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## **Electronic Banking Services and Performance of Deposit Money Banks in Nigeria**

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### **Abstract**

This study examined the impact of electronic banking on the performance of deposit money bank in Nigeria. Four electronic banking services were considered in the study, they include Internet Banking Services, Mobile Banking Services, ATM services and POS services. Each of these services were tested along with some monetary policy indicators which include monetary policy rate (MPR), Interest Rate (INT) and Liquidity Ratio (LR). Data for the study was obtained from CBN and Nigerian Exchange Limited (NGX Group) from Q1;2009 to Q4;2020. The ARDL method of estimation was used as the method of analysis. The result of the analysis revealed that in the short run, mobile banking services had a negative effect, while ATM and POS services had a positive effect. However, the positive effects of ATM and POS services may fade in the long run due to increased competition and higher costs. Internet banking had a negative impact in the short run, but a positive impact in the long run. Only interest rate had a significant negative effect on bank performance, while both interest rate and liquidity ratio had a significant positive effect on bank performance in the long run. It was concluded that electronic banking services have a positive impact on the performance of deposit money banks in Nigeria, both in the short and long run and that the use of electronic banking services enhances the profitability and overall performance of deposit money banks in Nigeria. It is recommended that deposit money banks in Nigeria should invest in electronic banking services to enhance their overall performance.

**Keywords:** Electronic Banking, Bank Performance, Monetary Policy, Mobile Banking, Internet Banking, Bank Market Index and Profitability

## **Introduction**

Today's business environment is extremely dynamic and experiences rapid changes as a result of technological improvement, increased awareness and demands that banks serve their customers electronically<sup>1</sup>. Banks have traditionally been at the forefront of harnessing technology to improve their products and services<sup>2</sup>. The 21st-century banking sector functions within a challenging and competitive landscape, marked by constant transformations and an unpredictable economic scenario. In Nigeria, the electronic banking system is greatly influenced by ICT, which serves as a driving force behind this global shift. In this context, managers in the Nigerian banking industry recognize the indispensable role of information systems. These systems hold significant importance as they are intricately connected to the cash flow of most banks, thus highlighting their essential contribution to the current banking framework.

E-payment systems are increasingly important for driving innovation in online business processes, enabling companies to serve customers more efficiently and cost-effectively. Scholars suggest that electronic payment systems are being adopted across various sectors, including air ticketing, insurance, banking, retail, healthcare, online markets, and government, wherever monetary transactions occur<sup>3</sup>. The advantages of electronic transfers over traditional clearinghouses are numerous and evident, as banks increasingly rely on technology to manage payments. These advantages encompass secure payments, cost reduction, timely payments, and improved cash management compared to conventional systems. Banks have made substantial investments in implementing self-banking services to enhance customer service quality, aiming to decongest banking halls and alleviate long queues. ICT-based financial services have significantly contributed to lowering the cost of providing financial services. In Nigeria, the payment industry has undergone a transformation in recent years due to IT advancements. Cash usage has been replaced by digital cash and digital wallets, marking the fourth stage of evolution following barter, currency, and paper money (cheques)<sup>2</sup>

## **Statement of the Problem**

A large amount of literature, recently on electronic banking and money, the researcher discovered, suffers from a narrow perspective. It is said to have ignored internet banking entirely and equates electronic money with the substitution of currency through electronic gadgets like virtual money and smart cards. Electronic money and internet banking is made up of 3 devices;

stored value cards, access device and network cash. Internet banking simply put is the use of new access devices. This is therefore ignored<sup>6</sup>. Electronic money can then be said to mean the total of stored value which can be in form of value cards and network money (stored up values on a computer hard). What is most interesting and fortunate about this popular perspective is the fact that electronic money and internet banking are no longer functions (processes) rather they are devices.

### **Aim and Objectives of the Study**

The main objective of this study is to examine the impact of electronic banking on the performance of deposit money banks in Nigeria. The specific objectives are to:

- i. examine the effect of mobile banking service on the performance of deposit money banks in Nigeria
- ii. investigate the relationship between ATM services and the performance of deposit money banks in Nigeria
- iii. access the influence of internet banking on the performance of deposit money banks in Nigeria
- iv. examine the impact of POS service on the performance of deposit money banks in Nigeria

### **Literature Review**

Discussion of existing literature that are relevant to this research study. Starting with the major concepts, theories and empirical findings of other scholars on electronic banking and the performance of deposit money banks. The summary of gaps identified in past studies was also presented along with the theoretical framework of the study.

### **Conceptual Review-Electronic Banking**

Electronic banking has become increasingly important in Nigeria due to the technological advancements that have revolutionized the banking sector. Electronic banking, referred to as e-banking or internet banking, refers to the electronic execution of banking activities utilizing information and communication technology (ICT) to facilitate immediate and long-term banking objectives. It encompasses the utilization of electronic devices such as the internet, wireless connections, networks, ATMs, and phones to deliver a range of banking services, including cash

withdrawal, funds transfer, cash deposits, payment of utility and credit card bills, as well as addressing various financial inquiries. Electronic banking refers to the use of electronic channels such as Automated Teller Machines (ATMs), Point of Sale (POS) terminals, internet banking and mobile banking to carry out financial transactions. It has transformed the banking industry in Nigeria and has been described by scholars as a game changer in the financial sector<sup>1</sup>.

### **Adoption of Electronic Banking into Nigerian Banks**

Electronic banking, which is the provision of banking services to customers through Internet technology, has revolutionized the banking industry globally. The adoption of e-banking in Nigeria has grown significantly in recent years, with banks investing heavily in telecommunication and electronic systems to deliver their services through various channels such as internet technology, video banking technology, telephone banking, Automated Teller Machine, and WAP technology<sup>9</sup>. The card technology, especially the use of ATM cards, is the most popular e-payment machinery among customers in the Nigerian banking market. Nigeria has 30 million ATM cardholders who conduct over 100 million transactions on the machines every month. Banks operate over 9,000 ATM machines across the country's 36 states and Federal Capital Territory. The introduction of the Euro-Visa-Master card standard, popularly known as Verve Card, has enhanced effective security measures, as all the data of the customer are recorded on the chip, making it more fraud-resistant<sup>10</sup>.

### **Role of Technology in Electronic Banking**

The development of electronic banking in Nigeria has been largely driven by advances in technology. The use of technology has significantly improved banking services in Nigeria by providing customers with greater convenience, flexibility, and access to banking services<sup>7</sup>. The adoption of ICT has made it possible for banks to offer a wider range of services to their customers. The use of technology has improved banking efficiency, reduced the cost of operations, and enhanced the security of banking transactions. It has enabled banks to offer new and innovative products and services to their customers, as well as enhance the efficiency and effectiveness of banking operations. Technology has also facilitated financial inclusion by

## Theoretical Review

### Innovation Diffusion Theory

The third theory taken into consideration is the Innovation Diffusion Theory (IDT) which explains individuals' intention to adopt a technology as a modality to perform a traditional activity. The theory is developed by some scholars<sup>13</sup>. The critical factors that determine the adoption of innovation at the general level are the following: relative advantage, compatibility, complexity, trial ability and observability. Researchers have tested the theory of e-banking adoption. The nominalized factors are complexity, liability and observability. The underpinning theory employed in this work is a theory arising from the decomposed theory of planned behaviour. This theory considers that the use of technology is influenced by attitude, subjective norms and perceived behavioral control. The theory argues that the lesser the ratio of currency outside banks to the broad money supply the higher the intermediation efficiency and vice-versa. This suffices that when the currency outside banks diminishes as a result of the increase in the use of electronic forms of payment, particularly ATM and other e-card products, as well as banking habits, the intermediation efficiency will be positive, otherwise, it will be negative

The framework of this study is based on the technology acceptance theory introduced by Davis in 1989 which explains technology user acceptance behaviour. The theory proposed that technology acceptance depends on perceived ease of use and perceived usefulness, attitude and behavioral intention to use. It is however believed that the perceived usefulness and perceived ease of use forms the end-user's beliefs on a technology and therefore predict his or her attitude towards the technology, which in turn predicts its acceptance<sup>39</sup>.

Adoption of Electron Banking Technology = f(perceived usefulness and perceived ease of use) (2.1)

The major explanation provided by this theory is that for electronic banking technology to be adopted, it must gain wide acceptance by users and this will be based on the ease of use. It therefore implies that if electronic banking technologies gain wide acceptance, then its adoption will be high and as such it will have a form of influence on performance of the banking sector<sup>1</sup>. Hence, among the determinants of the performance of an deposit money banks is the extent to which electronic banking technologies have been adopted which can be expressed implicitly as

Perf = f(use of electronic banking technologies)

Where,

Perf = Performance of deposit money banks in Nigeria

Electronic banking technologies are ATMs, Internet Banking, Mobile Banking and POS. **Review of Empirical Studies**

Electronic banking (e-banking) is believed to have a positive impact on the performance of the banking industry. Numerous studies have been conducted to determine the extent to which e-banking affects banks, using both qualitative and quantitative data. However, there are still conflicting opinions on the matter.

An analysis of the effect of e-banking on bank performance in Nigeria found that it has a positive and significant impact on return on equity, although it did not significantly affect return on assets<sup>45</sup>. Likewise, other researchers have claimed that e-banking has led to increased customer satisfaction, improved operational efficiency, reduced transaction time, better competitive edge, reduced running costs, and faster response times in service delivery<sup>4</sup>

Another study assessed The Evolution of Banking From Retail to Mobile Banks and Fintech. Findings from the study posited that the future of banking is characterized by innovative services and products offered online which, however, would need to be supported by a regulatory framework, able to eliminate entry barriers for newcomers in the banking sector<sup>2</sup>.

A critical analysis of Technology innovation in the Nigerian banking system: prospects and challenges was done using both Primary data and Secondary data was use for this study. For primary data, cross-sectional survey design was adopted while secondary data were generated for the study through annual reports of CBN The findings of this study reveal the migration from cheques to electronic related transactions. It further indicates a high rate of fraud committed through those channels. The analysis of primary data shows that innovation adoption, service quality, cybercrime have significant relationship with the competitiveness of banks, the intention of bank customers, and perception of customers towards online services. However, the rate of frauds does not have significant relationship with the usage of mobile banking products which further studies can critically examine<sup>6</sup>.

An empirical investigation on the impact of Internet banking on bank profitability was also conducted by some scholars. The study was designed to test profit sensitivity to such factors as the size of the institution in terms of both numbers. The model of the study projects profitability measured in net present value and internal rate of return over a five years time horizon considering anticipated migration of customers from traditional to online channels. The results of the study revealed that it is not possible to blindly state that internet banking is always profitable because very small institutions only offer a limited set of internet banking and are not likely to achieve profit unless they can persuade a very substantial portion of their customers to bank online; that internet banking provides financial institutions with an array of applications including home banking with electronic bill payment, check images, authenticated online applications, online statement modules, e-commerce finance services portal and online lending application for consumers loans. The implication of the study above is that there will increase in bank performance if the use of the Internet banking system is improved and practised in Nigeria irrespective of size<sup>7</sup>.

A study examined Electronic Banking and Profitability in the Nigerian Banking Industry. An inferential survey research design was adopted. Primary data were collected through questionnaires from both staff and customers of the surveyed bank. It was complimented with secondary data sourced from the company's audited financial statements for the period of 2010-2017. Data collected were analyzed using both descriptive and inferential statistics while testing of the hypotheses was done using multiple regression analysis. Findings from the study revealed that cards play a significant role more than other channels and immediately followed by ATM<sup>47</sup>.

Another study argued that financial technology (Fintech) innovations have positively influenced the return on Equity of commercial banks in Nigeria. They narrowed down to electronic banking citing that more customer transactions are observed and hence more transaction fees leading more revenues<sup>8</sup>.

Investigation on the profitability performance of Nigerian banks following the full adoption of the Internet banking system was carried out by scholars<sup>20</sup>. The judgmental sampling method was adopted by utilizing data collected from four Nigerian banks. These four banks are the only banks in Nigeria that have consistently retained their brand names and remained quoted on the Nigerian Stock Exchange since 1997. The profitability performance of these banks was measured in terms of returns on equity (ROE) and returns on assets (ROA). The data collected were tested using a standard statistical technique for an independent sample at 5 per cent level

of significance for performance factors such as ROE and ROA. The study revealed that the adoption of Internet banking has positively and significantly improved the returns on equity (ROE) of Nigerian banks. On the other hand and the contrary, it also revealed that e-banking has not significantly improved the returns on assets (ROA) of Nigerian banks<sup>2</sup>.

The impediments to e-banking services marketing within the Nigerian state have been investigated by scholars by adopting a mixed-method approach – comprising both interview techniques and the use of questionnaires for data collection. Findings are multi-faceted and viewed from three angles viz: the user based, institutionally based and the government-related roles. Findings further revealed among others the poor educational imbalance, especially between the North and South and the lack of adequate policy framework to safeguard customers' money as some of the challenges. The strategic implications of all these are discussed and clear-cut recommendations are derived for implementation by all concerned<sup>49</sup>.

Similarly, another study analyzed Retail Banking and Bank Performance: Evidence from Nigeria. Secondary data was used for the study and data was collected and analyzed based on the annual reports available on the website of 16 banks listed on the Nigeria stock exchange as at 31st December 2018. The result of findings revealed that Size and Competition significantly impacted on bank performance with a probability of 0.0071 and 0.0178 respectively which is less than 5% degree of significance; and Loans and deposits relationships were all not significantly impacting on bank performance, as the probabilities for all variables were more than the acceptable 5% degree of significance<sup>5</sup>.

A study conducted a research on Fintech Evolution in Nigeria: Achieving Double Bottom Line Impact Through Innovation and Entrepreneurship. Both primary data and secondary data were used for this study. The primary data used for the study was collected manually via interviews with current fintech industry operators in Nigeria while the secondary data was sourced from archival research, mainly research publications and regulatory publications. Findings from the study revealed that Fintech's performance in Nigeria impacts the ecosystem economically and socially in three broad dimensions: through stimulating economic activity, by creating a multiplier effect, and by driving progress towards development goals<sup>5</sup>.

A scholar also carried out a study on the relationship between Internet banking and the performance of Nigerian commercial banks. Internet banking was proxied by the value of Point-of-Sale transactions while commercial banking performance was proxied by customers' deposits.



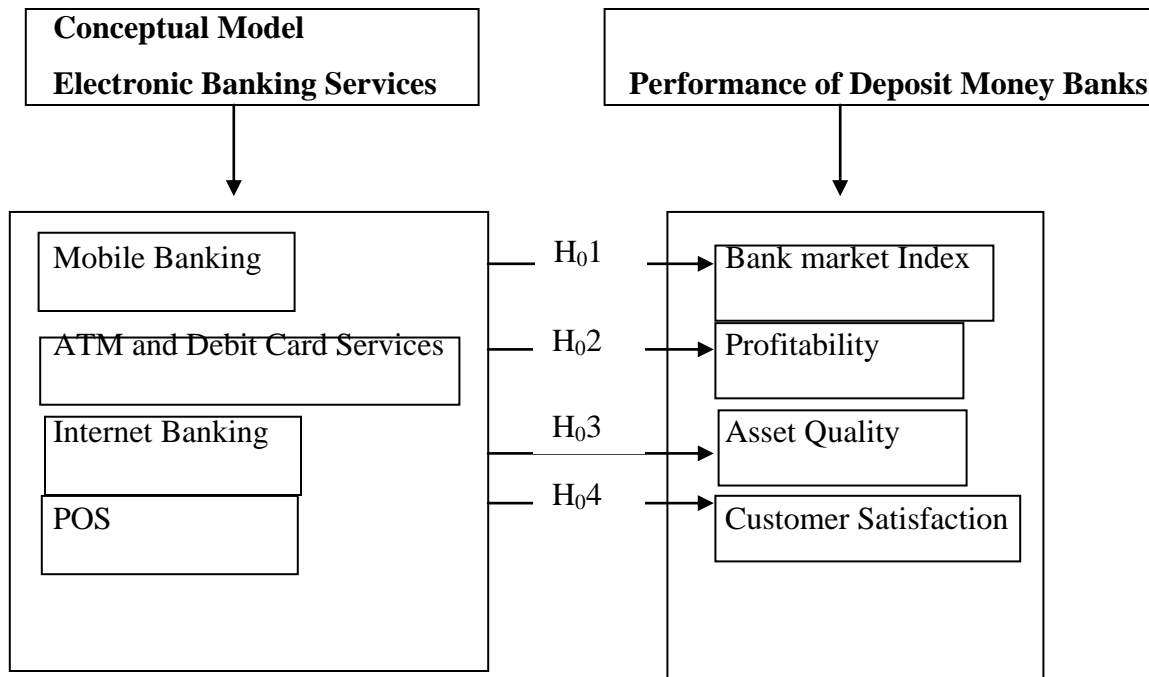
The engle-Granger cointegration model was used to analyse data for the sample period from January 2009 to December 2013. The results show that POS is not cointegrated with both the savings and time deposits but is cointegrated with demand deposits. It is recommended that the monetary authorities and commercial banks should embark on an all-inclusive enlightenment campaign for the banking public on the benefits, convenience and importance of banking channels in completing their transactions<sup>12</sup>.

The objective of another study was to examine the impact of cashless practices on the corporate efficiency of deposit money banks in Nigeria. The authors analyzed relevant literature on the topic and identified the data and methodology used in previous studies. They reviewed studies that examined the effects of cashless practices on various aspects of bank efficiency, such as cost reduction, revenue growth, customer satisfaction, and risk management. The authors used a systematic review approach to synthesize the findings of the studies and identify gaps in the existing literature. The study found that cashless practices have a positive impact on the efficiency of deposit money banks in Nigeria. Specifically, cashless practices have been found to reduce transaction costs, increase revenue, and enhance customer satisfaction. The study recommends that deposit money banks in Nigeria should adopt cashless practices to improve their corporate efficiency<sup>13</sup>.

While other scholars evaluated the prospects and challenges of the cashless policy in Nigeria, focusing on the experiences of commercial banks. The study used a survey method to collect data from 200 bank customers in Nigeria. The survey questionnaire covered topics such as the level of awareness of the cashless policy, the use of electronic payment channels, and the challenges faced in adopting cashless transactions. The study found that while there is a high level of awareness of the cashless policy among bank customers, the adoption of cashless transactions is still low due to factors such as poor network connectivity, high transaction charges, and lack of trust in electronic payment channels. The study recommends that the government and financial institutions should address these challenges to promote the adoption of cashless transactions in Nigeria<sup>14</sup>.

A Cross-Sectional Research by other researchers with the objective of conducting an empirical review of the challenges faced in implementing the cashless policy in Nigeria. A cross-sectional research design and collected data from 250 bank customers in Nigeria. The survey questionnaire covered topics such as the level of awareness of the cashless policy, the use of electronic payment channels, and the challenges faced in adopting cashless transactions. The study found

that the major challenges of cashless policy implementation in Nigeria are poor network connectivity, high transaction charges, and lack of trust in electronic payment channels. The study recommends that the government and financial institutions should address these challenges to promote the adoption of cashless transactions in Nigeria<sup>183</sup>.



Source: Researcher’s Model, 2023

## Methodology

This chapter presents the methodology that was used to achieve the research objectives. It presents the model specification, estimation techniques, definition and sources of data and variable measurement.

### Model Specification

The aim of this study is to examine the impact of electronic banking services on the performance of deposit money banks in Nigeria. The model for this study is adapted from the study of some scholars on digital financial services and financial performance of commercial banks in Nigeria<sup>1</sup>. Integrating the variables of this study in to the model, it can be expressed as:

$$BMI_t = \alpha_0 + \alpha_1 ATMVA_t + \alpha_2 POSVA_t + \alpha_3 IBVA_t + \alpha_4 MBVA_t + \varepsilon_t$$

To put the variables in the same scale of measurement and an estimable form, both sides of equation 3.1 is log-linearized. The model can therefore be re-expressed as:

$$LBMI_t = \alpha_0 + \alpha_1 LATMVA_t + \alpha_2 LPOVA_t + \alpha_3 LIBVA_t + \alpha_4 LMBVA_t + \varepsilon_t$$

Some scholars have also emphasize the relevance of some monetary policy variable and the role they play in the interaction between electronic banking and the performance of deposit money banks<sup>2,3</sup>. Hence, the monetary policy variable is integrated in the model to estimate their impact on the performance of banks in Nigeria.

$$LPERF_t = \alpha_0 + \alpha_1 LATMVA_t + \alpha_2 LPOVA_t + \alpha_3 LIBVA_t + \alpha_4 LMBVA_t + \alpha_5 LR_t + \alpha_6 INT_t + \alpha_7 MPR_t + \varepsilon_t$$

Where: Log represents the natural log of the variables

BMI = Performance of Deposit Money Banks in Nigeria measured by Bank Market Index

ATMVA = Value of ATM Transactions

POVA = Value of POS Transactions

IBVA = Value of Internet Banking Transactions

MBVA = Value of Mobile Banking Transactions

MPR = Monetary Policy Rate

INT = Interest Rate

LR = Liquidity Ration

$\varepsilon$  = Error Term

$\alpha_0$  = Intercept

$\alpha_{1-7}$  = Coefficient of independent variables

t = time

### Estimation Procedure

In order to achieve the objectives of this study using the specified model, the variables will be subjected to the test of stationarity using the Augmented Dickey-Fuller test which uses non-parametric statistical methods to take care of the serial correlation in the error terms without adding lagged difference terms.

This study uses Autoregressive Distributed Lagged (ARDL) model to achieve its objectives. The ARDL bound test was used to examine the cointegration relationship among the variables of the study. The ARDL method of estimation was chosen because it can be used when the variables in the model are integrated at order one [I(1)] and when there is a combination of one [I(1)] and order zero [I(0)]. It can also be used even with small sample size, and irrespective of whether some of the regressors are endogenous

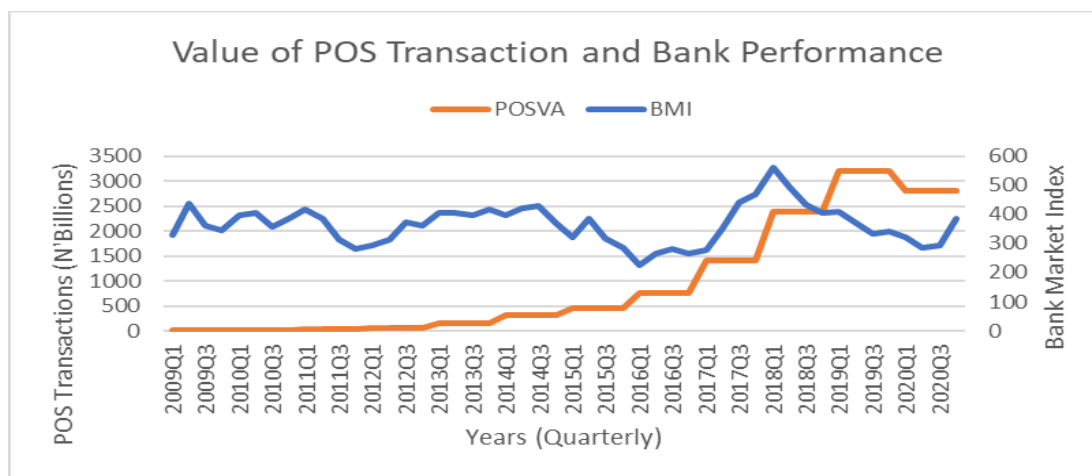
## Description and Measurement of Data

This study seeks to examine the impact of electronic banking on the overall performance of deposit money banks in Nigeria. The performance of deposit money banks, which is the dependent variable, is measured by the bank market index. This index is based on the market capitalization methodology. It measures the overall performance of the banking sector. It provides a quantitative measure of the performance of the banking industry, and are therefore considered a financial performance measure. Electronic banking services is measured by four variables which are the values of mobile banking, internet banking, ATM and POS services. Other monetary policy variables such as monetary policy rate, liquidity ratio and interest rate were also used to factor in policy regulations for the banking sector.

## Data Requirement and Sources

In order to achieve the objectives of the study, quarterly time series data from 2009 to 2020 was used. The data was sourced from Central Bank of Nigeria and Nigerian Exchange Limited (NGX Group). The data is an aggregate data showing the value of electronic banking and the overall performance of deposit money banks in Nigeria.

## Results and Discussion of Findings

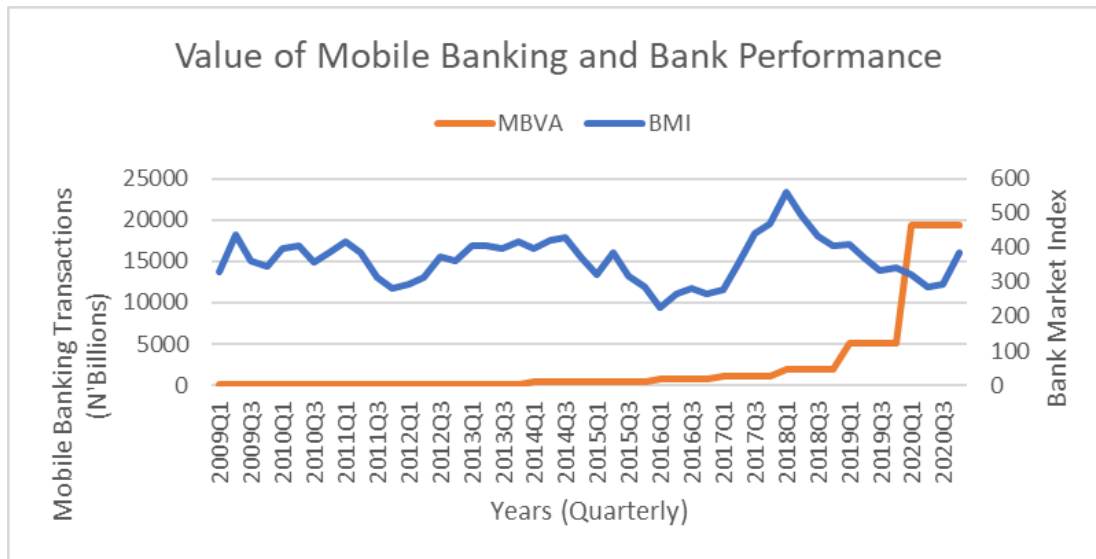


### Trend Analysis of the Value of POS Transaction and Deposit Money Bank Performance in Nigeria.

Source: Authors Computation

Point of Sales Terminal (POS) was officially introduced by the CBN in 2012 in Nigeria and as shown in the trend report in figure 4.1, the value of transactions carried out using POS has been increasing ever since except for a fall in the first quarter of 2020. This could be attributed to the

outbreak of the COVID-19 pandemic. As a result of the pandemic, the country implemented lockdown and restrictions on movement to curb the spread of the virus. This led to a significant decrease in economic activity and consumer spending, including a reduction in the use of POS transactions. Additionally, many businesses that relied on POS transactions, such as restaurants and bars, were forced to close temporarily, further reducing the overall volume of transactions. As the growth of POS transaction grows the bank performance index also grows up to 2018 when it begins to fall notwithstanding the fact that POS transactions continue to grow. This could be due to changes in interest rates and other regulatory requirements such as stricter lending guidelines, could have affected banks' ability to generate revenue.

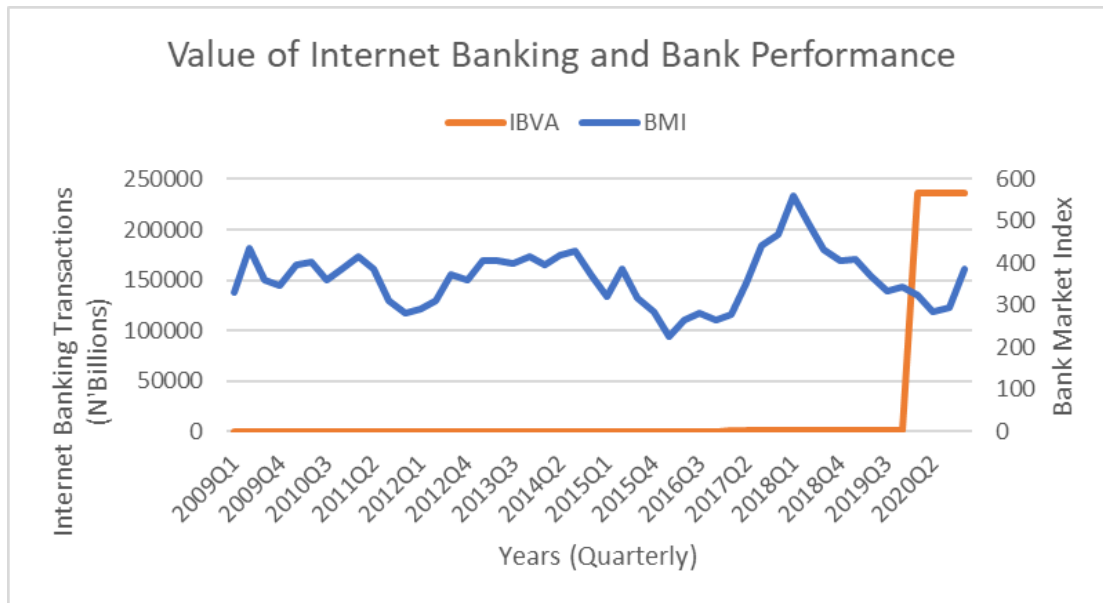


**Figure 4.2: Trend Analysis of the Value of Mobile Banking Transaction and Deposit Money Bank Performance in Nigeria.**

**Source: Authors Computation**

Mobile banking services was introduced in early 2000s in Nigeria and started growing at a low rate as revealed in the trend analysis in figure 4.2. the value of transactions carried out via mobile banking jumped to about 5 trillion Naira in the first quarter of 2019 and later experienced a sharp rise in the first quarter of 2020 to about 20 trillion Naira. This sudden rise can be attributed to the advent of COVID-19 in 2020 which as a result of lockdown, banks are unable to open, and people depend on mobile transaction which increased the use of bank mobile platforms. Meanwhile, the bank market index maintain its fluctuation between 300 and 400 within the period under consideration with the exception of 2018 where in the first quarter, there is a sharp rise above 500. One possible factor is an increase in oil prices, which is a significant source of revenue for Nigeria. As a result, the Nigerian government and central bank may have been able to inject more money into the economy, boosting demand for banking services and leading to a

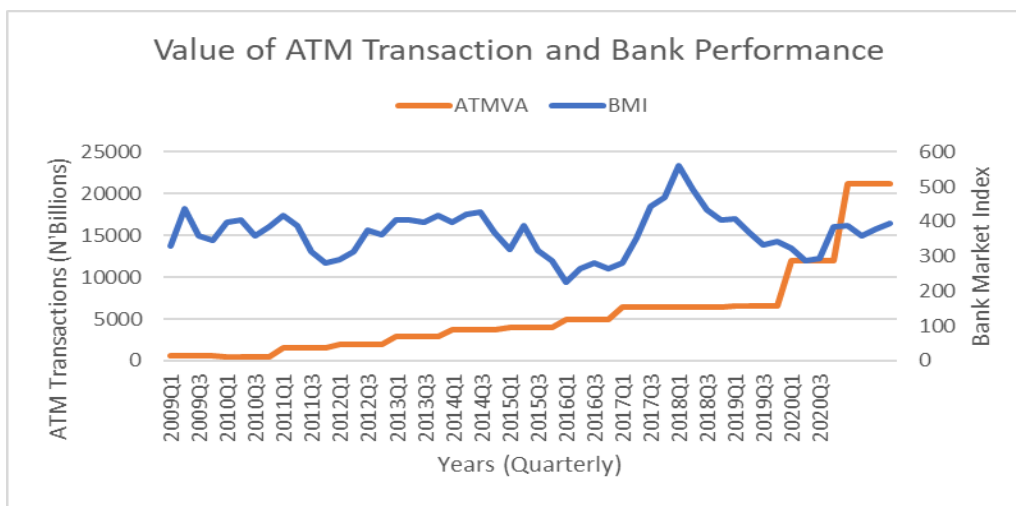
rise in bank market index. Another possible factor is the improvement in Nigeria's economic growth rate in 2017, which continued into 2018. As the economy improves, people tend to have more disposable income, leading to increased demand for banking services. Following these period is a fall in bank market index and the performance of the banking industry which could be as a result of the CBN implementing policies to mop up excess funds in circulation which could reduce banking activities and their performance in return. Although, the performance begins to rise again from the third quarter of 2020.



**Figure 4.3: Trend Analysis of the Value of Internet Banking Transaction and Deposit Money Bank Performance in Nigeria.**

**Source: Authors Computation**

Internet banking services were first introduced in Nigeria in the early 2000s and since its introduction, the value of internet banking transactions have been below 50 trillion Naira till first quarter of 2020 when there is a sudden rise in the vale of internet banking transactions to more than 200 trillion Naira. This sudden increase is due to the advent of COVID-19 pandemic. As a result of the pandemic, the country implemented lockdown and restrictions on movement, this led to a significant increase in internet banking since people cannot go to banks to perform transactions physically. However, this does not appear to have immediate effect on the performance of deposit money banks as increase in performance only begin to increase from the second quarter of 2020. This implies that the effect of electronic banking on the performance of deposit money bank in Nigeria is not immediate.



**Figure 4.4: Trend Analysis of the Value of ATM Transaction and Deposit Money Bank Performance in Nigeria.**

**Source: Authors Computation**

Since the introduction of ATMs into the banking sector in 1989 in Nigeria, the rate of adoption by banks and customers have grown. From the figure 4.4 it can be observed that the value of ATM transactions from the first quarter of 2009 maintained a steady growth till the first quarter of 2020 when there is a sharp rise in the value of transactions which was done via ATMs. Just like the other electronic banking services, this sudden rise was caused by the outbreak of COVID-19 pandemic in early 2020. However, the performance of banks seems to respond quickly to changes in ATM transaction as the rise in early 2020 led to an increase in bank market index after a fall from third quarter of 2018.

### Conclusion

The study investigated the impact of electronic banking services on the performance of deposit money banks in Nigeria. The study has shown that electronic banking services have a positive impact on the performance of deposit money banks in Nigeria, both in the short and long run. Specifically, the study found that ATM services and POS services have a positive impact in the short run, while mobile banking services and internet banking have a positive impact in the long run. However, the effects may vary depending on the service and the time-frame. The study also found that the use of electronic banking services enhances the profitability and overall performance of deposit money banks in Nigeria. However, the impact of these services on the performance of deposit money banks may fade away in the long run, possibly due to increased competition, higher costs of maintaining electronic banking networks, or increased security risks associated with electronic banking transactions.

### 5.3 Recommendations

Based on the findings of the study, the following recommendations are suggested:

1. Deposit money banks in Nigeria should invest in electronic banking services to enhance their overall performance. They should focus on improving the quality, security, and accessibility of these services to enhance customer satisfaction and loyalty, which in turn can improve their profitability and overall performance.
2. Banks should be careful of policies with regards to electronic banking services because the result shows that impact of electronic banking services on the performance of deposit money banks in Nigeria is not immediate but takes some time to materialize
3. Deposit money banks in Nigeria should also pay attention to interest rates and liquidity ratios, which have a significant influence on their performance both in the short and long run.
4. Nigerian banks need to ensure that their electronic banking services are easily accessible and user-friendly, as this will encourage more customers to adopt these services.
5. The Nigerian government can also play a crucial role in promoting electronic banking services by creating an enabling environment for their growth and development. This can be achieved through the formulation of policies and regulations that encourage innovation and competition in the electronic banking industry, as well as the provision of adequate infrastructure and support for electronic banking services.

### End notes

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