

THE INFLUENCE OF MOBILE BANKING APPLICATIONS AND FINANCIAL INCLUSION ON ACCOUNT HOLDERS' ACCESS TO FINANCIAL SERVICES

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ABSTRACT

This study examined the influence of mobile banking applications on financial inclusion among account holders. A quantitative survey research methodology was used in this study, and primary data were collected through questionnaires from 200 account holders. The data collected were analysed using descriptive statistics and simple linear regression with the help of SPSS. Results from the descriptive analysis indicated high use of mobile banking applications, with a grand mean of 4.25, whereas respondents agreed that mobile banking applications made access to financial services easier (grand mean = 4.35) and facilitated financial inclusion (grand mean = 4.27). Linear regression analysis revealed that mobile banking application use had a significant positive influence on access to financial services ($\beta = 0.716$, $R^2 = 0.513$, $p < 0.05$) and financial inclusion ($\beta = 0.759$, $R^2 = 0.576$, $p < 0.05$). It was concluded that the higher use of mobile banking applications facilitates access to financial services and enhances financial inclusion.

Keywords: Mobile Banking Applications, Financial Inclusion, Financial Services, Digital Banking

INTRODUCTION

The concept of financial inclusion is a crucial part of economic development. It includes a wide range of services, such as savings, payments, credit, and insurance, provided in a responsible and sustainable way (Tay et al., 2022; Fadun, 2014). Due to the swift progress in digital technologies, financial service providers have adopted mobile banking applications to provide financial services to clients (Demirgüç-Kunt et al., 2022). Mobile banking applications provide an opportunity for customers to perform financial operations via smartphones and any other internet-connected device without going to bank branch offices (Tay et al., 2022). Using functions such as fund transfers, payments, account management, savings opportunities, and loan applications, banking applications facilitate financial services. The use of mobile banking applications is particularly important in developing countries where banking infrastructure is poor (GSMA, 2024).

Over the last decade, financial inclusion across the world has witnessed huge progress. As reported by the Global Findex Database 2021 released by the World Bank, there was a huge increase in the number of adults having accounts, which rose from 51% in 2011 to 76% in 2021. This is one of the greatest achievements in terms of financial inclusion across the world (Demirgüç-Kunt et al., 2022). Further, it has been found that digital payments play an important part in financial inclusion, with millions of people using their mobile phones to access financial services. In developing nations, about 71% of adults had a financial account in 2021, compared with around half a decade ago (World Bank, 2022).

The proliferation of mobile financial services has become quite prominent especially in Sub-Saharan Africa. According to the GSMA (2024), mobile money services had approximately 1.75 billion accounts worldwide in 2023, with transactions totalling approximately \$1.4 trillion per year. Almost half of these accounts originated from Sub-Saharan Africa indicating the dominance of the region in the use of mobile-based financial services. The increased penetration of smartphones and mobile internet has allowed banks to create innovative ways of delivering their services to people who were not able to receive them earlier (GSMA, 2024).

In Nigeria, the adoption of digital financial services has become very popular due to the high penetration rate of smartphones, the availability of internet connection, and initiatives to foster a cashless economy (Aduloju & Akindipe, 2022). Banking institutions have spent significant amounts of money on developing mobile banking apps, allowing their customers to easily access the banking services offered. These applications give users an opportunity to make transactions, pay bills, save money, and communicate with the financial institutions from anywhere at any time.

However, there are still doubts about the effectiveness of mobile banking applications in promoting financial inclusion of account holders. It is crucial to find out how mobile banking applications impact access to finance, savings activities, financial transactions, and customer interaction with financial institutions (Onyejiaku et al.,

2026). This is why the present research aims to analyse the role of mobile banking applications in promoting the financial inclusion of account holders.

The advent of mobile banking apps has been a major development in how financial services are provided, offering customers remote and convenient services. It is hoped that by continuously developing their digital banking systems, banks will make financial services more accessible and thereby enhance financial inclusion (Akande et al., 2023). Nevertheless, even though there are many mobile banking applications in existence, a substantial number of people find it difficult to make use of formal financial services.

As shown in the findings of the Global Findex database, while global account ownership grew to 76% in 2021, there have been major differences between account holders in terms of financial services usage, savings engagement, and credit access (Demirgüç-Kunt et al., 2022). Having an account does not mean the user has achieved financial inclusion. Many people hold accounts but do not use formal financial services. The same is true for users of digital banking applications.

However, the use of mobile banking applications in Nigeria has seen a huge rise as a result of an increase in the number of smartphones and internet usage. Banks provide different application features, including fund transfers, bill payment services, mobile savings facilities, and account management services (Setiawan et al., 2023). However, problems such as a lack of digital literacy skills, security fears, network connectivity issues, and other factors may affect the application's performance in fostering financial inclusion.

Moreover, previous studies have concentrated more on mobile money and general digital financial inclusion, but there is not enough empirical research about the influence of the mobile banking application features on access to financial services, transaction frequency, savings behaviour, credit access, and banking services among account holders (Osei et al., 2025). Therefore, there is a gap in knowledge on how the banking applications contribute to the financial inclusion of customers.

This is the backdrop against which this study will explore the impact of mobile banking applications on financial inclusion among the banked population, with specific focus on the facilities of fund transfers, bill payments, mobile savings, navigation and security offered by such applications (Adekunle & Vincent, 2025). The objective of this study is to empirically prove the significance of these application facilities in customer participation in the formal financial sector. This study examines the extent of mobile banking application usage among account holders, assesses the effect of mobile banking applications on access to financial services, determines the influence of mobile banking applications on savings and transaction convenience and evaluates the contribution of banking applications to financial inclusion among customers.

LITERATURE REVIEW

Conceptual Review

Mobile Banking Applications

A mobile banking application refers to a platform created by banks to allow customers to access banking services through mobile phones (Adekunle & Vincent, 2025). Mobile banking applications allow users to conduct financial transactions, including fund transfers, bill payments, account monitoring, savings management, and loan applications, among others, without going to physical bank branches. The growth in the use of mobile banking applications has changed the banking industry by making it more convenient, lowering transaction costs, and increasing access to banking services (Cnaan et al., 2021; Siano et al., 2020).

The creation of mobile banking applications is closely related to the development of information and communication technology and the increase in the number of mobile phones worldwide. Siano et al. (2020) assert that mobile banking is among the major means of providing banking services, especially in developing nations where there is a lack of physical banking infrastructure. Mobile banking helps overcome geographical challenges in providing financial services and promotes financial inclusion.

Mobile banking applications usually offer several features that improve customer experience. These include services for transferring funds, paying bills, checking account balances, reviewing transaction history, savings schemes, and loans, among others (Osei et al., 2025). The incorporation of these features has made it convenient for customers to engage in banking operations easily and effectively. Recent studies show that the utility and availability of mobile banking applications are important factors that affect customer adoption and use of these applications (Falade & Ogundele, 2023).

Security plays an important role in mobile banking applications. Customers' willingness to use and adopt mobile banking applications depends on their perception of the service's security and trustworthiness. In their research, Diallo et al. (2024) found that security features like encryption, biometric verification, and multi-factor verification have become an important aspect of mobile banking applications due to the threat of cybercrime.

The importance of mobile banking apps goes beyond making life easier for the users. According to the World Bank's Global Findex Report, digital financial solutions have made significant contributions to raising the number of accounts and use of digital payments around the world. The rate of adult account ownership reached 76% in 2021, with digital financial technologies being one of the key catalysts in achieving that level (Demirgüç-Kunt et al., 2022). Therefore, mobile banking apps can be regarded as an important innovation that facilitates the availability of financial services to customers.

In addition, mobile banking apps increase interaction between customers and banks through the constant availability of bank services. Real-time notifications, management options, and customised financial services help clients better control their financial operations (Osei et al., 2025). As a result, mobile banking apps have become an indispensable part of modern banking and an important mechanism for expanding access to financial services across various populations (Siano et al., 2020).

Financial Inclusion and Access to Financial Services

Financial inclusion can be understood as the availability and effectiveness of affordable financial products and services for use by households and firms. Financial inclusion is considered essential for economic activity and financial wellbeing, as it includes savings accounts, payment systems, credit, insurance services, and other formal financial services. Financial inclusion has become an important public policy goal worldwide due to its acknowledged contribution to poverty reduction, economic growth, and development (Demirgüç-Kunt et al., 2022).

According to the World Bank Global Findex Database 2021, there has been significant improvement in financial inclusion over the past decade. Account ownership around the world increased from 51% in 2011 to 76% in 2021, which is one of the most outstanding achievements regarding financial inclusion globally (Akenzua, 2025; Demirgüç-Kunt et al., 2022). Moreover, the report emphasised the importance of digital financial services, especially digital payments and mobile financial platforms, in expanding access for those who were previously excluded from formal financial services.

Access to financial services constitutes an important part of financial inclusion. People who find it convenient to use banking services can save money, make safer transactions, access credit, and participate in economic activities. According to Ozili (2023), financial inclusion leads to economic empowerment because it allows people and companies to connect to formal financial systems and enjoy broader opportunities. The main idea of the research was that higher access to financial services positively affects household well-being and the economy.

Another important factor is financial inclusion. Having access to financial services does not mean a person uses them. Financial inclusion assumes regular usage of financial instruments such as savings accounts, digital payments, loans, and insurance services. According to the observations of Morgan et al. (2019), financial inclusion needs to be measured not only by the possession of financial accounts but also by their usage.

In addition, savings engagement and access to loans are well-recognised measures of financial inclusion. Savings access ensures that people can save their finances and cushion themselves from any financial shocks. Likewise, access to credit will ensure that households and firms invest their finances productively, thereby improving their living standards. According to Sahay et al. (2020), financial inclusion improves financial stability through increased participation in the formal financial sector, at the expense of informal financial arrangements.

Moreover, financial inclusion plays an important role in the realisation of SDGs, especially those focused on poverty alleviation, gender equality, and economic growth. In view of the changes in financial services caused by the emergence of digital technologies, the provision of financial services is important in ensuring inclusive economic growth (United Nations, 2023).

Mobile Banking Applications and Financial Inclusion

The rise in the use of mobile banking apps has revolutionised the way in which financial services are delivered and accessed across the globe. Mobile banking apps enable customers to carry out several transactions, such as transferring money, paying bills, checking account status, managing savings, and applying for loans using mobile devices. Thus, mobile banking apps have become important instruments in ensuring financial inclusion by helping overcome barriers presented by the traditional banking system (Demirgüç-Kunt et al., 2022).

Financial inclusion aims to make sure that people and firms have access to valuable, affordable, and sustainable financial products and services. Mobile banking apps help achieve this goal by increasing access to banking services beyond the limitations of traditional brick-and-mortar bank branches. According to the World Bank Global Findex Report, the use of digital financial services has considerably increased the number of account owners and users of financial services around the world, especially in groups of people who were not able to participate in the formal financial sector before (Demirgüç-Kunt et al., 2022).

Access to finance increases through the use of mobile banking applications, as they offer customers easy and continuous access to banking platforms. According to Ozili (2023), the use of digital financial technologies has made financial inclusion easier by reducing transaction costs, removing geographical barriers, and increasing customer participation in formal financial services (Ozili, 2023; Klapper, El-Zoghbi & Hess, 2022; Ibrahim, Ozdeser & Cavusoglu, 2018). Customers using mobile banking applications can access banking services anywhere and anytime, making access to finances easy and convenient.

Moreover, mobile banking applications make customers financially involved by allowing them to carry out many financial transactions. Instant funds transfer, bill payments, and mobile saving options are some of the services that help customers become more involved in formal financial services. According to Shaikh & Karjaluoto (2021), usage of mobile banking services increases financial behaviours of customers since the number and efficiency of financial transactions increase due to their usage.

In addition, mobile banking applications aid in mobilising savings and managing money. Features related to savings integrated within banking applications facilitate the process of saving and financial management of the customers. Morgan and Long (2020) opined that digital financial services contribute to increasing savings engagement and also improve people's capability to save. This is particularly significant in developing nations, where there may be a lack of savings facilities.

Moreover, there are several other aspects related to the efficacy of mobile banking applications in enhancing financial inclusion. Ease of use, perceived usefulness, and security are some of the most crucial factors. Customers are likely to embrace and continue using mobile banking applications if they find them user-friendly and safe to use. Alalwan et al. (2018) found that perceived usefulness and trust play an instrumental role in influencing customers' adoption of mobile banking applications.

Theoretical Framework

This study is anchored on the Technology Acceptance Model (TAM) developed by Davis (1989). The Technology Acceptance Model is among the most frequently employed theories for understanding the adoption and usage of information technologies. According to this model, an individual's intention to use a technological system can be predicted on the basis of two variables, namely perceived usefulness and perceived ease of use. While the former relates to a user's perception of how much he or she will benefit from adopting a certain technology, the latter concerns a user's perception of how effortless it will be to use the technology (Davis, 1989).

The significance of TAM for the research at hand lies in explaining how customers accept and use mobile banking apps. Mobile banking apps provide numerous functions, such as making money transfers, paying bills, managing savings, and tracking accounts. Customers are more likely to adopt and continue using these apps if they find them useful and easy to use. Research proves that perceived usefulness, ease of use, and trust have a considerable impact on customers' adoption of mobile banking (Shaikh & Karjaluoto, 2021; Alalwan et al., 2018).

Additionally, the security mechanisms built into mobile banking apps affect customers' attitudes toward using mobile banking applications. As customers view banking applications as secure and trustworthy, they gain confidence in the technology, which makes them more likely to use the service for their financial transactions. Increased usage of mobile banking apps would eventually result in improved access to financial services, increased transactions, greater savings, and greater engagement with formal financial institutions. Hence, the Theory of Technology Acceptance is a suitable theory for the research as it explains how certain characteristics of mobile banking apps, such as usefulness, usability, and security, affect the adoption and usage of technology.

Empirical Review

Various empirical studies have explored the connection between mobile banking applications and financial inclusion in various countries and contexts. The first study was conducted by Alalwan, Dwivedi, Rana, and Williams (2018), who explored the variables affecting the adoption of mobile banking services by bank customers in Jordan. This was an empirical study that used a quantitative research approach, where 343 participants were interviewed using a questionnaire. The results showed that the factors affecting the adoption of mobile banking

applications included perceived usefulness, perceived ease of use, trust, and self-efficacy. Mobile banking applications can be seen as a tool that increases customer involvement in financial services due to accessibility and convenience.

The effects of digital financial services on financial inclusion were analysed by Kumar, Nim, and Agarwal (2019) in India. In particular, using secondary sources retrieved from financial organisations and government sources, the researchers established that mobile banking and digital financial platforms increased access to financial services for people who previously lacked such access. The results suggest that digital financial services reduced geographical limitations and transaction fees, promoting financial inclusion. It also emphasised that mobile banking technologies play a significant role in increasing access to financial services in developing countries (Kumar, Nim & Agarwal, 2019).

Demirgüç-Kunt, Klapper, Singer, and Ansar (2022) evaluated the contribution of digital financial services to financial inclusion in research that used the Global Findex Database 2021. Based on the information gathered in 120 economies, the researchers indicated that digital payments and mobile financial services made a significant contribution to the growth of global account ownership to 76% in 2021. Moreover, it was found that individuals using digital financial services tended to use formal savings accounts and make transactions.

Ozili (2023) examined the correlation between financial innovation digitisation and financial inclusion through a thorough literature review of evidence on their influence on each other. According to the results, mobile banking apps enhance access to financial services, increase transaction frequency, and foster greater involvement in formal financial institutions. The study highlights the role of digital financial technology in fostering economic inclusion when combined with proper infrastructure and digital literacy.

Sharma, Gupta, and Gupta (2024) provided a systematic review of research on financial technology and financial inclusion. The review of empirical evidence across various nations revealed that mobile banking apps enhance financial accessibility, saving habits, and customers' interaction with formal financial organisations. The research showed that digital banking innovations have become vital instruments for encouraging financial inclusion, especially among poor and rural populations.

Literature Gap

Previous studies have noted that mobile banking and other digital financial technologies positively impact financial inclusion through increased access to financial services, transactions, and savings (Ozili, 2023; Demirgüç-Kunt et al., 2022; Alalwan et al., 2018). However, most of these studies have examined broad aspects of digital financial services, fintech innovations, or mobile money applications without examining the influence of mobile banking application features on the financial inclusion of account holders. Moreover, many studies have investigated technology adoption aspects like perceived usefulness, perceived ease of use, and trust without much regard to how application features, for instance, funds transfer services, bill payment services, mobile savings services, easy navigation features, and security features, impact financial inclusion. In addition, there is scant empirical data from developing countries, especially Nigeria, on this phenomenon. Therefore, this study aims to fill this gap by exploring the influence of specific features of mobile banking applications on the financial inclusion of account holders.

Hypotheses Formulation

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

H₀₁: Mobile banking application usage has no significant effect on account holders' access to financial services.

H₀₂: Mobile banking application usage has no significant effect on financial inclusion among account holders.

METHODOLOGY

The research utilised a quantitative research approach that involved the use of the survey research method. Survey research was deemed appropriate since, through this approach, the researcher could gather information from respondents on how they used the mobile banking apps and their perceptions of the apps. This research approach was also appropriate since it facilitated the analysis of the correlation between features of the mobile banking app and financial inclusion among account holders. The survey method helped in collecting consistent data from the selected respondents.

The study population consisted of people who have active mobile banking apps offered by commercial banks. As it was difficult to estimate the total population of mobile banking app users, a sample of 200 respondents was chosen for this study. This sample size was deemed sufficient to collect the necessary data and perform the necessary calculations. The purposive sampling method was utilised in selecting respondents. This method was

appropriate since only those people who had bank accounts and experience with mobile banking app usage became the respondents of this study. The purposive sampling method ensured that respondents had the necessary knowledge and experience to provide answers on mobile banking services and financial inclusion.

This study used primary data gathered using a structured questionnaire. The questionnaire was developed depending on the objectives, research questions, and variables used in the conceptual framework. The questionnaire comprised two parts. Part A involved demographic data, including the respondent's age, gender, education level, and banking experience. Part B included statements on characteristics of mobile banking applications and financial inclusion indices.

This study employed a five-point Likert scale ranging from Strongly Agree (5) to Strongly Disagree (1). The questionnaire was distributed electronically via online platforms such as Google Forms and other social media sites. Online questionnaires were deemed appropriate since the respondents are users of mobile banking applications, meaning that they had the competence to answer the questionnaire. Data gathered from the respondents were analysed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics such as frequency, percentage, mean, and standard deviation were used to describe demographic data and respondents' responses to questions.

The hypotheses were tested using simple linear regression analysis at a 5% level of significance. Simple linear regression was used in the test since it allowed the researcher to establish how far mobile banking application usage affected access to financial services and financial inclusion. The decision rule was that if the probability (p-value) was less than 0.05, then the null hypothesis would be rejected, but if it was greater than 0.05, then the null hypothesis would be accepted.

DATA ANALYSIS

The data collected is analysed in this section Table 1 presents the respondents' demographic data.

Table 1: Respondents' Demographic Characteristics (N = 200)

Variable	Category	Frequency	Percentage (%)
Gender	Male	116	58
	Female	84	42
	Total	250	100
Age	18–25 years	48	24
	26–35 years	82	41
	36–45 years	46	23
	46 years and above	24	12
	Total	250	100
Educational Qualification	Secondary School Certificate	28	14
	OND/NCE	44	22
	HND/B.Sc.	96	48
	Postgraduate Degree	32	16
	Total	250	100
Duration of Mobile Banking Usage	Less than 1 year	22	11
	1–3 years	70	35
	4–6 years	76	38
	Above 6 years	32	16
	Total	250	100
Frequency of Usage	Daily	92	46
	Weekly	62	31
	Monthly	30	15
	Occasionally	16	8
	Total	250	100

Source: Field Survey, 2026

Table 1 shows that 116 (58%) of the respondents were male while 84 (42%) were female. From the results on the age distribution, 48 (24%) of the respondents were within the age bracket of 18-25 years old, 82 (41%) were between 26-35 years old, 46 (23%) were within 36-45 years old, while 24 (12%) were 46 years and above. The educational qualification among the respondents showed that 28 (14%) respondents had secondary school certificates, 44 (22%) had OND/NCE qualifications, 96 (48%) had HND/B.Sc qualifications, while 32 (16%) had postgraduate qualifications. From the results on the duration of mobile banking application usage, 22 (11%) of the respondents used mobile banking applications for less than one year, 70 (35%) used them for between one and three years, 76 (38%) used them for between four and six years, while 32 (16%) used them for more than six years. The frequency of mobile banking application usage showed that 92 (46%) of the respondents used mobile banking applications daily, 62 (31%) used them weekly, 30 (15%) used them monthly, while 16 (8%) used them occasionally.

Table 2: Extent of Mobile Banking Application Usage among Account Holders (N = 200)

Statements	Mean	Std. Dev.	Decision
Frequent use of mobile banking applications to perform banking transactions.	4.32	0.81	Agree
Mobile banking applications are my preferred channel for conducting banking activities.	4.18	0.87	Agree
The use of mobile banking applications for funds transfers regularly.	4.41	0.75	Agree
The use of mobile banking applications to pay bills and other financial obligations.	4.09	0.93	Agree
The use of mobile banking applications is more often than visiting a bank branch.	4.25	0.84	Agree
Grand Mean	4.25	0.84	Agree

Decision Rule: Mean score of 3.00 and above = Agree; Mean score below 3.00 = Disagree.

Source: Field Survey, 2026.

Table 2 indicates that the participants concurred that they often utilise mobile banking apps to conduct banking operations, with a mean score of 4.32 and a standard deviation of 0.81. The participants also agreed that mobile banking apps were their channel of choice when conducting banking operations, with a mean score of 4.18 and a standard deviation of 0.87. Moreover, the participants agreed that they often use mobile banking apps to transfer money, as reflected in a mean score of 4.41 and a standard deviation of 0.75. They further agreed that they used mobile banking apps to pay bills and other debts, with a mean score of 4.09 and a standard deviation of 0.93. Furthermore, the participants agreed that they use mobile banking apps more than going to bank branches, with a mean score of 4.25 and a standard deviation of 0.84. A mean score of 4.25 shows that the participants agreed that they extensively use mobile banking apps for various banking purposes.

Table 3: Effect of Mobile Banking Applications on Access to Financial Services (N = 200)

Statements	Mean	Std. Dev.	Decision
Mobile banking applications have improved my access to banking services.	4.36	0.77	Agree
Access to financial services anytime through mobile banking applications.	4.48	0.69	Agree
Mobile banking applications reduce the need for physical visits to bank branches.	4.42	0.73	Agree
Mobile banking applications make banking services more convenient for me.	4.31	0.81	Agree
Mobile banking applications have increased my ability to access different financial products and services.	4.17	0.88	Agree
Grand Mean	4.35	0.78	Agree

Decision Rule: Mean score of 3.00 and above = Agree; Mean score below 3.00 = Disagree.

Source: Field Survey, 2026.

Table 3 shows that the respondents agreed that mobile banking applications have enhanced their accessibility to banking services with a mean score of 4.36 and a standard deviation of 0.77. Additionally, the respondents agreed that mobile banking applications made it possible for them to access financial services at any time, with a mean score of 4.48 and a standard deviation of 0.69.

Moreover, the results show that the respondents agreed that mobile banking applications have minimised the need to go to bank branches physically, with a mean score of 4.42 and a standard deviation of 0.73. Similarly, the respondents agreed that mobile banking applications have made banking services more convenient to use with a mean score of 4.31 and a standard deviation of 0.81. Furthermore, the respondents agreed that mobile banking applications have enhanced their access to various financial products and services with a mean score of 4.17 and a standard deviation of 0.88. A grand mean score of 4.35 and a standard deviation of 0.78 show that the respondents agreed that mobile banking applications positively impacted their access to financial services.

Table 4: Influence of Mobile Banking Applications on Savings and Transaction Convenience (N = 200)

Statements	Mean	Std. Dev.	Decision
Mobile banking applications encourage me to save money regularly.	4.12	0.89	Agree
Mobile banking applications make financial transactions faster.	4.53	0.66	Agree
Mobile banking applications make it easier for me to manage my savings.	4.24	0.81	Agree
Mobile banking applications have reduced the time spent conducting banking transactions.	4.47	0.71	Agree
Mobile banking applications improve the convenience of making payments and transfers.	4.39	0.74	Agree
Grand Mean	4.35	0.76	Agree

Decision Rule: Mean score of 3.00 and above = Agree; Mean score below 3.00 = Disagree.

Source: Field Survey, 2026.

Table 4 indicates that the respondents agreed that mobile banking applications motivated them to save money consistently, with a grand mean score of 4.12 and standard deviation of 0.89. The respondents also agreed that mobile banking applications enhanced the speed of financial transactions, with a mean score of 4.53 and a standard deviation of 0.66. The findings further indicated that the respondents agreed that mobile banking applications facilitated the management of their savings, with a grand mean score of 4.24 and standard deviation of 0.81. In addition, the respondents agreed that mobile banking applications minimised the time spent on conducting banking transactions, with a mean score of 4.47 and a standard deviation of 0.71. Furthermore, the respondents agreed that mobile banking applications enhanced the convenience of payments and transfers, with a grand mean score of 4.39 and a standard deviation of 0.74. Overall, the grand mean score of 4.35 and standard deviation of 0.76 showed that the respondents agreed that mobile banking applications positively impacted savings behaviour and transaction convenience.

Table 5: Contribution of Mobile Banking Applications to Financial Inclusion among Customers (N = 200)

Statements	Mean	Std. Dev.	Decision
Mobile banking applications have increased my use of formal financial services.	4.21	0.83	Agree
Mobile banking applications have improved my participation in the formal financial system.	4.16	0.86	Agree
Mobile banking applications have increased my frequency of financial transactions.	4.38	0.72	Agree
Mobile banking applications have enhanced my engagement with banking services.	4.27	0.79	Agree
Mobile banking applications have contributed positively to my financial inclusion.	4.33	0.76	Agree
Grand Mean	4.27	0.79	Agree

Decision Rule: Mean score of 3.00 and above = Agree; Mean score below 3.00 = Disagree.

Source: Field Survey, 2026.

From the analysis above, the conclusion drawn was that the respondents agreed that mobile banking applications have increased the use of formal financial institutions, with a grand mean score of 4.21 and a standard deviation of 0.83 (Table 5). The respondents equally agreed that mobile banking applications have increased their participation in the formal financial system, with a grand mean score of 4.16 and a standard deviation of 0.86. Further analysis shows that the respondents agreed that mobile banking applications had increased their financial transactions, as reflected in the grand mean score of 4.38 and standard deviation of 0.72. The respondents also affirmed that mobile banking applications had increased their engagement with banks, with a mean of 4.27 and standard deviation of 0.79. In addition, the respondents agreed that mobile banking applications have contributed

positively towards their financial inclusion, with a grand mean score of 4.33 and standard deviation of 0.76. The grand mean score of 4.27 and standard deviation of 0.79 reflect that the respondents agreed that mobile banking applications contribute positively to financial inclusion among customers.

H₀₁: Mobile banking application usage has no significant effect on account holders' access to financial services.

Table 6: Simple Linear Regression Analysis on the Effect of Mobile Banking Application Usage on Access to Financial Services (N = 200)

Variables	B	Std. Error	Beta	t-value	Sig.
Constant	1.284	0.273	-	4.703	0.000
Mobile Banking Application Usage	0.694	0.048	0.716	14.458	0.000
R	0.716				
R²	0.513				
Adjusted R²	0.511				
F-value	209.036				

Dependent Variable: Access to Financial Services

Source: Field Survey, 2026.

Table 6 reveals that the usage of mobile banking applications had a positive coefficient ($\beta = 0.716$), implying a positive relationship between the usage of mobile banking applications and access to financial services. The coefficient of determination ($R^2 = 0.513$) revealed that usage of mobile banking application explained 51.3% of the variation in access to financial services. The regression coefficient ($B = 0.694$) revealed that increased use of the mobile banking application was associated with increased access to financial services. The F-statistic of 209.036 at a significance value of 0.000 showed that the regression model is statistically significant. Moreover, the obtained t-value of 14.458 was associated with a probability value of 0.000, which is less than the level of significance of 0.05. Thus, the null hypothesis that the use of mobile banking applications does not have a significant impact on access to financial services by account holders was rejected. Since the p-value (0.000) is less than 0.05, the null hypothesis H₀₁ was rejected. This shows that the usage of mobile banking applications has a significant positive impact on access to financial services.

Table 7: Simple Linear Regression Analysis on the Effect of Mobile Banking Application Usage on Financial Inclusion (N = 200)

Variables	B	Std. Error	Beta	t-value	Sig.
Constant	1.137	0.251	-	4.530	0.000
Mobile Banking Application Usage	0.738	0.045	0.759	16.400	0.000
R	0.759				
R²	0.576				
Adjusted R	0.574				
F-value	268.955				

Dependent Variable: Financial Inclusion

Source: Field Survey, 2026.

Table 7 indicates that the use of mobile banking applications had a positive coefficient ($\beta = 0.759$), signifying a positive relationship between mobile banking applications usage and financial inclusion. The coefficient of determination ($R^2 = 0.576$) revealed that mobile banking application usage explained 57.6% of the variation in financial inclusion among the respondents. The regression coefficient ($B = 0.738$) showed that as mobile banking application usage increased, users' financial inclusion increased. The value of the F-statistic was 268.955 with a level of significance of 0.000, which indicated that the regression analysis was statistically significant. Also, the t-statistic of 16.400 was associated with a probability value of 0.000, which was lower than the 0.05 level of significance. Consequently, the null hypothesis that the use of mobile banking applications did not have any effect on financial inclusion amongst account holders was rejected. Since the value of p (0.000) was less than 0.05, H₀₂ was rejected. This meant that the use of mobile banking applications had a significant positive effect on financial inclusion amongst account holders.

DISCUSSION OF FINDINGS

The findings are discussed in this section.

Effect of Mobile Banking Application Usage on Access to Financial Services

The results of the research regarding the first hypothesis indicated that mobile banking application use had a significant positive impact on the account holder's access to financial services. Based on the regression analysis,

there was a statistically significant relationship between mobile banking application use and access to financial services. Therefore, it means that the results indicate the rejection of the null hypothesis. It shows that the more mobile banking applications are used, the better the access of customers to the banking services becomes. It means that mobile banking applications have become a major tool for customers to do their banking operations and get access to different banking products. The implications of such findings are that mobile banking applications help to decrease the barriers to financial service access (Osei et al., 2025). By providing opportunities for remote transactions, mobile banking applications increase the convenience of customers and make banking more accessible to people. Such a finding indicates that customers who actively use mobile banking applications have better access to financial services compared to those customers who do not the applications (Setiawan et al., 2023).

The finding is consistent with that of Demirgüç-Kunt et al. (2022), which revealed that digital financial services played an important role in increasing the accessibility to financial services and account ownership around the world. They concluded that digital banks improved the accessibility of financial services especially to those who had trouble accessing financial institutions due to different obstacles. In addition, Ozili (2023) argued that digital financial services play an important role in improving financial services accessibility by overcoming the limitations and barriers that prevent people from accessing the financial institution. The finding is also like the results found in Kumar et al. (2019).

This result is also justified by the development of the Technology Acceptance Model (TAM) by Davis (1989). This theory holds that individuals will adopt and use the technology if they find it to be both useful and easy to use. Since the positive influence of mobile banking application usage on access to financial services is found to be significant, one can assume that the respondents found the use of mobile banking applications useful in carrying out their banking transactions. Ease of accessing financial services using mobile applications might have prompted the increased use of mobile applications, leading to access to banking services.

Effect of Mobile Banking Application Usage on Financial Inclusion

On the other hand, the results about the second hypothesis showed that the usage of mobile banking applications had a positive impact on financial inclusion among account holders. From the regression analysis carried out, it was noted that the higher the usage of mobile banking applications, the more positively they impacted financial inclusion, leading to the acceptance of the research hypothesis and rejection of the null hypothesis. This shows that mobile banking applications have an important role in the promotion of financial inclusion using financial products and services (Akande et al., 2023). This means that mobile banking applications help in increasing transactions, customer engagement, savings, and access to financial services in order to facilitate financial inclusion. This result shows that customers who use mobile banking applications are likely to be involved in financial inclusion practices and have strong relationships with financial institutions (Onyejiaku et al., 2026). Thus, mobile banking applications become a very useful instrument in the promotion of financial inclusion.

The result reinforces the findings of Alalwan et al. (2018) who established that the adoption of mobile banking increases customer engagement in bank services due to increased convenience and availability. The result is also consistent with the findings of Sharma, Gupta, and Gupta (2024) whose systematic review indicates that the digital financial technology plays an important role in promoting financial inclusion due to increased access to financial services and participation in formal financial institutions. In addition, according to Demirgüç-Kunt et al. (2022), the digital financial services have become key factors that drive financial inclusion around the world since they have led to the increased ownership and use of financial services among adults. The result is similar to the findings of Ozili (2023) who argues that digital financial innovations, including mobile banking apps, increase financial inclusion by decreasing barriers for financial participation and making it possible for people to engage in financial services more effectively. The current result reinforces this claim since it indicates that the mobile banking app use positively affects financial inclusion among account holders.

This conclusion is in line with Technology Acceptance Model (Davis, 1989), which holds that users will be more ready to use any technology if it appears useful and easy. The positive correlation between usage of mobile banking applications and financial inclusion means that people who were surveyed viewed the applications as useful tools that can be used in performing financial operations. As a result, it prompted them to frequently use mobile applications and thus increased the involvement in the financial system. Therefore, the study serves as empirical evidence that supports Technology Acceptance Model, as acceptance and use of mobile banking technologies increase financial inclusion.

CONCLUSION AND RECOMMENDATIONS

The research considered the effect of the use of mobile banking applications on financial inclusion for account users. It was found that the respondents made extensive use of mobile banking applications for carrying out different bank activities, such as making transfers, payment of bills, savings operations and other financial operations. The research proved that the use of mobile banking applications had a significant impact on the provision of better financial services access, as the use of mobile banking applications facilitated the provision of better access to banking services without any visits to branches. Moreover, it was found that the use of mobile banking applications had a significant effect on the promotion of financial inclusion through the involvement of customers in formal financial services and higher transaction rate. The results of the tests for hypotheses showed that there was a significant impact of the use of mobile banking applications on access to financial services and financial inclusion.

Based on the findings of the study, the following are recommended:

1. The functionality and ease of using mobile banking applications by commercial banks should be further improved to always guarantee easy access to financial services and from anywhere.
2. There is a need for commercial banks to enhance the security measures within the mobile banking applications using enhanced authentication and fraud prevention measures.
3. The financial institutions should increase efforts geared towards educating customers about the importance of using mobile banking applications and how to effectively use them.
4. More innovation efforts aimed at introducing additional features related to savings and financial management within the mobile banking applications are necessary to enhance savings participation.
5. Government and financial regulators should provide support in improving the digital infrastructure as well as internet connectivity so as to encourage the use of mobile banking applications.

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