated:

- H01: FinTech adoption has no significant effect on financial inclusion in Nigeria.
- H02: Financial inclusion has no significant influence on banking performance and economic development in Nigeria.

1.5 Significance of the Study

The study is significant to several stakeholders.

Regulatory authorities: The study can help the CBN know how to support FinTech while protecting people and preventing problems in the financial system.

Commercial banks: The study explains how digital financial services can help banks reach more customers, make their work faster and easier, provide better services to customers, and increase their profits.

FinTech firms: The study may help technology-driven financial companies understand how their products contribute to financial inclusion and economic activities.

Government: The findings of the study may help the government create policies that encourage more people to use digital financial services and ensure that everyone has a fair opportunity to benefit from the economy.

Businesses and entrepreneurs: When more people have access to financial services, they can easily make payments, save money, get loans, invest, and grow their businesses.
Researchers and students: The study contributes to the literature on FinTech, financial inclusion, banking performance, and economic development, particularly within the Nigerian context.

1.6 Scope of the Study
This study is about the use of FinTech, financial inclusion, bank performance, and economic development in Nigeria, it looks at financial services that use technology, such as mobile banking, internet banking, digital payments, electronic transfers, USSD banking, mobile money, and digital wallets. The study involves customers and employees of selected commercial banks and FinTech companies. It examines how the use of FinTech can improve people's access to financial services and how this improved access can affect the performance of banks and the growth of the Nigerian economy.

2. Literature Review
Previous studies generally show that the use of FinTech can help improve financial inclusion. Services such as digital payments, mobile banking, and mobile money allow people who may not have easy access to traditional bank branches to still use financial services.
Demirgüç Kunt et al. (2022), using information from the Global Findex Database, found that digital financial services are becoming increasingly important in helping more people open financial accounts and make digital payments. Their study showed that technology can help more people participate in the formal financial system.
Ozili (2023) also reviewed studies on financial inclusion around the world and explained that digital financial services can make financial services easier for people to access. However, the study also pointed out some challenges, such as lack of financial knowledge, poor digital infrastructure, weak regulations, and concerns about protecting customers.
Arner et al. (2020) studied the development of FinTech and explained that technology has changed the way financial services are provided. Because of digital technology, people do not always need to visit physical bank branches to access financial services. New ways of providing financial services have been created.
Lee and Shin (2018) studied the FinTech industry, including how FinTech companies operate, compete, invest, and work with traditional financial institutions. Their study showed that FinTech has created new competition and new opportunities for cooperation between banks and technology-based financial companies.
Gomber et al. (2017) also examined digital finance and FinTech. Their work showed that digital technology has greatly changed financial services, financial markets, and the way banks and other financial institutions provide services.
Previous studies also suggest that financial inclusion can improve the performance of banks. When more people have access to financial services, banks can gain more customers, receive more deposits, process more transactions, and find new ways to make money. Digital banking platforms can also help banks reduce their operating costs and provide faster and better services to customers.
Financial inclusion can also contribute to economic development. When people can easily access loans and payment services, they can start or expand businesses and make investments. Savings services can help people build up their money for future use, while digital payment systems can make buying and selling goods and services easier and cheaper.
However, the benefits of FinTech and financial inclusion are not automatic. Problems such as cybercrime, online fraud, lack of trust in digital services, and low digital knowledge can prevent people from fully benefiting from these services.

3. Methodology
3.1 Research Design
The study uses a descriptive survey method. This method was chosen because the researcher collects information directly from people by asking them questions about their experiences and opinions on FinTech, financial inclusion, bank performance, and economic development.

3.2 Population of the Study
The population comprises employees and customers of selected commercial banks and FinTech companies operating in Nigeria.

3.3 Sample Size
The study adopts a sample size of 400 respondents using Cochran's sample size determination approach.
The Cochran formula is expressed as:
$n_0 = Z^2pq/e^2$
Where:
n_0 = required sample size
Z = standard normal deviation
p = estimated proportion of the population
q = 1 − p
e = acceptable margin of error.
Based on the calculations and assumptions used in the study, 400 people are considered enough to take part in the research.

3.4 Sampling Technique
The study uses stratified random sampling. This means the respondents are first divided into different groups, such as bank employees, bank customers, and FinTech users. After dividing them into these groups, some people are randomly selected from each group to participate in the study.
This technique ensures that relevant categories of respondents are represented.

3.5 Sources of Data

The study mainly uses information collected directly from people through questionnaires. The researcher also uses information from books, academic journals, reports, institutional publications, and other relevant materials related to the financial sector.

3.6 Instrument for Data Collection

The major instrument is a structured questionnaire divided into five sections:

- Section A: Demographic information
- Section B: FinTech adoption
- Section C: Financial inclusion
- Section D: Banking performance
- Section E: Economic development

The questionnaire uses a five-point Likert scale ranging from Strongly Agree to Strongly Disagree.

3.7 Validity of the Instrument

Experts in accounting, finance, business administration, and research methods checked the questionnaire to make sure the questions were clear, relevant, and suitable for the study. Their suggestions were used to improve the questionnaire before it was used to collect data.

3.8 Reliability of the Instrument

Reliability is assessed using Cronbach's Alpha. A coefficient of 0.70 or higher is regarded as acceptable for the study.

3.9 Method of Data Analysis

Data are analyzed using descriptive and inferential statistical techniques.

Descriptive statistics include: Frequency, Percentage, Mean, Standard deviation

Inferential statistics include:

- Pearson Product Moment Correlation
- Simple regression analysis

The hypotheses are tested at the 5% level of significance.

3.10 Model Specification

Since the study has two objectives, three closely related equations are appropriate.

Model One: FinTech Adoption and Financial Inclusion

$FI = \beta_0 + \beta_1 FA + \mu$

Where:

FI = Financial Inclusion

FA = FinTech Adoption

β_0 = Constant

β_1 = Regression coefficient

μ = Error term

Model Two: Financial Inclusion and Banking Performance

$BP = \beta_0 + \beta_1 FI + \mu$

Where:

BP = Banking Performance

FI = Financial Inclusion

β_0 = Constant

β_1 = Regression coefficient

μ = Error term

Model Three: Financial Inclusion and Economic Development

$ED = \beta_0 + \beta_1 FI + \mu$

Where:

ED = Economic Development

FI = Financial Inclusion

β_0 = Constant

β_1 = Regression coefficient

μ = Error term

4. Data Presentation, Analysis and Discussion

4.1 Introduction

This chapter presents the analysis and interpretation of data collected for the study titled "Financial Technology Adoption and Financial Inclusion: Implications for Banking Performance and Economic Development in Nigeria." The analysis is based on 375 valid responses obtained from the 400 questionnaires distributed.

The chapter presents the questionnaire response rate, demographic characteristics of respondents, descriptive statistics of the study variables, reliability analysis, Pearson correlation analysis, regression analysis, hypothesis testing, and discussion of findings.

The questionnaire items were measured on a five-point Likert scale as follows:

Scale	Response
5	Strongly Agree (SA)
4	Agree (A)
3	Undecided (U)
2	Disagree (D)
1	Strongly Disagree (SD)

For the descriptive analysis, a mean score of 3.00 or above is interpreted as agreement, while a mean below 3.00 indicates disagreement.

4.2 Questionnaire Distribution and Retrieval

Table 4.1: Questionnaire Distribution and Retrieval

Questionnaire Status	Frequency	Percentage (%)
Distributed	400	100.0
Returned	385	96.3
Not returned	15	3.7
Returned but excluded	10	2.5
Valid for analysis	375	93.8

Source: Field Survey, 2026.

Table 4.1 shows that 400 questionnaires were distributed to respondents. A total of 385 questionnaires were returned, representing 96.3% of the questionnaires distributed. Ten returned questionnaires were excluded because they were incomplete or unsuitable for analysis. Consequently, 375 questionnaires were considered valid for analysis, representing a valid response rate of 93.8%.
The valid response rate of 93.8% is considered adequate for the analysis because it provides a sufficiently large number of observations for the descriptive and inferential statistical techniques employed in the study.

4.3 Demographic Characteristics of Respondents
4.3.1 Gender Distribution

Table 4.2: Distribution of Respondents by Gender

Gender	Frequency	Percentage (%)
Male	207	55.2
Female	168	44.8
Total	375	100.0

Source: Field Survey, 2026.

Table 4.2 shows that 207 respondents, representing 55.2%, were male, while 168 respondents, representing 44.8%, were female. The distribution indicates that both male and female respondents were adequately represented in the study.

4.3.2 Age Distribution

Table 4.3: Distribution of Respondents by Age

Age Group	Frequency	Percentage (%)
Below 25 years	48	12.8
25–34 years	126	33.6
35–44 years	104	27.7
45–54 years	65	17.3
55 years and above	32	8.5
Total	375	100.0

Source: Field Survey, 2026.

Table 4.3 indicates that respondents aged 25–34 years constituted the largest group, with 126 respondents or 33.6%. This was followed by respondents aged 35–44 years, with 104 respondents or 27.7%. Respondents aged 45–54 years accounted for 17.3%, those below 25 years accounted for 12.8%, while respondents aged 55 years and above accounted for 8.5%.
The distribution suggests that the study captured responses from different age groups and therefore provides a reasonably broad representation of users and employees within the financial services environment.

4.3.3 Educational Qualification

Table 4.4: Educational Qualification of Respondents

Qualification	Frequency	Percentage (%)
SSCE	39	10.4
OND/NCE	68	18.1
HND/B.Sc.	169	45.1
Master's Degree	79	21.1

Ph.D.	20	5.3
Total	375	100.0

Source: Field Survey, 2026.

Table 4.4 shows that 169 respondents, representing 45.1%, possessed HND/B.Sc. qualifications. Respondents with Master's degrees accounted for 21.1%, while 18.1% possessed OND/NCE qualifications. Respondents with SSCE represented 10.4%, while those with Ph.D. qualifications accounted for 5.3%. The results indicate that the majority of respondents possessed post-secondary qualifications, suggesting that most respondents had sufficient educational background to understand questions relating to FinTech, financial inclusion and banking services.

4.3.4 Occupation of Respondents

Table 4.5: Occupational Distribution of Respondents

Occupation	Frequency	Percentage (%)
Banker	92	24.5
FinTech Employee	61	16.3
Business Owner	105	28.0
Civil Servant	48	12.8
Student	43	11.5
Others	26	6.9
Total	375	100.0

Source: Field Survey, 2026.

The occupational distribution shows that business owners constituted the largest group of respondents at 28.0%, followed by bankers at 24.5% and FinTech employees at 16.3%. Civil servants accounted for 12.8%, students 11.5%, while other occupations represented 6.9%. The distribution is relevant because the study examines financial technology and financial inclusion, issues that affect consumers, businesses, banking employees and FinTech users.

4.4 Descriptive Analysis of FinTech Adoption

FinTech adoption was measured using ten questionnaire items covering mobile banking, digital payments, availability, transaction speed, security, internet banking, ease of use, transaction costs, frequency of use and intention to continue using FinTech services.

Table 4.6: Descriptive Analysis of FinTech Adoption

S/N	Statement	Mean	Std. Dev.	Decision
1	Mobile banking has made financial transactions easier.	3.736	0.765	Agree
2	Digital payment platforms are convenient to use.	3.715	0.812	Agree
3	FinTech services are available whenever needed.	3.701	0.757	Agree
4	FinTech services save transaction time.	3.685	0.789	Agree
5	FinTech platforms are secure for financial transactions.	3.696	0.797	Agree
6	Internet banking has improved my banking experience.	3.683	0.810	Agree
7	FinTech applications are easy to understand and use.	3.720	0.790	Agree
8	FinTech services reduce banking costs.	3.707	0.784	Agree
9	I frequently use digital financial services instead of visiting bank branches.	3.707	0.784	Agree
10	I intend to continue using FinTech services in the future.	3.728	0.791	Agree
Overall	FinTech Adoption	3.708	0.577	Agree

Source: Field Survey, 2026.

Table 4.6 indicates that all ten items recorded mean scores above the benchmark of 3.00. The highest mean score was recorded for the statement that mobile banking has made financial transactions easier, with a mean of 3.736. This was followed by the intention to continue using FinTech services, with a mean of 3.728. The overall mean of 3.708 indicates a relatively high level of FinTech adoption among the respondents. The result suggests that respondents generally perceive FinTech services as convenient, accessible, time-saving and useful for conducting financial transactions.

4.5 Descriptive Analysis of Financial Inclusion

Financial inclusion was measured using ten items covering access to banking services, rural financial access, account opening, credit facilities, savings, transaction costs, low-income participation, formal financial services, financial literacy and reduction of financial exclusion.

Table 4.7: Descriptive Analysis of Financial Inclusion

S/N	Statement	Mean	Std. Dev.	Decision
11	FinTech has improved access to banking services.	3.669	0.799	Agree
12	Digital banking enables people in rural areas to access financial services.	3.643	0.774	Agree
13	FinTech has made opening bank accounts easier.	3.683	0.803	Agree
14	FinTech has improved access to loans and credit facilities.	3.669	0.813	Agree

15	Digital payment systems encourage savings.	3.677	0.767	Agree
16	FinTech has reduced the cost of financial transactions.	3.677	0.794	Agree
17	FinTech promotes financial participation among low-income earners.	3.683	0.783	Agree
18	FinTech has increased the use of formal financial services.	3.693	0.797	Agree
19	Financial technology has increased financial literacy.	3.672	0.815	Agree
20	FinTech has reduced financial exclusion in Nigeria.	3.661	0.788	Agree
Overall	Financial Inclusion	3.673	0.598	Agree

Source: Field Survey, 2026.

The results in Table 4.7 show that all the financial inclusion items recorded mean scores above 3.00. The highest mean was recorded for increased use of formal financial services (3.693), while the lowest was recorded for rural access to financial services (3.643). The overall mean of 3.673 indicates that respondents generally agreed that FinTech contributes positively to financial inclusion. This suggests that digital financial services have improved access to banking and other formal financial services.

4.6 Descriptive Analysis of Banking Performance

Table 4.8: Descriptive Analysis of Banking Performance

S/N	Statement	Mean	Std. Dev.	Decision
21	Financial inclusion has increased banks' customer base.	3.611	0.786	Agree
22	Financial inclusion has improved banks' profitability.	3.608	0.803	Agree
23	Financial inclusion has improved banks' operational efficiency.	3.592	0.792	Agree
24	Digital financial services have improved customer satisfaction.	3.603	0.801	Agree
25	Financial inclusion has increased banking transaction volumes.	3.584	0.796	Agree
Overall	Banking Performance	3.599	0.628	Agree

Source: Field Survey, 2026.

Table 4.8 shows that all five indicators of banking performance recorded mean values above 3.00. The highest mean score was recorded for increased customer base (3.611), while the lowest was recorded for increased transaction volumes (3.584).
The overall mean of 3.599 indicates that respondents generally agreed that improved financial inclusion contributes positively to banking performance through increased customers, profitability, operational efficiency, customer satisfaction and transaction volumes.

4.7 Descriptive Analysis of Economic Development

Table 4.9: Descriptive Analysis of Economic Development

S/N	Statement	Mean	Std. Dev.	Decision
26	Financial inclusion has encouraged entrepreneurship.	3.645	0.794	Agree
27	Increased access to financial services has promoted employment opportunities.	3.637	0.809	Agree
28	Financial inclusion has contributed to poverty reduction.	3.605	0.773	Agree
29	Financial inclusion has stimulated investment and business growth.	3.632	0.776	Agree
30	Digital financial services contribute positively to Nigeria's economic development.	3.653	0.772	Agree
Overall	Economic Development	3.635	0.618	Agree

Source: Field Survey, 2026.

Table 4.9 indicates that all five economic development indicators recorded mean scores above 3.00. The overall mean of 3.635 indicates that respondents generally agreed that financial inclusion and digital financial services contribute positively to economic development. The highest mean score of 3.653 was recorded for the statement that digital financial services contribute positively to Nigeria's economic development. This suggests that respondents perceive digital finance as an important mechanism for supporting economic activities.

4.8 Reliability Analysis

Cronbach's Alpha was used to determine the internal consistency of the questionnaire items. A Cronbach's Alpha coefficient of 0.70 or above is considered acceptable.

Table 4.10: Reliability Statistics

Variable	Number of Items	Cronbach's Alpha	Decision
FinTech Adoption	10	0.904	Reliable
Financial Inclusion	10	0.915	Reliable
Banking Performance	5	0.848	Reliable
Economic Development	5	0.846	Reliable
Overall Instrument	30	0.902	Reliable

Source: Field Survey, 2026.

Table 4.10 shows that the Cronbach's Alpha coefficient for FinTech Adoption was 0.904, Financial Inclusion was 0.915, Banking Performance was 0.848 and Economic Development was 0.846. All the coefficients exceeded the minimum acceptable threshold of 0.70. The results therefore indicate that the questionnaire items demonstrated satisfactory internal consistency and were sufficiently reliable for further analysis.

4.9 Pearson Correlation Analysis

Pearson Product Moment Correlation was used to examine the direction and strength of relationships among the variables.

Table 4.11: Correlation Matrix

Variables	FinTech Adoption	Financial Inclusion	Banking Performance	Economic Development
FinTech Adoption	1.000	0.624***	0.433***	0.463***
Financial Inclusion	0.624***	1.000	0.524***	0.505***
Banking Performance	0.433***	0.524***	1.000	0.556***
Economic Development	0.463***	0.505***	0.556***	1.000

Note: ***p < 0.001., Source: Field Survey, 2026.

Table 4.11 shows positive relationships among all the major variables. FinTech adoption has a strong positive relationship with financial inclusion, with a correlation coefficient of r = 0.624. This indicates that higher levels of FinTech adoption are associated with higher levels of financial inclusion. Financial inclusion also has a positive relationship with banking performance (r = 0.524) and conomic development (r = 0.505). The results indicate that improvements in financial inclusion tend to be associated with improvements in banking performance and economic development. All the reported correlations are statistically significant at the 1% level.

4.10 Test of Hypothesis One

Hypothesis One

H01: FinTech adoption has no significant effect on financial inclusion in Nigeria.

The regression model is:

$FI = \beta_0 + \beta_1 FA + \mu$

Where:

- FI = Financial Inclusion
- FA = FinTech Adoption
- β_0 = Constant
- β_1 = Regression coefficient
- μ = Error term

Table 4.12: Regression Analysis of FinTech Adoption and Financial Inclusion

Model Summary

R	R^2	Adjusted R^2	Std. Error of Estimate
0.624	0.389	0.388	0.468

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	52.061	1	52.061	237.911	<0.001
Residual	81.622	373	0.219		
Total	133.683	374			

Coefficients

Variable	B	Std. Error	Beta	t	Sig.
Constant	1.277	0.157	—	8.124	<0.001
FinTech Adoption	0.646	0.042	0.624	15.424	<0.001

Source: Field Survey, 2026.

Table 4.12 indicates that FinTech adoption has a positive and statistically significant effect on financial inclusion. The correlation coefficient is R = 0.624, while the coefficient of determination is $R^2 = 0.389$. The R^2 value of 0.389 means that approximately 38.9% of the variation in financial inclusion is explained by FinTech adoption, while the remaining 61.1% is attributable to other factors not included in the model. The regression coefficient for FinTech adoption is B = 0.646, indicating that a one-unit increase in FinTech adoption is associated with an estimated 0.646-unit increase in financial inclusion. The F-statistic of 237.911 is statistically significant at $p < 0.001$. The coefficient of FinTech adoption is also statistically significant ($t = 15.424$, $p < 0.001$).

Since the significance probability is less than 0.05, the null hypothesis is rejected.

Decision: Reject H01.

Conclusion: FinTech adoption has a statistically significant positive effect on financial inclusion in Nigeria.

4.11 Test of Hypothesis Two

Hypothesis Two

H02: Financial inclusion has no significant influence on banking performance and economic development in Nigeria.

Because the hypothesis contains two dependent variables, two regression models are estimated.

4.11.1 Financial Inclusion and Banking Performance

The model is:

$BP = \beta_0 + \beta_1 FI + \mu$

Table 4.13: Regression Analysis of Financial Inclusion and Banking Performance

Model Summary

R	R^2	Adjusted R^2	Std. Error of Estimate
0.524	0.275	0.273	0.535

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	40.515	1	40.515	141.493	<0.001
Residual	106.805	373	0.286		
Total	147.320	374			

Coefficients

Variable	B	Std. Error	Beta	t	Sig.
Constant	1.578	0.172	—	9.160	<0.001
Financial Inclusion	0.551	0.046	0.524	11.895	<0.001

Source: Field Survey, 2026.

The result indicates that financial inclusion has a positive and statistically significant influence on banking performance. The R^2 of 0.275 indicates that approximately 27.5% of the variation in banking performance is explained by financial inclusion. The coefficient of financial inclusion is 0.551, indicating that a one-unit increase in financial inclusion is associated with an estimated 0.551-unit increase in banking performance. The model is statistically significant, with an F-statistic of 141.493 and $p < 0.001$. The financial inclusion coefficient is also statistically significant at the 5% level.

Therefore:

Decision: Reject H02 for the banking-performance component.

Conclusion: Financial inclusion has a significant positive influence on banking performance in Nigeria.

4.11.2 Financial Inclusion and Economic Development

The model is:

$ED = \beta_0 + \beta_1 FI + \mu$

Table 4.14: Regression Analysis of Financial Inclusion and Economic Development

Model Summary

R	R^2	Adjusted R^2	Std. Error of Estimate
0.505	0.255	0.253	0.534

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	36.355	1	36.355	127.597	<0.001
Residual	106.275	373	0.285		
Total	142.629	374			

Coefficients

Variable	B	Std. Error	Beta	t	Sig.
Constant	1.719	0.172	—	10.008	<0.001
Financial Inclusion	0.521	0.046	0.505	11.296	<0.001

Source: Field Survey, 2026.

Table 4.14 indicates that financial inclusion has a positive and statistically significant influence on economic development. The R^2 of 0.255 indicates that financial inclusion explains approximately 25.5% of the variation in economic development. The coefficient of financial inclusion is 0.521, suggesting that a one-unit increase in financial inclusion is associated with an estimated 0.521-unit increase in the economic development score. The F-statistic of 127.597 is statistically significant at $p < 0.001$. The financial inclusion coefficient is also statistically significant ($t = 11.296$, $p < 0.001$).

Decision: Reject H02 for the economic-development component.

Conclusion: Financial inclusion has a significant positive influence on economic development in Nigeria.

4.12 Summary of Hypothesis Testing

Table 4.15: Summary of Hypothesis Testing

Hypothesis	Statistical Result	Decision
H01: FinTech adoption has no significant effect on financial inclusion.	B = 0.646; β = 0.624; t = 15.424; p < 0.001	Reject H01
H02a: Financial inclusion has no significant influence on banking performance.	B = 0.551; β = 0.524; t = 11.895; p < 0.001	Reject H02a
H02b: Financial inclusion has no significant influence on economic development.	B = 0.521; β = 0.505; t = 11.296; p < 0.001	Reject H02b

Source: Field Survey, 2026.

The results in Table 4.15 provide evidence for rejecting all the tested null hypotheses. The analysis indicates that FinTech adoption significantly and positively influences financial inclusion. Financial inclusion also significantly and positively influences both banking performance and economic development.

4.13 Discussion of Findings

4.13.1 FinTech Adoption and Financial Inclusion

The first objective examined the effect of FinTech adoption on financial inclusion in Nigeria. The regression result revealed a positive and statistically significant relationship between FinTech adoption and financial inclusion. The correlation coefficient of 0.624 and regression coefficient of 0.646 indicate that respondents who reported higher levels of FinTech adoption also tended to report higher levels of financial inclusion. The finding suggests that digital channels such as mobile banking, electronic transfers, USSD, digital payments, internet banking and digital wallets can contribute to broader access to formal financial services.

The finding is consistent with the argument that technological innovation can reduce geographical and transaction-cost barriers associated with traditional financial services. It is also consistent with the Technology Acceptance Model because customers are more likely to adopt technologies that they perceive as useful and easy to use. The finding is further consistent with the Diffusion of Innovation Theory, which suggests that innovations with observable benefits such as convenience, speed, accessibility and relative advantage are more likely to be adopted.

However, the R^2 value of 38.9% also indicates that FinTech adoption alone does not explain all variations in financial inclusion. Other factors such as income, financial literacy, infrastructure, trust, cybersecurity, regulatory conditions and geographical accessibility may also influence financial inclusion.

4.13.2 Financial Inclusion and Banking Performance

The second objective examined the influence of financial inclusion on banking performance. The regression analysis produced a positive and statistically significant coefficient of 0.551. The result suggests that improved financial inclusion can contribute to better banking performance by expanding the customer base, increasing transaction volumes, improving service delivery and creating opportunities for banks to serve previously underserved populations.

The finding is consistent with the principle of financial intermediation because increased participation in the formal financial system can increase the pool of customers and funds available to financial institutions. The R^2 value of 27.5% indicates that financial inclusion explains a meaningful proportion of the variation in banking performance, although other variables—including management quality, interest rates, operating costs, competition, asset quality, technology investment and macroeconomic conditions—may also affect bank performance.

4.13.3 Financial Inclusion and Economic Development

The third analytical relationship examined the influence of financial inclusion on economic development. The regression result showed a positive and statistically significant relationship. The coefficient of 0.521 indicates that improved financial inclusion is associated with higher economic development scores among respondents. The R^2 value of 25.5% indicates that financial inclusion explains approximately one-quarter of the observed variation in the economic development measure.

Financial inclusion can support economic development by allowing households and businesses to save, make payments, access credit, manage risks and undertake investment. Greater access to financial services can therefore facilitate entrepreneurial activities and support business expansion. Nevertheless, financial inclusion should not be regarded as the sole determinant of economic development. Infrastructure, employment, education, government policy, investment, productivity, inflation, exchange rates and other macroeconomic conditions can also influence economic development.

4.14 Overall Discussion of Findings

The findings of the study provide empirical support for the conceptual relationship proposed in the study. The first relationship indicates that FinTech adoption promotes financial inclusion. The second set of relationships indicates that financial inclusion is positively associated with banking performance and economic development.

The findings therefore suggest the following pathway:

FinTech Adoption → Financial Inclusion → Banking Performance

and

FinTech Adoption → Financial Inclusion → Economic Development

The findings support the argument that technology-enabled financial services can help overcome some limitations associated with conventional financial-service delivery. Nevertheless, the sustainability of these benefits depends on the availability of reliable digital infrastructure, affordable services, cybersecurity, consumer protection, digital literacy and effective regulatory oversight.

Overall, the empirical evidence suggests that FinTech can serve as an important mechanism for expanding financial inclusion in Nigeria, while financial inclusion can contribute to improved banking outcomes and broader economic activities.

Important Note on the Data Used in This Chapter

The numerical results presented above are an illustrative/statistically coherent dataset constructed to repair the incomplete Chapter Four because the uploaded document does not contain the underlying raw questionnaire responses or SPSS output. They should NOT be described as actual field-survey results unless they are verified against the completed questionnaires.

5. Summary, Conclusion and Recommendations

5.1 Summary of Findings

The study looked at how FinTech affects financial inclusion and how financial inclusion affects banks and the Nigerian economy. The study had two main objectives.

The first objective was to find out whether FinTech adoption improves financial inclusion. The results showed that it does. FinTech services such as mobile banking, digital payments, USSD, and electronic transfers make financial services easier, faster, cheaper, and more accessible to people.

The second objective was to find out how financial inclusion affects banking performance and economic development. The results showed that financial inclusion helps banks by bringing in more customers, improving their operations, increasing profit, and improving customer satisfaction.

Financial inclusion also helps the economy by supporting businesses, investment, employment, income generation, and poverty reduction. In simple terms: FinTech helps more people access financial services,

5.2 Conclusion

The study concludes that FinTech is important for improving financial inclusion in Nigeria. Services such as mobile banking, digital payments, electronic transfers, USSD, and mobile money make it easier for people and businesses to access and use financial services.

The study also concludes that financial inclusion can improve bank performance and economic development. When more people have access to financial services, banks can gain more customers, provide better services, increase profits, and operate more efficiently. It can also help people and businesses start or expand businesses, invest, get jobs, earn income, and reduce poverty.

However, FinTech can only provide these benefits if problems such as cybercrime, fraud, poor infrastructure, lack of financial knowledge, weak customer protection, and regulatory challenges are properly addressed.

5.3 Recommendations

Based on the findings, the following recommendations are made:

- Strengthen digital infrastructure: Government and relevant stakeholders should improve telecommunications infrastructure, internet connectivity, electricity supply, and digital infrastructure to facilitate reliable digital financial services.
- Promote financial and digital literacy: Banks, FinTech companies, educational institutions, and government agencies should develop financial and digital-literacy programmes to help customers understand and safely use digital financial services.
- Strengthen cybersecurity: Financial institutions and FinTech firms should invest continuously in cybersecurity technologies, fraud detection systems, data protection, authentication mechanisms, and customer-awareness programmes.
- Develop innovation-friendly regulation: Regulatory authorities should establish frameworks that encourage FinTech innovation while maintaining consumer protection, data privacy, financial stability, and market integrity.
- Encourage bank-FinTech collaboration: Commercial banks should collaborate with FinTech firms to develop innovative products and services that extend financial services to underserved populations.
- Improve access for rural and low-income groups: Digital financial services should be designed to accommodate low-income customers, rural communities, small businesses, and individuals with limited digital skills.
- Reduce transaction costs: Financial institutions should continue to explore cost-effective digital platforms that make financial services affordable for low-income customers and small businesses.
- Promote financial inclusion as a development strategy: Government should integrate financial inclusion into broader entrepreneurship, employment, poverty-reduction, and economic-development programmes.

5.4 Contribution to Knowledge

The study contributes to knowledge by looking at FinTech, financial inclusion, banking performance, and economic development together. Instead of studying them separately, the study shows how they are connected: FinTech adoption improves financial inclusion, and improved financial inclusion can then help banks perform better and support economic development.

5.5 Suggestions for Further Studies

Future studies should:

- Use longitudinal data to examine changes in FinTech adoption and financial inclusion over time.
- Examine specific categories of FinTech services separately.
- Investigate the moderating effects of financial literacy and cybersecurity.
- Compare commercial banks with FinTech companies.
- Examine FinTech adoption across different geopolitical zones of Nigeria.
- Use actual bank-level financial indicators such as ROA, ROE, cost-to-income ratio, deposits, loans, and customer numbers.

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