

Evaluating the Agent Banking Policy on Financial Inclusion among Rural Unbanked Populations: Evidence from Nigeria

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Abstract

Background: Studies have examined agent banking practices in developing economies with substantial scholarly works revolving around the Asian economy. Some other works around the issue dwell substantially on the effect of agent banking on the development of the economy. Limited scholarly attention, however, seems to be given to how agent banking practices deepen the financial inclusion of the rural unbanked population of Cross River State, Nigeria.

Objective: The study examined the implementation of agent banking policy and financial inclusion of the rural unbanked population of Nigeria.

Methodology: The study adopted the cross-sectional design and used 387 respondents purposefully and accidentally drawn from bank marketers, operators of Point-of-Sale (POS) terminals, and unbanked rural dwellers. Data were collected using a questionnaire and analysed with chi-square and multiple regression analysis, while hypotheses were tested at a 0.05 significance level.

Results: The study found that using POS terminals in rural areas has not significantly increased the number of rural dwellers opening new bank accounts. It was further found that the application of POS was useful in money transfers and cash deposits in rural areas. Perceived usefulness and perceived ease of use significantly influenced the application of POS devices in the delivery of agent banking in rural areas.

Conclusion: The study concludes that agent banking policy has brought financial services scantily close to the rural unbanked population and has not significantly included the rural unbanked dwellers in the formal financial system.

Unique contribution: This study has provided empirical evidence that could guide decision-making on effectively integrating the rural population into the formal financial sector.

Recommendation: The study recommends, amongst others, that banks should carry out agent morphing to extend complete banking services to rural areas other than saving and withdrawals, the only banking functions carried out by POS agents in rural areas.

Keywords: Agent banking, financial inclusion, rural unbanked, Point of Sale, Perceived Usefulness, Perceived Ease of Use.

Introduction

Rural communities in Nigeria suffer deficiency in full-scale banking services arising from the absence of physical banking operations there. A survey shows that over 70% of rural communities in Nigeria do not have bank branches and other associated monetary transaction systems (ATM etc) (Enhancing Financial Innovation and Access – EFINA, 2020). The rural areas constitute a major chunk of the unbanked segment of Nigerian society. A Nigerian survey shows that “23.0 million adults save at home. If 50.0 percent of these people were to save one thousand Naira per month with a bank, then up to N138 billion Naira could be incorporated into the formal financial sector every year” (EFInA, 2020, p. 2). So much money seems to be circulating outside the control of the formal financial system.

Statista (2023) has shown that only 59.7% of households have a bank account and 81.5% of these account owners are urban dwellers. About 39% of men and women aged 15 to 45 have bank accounts in Nigeria. Also, 60% of the Nigerian population is unbanked. Banks are essentially driven by profit. Establishing bank branches in rural areas to serve the unbanked population will be weighed against its economic importance. Given the poor financial health among the rural inhabitants, establishing full physical banking operations in rural areas has never been considered a healthy economic decision by banks. Relying on this understanding is discriminatory and keeps so much money outside the bank control needed to stimulate the economy. The National Financial Inclusion Strategy that was developed (FIS) was largely to set a clear-cut agenda for significantly increasing access to and usage of financial services in order to mop up money circulating outside the banking control for economic improvement. The service providers aim to access the untapped financial potentials of Nigerians who are not currently using the identified financial products and services, primarily the unbanked in the rural areas. The Unbanked consist of those without any banking products, especially bank accounts, and mostly living in rural, remote areas where banks are not sited.

To address the problem of financial exclusion, especially in rural areas, the government attempted to bridge the gap in financial inclusion by formulating policies and providing regulatory frameworks within and outside the financial services structure through agent banking. Agent banking is the use of non-banking retail agents who use card readers, mobile phones and POS (Point Of Sale) terminals to deliver financial services for real-time transaction outside conventional money banks. Principally among the policy framework is the authorization of Point of Sales (POS) services across the country. This policy signaled the introduction of technological innovation to the banking sector to include the financially underserved and excluded in the monetary structure of the country. The studies by Afande and Mbugua (2015) and Musau (2013) have shown the importance of agent banking to financial inclusion. Branchless banking is increasingly becoming popular in less developed countries because of its perceived advantage in assessing financial services. Mahmood and Sarker (2015) concluded in their study of agent banking that it serves as an important tool for the inclusive growth of a country. Drawing from the Bangladesh experience, Nisha et al. (2020) remarked that the implementation of agent banking services made financial services accessible for the poor in rural localities as well as generated wholesome development for Bangladesh. Whether agent banking entrenches financial deepening across the unbanked population was assessed by Cull et al. (2018) in the case of the Democratic

Republic of Congo. They concluded that for the urban poor, who lack available alternatives, agent banking can provide basic financial services effectively. Agent banking strategy has faced some challenges. Malek et al. (2017) identified several factors that affect the effective implementation of agent banking by banks owned by the Malaysian government. They pointed out the factors of agent experience, attitude and core business as factors that impinge on performance if wrongly applied. Amit (2018) identified, in the case of Bangladesh, the factors of lack of incentives, resistance from floor managers, and lack of dedicated bank staff. Operating mobile and agent banking in Ethiopia has been confronted with ICT infrastructural challenges, poor road networks, inappropriate channels for agency banking as well as limited knowledge of financial literacy (Aregahegne, 2015). Agent banking is becoming pronounced and pursued by many less-developed countries to include many in the financial system and mop up available money for the economic progress of society. This strategy is anchored on technological innovations aimed at taking banking services to everybody's doorstep.

Modern technology has changed the way humans relate to the environment. This reality has caused countries to adopt diverse technology to administer their society. (Gupta et al. 2018). This practice is what is referred to as E-governance. The intention behind the adoption of e-governance is diverse. Electronic administration of society will improve quick access to information, improve business operations, empower citizens, improve interaction with businesses and industry and make services easily available to the people (Ullah et al., 2020).

Modern electronic banking devices are becoming commonly used in managing financial services in the banking sector in Nigeria. It is widely argued that the application of modern technology in workplaces enhances job performance to a large extent. However, this notion is inhibited by some workers' behaviour of not adopting new technologies in the discharge of their duties, perhaps due to technology discomfort. While some persons remain stocked with old and manual devices for managing their transactions, others seem to embrace modern technologies to deal with their daily activities. One fundamental financial technology adopted to drive financial inclusion is the Point-of-Sale (POS) device. How has this strategy improved the financial inclusion of the rural unbanked population in the area of opening bank accounts? How has the POS method improved business development among the operators and users? Is the adoption of this Financial Technology (Fintech) to improve financial inclusion driven by Perceived Ease of Use (PEU)? The study sought to answer these and other related questions.

Objective of the Study

The broad objective of the study is to determine how the financial inclusion policy through the use of Point-of-Sale (POS) has stimulated the interest of the rural unbanked to be included in the formal financial system through the opening of bank accounts.

Specifically, the study is driven by the following objectives;

1. To find out whether a significant association exist between the uses of POS Fintech in rural areas and the opening of new bank accounts by the rural unbanked population
2. To ascertain how agent banking has affected the economic and financial needs of participant stakeholders.
3. To ascertain whether the use of POS in agent banking is convenient in granting access to financial inclusion services in rural areas.

Hypothesis

There is no significant association between the use of POS and the opening of bank accounts by the rural unbanked population

Theoretical Foundation

This study relied on the Technology Acceptance Model (TAM) thesis to advance its analysis. Davis' (1989) Technology Acceptance Model predicts how technological devices are used, accepted, and adopted. It focuses on what informs the attitude, behaviour and intention to use a given technology. Davis (1989) argues that the perception of an individual or organisation on the utility of a new device and the ease of its application produces the tendency to adopt and use such technology. TAM draws from the premise of the theory of reasoned action. It posits that what motivates social behaviour by an individual is his intention to predict information usage (Ajibade, 2018; Fishbein & Ajzen, 1975).

The TAM rests on two predictors, 'perceived usefulness and perceived ease of use'. Davis (1989) argues that perceived usefulness is the individual's perception that applying a new technological device will improve one's operations, which could lead to increased productivity. In the views of Mathwick and Rigdon-Malhotra (2001), perceived usefulness is the degree to which a person perceives an operational method to have his job performance. Usefulness in this context is the probability (subjectively) that adopting a new technology in the work process would enhance the performance of a given task by a worker.

Studies by Chen and Barns (2007), Guriting and Ndubisi (2006), and Erikson et al. (2005) have proven the impact of perceived usefulness on the desire to adapt to technologies or devices used to accomplish work. Perceived usefulness is an important determining factor in adopting an innovation (Tan & Teo, 2000). Perceived usefulness has been considered to positively affect customer attitude (Jahangir & Begum, 2008). In the field of banking, perceived usefulness has been considered to determine the use of new mechanisms to transact banking businesses. When Pikkarainen et al. (2004) applied the Model in Finland, they discovered that perceived usefulness determined the behaviour of people to use more innovative technologies to perform banking services.

On the other scale, Perceived Ease of Use denotes an individual's perception that using an innovation in technology will make the process of his work easily carried out with limited stress and effort (Davis et al., 1989). Zeithaml et al. (2002) share a similar view that the extent to which an innovation is easily understood and used could be suggested as perceived ease of use. Convenience lies at the core of perceived ease of use. Evidence of the significant impact of perceived ease of use on user intention abounds in the works of Hernandez and Mazzon (2007), Guriting and Ndubisi (2006), and Eriksson (2005). Ease of use is conditioned by understanding the technology and adapting the innovation. It is discovered that perceived ease of use has a positive effect on user attitude and adaptation (Jahangir & Begum, 2008; Chen & Barnes, 2007).

According to Venkatsch and Davies (1996), perceived ease of use and perceived usefulness are behavioural determinants towards adopting new technology. They are conditioned by factors external to them. These factors include but are not limited to economic, political, cultural and social challenges. Scholars such as Jan and Contreras (2011), Povtz et al. (2019), Hubert et al. (2019), and Diop et al. (2019) have applied this model to test behavioural intention to use

information and communication technology. Are these perceptions applicable in the context of the adoption of agency banking policy in Nigeria? The study also attempts to examine this.

Methodology

Study Settings and Sampling

The study was conducted in Cross River State, Nigeria. The judgmental (purposive) and accidental sampling techniques were applied in selecting marketing heads of banks, POS operators in rural areas and unbanked rural dwellers. 387 respondents were selected for the study distributed as follows:

- 15 marketing heads of banks
- 150 POS operators located in 150 rural communities
- 222 rural unbanked people

Data Collection Process and Instruments

The study adopted the cross-sectional design. This design allows for the collection of data at one point in time. It is useful in studies that require shorter times to conclude and also useful for establishing preliminary evidence for a causal relationship. This study looks at a causal relationship between POS fintech and financial inclusion of the rural unbanked. A questionnaire containing 14 items was designed to collect data from the study area. The response format included high, low, medium and none. For some questions, respondents were required to answer yes, no and do not know. While in some they were to tick the option that addresses their needs. The questionnaire was content validated by the public administration research team of the University of Calabar. Cronbach alpha was used to establish the reliability of the instrument at coefficient of 0.89. Data were collected in 8 weeks with the assistance of twenty research assistants who were given preliminary training on how to collect the needed data.

Data Analysis Procedure

Data collected were interpreted using descriptive and inferential statistics. Two statistical tools were used to analyse the data generated. The Chi-square tool was used to test the association between the use of POS Fintech in rural areas and the opening of new bank accounts by the rural unbanked population. Linear regression analysis technique at a .05 level of significance was used to determine the effect of the use of POS on the economic and business benefit of stakeholder participants as well as to test user acceptance of agent banking technology (POS) for financial inclusion.

Statistical Analysis

The researcher distributed 387 copies of the questionnaire and retrieved the same number. This was possible because the distribution was by accidental sampling, which made it possible to retrieve them as they were answered. Regarding sex distribution, 240 males and 147 females made up the sample. The mean age of respondents was between 41 – 50 years. In terms of educational qualifications of respondents, 58 respondents were First school leaving certificate holders, 74 were SSCE holders, 102 were OND holders, 108 were HND and B.Sc. holders, 25 were M.Sc and Ph.D holders, and 20 had no formal education. The analysis of the study objectives is presented below.

Objective 1. The authors sought to know the degree of bank accounts opened through the use of POS by bank agents. The response is shown in Table 1.

Table 1: The degree of opening bank accounts through POS by the rural unbanked population.

Effect	Frequency	Percentage	Chi-Square	p- Value
High	1	0.26	569.1668	6.12
Low	50	12.92		
None	336	82.82		
Total	387	100		

Source: Fieldwork, 2023

The majority of the respondents (82.82%) indicated that agent banking through the application of POS technology has not significantly addressed an aspect of financial inclusion bordering on opening new bank accounts by the rural unbanked population. About 12.92% indicated that the opening of fresh bank accounts through the POS has been very low in their locality, while an insignificant 0.26% indicated that the application is high in their locality. The p-value of the chi-square statistical analysis on whether a significant association exist between the use of POS and the opening of new bank accounts by the rural unbanked population was 6.12. This value shows an insignificant association at 0.05 level of significance. The null hypothesis is therefore accepted. The interpretation is that no significant progress has been made in opening bank accounts by the unbanked rural dwellers through the POS agents. This aspect of financial inclusion (opening of new bank accounts) has not been met significantly.

Objective 2. The authors also sought to know how agent banking has affected the economic and business needs of participant stakeholders. The result is found in Table 2.

Table 2: The usefulness of POS operation to stakeholders' economic and financial needs.

Needs satisfied	Frequency	Percentage
Improved source of livelihood	165	42.6
Source of receiving transfers from benefactors	210	54.3
Money deposit points	12	3.1
Total	387	100

Source: Fieldwork, 2023

The authors sought to know the usefulness of the application of POS Fintech to the economic and financial needs of the stakeholders. The responses show that about 42.6% of the respondents mainly made up of the agents (the POS operators) and marketing officers of commercial banks enjoy improved sources of livelihood from their commissions. About 54.3% of the respondents enjoy the usefulness of the POS operation as a source of receiving transfers from benefactors, while 3.1% use it as money deposit points. Simple linear regression was used to test the significance of this relationship. The result is expressed in Table 3.

Table 3: Simple Linear Regression Analysis of the usefulness of agent banking operation to the economic and financial needs of stakeholders.

Variables	Mean	Std. Deviation
Perceived usefulness	14.9255	3.64173
adoption of E-Governance Services	27.6966	14.95803

Model	Sum of Squares	Df	Mean Square	F	R	R Square	Adjusted R Square	Sig
Regression	1440.900	1	1440.900	16.472	.076 ^a	.030	.029	0.001
Residual	247584.547	385	222.648					
Total	249025.447	386						

Source: Fieldwork, 2023

The analysis in Table 3 shows R-value of 0.176^a. “In Correlation coefficient values of ± 1 represent a small effect, ± 3 is a medium effect and ± 5 is a large effect” (Ironbar et al, 2021, p. 125). 0.30 r^2 value suggests that the explanatory variable (POS usefulness) is responsible for changes in the response variable of economic and financial needs. At $p < .0001$, the calculated F- value of 16.472 shows significance. The implication is that the explanatory variable (POS usefulness) contributes to an improved source of livelihood for operators, a dependable source of receiving money from benefactors of the rural unbanked people and easy money deposit points for rural businessmen. It is concluded, therefore, that POS use as an agent banking fintech significantly influenced money deposits by rural businessmen and source of money transfers as aspects of financial inclusion.

Objective 3. The authors' aim was to ascertain whether the use of POS as Fintech was easy to apply in carrying out financial services such as opening accounts, conducting savings and withdrawing money in rural areas. The result of the statistical analysis is presented in Table 4.

Table 4: Simple linear regression analysis of Perceived ease of Use of agent banking POS Fintech to drive financial inclusion in rural areas.

Variables	Mean	Std. Deviation
Perceived Ease of Use	12.2361	4.40584
adoption of E-Governance Services	27.6966	14.95803

Model	Sum of Squares	Df	Mean Square	F	R	R Square	Adjusted R Square	Sig
Regression	1440.900	1	1440.900	16.472	.076 ^a	.030	.029	0.001
Residual	247584.547	385	222.648					
Total	249025.447	386						

Regression	4591.436	1	4591.436	20.888	.136 ^a	.018	.017	0.001
n								
Residual	244434.011	385	219.815					
Total	249025.447	386						

Source: Fieldwork, 2023

The result in Table 4 shows R-value of 0.136^a. 0.18 r² value suggests that the explanatory variable (perceived ease of use) also accounts for the use of POS fintech to drive the process of financial inclusion of the rural unbanked population. At p<.000, the calculated F- value of 20.888 shows significance. The implication is that the explanatory variable (perceived ease of use) contributes to adoption of POS as a modern device to conduct banking services at the agent level. It is concluded, therefore, that perceived ease of use influenced significantly the adoption of POS fintech in agent banking for financial inclusion in Nigeria.

Discussion of Findings

The failure to drive a significant number of new bank accounts through agent banking in rural areas could be conditioned by several factors. The minimal nature of paid employment and the dearth of small-scale business ownership by the rural populace reduces the desire to own a bank account. The rural populace seems to be financially unhealthy and this is likely to inhibit the desire to be included in the mainstream financial system. When you are not financially healthy, it challenges financial inclusion especially in the areas of owning a bank account, carrying out savings and accessing credits. Income of the rural unbanked is either irregular or so little to stimulate the desire to own a bank account. Only 27% of Nigerians are financially healthy, 39% are financially coping while 33% are financially vulnerable (EFInA, 2020). This is why financial inclusion has been difficult among rural inhabitants.

Another factor that inhibits financial inclusion in the area of opening a bank account is the lack of trust in the banking system. The rural poor and the financially excluded exhibit a high sense of insecurity. There is the constant fear that money deposited in the bank might vanish one day. This fear is not unconnected with fintech challenges leading to fraudulent transactions in the country. Financial Institutions Training Centre (FITC) reports show that by September 2022, money lost to fraudulent activities rose by 207.9 percent. The sum rose from 1.2 billion naira in the previous quarter to 3.6 billion naira in Q3. According to the report, the fraud activities were consummated using fintechs such as automated teller machines (ATM), mobile banking platforms, and point of sale (POS) terminals. The amount involved in this fraud through POS was 393 million naira (about 26.9 per cent) (Bailey, 2023). There is the fear of POS operators compromising customers' accounts. Fraudulent occurrences of this strength have discouraged the rural unbanked from willingly presenting themselves for inclusion in the formal financial system. Another challenging experience is the lack of proximity to POS service points. Some points are far away from people, discouraging them from using the facility.

Other factors include documentation challenges. Illiteracy and lack of identity documents to tender during the account opening exercise have remained severe setbacks to uneducated rural dwellers. National identity registration is still a challenge in rural areas. The bank will not transact business with anyone whose identity is certain. There is also the challenge of absence or limited awareness. There is limited sensitization of the underserved communities on the benefit of being integrated into the formal financial system. The importance attached to inclusion is not adequately advocated

at the rural level. Low financial literacy exists among rural dwellers. This also explains why getting a bank account is not taken seriously in underserved communities (Ozili, 2018).

The utility of POS was found in this study to include money receiving and deposit points for the unbanked and banked, respectively. Non-account holders could do transactions through the accounts of POS agents who collect commissions on such transactions. Payments on purchases at rural markets could be made to POS agents who withdraw such monies for the unbanked seller on commissions. By this, the rural unbanked could transact with POS terminals without opening a bank account. Many rural businessmen with bank accounts could deposit cash with POS agents to transfer to their accounts. The benefit of this opportunity is that rural businessmen do not need to travel far to the urban centres to deposit cash with the banks. The frequency with which they lose money to bandits on their way to the urban centre to effect deposits has reduced drastically. This area of financial inclusion seems to be achieved for the rural banked and not the unbanked population. The reliance on POS to effect savings and carry out transfers aligns with the theory of Perceived Usefulness and Perceived Ease of Use as variants of the Technology Acceptance Model (TAM).

Perceived usefulness and perceived ease of use of POS terminal significantly motivated bank agents, the unbanked and the few rural small-scale businessmen to embrace the fintech in their financial transaction at the rural areas. Perceived usefulness and perceived ease of use do prognosticate the continuous intention of bank agents to use modern Fintechs in driving financial inclusion at the rural areas (Olusegun et al., 2023).

These findings align with the results of earlier studies (Abbas & Hamdy, 2015; Baker-Eveleth & Stone, 2015; Belanche et al., 2012). The implication is that, if users consider modern Fintech as useful in the discharge of their mandates, they are likely to continually use the devices. Again if they consider modern fintechs devices easy to use and less labourious, it will strengthen their desire to apply such devices.

This finding aligns with Tubaishat (2017), who, in the area of health, submitted that perceived ease of use significantly explains why nurses adopt electronic health records systems. Hamid et al. (2016) reported that “perceived ease of use ($\beta = 0.14$, $p < 0.05$) was positively related to continuance intention to use e-services”. Tahar et al. (2020) concluded that the use of e-filing was determined by perceived ease of use and perceived security. Therefore, to successfully deploy fintechs and adopt the devices, the technology has to be designed in a way that is easy to use. Complexity in the use of technology kills the penchant for its use.

Conclusion

The study examines the applicability of POS fintech in driving financial inclusion through agent banking in Nigeria. It establishes that agent banking has brought financial services scantily close to the rural unbanked population and has not significantly included the rural unbanked dwellers in the formal financial system. Inclusion is deficient in the area of opening new bank accounts by the rural people. This is sufficiently hampered by the poor financial health of the rural people who do not have enough income to arouse the desire to have a bank account. The financially malnourished in the rural locale often fear that their little money might be lost to fraud and irrational bank charges. Some rural communities do not have a single POS terminal. The study concludes in this direction that agent banking has not significantly led to the financial inclusion of the rural unbanked population in the area of opening new bank accounts.

Moderate achievement is recorded in the area of savings and transfer of funds. Rural small-scale businessmen are able to use POS terminals to deposit money into their accounts through bank agents. The practice of keeping large amounts of money at home has been reduced. Without having a bank account, the rural unbanked could access financial services by transferring money through POS agents to a beneficiary elsewhere, especially their children in schools in urban areas. They can also receive payments from their benefactors through the POS agents. This transaction comes with a fee. This easy access to financial services could also explain why they may not be interested in owning a bank account. We conclude here that the easy access to financial services (savings and transfers) provided by POS terminals is the strongest predictor of financial inclusion in rural localities. Finally, the study concludes that perceived ease of use and usefulness drive the adoption of modern Fintech (POS) in agent banking for the financial inclusion of the rural unbanked population.

Limitations of the Study

The scope of the study was limited to Cross River State as a fraction of Nigeria and examined the opening of bank accounts and money deposits as variables of financial inclusion. No study can explore everything related to a topic. The study did not look at an extra variable related to the topic. Further studies can expand the research to cover the south-south geo-political zone with other variables not interrogated by this study. This will encourage reliability in the generalisation of research findings.

The categories of respondents were not evenly distributed because of the nature of the population of the study. The sample size was 387 respondents, including 15 marketing staff of commercial banks in Nigeria, 150 POS operators in rural areas and 222 rural unbanked people. This uneven distribution did not allow for testing the differences in the responses of these categories of respondents, as the result of such analysis is likely to be skewed against the categories with fewer respondents. Further studies on a larger scale can address this limitation by involving categories of respondents in an even larger dimension.

Policy Recommendations

1. The government should cause banks to engage more agents in the rural areas. Conscious efforts should be made to have at least one POS terminal in every rural community. Agent banking is basically a proximity play. People are likely to use the agent closer to them. Where they do not exist, it becomes difficult to mop them for financial inclusion. Constant engagement of agents with the rural dwellers can encourage them to open a bank account.
2. One serious challenge with the rural dwellers is limited financial literacy. Banks and government should intensify sensitization effort to educate the rural people on the importance of financial inclusion. Ignorance also accounts for self-exclusion. Consumer education is important at this point.
3. ICT facility in Nigeria is currently inadequate to effectively drive e-governance services. Committed effort is required at the level of government to step up ICT infrastructure in Nigeria. This basic infrastructure should be strengthened and adequately provided at rural areas for efficient delivery of banking services.
4. Agency banking at the rural areas of Nigeria is largely withdrawal and deposit agent. Agent morphing is therefore recommended to move agent banking to full scale banking services to the unbanked.

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