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Agent Banking and Financial Inclusion in Calabar Metropolis

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ABSTRACT

The study investigated the effect of agent banking services on financial inclusion in Nigeria. A study of Calabar metropolis. Specifically, the study sought to: evaluate the extent to which accessibility, affordability and availability of agent banking services on financial inclusion in Calabar. Survey research design was employed with data obtained from primary sources. The population of the study was made up of 2286 point of sales operations (POS) representing the number of POS devices issued by sixteen (16) deposit money banks operating in Calabar Metropolis. Stratified technique was employed to distribute questionnaire to 340 respondents within the scope of the study. A sample of 340 respondents was determined using the Taro Yamane formula. Consequently, a structured questionnaire was utilized to elicit responses from the sample size. Data were analyzed using multiple regression techniques. Regression result reviewed that accessibility, affordability and availability of agent banking services had a significant effect on financial inclusion. Based on this result, it was recommended that commercial banks operating should deploy more Point of Sale Terminals to enhance access to banking services. There should be stronger regulatory oversight to improve digital infrastructure and customer education programmes aimed at enhancing public confidence in agent banking systems.

Keywords: Agent banking services, financial inclusion, accessibility, affordability, availability,

Introduction

The banking sector across the globe has undergone significant transformation due to technological advancement, digital innovation, and the increasing demand for accessible financial services. In developing economies such as Nigeria, these transformations have become more necessary because a large proportion of the population remains financially excluded from the formal banking system. Financial exclusion has continued to constitute a major developmental challenge, particularly among low-income earners, rural dwellers, petty traders, artisans, and small-scale business operators who often lack access to conventional banking facilities. In response to this challenge, the Central Bank of Nigeria (CBN) introduced several financial inclusion policies and digital financial initiatives aimed at bringing banking services closer to the people. One of the most prominent innovations introduced to achieve this objective is agent banking.

Agent banking refers to a banking arrangement in which commercial banks and other licensed financial institutions appoint third-party agents to provide basic banking services on their behalf. These services include cash deposits, withdrawals, fund transfers, bill payments, account opening, airtime purchases, and balance inquiries through Point-of-Sale (POS) terminals and other digital devices. Agent banking is commonly referred to as branchless banking because it enables customers to access banking services outside the traditional banking halls. The introduction of agent banking in Nigeria was largely motivated by the need to expand financial services to underserved and financially excluded populations, especially in areas where establishing conventional bank branches may be difficult or economically unviable (Quadri *et al.,* 2024).

Financial inclusion, on the other hand, refers to the process of ensuring that individuals and businesses have affordable, timely, and convenient access to useful and formal financial products and services that meet their needs. These services include savings, credit facilities, insurance, electronic payments, and other financial transactions delivered responsibly and sustainably. Financial inclusion has increasingly gained global attention because of its direct relationship with poverty reduction, economic growth, employment generation, and social development. The World Bank and the International Monetary Fund (IMF) have consistently emphasized that improving access to financial services contributes significantly to economic empowerment and inclusive growth, particularly in developing economies where large segments of the population operate within the informal sector (Wezel & Ree, 2023).

In Nigeria, financial exclusion remained considerably high for many years despite the presence of commercial banks and microfinance institutions. Many rural and semi-urban communities lacked physical banking infrastructure, while poor road networks, transportation costs, inadequate electricity supply, low financial literacy, and income inequality further limited access to banking services. Consequently, a substantial percentage of Nigerians relied heavily on informal financial systems such as thrift collectors, cooperative societies, and local savings schemes. Recognizing these challenges, the Central Bank of Nigeria launched the National Financial Inclusion Strategy in 2012 with the objective of reducing the percentage of financially excluded adults through the adoption of digital financial services, mobile banking, and agent banking initiatives.

The emergence and rapid growth of agent banking in Nigeria have significantly altered the country's financial service delivery system. Over the years, the number of POS agents and mobile money operators has increased dramatically across urban centres, semi-urban communities, and rural areas. Agent banking has become one of the most visible components of Nigeria's financial technology ecosystem due to its convenience, accessibility, speed, and affordability. Through agent banking outlets, individuals can conveniently conduct financial transactions without necessarily visiting conventional bank branches. Studies have shown that agent banking contributes positively to financial inclusion by increasing access to financial services among previously unbanked populations and reducing geographical barriers associated with traditional banking systems (Ayadi *et al.,* 2023).

In recent years, Calabar has experienced a rapid proliferation of agent banking outlets, particularly POS terminals operated by individuals and small businesses across major streets, markets, residential areas, campuses, and transportation hubs. The metropolis hosts a growing population of traders, civil servants, students, artisans, transport operators, and entrepreneurs who increasingly depend on agent banking services for their daily financial transactions. The widespread presence of POS operators within the metropolis reflects the increasing acceptance and utilization of agent banking services among residents.

The growth of agent banking has been driven by several factors. First, the limited availability of commercial bank branches relative to the growing population has created the need for alternative financial service channels. Second, the convenience associated with agent banking has made it more attractive to customers who seek quick and stress-free banking services. Unlike conventional banks where customers often encounter long queues and delays, POS agents provide faster transaction services within close proximity to residential and business areas. Third, increasing digital literacy and the widespread use of mobile phones have encouraged the adoption of electronic financial transactions among residents. Furthermore, the relevance of agent banking became more pronounced during Nigeria's recent cash scarcity crisis and naira redesign policy introduced by the Central Bank of Nigeria.

During this period, many commercial banks experienced cash shortages and operational difficulties, while Automated Teller Machines (ATMs) became largely inaccessible in many locations. Consequently, POS agents and mobile money operators became alternative channels through which individuals and businesses accessed financial services and cash transactions. Studies have shown that the rapid expansion of agent banking outlets during the cash redesign period played a significant role in sustaining financial inclusion and maintaining transactional activities among households and small businesses in Nigeria (Alenoghena *et al.,* 2026).

The study is also necessary because it provides empirical evidence on how agent banking influences financial inclusion within an urban and semi-urban environment. More importantly, the study contributes to existing literature on digital financial services and branchless banking by examining the role of agent banking in deepening financial inclusion, promoting economic participation, and supporting sustainable economic development in Calabar metropolis and Nigeria at large.

Theoretical framework

In examining agent banking and financial inclusion, the study is anchored on the Financial Intermediation Theory and the Diffusion of Innovation Theory.

Financial Intermediation Theory

The Financial Intermediation Theory was propounded by Gurley and Shaw in 1960 as a framework for explaining the important role played by financial institutions in mobilizing and allocating financial resources within an economy. The theory emerged as a response to the growing complexity of modern financial systems and the increasing need for institutions capable of linking surplus spending units with deficit spending units. Surplus units refer to individuals, households, or organizations that possess excess financial resources for savings and investment purposes, while deficit units refer to individuals, firms, and governments that require funds for consumption, production, or investment activities. According to Gurley and Shaw (1960), financial intermediaries exist because direct transactions between savers and borrowers are often difficult, costly, risky, and inefficient. Consequently, financial institutions such as commercial banks, microfinance banks, mortgage institutions, and other financial service providers perform intermediary functions that facilitate the smooth flow of funds within the economy.

The theory assumes that financial intermediaries play a critical role in reducing market imperfections associated with financial transactions. In the absence of intermediaries, individual savers may encounter several challenges such as information asymmetry, uncertainty regarding borrowers' creditworthiness, high transaction costs, liquidity risks, and inadequate investment opportunities. Financial intermediaries therefore bridge this gap by collecting savings from numerous individuals and channeling them toward productive sectors through loans, investments, and other financial services. Through this process, intermediaries increase efficiency within the financial system and contribute significantly to economic growth and development. The theory further emphasizes that financial institutions improve resource allocation by identifying viable investment opportunities, managing financial risks, and ensuring that funds are directed toward productive economic activities.

The Financial Intermediation Theory is highly relevant to the concept of agent banking because agent banking essentially operates as a decentralized financial intermediation mechanism. Under agent banking arrangements, licensed financial institutions appoint third-party agents such as retailers, shop owners, pharmacies, supermarkets, petrol stations, and POS operators to provide banking services on their behalf. These agents function as intermediaries between banks and customers by facilitating deposits, withdrawals, transfers, account opening, utility payments, and other financial transactions. Through this arrangement, financial institutions are able to extend banking services beyond traditional bank branches into communities where formal banking infrastructure is either unavailable or inadequate. In essence, agent banking broadens the scope of financial intermediation by creating alternative service delivery channels capable of reaching underserved populations.

Diffusion of Innovation Theory

The Diffusion of Innovation Theory was developed by Everett Rogers in 1962 to explain how new ideas, technologies, products, and innovations spread within a social system over time. The theory emerged from Rogers' extensive study of communication patterns, technological adoption, and social behaviour among individuals and organizations. According to Rogers (1962), diffusion refers to the process through which an innovation is communicated through certain channels over time among members of a particular social system. The theory was developed to explain why some innovations experience rapid acceptance and widespread adoption while others encounter resistance or slow diffusion within society. Over the years, the Diffusion of Innovation Theory has become one of the most widely used theoretical frameworks for understanding technological adoption and behavioural change across several disciplines including economics, sociology, communication studies, marketing, healthcare, education, and financial technology.

One of the most important contributions of the Diffusion of Innovation Theory is Rogers' identification of the five major characteristics that influence the rate of innovation adoption. These characteristics include relative advantage, compatibility, complexity, trialability, and observability. Relative advantage refers to the extent to which an innovation is perceived as superior to the existing system or alternative solutions. An innovation that offers greater convenience, efficiency, affordability, or profitability is more likely to experience rapid adoption within society. In the context of agent banking, many individuals perceive agent banking services as more convenient and accessible compared to traditional banking systems characterized by long queues, transportation stress, delayed services, and limited operational hours. Customers can easily conduct transactions such as cash withdrawals, transfers, deposits, and bill payments through nearby POS agents without necessarily visiting conventional bank branches. This perceived advantage has significantly contributed to the increasing acceptance and growth of agent banking services.

Compatibility, which is another important element of the theory, refers to the degree to which an innovation aligns with the values, beliefs, experiences, and needs of potential adopters. Innovations that fit easily into the lifestyle and socioeconomic conditions of individuals tend to experience faster diffusion and acceptance. Agent banking is highly compatible with the economic realities of many Nigerians because it provides flexible and accessible financial services suitable for traders, artisans, transport operators, students, farmers, civil servants, and small-scale business owners who require quick and convenient financial transactions. Another important characteristic identified by Rogers is trialability, which refers to the extent to which individuals can experiment with an innovation before fully adopting it. Trialability reduces uncertainty and fear associated with new technologies because potential users are given the opportunity to test the innovation on a limited basis before making long-term commitments.

Agent banking services possess high trialability because customers can gradually test financial transactions through POS operators without necessarily depending entirely on conventional banking systems. For instance, individuals may initially use agent banking services for small transactions such as airtime purchases or cash withdrawals before expanding usage to larger financial activities such as savings deposits, business payments, and fund transfers. This gradual experimentation increases user confidence and contributes to the widespread adoption of agent banking. Observability is another major determinant of innovation diffusion according to Rogers. Observability refers to the extent to which the results and benefits of an innovation are visible to other people within society. Innovations whose benefits can easily be observed by others tend to spread more rapidly because individuals are influenced by the experiences and testimonies of existing users.

Literature Review

Agent banking also contributes significantly to economic activities and small business development. Many traders and small-scale entrepreneurs now depend on POS operators for sales transactions, money transfers, and cash management services. The availability of agent banking services has reduced the risks associated with carrying physical cash over long distances while also encouraging the use of digital payment systems. In addition, agent banking promotes savings mobilization and enhances participation in formal financial systems among low-income earners and previously excluded individuals. This development aligns with global financial inclusion objectives aimed at reducing poverty and promoting economic participation through accessible financial services.

Despite the numerous benefits associated with agent banking, several challenges continue to hinder its effectiveness in promoting optimal financial inclusion. These challenges include unstable internet connectivity, poor electricity supply, network failures, cybersecurity threats, fraud, inadequate cash liquidity among agents, and low levels of financial literacy among some users. Failed transactions and delayed reversals have also contributed to declining customer confidence in certain situations. Studies have equally revealed that inadequate technological infrastructure and weak regulatory enforcement remain significant barriers affecting the effectiveness and sustainability of agent banking operations in Nigeria (Agbor *et al.,* 2023).

Additionally, the increasing dependence on agent banking has raised concerns regarding consumer protection, operational risks, and digital security within the Nigerian banking environment. As financial transactions continue to migrate from traditional banking halls to digital and agent-based platforms, there is a growing need for improved regulation, technological infrastructure, and customer education to ensure efficient and secure financial service delivery. Scholars have argued that the future of financial inclusion in Nigeria largely depends on the effective integration of digital banking systems, financial technology innovations, and reliable agent banking networks capable of reaching underserved populations (Lee, 2024).The study on agent banking and financial inclusion becomes highly important because it seeks to examine the extent to which agent banking has enhanced accessibility, affordability, and utilization of financial services among residents of the metropolis.

Consequently, agent banking reduces both the monetary and non-monetary costs of accessing financial services, thereby encouraging greater participation in the formal financial system. Agent banking contributes significantly to liquidity management by facilitating the circulation of cash and electronic payments within local communities. POS agents serve as immediate cash access points for customers who may need urgent withdrawals, transfers, or payment services without necessarily visiting commercial banks. This function became particularly important during periods of cash scarcity and banking disruptions in Nigeria, especially during the implementation of the naira redesign policy introduced by the Central Bank of Nigeria. During this period, agent banking outlets became alternative channels through which individuals and businesses sustained their financial activities despite the operational challenges experienced by commercial banks.

Agent banking contributes to this objective by bringing banking services closer to low-income earners, petty traders, artisans, and rural dwellers who may previously have relied on informal savings systems such as thrift collection schemes and rotating savings associations. Through agent banking platforms, individuals can conveniently deposit money into their bank accounts, transfer funds, and conduct financial transactions using nearby POS agents. This increased accessibility promotes financial discipline, savings mobilization, and broader participation in formal financial systems. In the context of agent banking, customers perceive POS operators and mobile money agents as extensions of licensed financial institutions operating under the supervision of the Central Bank of Nigeria. This perception strengthens trust in financial transactions and encourages individuals who may have been skeptical about formal banking systems to participate in financial activities. The growing trust in agent banking services has contributed significantly to the increasing adoption of digital financial transactions among residents (Wezel & Ree, 2023).

Agent banking supports local economic development by facilitating easier financial transactions for traders, transport operators, students, civil servants, and small-scale entrepreneurs. Many businesses now depend on POS services for receiving payments, transferring funds to suppliers, and managing daily business transactions. This convenience improves business efficiency, promotes digital commerce, and enhances economic participation among small business operators. Agent banking therefore contributes not only to financial inclusion but also to local economic development and poverty reduction. Another important dimension of the Financial Intermediation theory is its recognition of financial innovation as a mechanism for improving service delivery within the financial sector. Financial innovation involves the introduction of new financial products, technologies, and operational strategies aimed at improving efficiency and expanding access to financial services (Quadri *et al.,* 2024). Agent banking represents a major financial innovation within Nigeria's banking industry because it combines digital technology, mobile payment systems, and decentralized banking operations to enhance service accessibility. The increasing integration of mobile banking applications, digital wallets, and POS technologies into Nigeria's financial system demonstrates how financial intermediaries continuously evolve to meet the changing needs of society.

Agent Banking

Agent banking is one of the key drivers that enables bank customers access financial services without necessarily having to go through the conventional banking channels. According to Lee (2024), agent banking makes banking services more convenient for customers and saves a lot of time. Retail agents were found to have taken advantage of the pre-existing assets to reduce client's transaction cost by guarantee access and ensures one-on-one relationship. Through financial intermediation using the agent account, transaction that would have ordinarily require its customers to physically visit a bank branch is eliminated. Since 2013, and mainly through 2018, DMBs have been in the drive to expand their customers base as well as reach out to the unbanked by on-boarding different agents that saw the growth recorded in financial deepening.

The purpose of agent banking in Nigeria is to enhance financial inclusion and to deliver banking services to a larger number in a more cost effective manner (Ayadi *et al.,* 2023). The expectation is that most Nigerians will then be able to operate a bank account and access financial services even without having to go to a regular bank branch. Agent banking is expected to bring banking services closer to the underserved living in urban, semi urban and rural locations. Two agent banking models are available under the CBN regulation;

Bank-led Model: Under this model, only a bank can act as a principal in the formation of agent banking relationships.

Non-bank led Model: The non-bank led model is a general agent banking arrangement where parties other than banks can act as principal in the selection and formation of agent banking relationships.

Agents who may be supermarkets, pharmacy stores, gas stations, retail outlets etc and who meet selection requirement sign a contract/agreement with the Principal (financial institution or mobile money operator). The agent marks out a portion of its business space to render financial transactions. The space is branded and a signage is placed outside the business to indicate the availability of the service. The agent attends to customers using a point-of-sale (POS) device or a mobile phone. The agent is expected to maintain a float (agreed cash balance with the principal) to enable it consummate transactions. When the agent receives cash lodgment on behalf of a bank, for instance, the customer's account with the bank is credited and the agent's float account with the same bank is debited. The reverse takes place when the agent makes cash payment. When float is low, agent rebalances its position with the bank (Alenoghena *et al.,* 2026).

Financial Inclusion

The concept of financial inclusion has attracted different definitions and measured differently by various researchers and stakeholders depending on their institutional settings and objectives, hence, disallowing uniformity in standard and cross-country comparisons. Wezel and Ree (2023) posited that affordability is not a requisite for achieving financial inclusion. According to a United Nations Report, financial inclusion is the sustainable provision of affordable financial services that bring the poor into the formal economy.

Wezel and Ree (2023) viewed financial inclusion as the way financially excluded and underserved people in a society have access to a range of available financial services without any discrimination. Financial inclusion is a process of making available an array of financial services, at a fair price and at the right place without any form of discrimination to all members of the society by the service provider. Also, Alenoghena *et al.,* (2026) conceptualize financial inclusion as a strategy aimed at increasing the number of people in the society who have access to formal financial services. The availability of agent banking services in financially excluded areas brings about growth and sustainable improvement in delivering or rendering financial transactions (Wezel & Ree, 2023)

Ayadi *et al.,* (2023) conceives financial inclusion as a financial intervention strategy that is aimed at overcoming the market challenges that hinder the poor and underprivileged from having access to financial services. Financial inclusion is the provision of wide range of financial services such as savings, insurance services, credits, remittance and payment services. Alenoghena *et al.,* (2026) asserts that financial inclusion is a state where financial services are delivered by a range of providers, mostly the private sector, to reach everyone who could use them. Specifically, it means a financial system that serves as many people as possible in a country, and financial inclusion links people to banking services including their attendant benefits. Financial inclusion has the capacity to increase savings and investment especially among low income persons in the society. Savings provide the capital required to operate businesses.

It also creates the avenue for granting of micro loans to the active poor and low income earners to enable them improve on their living standards and fight the scourge of poverty. Micro loans boost entrepreneurial efforts of small entrepreneurs leading to economic growth. On the subject of financial inclusion in Nigeria, the Enhancing Financial Innovation & Access. Access to Financial Services in Nigeria surveys which began in 2008 have become a source of reliable data for academicians, researchers and policymakers.

Empirical Literature

Quadri, Salami, and Adebayo (2024) conducted an empirical investigation on the impact of agent banking and mobile money operations on financial inclusion in Nigeria using secondary data obtained from the Central Bank of Nigeria Statistical Bulletin and the World Bank Global Financial Development Database covering the period from 2013 to 2021. The study adopted an ex post facto research design and employed the Ordinary Least Squares (OLS) regression technique for data analysis. Financial inclusion was measured using indicators such as account ownership, accessibility to financial services, and usage of digital financial platforms, while agent banking variables included the number of POS terminals, mobile money transactions, and volume of agency banking operations. Findings from the study revealed that agent banking and mobile money operations exerted significant positive effects on financial inclusion in Nigeria.

Specifically, the study found that the expansion of POS terminals and agency banking networks improved access to financial services among underserved populations by reducing distance barriers and increasing convenience in financial transactions. The researchers concluded that agent banking remains an effective strategy for deepening financial inclusion in Nigeria and recommended increased investment in digital financial infrastructure and regulatory support to strengthen agency banking operations. The study is highly relevant to the present research because it demonstrates the growing contribution of agent banking to financial accessibility and inclusion within the Nigerian financial system.

Similarly, Agbor, *et al.,* (2023) examined the implementation of agent banking policy and its influence on financial inclusion among rural populations in Cross River State, Nigeria. The study adopted a cross-sectional survey research design and collected primary data from POS operators, bank customers, traders, and rural dwellers across selected communities within the state. Descriptive statistics and multiple regression analysis were employed for data analysis. Findings revealed that agent banking significantly improved access to formal financial services among previously unbanked individuals in rural and semi-urban communities. The study further showed that the proximity of POS operators to residential and commercial areas enhanced customer convenience and increased the frequency of financial transactions among users. In addition, the researchers observed that many respondents preferred agent banking services because of reduced transportation costs, shorter transaction time, and easier accessibility compared to conventional bank branches. However, the study also identified poor network connectivity, inadequate electricity supply, cash shortages among agents, and cybersecurity threats as major challenges affecting the effectiveness of agent banking operations within the state. The researchers recommended stronger regulatory oversight, improved digital infrastructure, and customer education programmes aimed at enhancing public confidence in agent banking systems. This study is particularly relevant to the present research because it was conducted within Cross River State and therefore provides contextual evidence regarding the relationship between agent banking and financial inclusion in environments similar to Calabar metropolis.

Joseph and Omehe (2022) investigated the effects of agency banking on financial inclusion in Nigeria using primary data obtained from agency banking operators, mobile money agents, and bank customers in Benin City, Edo State. The study adopted a descriptive survey design and employed structured questionnaires to gather information from respondents regarding accessibility, convenience, affordability, and reliability of agent banking services. Regression analysis was used to test the hypotheses of the study. Findings revealed that the geographical spread of agency banking services significantly enhanced financial inclusion by increasing access to banking services among low-income earners and previously excluded populations. The study further indicated that agency banking improved financial transaction efficiency and encouraged participation in formal financial systems among petty traders, artisans, and small business operators. However, the researchers also discovered that fraud, cybercrime, and operational risks negatively affected public confidence in agency banking systems. The study recommended increased collaboration between commercial banks, fintech firms, and regulatory authorities to strengthen cybersecurity frameworks and improve operational efficiency within the agency banking sector. The findings of the study support the argument that agent banking contributes positively to financial inclusion while also highlighting the need for improved technological and security infrastructure.

Akighir, *et al.,* (2022) carried out an empirical analysis of agency banking and financial inclusion in Benue State, Nigeria. The study utilized a survey research design involving rural dwellers, traders, farmers, and agency banking operators across selected communities in the state. Data collected through questionnaires were analyzed using Structural Equation Modeling (SEM). Findings from the study revealed that agency banking positively influenced financial inclusion by increasing access to savings services, electronic transfers, and other financial products among rural populations. The researchers observed that many respondents who previously depended on informal financial arrangements had become active participants in formal financial systems through the availability of POS operators and mobile banking agents within their communities. The study further established that agency banking reduced financial exclusion by minimizing geographical barriers and operational bottlenecks associated with conventional banking systems. However, infrastructural deficiencies such as unstable electricity supply, internet disruptions, and low digital literacy among some rural residents were identified as major constraints limiting the effectiveness of agency banking operations. The researchers concluded that agency banking possesses substantial potential for promoting inclusive financial growth if supported with adequate technological infrastructure and customer sensitization programmes.

Ayegbeni (2020) examined the challenges and prospects of agent banking in promoting financial inclusion in Nigeria using a descriptive analytical approach. The study relied on secondary data obtained from Central Bank of Nigeria reports, scholarly publications, and financial sector statistics. Findings indicated that agent banking contributed significantly to increasing access to financial services among previously underserved populations, particularly in rural and semi-urban areas where conventional bank branches were limited. The study observed that the rapid expansion of POS terminals and mobile money services enhanced transactional convenience and reduced the costs associated with accessing banking services. However, the study identified poor digital infrastructure, inadequate financial literacy, cybersecurity concerns, and weak internet connectivity as major impediments affecting the sustainability of agent banking operations in Nigeria. The study further argued that although agent banking has expanded considerably in recent years, achieving full financial inclusion requires greater investment in digital infrastructure, effective regulatory frameworks, and continuous public enlightenment programmes aimed at increasing customer trust and technological competence among users.

Achugamonu, *et al.,* (2017) investigated the role of agent banking in promoting financial inclusion in Nigeria using data collected from respondents across the six geopolitical zones of the country. The study adopted a multistage sampling technique and employed multivariate regression analysis for data interpretation. Findings revealed that the spread of agency banking networks significantly improved financial inclusion among low-income earners and economically marginalized groups. The researchers observed that agency banking reduced the cost and inconvenience associated with traditional banking systems while simultaneously increasing financial accessibility in underserved areas. The study further established that customer-friendly financial products, accessibility of POS operators, and convenience of transactions contributed significantly to public acceptance of agency banking services. However, issues relating to network failures, fraudulent activities, and inadequate agent liquidity were identified as major operational challenges confronting the sector. The researchers recommended that financial institutions should strengthen agent supervision mechanisms and improve technological infrastructure to ensure efficient service delivery.

Nwankwo and Eze (2021) focused on digital financial services and financial inclusion among small-scale business operators in South-South Nigeria. The study specifically examined the influence of POS operations, mobile banking, and electronic payment systems on financial participation among traders and entrepreneurs. Using survey data obtained from selected urban centres within the region, the study employed correlation and regression analysis techniques for hypothesis testing. Findings revealed that digital financial services, particularly agent banking operations, significantly improved financial accessibility and transaction efficiency among small business operators. The researchers noted that POS services enabled many entrepreneurs to conduct business transactions more conveniently while reducing dependence on cash-based operations. The study concluded that agent banking contributed substantially to the formalization of financial activities among informal business operators and recommended policies aimed at improving internet connectivity and reducing transaction charges associated with digital financial services.

Olowe and Mobolaji (2023) examined the relationship between financial technology innovation and financial inclusion in Nigeria with particular emphasis on agent banking operations. The study utilized time-series data covering the period from 2010 to 2022 and employed Autoregressive Distributed Lag (ARDL) modeling for data analysis. Findings revealed that financial technology innovations such as mobile banking, POS services, and electronic payment systems significantly increased financial inclusion in Nigeria by improving access to financial services among previously excluded populations. The study further established that agency banking operations contributed positively to savings mobilization, business transactions, and digital payment adoption across both urban and rural communities. However, the study identified poor digital infrastructure, electricity challenges, and cybersecurity threats as major obstacles limiting the effectiveness of digital financial services in Nigeria. The researchers recommended stronger collaboration between government agencies, telecommunications providers, and financial institutions to strengthen digital infrastructure and improve service reliability.

Mwangi and Ndirangu (2022) investigated the influence of agency banking on financial accessibility among rural households. Using survey data collected from rural communities, the study found that agent banking significantly improved access to savings, credit, and electronic payment services among financially excluded populations. The researchers observed that agency banking reduced travel time, minimized transaction costs, and increased customer convenience. Similarly, in Bangladesh, Rahman and Islam (2023) found that agent banking contributed significantly to financial inclusion by expanding access to banking services among low-income earners and small business operators in remote communities. These international findings reinforce the growing consensus that agent banking represents an important mechanism for promoting inclusive financial development within developing economies.

Alenoghena, *et al.,* (2026) investigated the impact of Nigeria's cash redesign policy and the growth of agent banking on financial inclusion using time-series data spanning from 2009 to 2023. The study employed the Fully Modified Ordinary Least Squares (FMOLS) estimation technique to examine the relationship between agent banking operations and financial accessibility during the cash scarcity crisis in Nigeria. Findings revealed that agent banking played a significant role in sustaining financial transactions and mitigating the adverse effects of cash shortages experienced during the implementation of the naira redesign policy. The study showed that POS operators and mobile money agents became alternative channels through which individuals and businesses accessed cash and conducted financial transactions when commercial banks and ATMs experienced operational difficulties. The researchers concluded that agent banking significantly strengthened financial resilience and enhanced accessibility to financial services during periods of economic and monetary instability.

Methodology

Survey research design was employed to examine the effect of agency banking services on financial inclusion in Calabar Metropolis. The study was conducted in Calabar Metropolis, Cross River State. The population of this study constituted data of banks with agents operating in Calabar Metropolis. There are currently sixteen (16) commercial banks operating in Calabar metropolis with over 2,286 point of sales (POS) terminals both Calabar Municipal and Calabar South Local Government Area. Stratified technique was employed to distribute questionnaire to 340 respondents within the scope of the study.

Taro Yamane (1967) formula was used to determine the sample size was used.

$$n = \frac{N}{1 + N(e)^2}$$

Where:

N = Population = 2286; n = Sample Size; sig. level = Significance Level = 5% = 0.05

Thus:

$$n = \frac{2286}{1 + 2286\,(0.05)^2}$$

$$n = \frac{2286}{1 + 2286\,(0.0025)}$$

$$n = \frac{2286}{1 + 5.715}$$

$$n = \frac{2286}{6.715}$$

The sample size was 340

Primary data was sourced through the use of structured questionnaires that aided in collecting attribute data to answer questions on accessibility, affordability and availability of agent banking services on financial inclusion in Calabar Metropolis. The secondary data sources encompassed existing official and unofficial statistics obtained from published reports, books, the internet, journals, newspapers and magazines. A Regression model was adopted to test the relationships between the study variables. The model for the analysis is shown below:

$$y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + E$$

Where:

y= Financial inclusion

α = constant/ the intercept (FI) influenced by agent banking.

X_1 =accessibility of POS

X_2= affordability of POS
X_3= availability of POS
β_1, β_2 and β_3 = coefficient indicating the various levels of importance (weights of each factor).
E = is the stochastic error term.

Results and Discussion
Test of hypotheses

H_{01}: Accessibility of agent banking services has no significant effect on financial inclusion in Calabar.

H_{02}: Affordability of agent banking services has no significant effect on financial inclusion in Calabar.

H_{03}: Availability of agent banking services has no significant effect on financial inclusion in Calabar.

Table 1: Model Summary showing the effect of Accessibility, Affordability, Availability on financial inclusion in Calabar.

Model Summary[b]

					Change Statistics					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.587[a]	.344	.322	1.41535	.344	15.231	3	326	.000	1.862

a. Predictors: (Constant), Accessibility, Affordability, Availability
b. Dependent Variable: FINC

Table 2: ANOVA[a] showing the effect of Accessibility, Affordability, Availability on financial inclusion in Calabar.

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	152.555	3	30.511	15.231	.000[b]
	Residual	290.465	326	2.003		
	Total	443.020	329			

a. Dependent Variable: FINC
b. Predictors: (Constant), Accessibility, Affordability, Availability

Table 3 Coefficients[a] showing the effect of Accessibility, Affordability, Availability on financial inclusion in Calabar.

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1 (Constant)	-4.297	2.578		-1.667	.098					
ACCESSB	.213	.055	.265	3.865	.000	.318	.306	.260	.963	1.038
AFFORDB	.127	.068	.128	1.868	.064	.214	.153	.126	.968	1.033
AVAILB	.246	.068	.253	3.611	.000	.365	.287	.243	.918	1.090
FINC	.267	.074	.245	3.616	.000	.297	.288	.243	.984	1.016

a. Dependent Variable: FINC

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions				
				(Constant)	ACCESSB	AFFORDB	AVAILB	FINC
	1	5.970	1.000	.00	.00	.00	.00	.00
	2	.010	24.139	.00	.84	.00	.03	.05
	3	.007	28.927	.00	.03	.42	.44	.02
	4	.002	60.335	1.00	.08	.15	.06	.20

a. Dependent Variable: FINC

The multiple regression analysis conducted above was to examine the effect of agent banking services on financial inclusion in Calabar. The findings show that agent banking services such as accessibility, affordability and availability have positive significant effect on financial inclusion in Calabar and these remains evident as the overall model summary which produced an R of .527[a], and an R-square = .344. This implies that independent variables have influence on the dependent variable. The above influence is further explained as follows: Accessibility, (B =.213, P = .098 < 0.05), Affordability, (B=.127, P = .000 < 0.05) and Availability (B =.246, P = .064 < 0.05), proves to have significant influence on financial inclusion. Based on the above, it is concluded that agent banking services has a positive significant effect on financial inclusion in Calabar. The test of this hypothesis shows that the coefficient accessibility of agency banking (ACCESSB) is positive (.213) and significant at 5 per cent. This implies that the accessibility of agency banking services enhances financial inclusion in Calabar by making it easier for people to deposit or withdraw cash from their bank account, thus promoting a better banking habit. This study's result supports the findings of Lee (2024) who posited that agent banking makes banking services more convenient for customers and saves a lot of time. Agent banking makes banking services more convenient for customers and saves a lot of time.

Retail agents were found to have taken advantage of the pre-existing assets to reduce client's transaction cost by guarantee access and ensures one-on-one relationship. From the result of the estimation of the specified model, the coefficient of affordability of agency banking services (AFFORDB) is positive (.127) and significant at 5 per cent. The implication of this result is that affordability of agency banking enhances financial inclusiveness in Calabar. This finding is supported by the conclusion of Wezel and Ree (2023) who posited that affordability is not a requisite for achieving financial inclusion. Affordability is not a requisite for achieving financial inclusion. According to a United Nations Report, financial inclusion is the sustainable provision of affordable financial services that bring the poor into the formal economy. From the result of the estimation of the specified model, the coefficient of the availability of agency banking services (AVAILB) is positive (.246) and significant at 5 per cent. This implies that the availability of agent banking services promote financial inclusion in Calabar. The findings support Wezel and Ree (2023) which states that the availability of agent banking services in financially excluded areas brings about growth and sustainable improvement in delivering or rendering financial transactions.

Conclusion

The study examined the effect of agent banking services on financial inclusion in Calabar. The findings found that agent banking services such as accessibility, affordability and availability have positive significant effect on financial inclusion in Calabar. The introduction of agent banking in Nigeria was largely motivated by the need to expand financial services to underserved and financially excluded populations, especially in areas where establishing conventional bank branches may be difficult or economically unviable. The emergence and rapid growth of agent banking in Nigeria have significantly altered the country's financial service delivery system. The study is necessary because it provides empirical evidence on how agent banking influences financial inclusion within an urban and semi-urban environment.

Recommendations

The following recommendations are proffered thus:

1. Commercial banks operating should deploy more Point of Sale Terminals to enhance access to banking services.
2. There should be stronger regulatory oversight to improve digital infrastructure and customer education programmes aimed at enhancing public confidence in agent banking systems.
3. There should be increased collaboration between commercial banks, fintech firms, and regulatory authorities to strengthen cybersecurity frameworks and improve operational efficiency within the agency banking sector.

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