

INTERNET BANKING ACCESSIBILITY AND FINANCIAL INCLUSION: AN ANALYSIS OF RURAL HOUSEHOLDS IN LAGOS STATE

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ABSTRACT

This study examined the effect of internet banking accessibility on financial inclusion among rural households in Lagos State, Nigeria. A quantitative research design, using a cross-sectional survey design, was employed. Primary data were collected using structured questionnaires from 250 respondents sampled from rural areas in Lagos State via a multistage sampling procedure. Descriptive statistics and multiple regression analysis were used to analyse the data collected. The findings indicate a relatively high level of internet banking access and adoption among rural dwellers. The regression analysis shows a significant positive effect of internet banking access on financial inclusion. Also, factors such as ease of use, availability of internet services, security and trust significantly affected financial inclusion. On the other hand, poor internet connectivity, high data costs, security challenges, and electricity outages remain major challenges in adopting internet banking.

Keywords: Internet banking, Financial inclusion, Rural households, Digital financial services, Lagos State, Nigeria.

INTRODUCTION

Financial inclusion has long been a crucial policy issue for developing nations due to its advantages for poverty reduction, economic engagement, and sustainable development (Tay et al., 2022). Financial inclusion can be described as the opportunity for all people within a particular community, including the vulnerable, to have access to financial products and services at reasonable costs (Fadun, 2014). With digital finance, one can access one's bank account from any device that connects to the Internet. Among technological innovations, the most important is internet banking (Demirgüç-Kunt et al., 2022).

The growth of digital financial services has enabled better access to the financial system around the world. The 2021 World Bank Global Findex Report reveals that account ownership has grown globally from 51% in 2011 to 76% in 2021, owing to digital financial services (Demirgüç-Kunt et al., 2022). According to the report, digital payments have become a popular means for previously underserved people to interact with the formal financial system. Nevertheless, the gap between the two groups of populations remains wide, especially in developing countries, due to varying levels of internet access and digital proficiency (World Bank, 2022).

Financial inclusion has been a topic of great interest among policymakers, regulators, and financial institutions in Nigeria. The use of digital banking platforms, mobile banking, agent banking, and fintech products has increased access to financial services (Aduloju & Akindipe, 2022). According to the EFINA (2024) Access to Financial Services Survey, the overall financial inclusion rate in Nigeria increased from 68% in 2020 to 74% in 2023, while the formal financial inclusion rate rose from 54% to 64% over the same period. However, 26% of the Nigerian population remains financially excluded.

Despite the promising advancements witnessed in the country, it is clear that there is still inequality in access to and use of internet banking services. According to EFINA (2024), people living in rural parts of Nigeria are more likely to lack access to formal financial services than those living in urban areas. This is because 37% of Nigerians living in rural areas are financially excluded, compared with 17% in urban areas. The unequal distribution of technology makes it difficult for people in rural areas to use internet banking services (Onyejiaku et al., 2026).

Internet banking services go beyond the availability of bank applications or an online platform. It involves internet connectivity, the cost of internet devices, network quality, a good user interface for banking services, and customer confidence in the security of the transaction process (Akande et al., 2023). Studies have highlighted that low internet penetration rates, poor financial literacy, limited digital skills, and cybersecurity issues still pose considerable challenges to the adoption of digital finance services in Nigeria. According to the IMF, low financial literacy remains a major hurdle to the adoption of digital financial services, with over 50% of Nigeria's adult population exhibiting financial illiteracy (IMF, 2023).

Lagos State is a unique place that offers an opportunity to explore the impact of internet banking accessibility on financial inclusion. As Nigeria's most commercial and financial city, Lagos has the highest density of banks, fintech organisations, internet access, and users of digital payment systems (Aduloju & Akindipe, 2022). In addition, there

was a significant increase in digital banking use in Lagos owing to higher smartphone penetration, improved internet access, and fintech innovations. Despite these conditions, there are inequalities between the developed regions of Lagos State and peri-urban or underdeveloped areas in access to internet-based financial services. Therefore, it is important to understand how internet banking accessibility affects the financial inclusion of people living in both rural and urban places to design relevant policies (Yusuf & Bala, 2021).

The issue of financial inclusion in Nigeria remains a pressing development challenge despite considerable efforts to develop financial infrastructure and fast-growing internet banking services. Within the past decade, banks and other entities have created various digital banking systems aimed at increasing financial inclusion in the country (Setiawan et al., 2023). However, even with these efforts, millions of people in the country remain unbanked. According to the EFINA Access to Financial Services Survey, about 26% of Nigerians remain financially excluded in 2023.

There is great concern about the persistent divide between rural and urban populations in access to and use of digital financial services. EFINA stated that 37% of rural dwellers were financially excluded, compared with 17% of those living in urban areas. The wide gap implies unequal access to the benefits of digital financial innovations like internet banking (Osei et al., 2025). While internet banking can help remove the geographic divide in access to financial services, many rural families still face difficulties, including poor internet connection, lack of electricity, low digital literacy levels, and limited access to smartphones and computers (Ghachaibi & Amar, 2023).

Secondly, previous research on financial inclusion in Nigeria has mostly centred on mobile money or other types of digital financial services rather than on access to Internet banking as a determinant of financial inclusion (Osei et al., 2025). In addition, very few comparative analyses have examined the experiences of both rural and urban households in Lagos State. Therefore, there is insufficient evidence on the impact of differences in access to Internet banking on account ownership, access to financial services, savings behaviour, and credit access for households.

The continued issue of financial exclusion among rural populations raises questions about the efficacy of current digital banking solutions in ensuring financial inclusiveness. This problem may be linked to a lack of information on the barriers to accessing digital banking services in different population segments (Adekunle & Vincent, 2025). Under these circumstances, the current study aims to examine the impact of Internet banking accessibility on financial inclusion, with particular emphasis on comparing the experiences of rural and urban households in Lagos State, Nigeria.

The study examined internet banking accessibility and financial inclusion among rural households in Lagos State. The research aimed to ascertain the level of internet banking accessibility and adoption among rural residents; assess the effect of internet banking accessibility on financial inclusion; and identify challenges affecting internet banking usage among rural populations.

LITERATURE REVIEW

Conceptual Review

Internet Banking

Internet banking, otherwise known as online banking or electronic banking, is the provision of banking services using ICT-based internet banking platforms where users conduct financial transactions without going to the bank physically. Internet banking allows individuals to carry out various functions like account checking, money transfer, bill payment, loan application, and transaction tracking, among others, without always going to bank branches, and one can use the platform if he/she has an internet connection (Kyambade, 2023). Internet banking has revolutionised the banking sector by improving service delivery, reducing costs and increasing customer convenience.

The introduction of internet banking has been greatly facilitated by developments in information and communication technology (ICT). Banking firms are adopting ICT platforms to enable customers to conduct secure and efficient financial transactions. Gautam and Khare (2021) explained that internet banking allows customers to access and execute financial transactions through internet-enabled web-based devices, thereby removing the geographical and time constraints of traditional banking services. The emergence of internet banking is becoming a means by which banks strive to increase efficiency and competitiveness in their operations. According to Hossein (2025), internet banking has grown from a mere service of checking one's account balance and sending money to a complete service channel that allows customers to pay bills, apply for loans, invest and send money to other parties. Hence, the number of clients a bank can serve increases as the costs of maintaining physical branches decrease.

The use of internet banking technology has also played a significant role in the digitisation of financial systems across the globe. According to Govender and Wu (2013), internet banking offers an excellent opportunity for financial intermediation due to its extended reach across markets and the consolidation of diverse financial services into a single channel. In addition, Yusuf and Bala (2021) state that electronic banking technology has made it

possible to increase service quality, reliability, and customer satisfaction. Although there are various advantages to using internet banking, its use is still subject to many constraints. In developing countries, these constraints include perceived risk, technical problems, and consumer resistance, which might affect individuals' motivation to use the internet banking system (Akenzua, 2025; Ghachaibi & Amar, 2023; Cnaan et al., 2021).

Internet Banking Accessibility and Its Dimensions

Internet banking accessibility concerns how easy it is for people to access and use internet banking platforms regardless of their location, socio-economic status, or technological capacity. Internet banking accessibility is an important factor in the adoption of digital banking services, as the availability of banking platforms alone is insufficient to ensure their successful use. As the World Bank (2022) reports, digital financial services can help to achieve financial inclusion only when people have the infrastructure, skills, and readiness to use them effectively.

Accessibility is one of the main aspects of internet banking accessibility. It is related to how easy it is for people to access and use internet banking platforms. Internet accessibility is influenced by the following issues: smartphone ownership, internet connectivity, electricity availability, and geographical distance to communication infrastructure. Internet access remains uneven across developing countries (ITU, 2023).

The other notable aspect is ease of use. Ease of use is described as how easy, clear, and effortless internet banking services are perceived by users. According to Venkatesh et al. (2012), ease of use of digital technologies increases the likelihood of technology adoption. User-friendly interfaces, navigational clarity, and simpler transaction procedures contribute to customers' motivation to use internet banking.

The availability of internet services is another factor that determines the accessibility of those services. Availability of internet services is linked to adequate broadband coverage, stable networks, and affordable internet subscriptions (Adekunle & Vincent, 2025). As mentioned earlier, internet banking services cannot be accessed through mobile devices. According to the Nigerian Communications Commission (NCC, 2023), there has been a rapid increase in internet subscriptions in Nigeria, although there are notable differences in network quality and broadband penetration between urban and rural areas.

Accessibility and security are other basic aspects of internet banking. Customers are willing to use internet banking when they consider the processes involved as safe and reliable. Alalwan et al. (2018) noted that the fear of privacy invasion, cybercrime, fraud, and unauthorised access may prevent customers from adopting internet banking applications. Trust and security measures are critical determinants of adoption and continued use.

In summary, internet banking accessibility is determined by several factors, including accessibility, user-friendliness, internet availability, and security and trust. When all these dimensions are considered, internet banking will help increase access to formal financial services.

Financial Inclusion and Its Dimensions

Financial inclusion can be defined as a process where there is a guarantee of the provision of affordable, suitable and efficient financial services to individuals and enterprises that match their requirements. Financial inclusion entails access to banking services, savings, credits, insurance, and payments offered in a responsible and sustainable manner. According to the Alliance for Financial Inclusion (AFI, 2022), financial inclusion acts as a catalyst for poverty alleviation, economic growth and social development by bringing underprivileged groups into the formal financial system.

Account ownership is one of the key aspects of financial inclusion. Account ownership can be defined as owning an account in a regulated financial institution or mobile money service. According to the World Bank Global Findex Database, account ownership can be regarded as the main gateway into the formal financial system because people use it to gain access to other financial products and services (Demirgüç-Kunt et al., 2022; Fadun, 2014). People who lack formal accounts find it difficult to participate in economic transactions and obtain financial assistance from the government and the private sector.

One other factor is access to financial services. This involves the availability and use of various kinds of financial services, including transactions, remittances, savings, insurance, and investments. The Central Bank of Nigeria (CBN, 2022) states that improved access to financial services enables people to participate in the economy, manage their incomes more effectively, and increase welfare. This factor is especially relevant to people living in rural areas. The third one is savings. Financial inclusion motivates individuals to save through formal financial institutions instead of informal means. Savings in formal financial institutions contribute to financial security, enable better investment decision-making, and provide resilience to unexpected economic shocks. Studies revealed that greater access to digital financial services positively affects savings (Klapper, El-Zoghbi & Hess, 2022; Sahay et al., 2020; Ibrahim, Ozdeser & Cavusoglu, 2018).

Access to credit is another fundamental component of financial inclusion. Access to credit involves the capacity of people and firms to access finance through loans from banks or any other financial institutions. Access to credit enables people to use funds to pursue education, health care, agriculture, and entrepreneurship to improve their living standards (Ozili, 2021; Fadun, 2014). Nevertheless, lack of financial documentation, insufficient collateral, and poor digital literacy limit access to credit in the rural areas.

Theoretical Framework

Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) is a theory developed by Davis in 1989 that predicts and explains users' acceptance of technological innovations. The theory evolved out of the Theory of Reasoned Action (TRA). In essence, Davis's (1989) model postulates that individuals have two main reasons to accept and adopt suitable technologies. The former concerns how much someone believes a specific technology will enhance performance, while the latter concerns the ease of understanding and operating the technology in question.

In recent years, TAM has emerged as one of the most commonly used theories in research on adoption of information systems, mobile banking, internet banking, e-commerce and digital financial services. As suggested by Davis (1989), people are likely to adopt a technology that is perceived as being useful and easy to use. Therefore, technological innovations that provide ease of operation, convenience and efficiency tend to enjoy higher adoption rates among consumers.

This is clear since internet banking usage is highly dependent on how customers perceive the technology. According to Venkatesh et al. (2012), ease of use remains one of the major factors determining users' intention to adopt technological innovations. In the case of internet banking, the ease of use refers to customers being ready to use banking websites provided that the process of conducting financial transactions is easy and convenient to access. Likewise, perceived usefulness motivates the adoption of internet banking when users see advantages such as increased speed, cost-effectiveness, time savings, and the availability of banking facilities.

In addition, recent applications of TAM have included more variables such as security, trust, and facilitating conditions. The inclusion of these variables reflects that some users might hesitate to adopt internet banking due to high security risks and a lack of trust in the technology. Similarly, internet infrastructure, networking availability, and digital literacy are important determinants of the usefulness and ease of use of internet banking.

This research paper focuses on the Technology Acceptance Model because the factors that influence the accessibility of internet banking include accessibility, usability, availability of internet facilities and security/trust. If rural residents consider internet banking accessible, secure, useful, and usable, then they will be able to adopt and use it. Increased adoption of the facility ensures increased financial inclusion through enhanced account holding, access to financial services, and savings and credit access. Consequently, TAM is an appropriate theoretical framework for explaining how internet banking accessibility affects financial inclusion among rural residents of Lagos State, Nigeria.

Empirical Review

Demirgüç-Kunt, Klapper, Singer, Ansar, and Hess (2022) studied the association between digital financial services and financial inclusion using data from the Global Findex Database of more than 120 countries. They found that digital financial services had a major impact on increasing account ownership and access to formal financial services among previously excluded groups. The researchers argued that digital banking platforms are the key motivators of financial inclusion by overcoming the geographical and institutional obstacles to financial access (Demirguc-Kunt et al., 2022).

Alalwan, Dwivedi, Rana, and Williams (2018) examined the factors influencing the adoption of internet banking among bank customers in Jordan. Based on survey data and structural equation modelling, the study revealed that ease of use, trust, and usefulness have an essential impact on customers' intention to adopt internet banking. Sahay et al. (2020) evaluated the role played by fintech innovation in promoting financial inclusion in developing countries. From cross-country research data, the paper showed that digital financial innovations enhanced access to savings, payment, and financing services by the poor. In conclusion, Sahay et al. (2020) established that fintech and internet finance services can make significant contributions to addressing financial exclusion in developing countries.

Ozili (2021) conducted a global evaluation of financial inclusion and internet-based financial service provision. According to the study, internet-based banking systems contribute to financial inclusion through better access to financial products and reduced transaction costs. However, Ozili (2021) identified insufficient infrastructure, low digital literacy, and security issues as the main barriers to financial inclusion in developing countries. In their study, Venkatesh et al. (2012) investigated consumers' acceptance and use of technology through the Unified Theory of

Acceptance and Use of Technology (UTAUT). They found that ease of use, facilitating conditions, and performance expectancy greatly contribute to technology adoption. From the results of this study, we can infer that the availability of internet facilities and infrastructure is one of the key variables contributing to the adoption of internet banking and other digital financial technologies.

Gap in Literature

Past research has shown that internet banking, fintech, and digital financial services positively affect financial inclusion. Nevertheless, the existing literature has mostly examined internet banking and financial inclusion at the national level or internationally and has not addressed rural households. Past literature has mostly examined the use of internet banking, payment through digital technology, and the use of fintech services without paying particular attention to the factors affecting internet banking, including accessibility, usability, availability of internet services, and security and trust. Not much research has been done in Nigeria on how these factors affect financial inclusion outcomes for rural households. The present study seeks to address this knowledge gap by looking at the effect of internet banking accessibility on financial inclusion among rural households in Lagos, Nigeria.

Hypotheses Formulation

Based on the literature review, the following hypotheses are developed for the study:

H₀₁: Internet banking accessibility has no significant effect on financial inclusion among rural households in Lagos State, Nigeria.

H₀₂: Ease of use, availability of internet services, security, and trust in internet banking have no significant influence on financial inclusion among rural households in Lagos State, Nigeria.

METHODOLOGY

A quantitative research method was used in this research to determine the impact of internet banking accessibility on financial inclusion among rural households in Lagos State, Nigeria. The research was carried out in selected rural areas within Lagos State, where people are involved in different economic activities and have access to internet banking services in different degrees. The total population of the study comprised adult household members who have bank accounts and are aware of, or have access to, internet banking services.

A cross-sectional survey research design was used to conduct the research. This kind of research design enabled data to be collected from respondents at a single point in time regarding the experience of internet banking accessibility and financial inclusion. The use of the survey method enabled the researcher to collect data from a large number of respondents. A sample size of 250 respondents was selected from rural areas in Lagos State. These respondents were selected from families which reside in rural areas within the state. This research was intended to be conducted among adults aged 18 years and above who are either users or potential users of the online banking services. The selected respondents had different demographic characteristics, including gender, age, education, occupation, and income.

A multistage sampling approach was used to select these respondents. First, rural areas were selected from Local Government Areas in Lagos State. Secondly, families were selected from these chosen rural areas. Finally, one suitable respondent was selected from each family to participate in this research.

Primary data were collected through a questionnaire survey. The questionnaire questions were classified according to the socio-economic characteristics, accessibility of internet banking, and financial inclusion of the respondents. Accessibility of internet banking entailed variables such as accessibility, usability, the presence of internet facilities, and security and trust. The questions related to financial inclusion pertained to matters like bank account ownership, access to financial services, savings, and access to credit. The data were collected using the five-point Likert Scale. The data were collected through a structured questionnaire. The respondents were informed of the study's objective, and their privacy was guaranteed. The field data were analysed using SPSS through coding and keying. The descriptive statistical techniques used included frequency distributions, percentages, means, and standard deviations. Descriptive statistical tools were used to describe the socio-economic characteristics of the respondents, as well as the degree of access to internet banking and financial inclusion. Inferential statistical tools were used to test the hypotheses formulated in the study. To determine the influence of factors in internet banking accessibility, such as accessibility, ease of use, availability of internet services, and security and trust, on the financial inclusion of rural residents of Lagos State, a regression analysis was performed.

RESULTS AND DISCUSSION

The respondents' demographic data are presented in Table 1.

Table 1: Respondents' Bio-Data (N = 250)

Variable	Category	Frequency	Percentage (%)
Gender	Male	138	55
	Female	112	45
	Total	250	100
Age	18–25 years	42	17
	26–35 years	78	31
	36–45 years	65	26
	46–55 years	40	16
	56 years and above	25	10
	Total	250	100
Marital Status	Single	74	30
	Married	142	57
	Divorced	18	7
	Widowed	16	6
	Total	250	100
Educational Qualification	No Formal Education	22	9
	Primary Education	48	19
	Secondary Education	96	38
	Tertiary Education	84	34
	Total	250	100
Occupation	Farming	58	23
	Trading	84	34
	Civil Service	36	14
	Artisan	47	19
	Others	25	10
	Total	250	100
Monthly Income	Below ₦50,000	68	27
	₦50,000–₦100,000	92	37
	₦100,001–₦150,000	56	22
	Above ₦150,000	34	14
	Total	250	100

Source: Field Survey, 2026

Table 1 shows the respondents' bio-data. According to the demographics of the respondents, 55% of them were males while 45% were females; hence, there were slightly more male respondents than female respondents. In regard to the age distribution, 31% of the respondents belonged to the age group 26-35 years old, 26% of them were in the age group 36-45 years, 17% were between the ages of 18-25, 16% were in the age group 46-55 years, while 10% were above the age of 56 years. This means that the majority of the respondents were economically active. Regarding the marital status of the respondents, 57% were married, 30% were single, 7% were divorced, and 6% were widowed. It is clear that the majority of the respondents had some family responsibilities, which could affect their financial decisions. Regarding educational qualifications, 38.4% of respondents had secondary education, 34% had tertiary education, 19% had primary education, and 8.8% had no formal education. The distribution of occupation showed that 34% of the respondents were traders, 23% were farmers, 19% were artisans, 14% were civil servants, while 10% were involved in other occupations. The results show that trading and farming were the dominant occupations for rural household members in the research area. In terms of monthly income, 37% of the respondents earned between ₦50,000 and ₦100,000, 27% earned less than ₦50,000, 22% earned between ₦100,001 and ₦150,000, while 14% earned more than ₦150,000.

Table 2: Level of Internet Banking Accessibility Among Rural Residents (N = 250)

Statement	SA	A	U	D	SD
Internet banking services are available in my community.	78 (31%)	92 (37%)	28 (11%)	34 (14%)	18 (7%)
I have access to a smartphone or device that supports internet banking.	84 (34%)	96 (38%)	22 (9%)	31 (12%)	17 (7%)
Internet connectivity in my area allows me to use internet banking regularly.	65 (26%)	82 (33%)	34 (14%)	43 (17%)	26 (10%)
Internet banking platforms are easy to access whenever I need them.	70 (28%)	89 (36%)	29 (12%)	40 (16%)	22 (9%)
I have sufficient knowledge to use internet banking services.	72 (29%)	94 (38%)	26 (10%)	37 (15%)	21 (8%)
Internet banking services are reliable for carrying out financial transactions.	68 (27%)	88 (35%)	31 (12%)	41 (16%)	22 (9%)

Source: Field Survey, 2026.

Table 2 shows that 78 (31%) strongly agreed and 92 (37%) agreed that the internet banking services are available in their community. 34 (14%) of the respondents disagreed, and 18 (7%) strongly disagreed on the same issue, hence indicating that most respondents have access to the internet banking services within their rural areas. Likewise, 84 (34%) strongly agreed, and 96 (38%) agreed that they own smartphones or other gadgets which can be used for internet banking. The finding shows that 65 (26%) of the respondents strongly agree that internet connectivity in their area allows them to use internet banking regularly, 89 (36%) agreed that internet banking platforms are easy to access whenever they need them, 94 (38%) agreed that they have sufficient knowledge to use internet banking services and 88 (35%) agreed that internet banking services are reliable for carrying out financial transactions.

Table 3: Level of Internet Banking Adoption among Rural Residents (N = 250)

Statement	SA	A	U	D	SD
I frequently use internet banking for financial transactions.	72 (29%)	88 (35%)	30 (12%)	38 (15%)	22 (9%)
I use internet banking for fund transfers.	85 (34%)	96 (38%)	21 (8%)	31 (12%)	17 (7%)
I use internet banking for bill payments and purchases.	69 (28%)	91 (36%)	32 (13%)	36 (14%)	22 (9%)
Internet banking is my preferred method of conducting banking transactions.	63 (25%)	89 (36%)	34 (14%)	41 (16%)	23 (9%)
I use internet banking more often than visiting a physical bank branch.	58 (23%)	87 (35%)	36 (14%)	44 (18%)	25 (10%)
I intend to continue using internet banking in the future.	94 (38%)	98 (39%)	20 (8%)	24 (10%)	14 (6%)

Source: Field Survey, 2026.

The findings (Table 3) show a relatively high degree of internet banking usage by rural dwellers in Lagos State. This is seen from the fact that 72 (29%) respondents strongly agreed while 88 (35.2%) agreed that they often use internet banking to conduct financial operations, which implies that internet banking has become an integral way of conducting financial transactions by many respondents. In the same vein, 85 (34%) respondents strongly agreed and 96 (38%) respondents agreed that they conduct fund transfers using internet banking, implying that fund transfer is one of the most commonly used services offered through internet banking. It is noteworthy that 69 (28%) respondents strongly agreed and 91 (36%) respondents agreed that they make payments and purchase things using internet banking. As regards their preferences for internet banking, 63 (25%) respondents strongly agreed, and 89 (36%) respondents agreed that internet banking is their preferred way of doing banking transactions. The result also indicated that 58 (23%) of the participants strongly agreed, while 87 (35%) of them agreed that they preferred using online banking more than physically going to bank branch offices. Additionally, 94 (38%) of the participants strongly agreed, while 98 (39%) of them agreed that they will continue using online banking in the future.

Table 4: Effect of Internet Banking Accessibility on Financial Inclusion (N = 250)

Statement	SA	A	U	D	SD
Internet banking has improved my access to financial services.	88 (35%)	96 (38%)	22 (9%)	29 (12%)	15 (6%)
Internet banking enables me to save money more conveniently.	82 (33%)	101 (40%)	20 (8%)	31 (12%)	16 (6%)
Internet banking has increased my use of formal banking services.	79 (32%)	97 (39%)	25 (10%)	32 (13%)	17 (7%)

Internet banking has reduced the need to travel to bank branches.	92 (37%)	94 (38%)	19 (8%)	28 (12%)	17 (7%)
Internet banking has improved my ability to manage financial transactions.	84 (34%)	99 (40)	21 (8%)	30 (12%)	16 (6%)
Internet banking has enhanced my participation in the formal financial system.	76 (30%)	103 (41%)	24 (10)	31 (12%)	16 (6%)

Source: Field Survey, 2026.

The findings indicate that internet banking has positively impacted the inclusion of rural dwellers in Lagos State in the financial market. For example, out of 250 participants, 88 (35%) and 96 (38%) strongly agree and agree, respectively, that internet banking has increased their chances of financial inclusion. Furthermore, the findings indicate that 82 (33%) and 101 (40%) strongly agree and agree, respectively, that internet banking allows them to save money easily. Also, 79 (32%) and 97 (39%) strongly agree and agree, respectively, that internet banking has increased their use of formal banking channels. Similarly, the results show that 92 (39%) and 94 (38%) strongly agree and agree, respectively, that internet banking has reduced their need to travel to bank branches. Another important finding of the study is that 84 (34%) participants strongly agree and 99 (40%) agree that internet banking has improved their ability to handle financial transactions. Moreover, 76 (30%) participants strongly agree, and 103 (41%) agree that internet banking has increased their engagement with the formal financial sector.

Table 5: Challenges Affecting Internet Banking Usage Among Rural Residents (N = 250)

Statement	SA	A	U	D	SD
Poor internet network affects my use of internet banking.	96 (38%)	89 (36%)	18 (7%)	29 (12%)	18 (7%)
High cost of internet data limits my use of internet banking.	84 (34%)	92 (37%)	25 (10%)	31 (12%)	18 (7%)
Lack of digital skills affects my use of internet banking.	63 (25%)	81 (32%)	32 (13%)	49 (20%)	25 (10%)
Security concerns discourage me from using internet banking frequently.	79 (32%)	88 (35%)	24 (10%)	37 (15%)	22 (9%)
Frequent network failures disrupt internet banking transactions.	91 (36%)	94 (38%)	19 (8%)	29 (12%)	17 (7%)
Unstable electricity supply affects my ability to use internet banking.	87 (35%)	96 (38%)	20 (8%)	31 (12%)	16 (6%)

Source: Field Survey, 2026.

The research results show that there are quite a number of challenges faced by people in rural areas in accessing internet banking services. Poor network connectivity is among the greatest challenges, with 96 respondents (38%) strongly agreeing and 89 (36%) agreeing that it is the biggest challenge they face when using internet banking. The cost of internet data was another challenge, with 84 respondents (34%) strongly agreeing and 92 (37%) agreeing that internet data costs are one of the challenges they face when accessing internet banking services. Network failures also affect online banking transactions, as 91 respondents (36%) strongly agreed and 94 (38%) agreed that frequent network failures affect banking transactions. Internet fraud and cybercrime are challenges people face when using internet banking services. The results showed that 79 respondents (32%) strongly agreed and 88 (35%) agreed that they do not use internet banking services due to fear of fraud. Lastly, 87 (34.8%) strongly agreed and 96 (38%) agreed that unstable electricity supply is another major challenge. Although low digital skills were among the challenges, they seemed to be less of an issue than networking problems and infrastructure. However, 63 people (25%) strongly agreed, and another 81 (32%) agreed that the deficiency in digital skills affects their use of internet banking.

Table 6: Regression Analysis on the Effect of Internet Banking Accessibility on Financial Inclusion

Variable	Coefficient (β)	Std. Error	t-value	p-value
Constant	1.284	0.312	4.115	0.000
Internet Banking Accessibility	0.673	0.058	11.603	0.000
R	0.594			
R ²	0.353			<0.05
Adjusted R ²	0.350			>
F-statistic	134.629			
Dependent Variable:	Financial Inclusion			

Source: Field Survey, 2026.

Decision Rule

Reject the null hypothesis (H_{01}) if the p-value is less than 0.05; otherwise, do not reject the null hypothesis.

Hypothesis Testing

H₀₁: Internet banking accessibility has no significant effect on financial inclusion among rural households in Lagos State, Nigeria.

From the regression analysis, it is apparent that there is a positive coefficient of 0.673 associated with internet banking accessibility (p-value = 0.000), which is below the threshold level of significance of 0.05. This means that there is a statistically significant relationship between internet banking accessibility and financial inclusion in rural areas in Lagos state. From the above regression analysis, the R^2 value of 0.353 shows that internet banking accessibility accounts for 35.3% of the variance in financial inclusion.

Decision

Since the p-value (0.000) is less than 0.05, the null hypothesis (H_{01}) is rejected. This suggests that internet banking has a significant positive effect on financial inclusion among rural households in Lagos State, Nigeria.

Table 7: Multiple Regression Analysis of the Influence of Ease of Use, Availability of Internet Services, Security, and Trust on Financial Inclusion

Variable	Coefficient (β)	Std. Error	t-value	p-value
Constant	0.962	0.284	3.387	0.001
Ease of Use	0.291	0.067	4.343	0.000
Availability of Internet Services	0.248	0.061	4.066	0.000
Security	0.186	0.058	3.207	0.002
Trust	0.214	0.064	3.344	0.001
R	0.748			
R^2	0.560			
Adjusted R^2	0.553			
F-statistic	77.918			
Sig. F	0.000			
Dependent Variable:	Financial Inclusion			

Source: Field Survey, 2026.

H₀₂: Ease of use, availability of internet services, security, and trust in internet banking have no significant influence on financial inclusion among rural households in Lagos State, Nigeria.

From the above regression analysis, it can be seen that the factors ease of use ($\beta = 0.291$, $p = 0.000$), availability of internet facilities ($\beta = 0.248$, $p = 0.000$), security ($\beta = 0.186$, $p = 0.002$), and trust ($\beta = 0.214$, $p = 0.001$) significantly influence the extent of financial inclusion of rural household residents in Lagos State. Since all the values of β are positive, it means that any improvement in these variables of internet banking will increase financial inclusion.

The model summary indicates an R^2 value of 0.560, which implies that 56.0% of the variation in the level of financial inclusion of rural household members in Lagos State is jointly influenced by ease of use, availability of internet facilities, security, and trust. In addition, the F-value is 77.918 at 0.000 significance level.

Decision

Since the p-values for ease of use (0.000), availability of internet services (0.000), security (0.002), and trust (0.001) are all less than the 0.05 significance level, the null hypothesis (H_{02}) is rejected. Ease of use, availability of internet services, security, and trust in internet banking have significant positive influences on financial inclusion among rural households in Lagos State, Nigeria.

DISCUSSION OF FINDINGS

The first research hypothesis examined the influence of internet banking access on financial inclusion in rural communities in Lagos State. According to the regression analysis, the accessibility of internet banking services has a positive impact on financial inclusion ($\beta = 0.673$, $p < 0.05$). Therefore, the null hypothesis was rejected, implying that better access to internet banking is significantly associated with financial inclusion among rural inhabitants. These results imply that rural communities with easier access to internet banking services are more involved in financial actions and transactions.

The finding underscores the significance of digital financial platforms in addressing traditional problems encountered in physical banking operations. For instance, rural areas encounter barriers like distance from bank branches, costs of travel, and scarcity of financial institutions. Internet banking eliminates these barriers by allowing individuals to conduct their financial transactions using digital means. With improved accessibility, more people will be able to gain entry into the formal financial sector, thus ensuring financial inclusion.

The finding corroborates the study by Demirgüç-Kunt et al. (2022), which found that the use of digital financial services led to higher account ownership and access to formal financial services in developing and emerging countries. In their study, digital financial platforms created opportunities for previously marginalised groups to interact with formal financial institutions. In the same way, the findings of Sahay et al. (2020) indicate that digital financial technologies play an immense role in increasing financial inclusion by improving access to payment, savings, and credit services among low-income people. The current finding also supports the study done by Ozili (2021), who established that digital banking systems enhance financial inclusion through lowering transaction costs and improved access to financial services.

Furthermore, this finding is validated by the results of the descriptive analysis as provided earlier, whereby the responses showed that most of the people felt that the availability of internet banking led to an increase in their access to financial services, better savings behaviour, fewer visits to bank branches, and involvement in the formal financial system. Such results show how the availability of internet banking has practically contributed to the inclusion of rural households in financial affairs.

On theoretical grounds, the finding supports the premises of the Technology Acceptance Model (TAM), proposed by Davis (1989). TAM suggests that a person would be more willing to adopt a certain technology if he or she feels that the technology is useful and easy to use. The availability of internet banking will make digital banking more useful, as financial services will be more easily accessible. With the rural population having access to the internet banking platform, adopting such technology becomes easier, thereby increasing their involvement in formal financial transactions. The implication of this study includes the fact that policymakers, financial institutions, and telecommunication companies should consider prioritising investments in the field of digital infrastructure and digital financial services in rural communities. The improvement of accessibility of internet banking could be one of the effective methods to deal with the problem of financial exclusion among rural communities in Lagos State.

The second research hypothesis tested whether ease of use, accessibility to internet facilities, security, and trust affect financial inclusion of rural households in Lagos State. The multiple regression analysis findings suggest that all these variables had a significant effect on financial inclusion. Ease of use ($\beta = 0.291$, $p < 0.05$), accessibility to internet facilities ($\beta = 0.248$, $p < 0.05$), security ($\beta = 0.186$, $p < 0.05$), and trust ($\beta = 0.214$, $p < 0.05$) were all shown to significantly predict financial inclusion. This resulted in the rejection of the null hypothesis. This means that enhancing any of these aspects increases the probability of financial inclusion of rural dwellers.

This suggests that merely having access is not enough to ensure that people will be financially included if their experience using the internet banking platform is difficult, if there is unreliable internet infrastructure, and they are unsure about the safety of internet banking. Therefore, all these factors will determine how effective internet banking is in ensuring financial inclusion.

This finding is consistent with the results found by Alalwan et al. (2018), who stated that the perceived ease of use, trust, and perceived usefulness have a great impact on customers' intention to use the services offered by internet banks. The authors argue that people would be ready to use such services only if they believe that the system is easy to use, safe, and useful for them. The findings are also consistent with the results found by Venkatesh, Thong, and Xu (2012), who proved that ease of use and facilitating conditions determine technology use. The availability of internet services is one such facilitating condition.

In addition, the findings reinforce those of Ozili (2021), where inadequate infrastructure, poor digital literacy skills, and lack of security were among the factors that hinder financial inclusion in developing nations. In this case, improvements in internet services and digital security could lead to increased engagement in formal finance. In addition, the findings concur with those of Sahay et al. (2020), who found that digital finance tools are highly effective in contributing to financial inclusion where there is sufficient infrastructure and user confidence.

The results strongly support the Technology Acceptance Model (TAM). According to Davis (1989), ease of use and usefulness are determinants of technology acceptance. While ease of use is one of the main components of TAM, security, trust, and internet accessibility help in determining users' perceptions of usefulness and confidence in the technology. With easy, reliable, secure, and internet-based banking portals, users can easily accept and continue using such technology. The conclusion that can be drawn from the findings of this research is that apart from offering increased accessibility of internet banking, banks need to work towards increasing the usability of these internet banking platforms, ensuring higher levels of cybersecurity, and cooperating with telecom companies for better coverage in rural areas.

CONCLUSION AND RECOMMENDATIONS

The present study assessed the impact of internet banking accessibility on financial inclusion in rural household in Lagos state, Nigeria. It was found out from the findings of the study that accessibility to internet banking plays an important role in influencing financial inclusion. Internet banking accessibility improves access to financial services, encourages savings practices, decreases the dependency on physical banks and increases participation in the formal financial sector. The present study has also identified that ease of use, internet accessibility, security and trust play an important role in financial inclusion in rural areas. Though internet banking is being widely adopted, still there exist some constraints such as poor internet connectivity, high cost of the internet, insecurity and electricity shortage that make internet banking less effective.

Based on the findings, the following are recommended:

1. Financial institutions need to increase internet banking facilities in the rural areas through the development of easy-to-use platforms and creating awareness about the range of internet banking services that can be offered.
2. The telecommunication companies and respective government authorities should work towards enhancing internet facilities and coverage in the rural areas to ensure that people have access to affordable and reliable internet services.
3. Banks need to take steps to ensure security while providing internet banking services along with educating customers about safe usage of such facilities.
4. The government bodies along with financial institutions and community organisations should conduct digital literacy programmes to enhance the skills of rural people with regard to internet banking and other digital financial systems.

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