THE INFLUENCE OF FINTECH STARTUPS IN RESHAPING THE NIGERIAN BANKING LANDSCAPE

Isibor, Areghan (Phd),
Emeje, Ruth Oziohun (Msc)
Caleb University Imota Lagos.

ABSTRACT

This study explores the influence of fintech startups on Nigeria's banking sector, focusing on how they enhance financial service accessibility, transform banking operations, and the challenges they face. Using a descriptive survey design, data was collected from 200 participants including fintech employees, bank staff, and fintech users in Lagos State. The regression findings indicated a strong positive and significant relationship between fintech startups and financial improvement (B = 1.632, P = 0.009) the R 2 value = 0.924 and Adjusted R 2 = 0.899 values the findings were substantiated by showing that 92.4 per cent of the variance in growth of fintech startups can be determined by the changes in financial accessibility. Nevertheless, the correlation between the fintech startups and the service delivery were weak and not statistically significant (beta = 0.419, p = 0.321, Adjusted R2 = -0.002). This value indicates that there is no strong influence between the fintech startups and service delivery. Banking industry issues, on the other hand, were moderately correlated to the emergence of fintech-related startups (beta = 2.130, p = .059), and the reading to achieve R is 0.747 which implies that 74.7 percent of the variance of fintech development be found within the bank inefficiency. The study concludes that regulatory clarity, improved infrastructure, and greater public awareness to support its growth.

Keywords: *Fintech, banking innovation, financial inclusion, Nigeria, digital banking, regulatory challenges.*

1.0 INTRODUCTION

Financial technology (fintech) startups became significant disruptors and innovators in financial sector across the globe in the past couple of years. Fintech has shifted the traditional banking industry drastically in Nigeria as it presents alternative financial services that are quicker, convenient, and client-oriented. The youthful population and excellent penetration of mobile phones and the use of the internet have established an enabling environment where the fintech businesses can thrive (KPMG, 2021). Such startups provide the variety of services, such as mobile payments, peer-to-peer, digital wallets and cryptocurrency transactions, thus, covering gaps existing because of traditional banks.

Nigeria banking industry previously occupied by big commercial banks is currently experiencing competition and partnership with nimble fintech companies. Fintechs pose a threat to traditional banks characterized by a bureaucratic system and low access to underserved groups as they use technology to provide efficient, inclusive, and innovative solutions to any financial need (Oladeji & Ogunleye, 2023).

As suggested by the Central Bank of Nigeria (CBN), fintech startups have made an important contribution to financial inclusion, especially in the rural and semi-urban regions with a low presence of formal banking infrastructure (CBN, 2022).

In addition, the role of fintech is not to offer routine financial services. The open banking, blockchain, artificial intelligence, and customized financial products are the technological areas in which startups provide impetus (Agboola & Ehizuelen, 2024). The innovations are not only making the customer experience more efficient but are also restructuring the regulatory processes as well as establishing digital financial literacy in Nigeria. The purpose of the study are as follows:

To examine the influence of fintech startups in improving financial service accessibility in Nigeria.

To assess the influence of fintech startups in banking operational services delivery.

To investigate the challenges that affect the growth of fintech startups in Nigeria

The following research questions were raised to guide the study:

What influence do fintech startups play in improving financial service accessibility in Nigeria?

How have fintech startups influenced banking operations and service delivery?

How do challenges affect the growth of fintech startups in Nigeria?

The following hypotheses were formulated to guide the study:

$H0_1$: there is no significance relationship between fintech startups and financial improvement accessibility in Nigeria

$H0_2$: there is no significance relationship between fintech startups and service delivery in Nigeria

$H0_3$: there is no significance relationship between fintech startups and challenges of banking growth in Nigeria

2.0 Literature Review

Fintech Startups

The financial services industry in the world is changing massively and financial technology (fintech) startups are at the center of this change. Fintech is associated with innovative digital technologies, i.e., artificial intelligence (AI), blockchain, mobile applications, data analytics, and enhancement, as well as automation of financial services (Agboola & Ehizuelen, 2024). Fintech startups in Nigeria are transforming the old banking system to provide more convenient, efficient, and consumer-focused financial products and services whereby old-fashioned banks in Nigeria have long struggled due to legacy infrastructure and a limited reach to serve consumers better.

The fintech ecosystem in Nigeria has aroused the interest of the global audience because of the intensive development and the growing pool of profitable ventures that engage in the operations in terms of payment, lending, insurance and investment patrons. Established through fintech startups, Flutterwave, Paystack, Kuda, and Carbon have become a household name that is shaking the status quo and making traditional banks reconsider their strategies (Oladeji & Ogunleye, 2023). Young Nigerian population, high mobile penetration and low banking density, and interest of the population in digital financial solutions characterized the Nigerian market that is especially hospitable to fintech (KPMG, 2021).

Banking Growth

Nigeria is reputed as the largest fintech hub in Africa which contributes to an enormous part in the fintech startups and fintech investments in Africa Ndukwe & Yusuf (2020). The KPMG Pulse of Fintech Report (2021) cites that in 2020 and 2021, over 60 percent of Africa venture capital investment in fintech was in Nigeria. This comes at the back of investors believing in the prospect and profitability of such a digital enterprise. The underlying drivers of this expansion are a high level of smartphone penetration, greater internet access, governmental measures to promote the expansion through the National Financial Inclusion Strategy, and more proactive implementation of the cashless policy by the Central Bank of Nigeria (CBN, 2022).

This phenomenon has enabled fintech start-ups to provide services that help them to reduce some of the market failures in the banking system. To illustrate, whereas conventional banks traditionally expect a long time in paperwork to open an account and take a loan as well as the physical presence of a customer, fintech firms state that their technologies ensure immediate availability of services using biometric authentication and online credit ratings. The mobile banking applications, such as Kuda and Opay, also have zero account associated fees, regionally accessible personal peer-to-peer payments, and due to this retail Kuda banking services are appealing to the younger generation and the informal sector (Ogbuagu et al, 2023).

Financial Accessibility

The role of Fintech on Nigerian banking has many dimensions. It has caused the disturbance of business models, and customer experiences redefine, and there is modernization in ways of service delivery. The conventional banks that have been used to the branch model have to compete with the fintech startups, which have lower overhead expenses and operations that are more flexible (Ndukwe & Yusuf, 2020).

The upheaval is specifically so in the payments region where organizations, such as Flutterwave and Paystack have simplified the process of accepting online payments and offline merchants. They have fit into the e-commerce platforms perfectly and have boosted the economy in the digital world and opened the markets to businesses, more so the small and medium enterprises (SMEs). Oladeji and Ogunleye (2023) argue that the services have urged banks to computerize their activities and come up with more customer-friendly digital applications.

In addition, the CBN has introduced open banking regulations in the year 2023, further making it possible to integrate and access the banking information of customers of fintech firms; this has increased competition and ameliorated innovation in financial technology. Such advancements are an indication of the coming era of a more open financial ecosystem, in which data portability and service interoperability are the new standards.

Banking operations and service delivery

Banking operations and service delivery are the internal operations, systems, and customer facing services that allows financial institutions to streamline their transactions, access of financial products as well as client satisfaction. Historically, banks in Nigeria had to work via physical structures and provide time-consuming and laborious processes, thus ending up inefficiencies, delays, and insufficient coverage, including the unbanked population groups (Central Bank of Nigeria [CBN], 2022). The emergence of the new financial technology (fintech) startups has however shaken up these traditional systems by providing automation in these systems, mobile banking services, real time processing and even digital customer care systems.

The fintech startups have immensely improved the delivery of banking services by ensuring that they are faster, more available and affordable. Technologies deployed in these platforms include artificial intelligence, blockchain and cloud computing, which aid in simplifying the banking services, minimising human fault and enhancing the usability platform (Oladeji & Ogunleye, 2023). As an example, nowadays, people can easily transfer money, pay the bill, and check their balance via mobile banking applications without even coming to the branches. In addition, the fintech organizations tend to run the 24/7 customer service and include chatbots to help respond to typical questions, and it makes the process more responsive and efficient. This is unlike the conventional banking schedules and desolate complaint handling systems. According to Agboola and Ehizuelen (2024), legacy banks have been compelled to embrace digital transformation due to the fact that fintech-enabled service delivery has given them a hard time.

Challenges of Fintech in Nigeria

The sudden development of fintech in Nigeria has brought up important regulatory issues. Fintech companies both boost innovations and create a systemic risk factor associated with cybersecurity, fraud, and data privacy as well as consumer protection. The Nigerian regulations in reaction to this include the introduction of policies and regulatory frameworks by the regulatory bodies in Nigeria including the CBN, Securities and Exchange Commission (SEC), and the Nigerian Communications Commission (NCC) with the intention of governing the fintech activities through regulations.

As an example, the creation of the regulatory sandbox by the CBN in 2021 contributes to the balance between innovation and risk mitigation as it allows the fintech innovator to test new products in a controlled environment (CBN, 2022). Further, the Nigeria Data Protection Regulation (NDPR) is being given to protect client information in the online environment.

However, researchers indicate that the regulatory strategy of Nigeria remains to be experimental and disjointed at other times. Oladimeji and Adebayo (2025) point out that the issue of over-regulation or insufficiently clear regulations may impede the innovation process, whereas, under-regulation may bring the risk of financial losses to consumers. They suggest a more accommodative, innovation-friendly regulatory framework, which allows experimentation but guarantees the stability of the financial system.

3.0 Methodology

This study adopted a descriptive survey research design whereby the researcher explored the ways through which fintech startups are transforming the banking sector in Nigeria. The type of design was chosen due to the opportunity to collect and analyze data taken with a sample to conclude findings to the wider population (Creswell & Creswell, 2023).

Three groups were targeted in the research - the staff of the current fintech startups (e.g., Paystack, Kuda), employees of traditional banks (e.g., GTBank, Zenith), and fintech users. The sample was pulled across Lagos State, which is a centre of fintech in Nigeria.

The sample size (n = 200) was chosen through a stratified random sampling, where the portion of the three groups (fintech/employees, bank/employees and active fintech, n = 60, 60 and 80 respectively) was ensured. The structured questionnaire was designed as Fintech Impact on Nigerian Banking Questionnaire (FINBANK-Q) to collect the data. The Likert scale of 1 to 4 was used to measure how participants felt about the responses as Strongly Disagree (1), disagree (2), (4), Agree (3) and Strongly Agree (4). The survey has been sent through paper and online (through Google Forms). The survey had a limit of one week to be filled by the respondents. There was an informed consent and the involvement was voluntary.

4.0 Data Presentation and Analysis

The data is presented in tables and analyzed using descriptive statistics to answer the study's research questions.

Demographic Characteristics of Respondents

This table shows that out of 200 respondents, 59% were male and 41% female, with the majority (48%) aged between 26–35 years. This age group is typically the most tech-savvy and likely to adopt fintech services. Respondents were evenly distributed across fintech staff (30%), bank employees (30%), and fintech users (40%), ensuring a balanced perspective.

Table 4.1: Respondents Demographic Data

Variable	Category	Frequency	Percentage (%)
Gender	Male	118	59.0
	Female	82	41.0
Age	18–25	40	20.0
	26–35	96	48.0
	36–45	42	21.0
	46 and above	22	11.0
Employment Category	Fintech Staff	60	30.0
	Bank Staff	60	30.0
	Fintech Users	80	40.0

Source: *Field Survey (2025)*

Analysis of Research Questions

Research Question 1: What influence do fintech startups play in improving financial service accessibility in Nigeria?

Respondents strongly agreed that fintech platforms make financial services more accessible (mean = 4.45). Other high-scoring items include the convenience of mobile apps (mean = 4.36) and 24/7 availability (mean = 4.42). The role of fintech in reaching rural populations (mean = 4.29) and improving mobile transaction ease (mean = 4.36) further reinforces its contribution to financial inclusion.

Table 4.2: Influence of fintech in financial service

Item	SD	D	A	SA	Mean
Fintech platforms make banking more accessible	5	10	75	110	4.45
Mobile-based apps are easier to use than bank apps	6	15	80	99	4.36
Fintech provides 24/7 access to financial services	4	8	88	100	4.42
Fintech services reach unbanked rural populations	8	14	90	88	4.29
Fintech improves convenience through mobile wallets and transfers	7	11	84	98	4.36

Source: *Field Survey (2025)*

Research Question 2: How have fintech startups influenced banking operations and service delivery?

All items received strong agreement, with the highest mean (4.45) for fintech's faster customer service. Respondents agreed that fintech has pushed banks to adopt innovations (mean = 4.38), collaborate with startups (mean = 4.29), and enhance digital banking models (mean = 4.29). These results confirm fintech's disruptive impact on traditional banking structures.

Table 4.3: Influence of fintech in financial accessibility

Item	SD	D	A	SA	Mean
Banks are forced to innovate due to fintech competition	6	12	82	100	4.38
Fintech has driven banks to enhance mobile banking systems	5	15	85	95	4.35
Fintech enables faster customer service than traditional banks	4	10	78	108	4.45
Many banks now collaborate with fintech firms	10	15	83	92	4.29
Fintech has led to the development of new banking models (e.g., digital banks)	8	14	90	88	4.29

Source: *Field Survey (2025)*

Research Question 3: What challenges affect the growth of fintech startups in Nigeria?

Respondents widely acknowledged key challenges, including regulatory bottlenecks (mean = 4.31), cybersecurity concerns (mean = 4.25), and poor infrastructure (mean = 4.35). Additional issues such as lack of rural awareness (mean = 4.27) and limited investment (mean = 4.25) highlight structural barriers that limit fintech expansion.

Table 4.4: Challenges of Fintech

Item	SD	D	A	SA	Mean
Regulatory bottlenecks limit fintech development	10	18	72	100	4.31
Cybersecurity and fraud concerns affect trust in fintech	12	20	75	93	4.25
Poor internet and infrastructure impede fintech growth	7	15	80	98	4.35
Lack of awareness limits fintech adoption in rural areas	9	21	78	92	4.27
Difficulty accessing investment or credit affects fintech scalability	11	17	83	89	4.25

Source: *Field Survey (2025)*

Hypothesis Testing

$H0_1$: there is no significance relationship between fintech startups and financial improvement accessibility in Nigeria.

The unstandardized coefficient (β= 1.632) implies that when the financial improvement rises by one unit, the fintech startups rise by 1.632 units, other things remaining constant. The standardized beta coefficient (0.959) shows that the relationship between the financial improvement and fintech startups is very strong and positive. Based on the t-value (6.055) and significance level (.009), it is quite evident that this relationship is significant at 1 percent deviation level. The significance of R 2 value (0.924) implies that financial improvement correlates rather well with the variation in the fintech start-up growth (92.4%), meaning that the model is very strong

Table 4.5: Regression Coefficients Effect of Financial Improvement on Fintech Startups

Model	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t	Sig. (p-value)
(Constant)	18.642	12.506	–	1.490	.227
Financial Improvement	1.632	0.269	0.959	6.055	.009**

Dependent Variable: Fintech Startups
R^2 = 0.924, Adjusted R^2 = 0.899

$H0_2$: there is no significance relationship between fintech startups and service delivery in Nigeria

The unstandardized coefficient (β = 0.419) implies that with a one-unit change in service delivery in Nigeria, the prediction is that the activity of fintech start-ups would only change by 0.419 units and any other variable assumed to be constant. A weak positive relationship occurs with a standardized coefficient (β = 0.349). The p-value (.321) is more than 0.05 hence the result is not significant. The R 2 value (0.123) indicates that the variation in the development of fintech start-ups is only attributable to service delivery in 12.3 percent of the variance found, and the adjusted R 2 is negative, meaning that the model does not suit well.

Table 4.6: Regression Coefficients Effect of Service Delivery on Fintech Startups

Model	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t	Sig. (p-value)
(Constant)	42.188	20.774	–	2.030	.077
Service Delivery	0.419	0.395	0.349	1.058	.321

Dependent Variable: Fintech Startups
R^2 = 0.123, Adjusted R^2 = -0.002

$H0_3$: there is no significance relationship between fintech startups and challenges of banking growth in Nigeria

The unstandardized coefficient (β= 2.130) shows that one unit increment in perceived challenges of banking growth would result in a 2.130 point increment in the fintech startup index meaning that the more the traditional banking encounters challenges the more the dynamics in the fintech startup takes shape or is influenced. There is a strong positive relationships indicated by the standardized coefficient of beta (0.838). The t-value (2.975) and the p-value (.059) suggest that the result is just beyond the limit of significant results of 0.05. This can be described as significant at 10 percent level of confidence. The value of R 2 (0.747) translates into the fact that 74.7 percent variability of fintech startup expansion is due to the problem of conventional banking - revealing a good model fit.

Table 4.7: Regression Coefficients Effect of Banking Growth Challenges on Fintech Startups

Model	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t	Sig. (p-value)
(Constant)	20.117	9.873	–	2.038	.134
Challenges of Banking Growth	2.130	0.715	0.838	2.975	.059

Dependent Variable: Fintech Startups
R^2 = 0.747, Adjusted R^2 = 0.662

Discussion of Findings

Answers to Research hypothesis one reveal that startups involve fintech to contribute largely towards the availability of financial services. Respondents understood that mobile based fintech apps are more convenient and have 24by7 accessibility, fintech platforms would be of benefit to the unbanked and underserved communities than the conventional banks. This corroborates with Okonkwo and Ugwueze (2021), who posit that fintech fills the financial inclusion gap with mobile-based financial services provided through options that break the barriers of infrastructural shortcomings that would otherwise limit brick-and-mortar banks. On the same note, Eze and Nwankwo (2023) affirmed that fintech technologies such as payment gateways, USSD codes, and mobile wallets have enabled participants of the informal sector and rural folk to become empowered. These large average values mean that users are generally satisfied with the availability of fintech in the country and confirm KPMG (2021) that the fintech industry in Nigeria provides an extensive role in the democratization of finance.

Answers to the Research hypotheses two indicate that fintech startups are influencing the revolution in the traditional banking. According to the respondents, banks are making greater use of digital tools, making mobile banking platforms even better, not to mention cooperating with fintech companies. As well, the speed, efficiency, and the ease with which fintech operations can be managed are deemed more effective in comparison to traditional banking systems. Such results compare to those of the CBN (2022) and Oladimeji and Akinbami (2022) who reported that in order to remain competitive, banks had to engage in digital transformation. This change in the industry is the appearance of digital-only banking services, such as Kuda. The adequacy of consumer expectations has also been well emphasized by Adewumi and Yusuf (2020), as fintech has made it necessary to reengineer operations so that they can become digitally efficient by the banks. This is another example of the digital disruption based on the Schumpeter theory of innovation and creative destruction meaning that new players (fintechs) target the major players (banks) to change or die.

In terms of Research hypotheses three, the data indicate that the following issues, regulatory ambiguity, trust issues, cyber threat, poor infrastructure, and underfunding are serious concerns in fintech start-ups. Such restrictions prohibit the scalability and reliability of fintech. It concurs with the arguments provided by Ndukwe and Yusuf (2020) claiming that the regulatory environment in Nigeria is disjointed and CBN, SEC, and NCC share overlapping functions. Also, Oduwole (2022) determined that regulatory uncertainty is something that affects investors negatively and prevents growth. Lastly, digital literacy and infrastructural deficiency were stated by Udeh and Chukwuma (2024) as the greatest barriers to the adoption of fintech, particularly in rural areas.

5.0 Conclusion and Recommendation

Summary of Findings

This paper researched on the way in which the Nigerian banking sector is being disrupted by fintech. The study was done using the descriptive survey design where 200 respondents were selected within fintech companies, traditional banks and fintech users within the Lagos State. This was to be done in order to examine how fintech has contributed to accessibility of finance, how this has affected the operations of banks and what are the challenges that face it.

It was discovered that fintech startups have shown a great deal of benefit on the enhancement of access to financial services, use of mobile channels, and financial inclusions. The research also indicated that fintech has been associated with the change in operations of the banks, which encourage them to digitally innovate and collaborate. Nevertheless, the issues of regulatory uncertainty, infrastructural constraints, the threats of cybersecurity, and the poor awareness are the leading challenges.

Such observations correlate with what has been previously demonstrated in the literature noting that the form of fintech can be viewed as an asset that democratizes finance and innovates the sector however that there are structural and policy-driven issues that restrict its development.

Recommendations

Recommendations would be based on findings and are as follows:

1. Regulatory uncertainty was found to be among major challenges in the fintech development concerning the study. To overcome this, the financial regulators which are Central Bank of Nigeria (CBN), and the Securities and Exchange Commission (SEC) ought to corperate in establishing a single, transparent, and not hostile to innovation regulation system.

2. Despite the new service models that have been introduced by the fintechs, their use in enhancing the service delivery is yet to be fully utilized by the traditional banks. It is also suggested that the banks and fintech companies should be facilitated to have more formal collaborations.

3. Digital infrastructure is insufficient to support fintech penetration and/or innovation in banking, particularly in underserved areas. They (stakeholders in government and the private sector) ought to invest heavily in internet access, power supply and IT platforms, to facilitate smooth fintech operation in all Nigeria.

REFERENCES

Agboola, A. A., & Ehizuelen, M. M. (2024). Technology-driven financial services and the future of banking in Nigeria. *Journal of African Financial Innovation, 5*(1), 44–60.

Central Bank of Nigeria (CBN). (2022). *Financial inclusion in Nigeria: Progress and prospects*. https://www.cbn.gov.ng/financialinclusion/report2022

Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). SAGE Publications.

KPMG. (2021). *Pulse of fintech H1 2021: Global and African insights*. https://home.kpmg/ng/en/home/insights/2021/08/pulse-of-fintech.html

Ndukwe, I., & Yusuf, S. (2020). Regulating the fintech boom in Nigeria: Challenges and opportunities. *Journal of Banking Regulation and Supervision*, *3*(2), 71–88.

Ogbuagu, R. A., Olayemi, T., & Nnamdi, C. (2023). Collaboration or disruption? Fintech and the restructuring of Nigeria's financial services sector. *African Journal of Finance and Management, 29*(3), 98–115.

Oladeji, M. A., & Ogunleye, T. T. (2023). Digital disruption and the transformation of Nigerian banking: The fintech challenge. *African Journal of Business and Economic Research*, *18*(2), 135–151.

Oladimeji, B. A., & Adebayo, K. S. (2025). Regulatory innovation and fintech stability in Nigeria: A policy perspective. *Journal of Digital Economy Policy, 3*(1), 22–39.

Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS* (7th ed.). McGraw-Hill Education.

Taherdoost, H. (2022). Sampling methods in research methodology. *International Journal of Academic Research in Management, 11*(1), 24–34.

World Bank. (2022). *Nigeria digital financial services report: Bridging the gap to inclusion*. https://www.worldbank.org/en/country/nigeria/publication/digital-finance