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THE IMPACT OF MOBILE MONEY SERVICES ON FINANCIAL INCLUSION IN ANAMBRA STATE

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Abstract

This survey research design study was adopted to examine impact of mobile money on financial inclusion in Anambra state, Nigeria. The population was made up of mobile phone users in Anambra state and so no sampling frame was available. The sample of the study was 666 participants. To select this 666 respondents, Multi-stage sampling procedure was adopted. Two research questions guided the study. A 14-item structured questionnaire was used to collect data from the respondents. Data were analyzed using mean and standard deviation. The findings indicated that bank-led services impact on financial inclusion in the state by improving access to savings account and credit facilities, among others. It was recommended that bank-led service providers should prioritize financial literacy programmes to enhance users' understanding of mobile financial services, among others.

Keywords: Impact, Mobile, Money, Mobile Money, Financial inclusion.

Introduction

Financial inclusion remains a pressing concern in Nigeria as it serves as building block for both poverty reduction and accelerating economic growth. Financial inclusion is the process of ensuring access to appropriate financial products and services needed by low income groups at an affordable cost. Hannig and Jansen (2010) believed that the aim of financial inclusion is to draw those in the informal financial system into the formal financial system. They argued that it is the opportunity to access financial services ranging from savings, payments, and transfers to credit and insurance through various financial products. The World Bank estimates that 36% of Nigeria's adult population lacks access to formal financial services (World Bank, 2020). According to the Enhancing Financial Innovation and Access (EFInA) (2021) survey, about 36% of Nigerian adults lack access to formal financial services. This is consistent with the World Bank's estimates. Sodipo *et al*

(2021) submitted that 39.7% of Nigerians are financially excluded. 70 million adults, or about two-thirds of the adult population, live in rural areas, and 44% of them are excluded from the financial system. Women are more likely to be excluded, with 21.3 million adult women, representing 20% of Nigeria's adult population, yet to be included in the financial system. Key reasons for the financial exclusion as identified by Adesola (2020) are: low literacy levels, low income, digitally disengaged, social exclusion and convenience, and access. Despite these challenges, financial inclusion in Nigeria has increased from 47% in 2008 to 64% in 2020, with about half of Nigerian adults (53.6 million) now using formal financial services (Enhancing Financial Innovation & Access (EFInA), 2021). Mobile money services have emerged as a vital tool for bridging this gap.

In the view of Yang (2023), mobile money involves the use of mobile phones for the initiation, authorization and confirmation of the transfer of a value out of a current, savings or stored value account. It is an electronic account (e-wallet) in which customers can deposit and withdraw cash electronically (Sodipo *et al*, 2021). Nigeria with 21 Mobile Money Operators (MMOs) have less than a million (about 0.8%) adults as active mobile money subscribers, (EFInA, 2021). The mobile money operation is explained as a veritable tool to foster the growth of financial inclusion in a financially excluded economy. In Nigeria, mobile money services have grown significantly since their introduction in 2009 (CBN, 2020). Bank-led services, such as Firstmonie (First Bank) and Mobile Money (Ecobank), and fintech-based services, like Paystack, Opay, and PalmPay, have expanded financial access.

Bank-led services are mobile financial services offered by commercial banks or financial institutions, leveraging their existing infrastructures and expertise to provide financial transactions through mobile devices (Yuxin, 2022). Bank-led services provide financial/banking solutions to rural and semi-urban locations across the country irrespective of literacy levels, familiarity with technology and

accessibility to modern infrastructural facilities. Adesola (2020) stated that firstmonie (which is an example of bank-led services) has breached the gap between the tech savvy and the low literacy clients and has created an ecosystem that allows easy financial transactions wherever a customer is in Nigeria. There are over 50% of firstmonie's agents located in the rural areas, contributing significantly to the development of the rural economy and widening financial inclusion. It drives financial inclusion through the USSD banking code services which has significant coverage of the base of the pyramid population.

Fintech which is short form of "financial technology" is the term used to describe new financial services, products, and models that incorporate elements of emerging technology and have the potentials to significantly influence established financial markets and services, Kalu *et al*. (2024). It refers to companies that provide financial services through softwares or other technologies. It is the combination of communication, information technology, and finance seeking to develop goods and services that are quicker, easier to use and more efficient (Yuxin *et al*, 2022). According to Zhang (2023), fintech has speed up the payment process, reduce cost transactions and increase efficiency in various sector economy. It has revolutionized the way we pay and allow users on social media networks to pay each other easily (Frost, 2020). Fintechs make financial services easier to access, promotes financial inclusion, raises living standard, fosters the development of start-up businesses, and give MSMEs access to low-interest business capital (Dai, 2020). Opay which is a fintech, was established in 2018 to offer wide range of payment services like money transfer, bill payment, airtime and data purchase, card service and merchant payments among others. Kalu *et al*. (2024) noted that Opay has empowered people with the agent and merchant networks and provided affordable financial services through their robust technology payment platform.

Anambra State is situated in the Niger Delta region, bordered by Kogi state to the north, Enugu state to the east, Imo state to the south and Delta state to the west. The state is predominantly inhabited by the Igbo ethnic group, with several other ethnic groups also present. Anambra state is known for its rich cultural heritage, with a strong emphasis on traditional music, dance and art. Anambra state, with its largely rural population and thriving commercial centers, presents an ideal context for examining the impact of mobile money on financial inclusion.

Statement of the Problem

In an ideal scenario, mobile money services would seamlessly integrate into the financial landscape, bridging the gap between the banked and unbanked populations. Mobile money would provide universal access to financial services, fostering economic growth and social equality. With mobile money, individuals would effortlessly conduct transactions, save, and access credit, insurance, and other financial products. Financial exclusion would be a rarity, and the benefits of mobile money would extend to all segments of society, including low-income households, rural communities, and small-scale entrepreneurs. Governments, financial institutions, and telecom operators would collaborate to create an enabling environment, ensuring secure, affordable, and user-friendly mobile financial services.

However, the reality falls short of this ideal. Despite the proliferation of mobile money services, significant barriers persist, hindering the realization of financial inclusion. In many developing countries, including Nigeria, then Anambra state, substantial proportion of adults remain financially excluded, lacking access to basic financial services. Mobile money adoption is often hindered by factors such as limited financial literacy, inadequate infrastructure, and regulatory challenges. The benefits of mobile money are unevenly distributed, with urban populations and higher-income individuals disproportionately reaping the advantages. Rural areas

and vulnerable groups continue to face significant obstacles, including high transaction costs, limited agent networks, and insecurity.

As a result, the potentials of mobile money to transform financial landscapes and improve livelihoods will likely remain untapped and individuals probably will remain financially excluded. This study therefore aims to investigate the impact of mobile money on financial inclusion in Anambra state.

Research Objectives

The objective of this study is to assess the impact of mobile money on financial inclusion in Anambra state. Specifically, the study sought to assess:

1. The impact of bank-led mobile money services on financial inclusion in Anambra state.
2. The impact of fintech-based mobile money services on financial inclusion in Anambra state.

Research Questions

The following research questions guided the study:

1. What are the impacts of bank-led mobile money services on financial inclusion in Anambra state?
2. What are the impact of fintech-based mobile money services on financial inclusion in Anambra state?

Research Methods

A descriptive survey design was adopted for the study. This was done by seeking the opinions of people on the problem of the study. The study was carried out in Anambra State. The population was made up of mobile phone users in Anambra state and so no sampling frame was available. This means that all elements that make up the population cannot be ascertained due to the large nature of the size of mobile phone users in Anambra state. Since the population is unknown or large, Sarmah and Hazarika (2016) suggested that where the population is infinite, consider

using the formula that estimates the representativeness of the sample on certain critical parameters at an acceptance level of probability. The infinite population fomula is given as:

$$SS = \frac{Z^2 * P*(1-P)}{\text{Error margin}^2}$$

Where SS = sample size, Z-Score = confidence level, P = standard deviation. E = margin of error. The sample size was then determined using the following assumptions: Z= 99% confidence level which corresponds to Z-value of 1.96 or 1.645, P=0.5 is assumed, 1-0.5 (0.20), Error margin= 0.05(5%).

$$N = \frac{(2.58)^2 x\ 0.5\ x\ (1-0.5)}{0.05^2}$$

$$N = \frac{6.6564\ x\ 0.25}{0.0025}$$

$$N = \frac{1.6641}{0.0025}$$

$$N = 665.64$$

The sample size for this study was 666

To select this 666 respondents, multi-stage sampling procedure was adopted. At the first stage, Anambra state has been arranged in clusters under the already existing three senatorial zones in the state, namely: Anambra central senatorial zone with 7 local government areas (LGAs), Anambra north senatorial zone with 7 LGAs and Anambra south senatorial zone with 7 LGAs. At the second stage, simple random sampling was used to draw 30% of the total number of LGAs in each of three senatorial zones, making a total number of 6 LGAs. The choice of 30% is informed by Nworgu (2015) who opined that 30%-80% of a population is adequate for a research work. In the third stage, the 666 participants were shared equally among

the 6 randomly selected LGAs: Awka south (111 participants), Anaocha (111 participants), Onitsha South (111 participants), Ogbaru (111 participants), Nnewi South (111 participants) and Aguata (111 participants). The sampling technique that will be used for this study is simple random sampling, which l ensured that everyone has equal chance of being selected.

instrument for data collection was a questionnaire constructed by the researchers based on specific objectives and research questions. A structured questionnaire tilted "Impact of Mobile Money on Financial Inclusion Questionnaire (IMMFIQ)" was used to collect data from the respondents. The questionnaire contained 14 items in two clusters of Part 1 and Part 2. Part 1 with 7 items to elicit information on impact of bank-led services on financial inclusion; part 2 has 7 items which covered impact of fintech on financial inclusion. Each part was structured on a four-point rating scale of strongly agree (SA), agree (A), disagree (D), strongly disagree (SD) The instrument was validated by three experts from the Faculty of Education, Nnamdi Azikiwe University, Awka. The instrument was pilot tested to ensure its reliability and the data collected was analyzed using Cronbach Alpha method to ensure internal consistency. Reliability coefficient values of 0.74 and 0.73 were got for the two parts respectively and overall reliability coefficient of 0.73 was got for the entire instrument. The questionnaire was administered by the researchers using direct administration method. Out of the 666 copies of the questionnaire administered only 663 copies were used for analysis representing about 99.55% which was considered adequate for the study. The other 3 copies were not duly filled and was not used for analysis.

The data obtained were analyzed using mean based on the 4-point scale ranging from strongly agree of 4 points to strongly disagree of 1 point. Any item with a mean response of 2.50 and above was considered 'agreed' while anyone with a mean response below 2.50 was considered 'disagreed'.

Result

Research Question one What are the impacts of bank-led mobile money services on financial inclusion in Anambra state?

Table 1: Mean Ratings of Respondents on the Impact of Bank-Led Mobile Money Services on Financial Inclusion in Anambra State

S/N	ITEMS Bank-led mobile money services	X	SD	REMARK
1	increases access to savings accounts for rural dwellers	3.07	.72	Agree
2	improves availability of credit facilities for small business	2.75	.68	Agree
3	enhances convenience through online banking	2.90	.62	Agree
4	increases financial literacy through bank-sponsored programmes	2.91	.72	Agree
5	reduces transaction costs for bill payments and transfers	3.02	.65	Agree
6	improves security for financial transactions	2.81	.69	Agree
7	increases access to insurance services	2.85	.71	Agree
	cluster mean	**3.09**	**.64**	**Agree**

Table 1 shows that the mean rating for all the 7 items listed as impacts of bank-led mobile money services on financial inclusion in Anambra state are above the cut-off mean of 2.50, the cluster mean of 3.09 is also above the cut-off point. This shows that they are all impacts of bank-led mobile money services on financial inclusion in Anambra state. The standard deviation for all the items is within the same range showing that the respondents are not wide apart in their ratings.

Research Question Two: What are the impacts of fintech-based mobile money services on financial inclusion in Anambra state

Table 2: Mean Ratings of Respondents on the Impact of Fintech-Based Mobile Money Services on Financial Inclusion in Anambra State

S/N	ITEMS Fintech- Mobile money services	X	SD	REMARK
1	increases access to financial services for unbanked populations	2.85	.71	Agree
2	ensures convenience and fast transaction processing	3.09	.64	Agree
3	allows lower transaction costs	2.81	.69	Agree
4	provides access to digital payment platforms	2.85	.71	Agree
5	increases financial inclusion for rural women	3.09	.64	Agree
6	improves access to microfinance services	2.89	.67	Agree
7	enhances security through biometric authentication	3.07	.62	Agree
	cluster mean	**2.84**	**.70**	**Agree**

Table 2 above shows that the mean rating for all the 7 items listed on the impacts of fintech-based mobile money services on financial inclusion in Anambra state are above 2.50 which is the cut-off point. The cluster mean of 2.84 is also above the cut-off point. This means that all the items are impacts of fintech-based mobile money services on financial inclusion in Anambra state. The standard deviation for all the items is within the same range showing that the respondents are not wide apart in their ratings.

Discussion of Findings

This study's findings reveal that bank-led services have significantly contributed to financial inclusion in Anambra State. Specifically, the results show that impact of bank-led services on financial inclusion are that it: increases access to savings accounts for rural dwellers, improves availability of credit facilities for small businesses, enhances convenience through online banking and mobile apps,

increases financial literacy through bank-sponsored programs, reduces transaction costs for bill payments and transfers, improves security for financial transactions and increases access to insurance services. These findings align with existing literature. For instance, Adesola (2020) noted that bank-led services, such as Firstmonie, have bridged the gap between the tech-savvy and low-literacy clients, creating an ecosystem for easy financial transactions. Similarly, Sodipo *et al*. (2021) found that bank-led mobile money services have improved financial inclusion in Nigeria. However, some studies suggest that bank-led services may not be entirely effective in reaching the unbanked population. For example, Hannig and Jansen (2010) argued that traditional banking models may not be suitable for the financially excluded due to high costs and stringent requirements.

Another finding of this study was that the impact of Fintech on financial inclusion are that it: increases access to financial services for unbanked populations, provides convenient and fast transaction processing, lowered transaction costs, offered access to digital payment platforms, increased financial inclusion for rural women, improved access to microfinance services and enhanced security through biometric authentication. These findings are consistent with existing research. Kalu *et al*. (2024) noted that fintech companies, such as Opay, have empowered individuals through agent and merchant networks, providing affordable financial services. Similarly, Yuxin *et al*. (2022) found that Fintech has revolutionized payment processes, reduced transaction costs, and increased efficiency. However, some studies raise concerns about the regulatory challenges facing Fintech companies. Zhang (2023) argued that regulatory uncertainties may hinder the growth of Fintech and its potential to promote financial inclusion.

Conclusion

This study investigated the impact of mobile money on financial inclusion in Anambra state, Nigeria. It specifically focused on bank-led services and Fintech. The findings reveal that both bank-led services and fintech significantly contributes to financial inclusion in the state. Bank-led services improves access to savings account and credit facilities while fintech increases access to financial services for unbanked populations, reduces transaction costs and enhances security. These findings prove that mobile money has the capacity to bridge the financial exclusion gap in Anambra state and Nigeria at large.

Recommendations

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

1. Bank-led service providers should prioritize financial literacy programmes to enhance users' understanding of mobile financial services.
2. Government should support fintech innovations through funding and infrastructure development.

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