# IMPACT OF CASHLESS POLICY ON THE PERFORMANCE OF DEPOSIT MONEY BANKS IN NIGERIA

# ADELEYE OLUWAPELUMI LYDIA

**Matric Number: 18020101033** 

BEING A RESEARCH PROJECT SUBMITTED TO THE

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THE AWARD OF THE BACHELOR

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IN ACCOUNTING

**AUGUST, 2022** 

# DECLARATION

I hereby declare that this project report written under the supervision of Dr PIUS ONICHABOR,		
is a product of my own research work. Information derived from various sources have been duly		
acknowledged in the text and a list of references provided. This research project report has not		
been previously presented anywhere for the award of any degree or certificate.		
ADELEYE OLUWAPELUMI LYDIA DATE		

# **CERTIFICATION**

This is to certify that this project titled: IMPACT OF CASHLESS POLICY ON THE		
PERFORMANCE OF DEPOSIT MONEY BANKS IN NIGERIA was carried out by		
ADELEYE OLUWAPELUMI LYDIA with matriculation number 18020101033 in partial		
fulfilment of the requirements for the award of Bachelor of Science (B.Sc.) degree in the		
Department of Accounting and Finance, College of Humanities, Management, and Social		
Sciences, Mountain Top University, Ogun State.		
Dr. Onichabor Pius	Date	
(Project Supervisor)		
Dr. Omokehinde Joshua	Date	
(Head of Department)		

# **DEDICATION**

Dedicated to God Almighty for his grace and mercy

&

To my family members and siblings for all their support.

#### ACKNOWLEGEMENTS

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# **ABBREVIATIONS**

ATM Automated Teller Machine

CBN Central Bank of Nigeria

DMB Deposit Money Banks

ICT Information and Communication Technology

NEFT National Electronic Fund Transfer

NIBSS Nigeria Interbank Settlement System

POS Point of sale

ROA Return on Asset

SPSS Statistical Package for Social Sciences

USSD Unstructured Supplementary Service Data

IB Internet Banking

EFT Electronic Fund Transfer

#### ABSTRACT

The study examines the Impact of Cashless Policy on the Performance of Deposit Money Banks (DMBs) in Nigeria for the period 2011-2020. The study uses Automated Teller Machine (ATM), Point of Sale (POS) Internet Banking Transactions and Nigeria Electronic Fund Transfer (NEFT) as independent variables to measure the cashless policy while Return on Assets (ROA) was employed as proxy for performance of the DMBs and used as the dependent variable. Hypotheses were formulated and tested using Simple Linear Regression analysis (SLR). There is a significant effect of Automated teller machine transactions on return on assets of deposit money banks in Nigeria. Point of Sale terminal transactions does not have a significant effect on return on assets of deposit money banks in Nigeria. Internet Banking transactions has a significant effect on return on assets of deposit money banks in Nigeria. Nigeria Electronic Fund Transfer (NEFT) does not have a significant effect on return on Asset of deposit money banks in Nigeria. The study concludes that cashless policy has a significant effect on the performance of deposit money banks in Nigeria. The study recommends that management should pay more attention on the activities that will improve the POS and NEFT services of their banks if they wish to increase the ROA and enlighten customers on the convenience and importance of adopting mobile banking channels in completing their transactions and also provide them with adequate information on how to prevent fraudsters from gaining access to their accounts. Government and regulatory authorities should be able to provide security both physically and electronically to prevent the occurrence of hacking by fraudsters.

Keywords: ATM, Cashless Policy, DMB, POS, IB AND NEFT

#### **CHAPTER ONE**

#### INTRODUCTION

#### 1.1 BACKGROUND TO THE STUDY

The Central Bank of Nigeria (CBN) has recently participated in a series of changes aimed at both strengthening the Nigerian monetary framework and imposing and improving Nigeria's overall economic execution in order to keep it on top of global trends. According to Ajayi (2014), a cashless economy is a situation in which money is spent without being physically transmitted from one place to another. Nigeria's mission to transition from a cash to a cashless economy has been prominent for some time. Prior to implementing a cashless policy strategy, the potential legitimacy of an event by various examiners in financial issues and money was examined, to how it would attempt to achieve what is happening in the current economy by 2021 without fully accepting the electronic banking basis

Banking services are now more automated and require less paperwork than in the past, according to Central Bank of Nigeria (CBN) reports and statistical bulletins from most Nigerian deposit banks. Before the effect of the cashless strategy procedure approaches on the display of fixed or deposit cash banks in Nigeria, tally Count, coins, and paper notes have been used, and there was no improvement in bank performance. Anyway, the implementation of ATM, POS, IB, and NEFT was made, and sooner or later, I saw later the utilization of ATM, POS, IB, and NEFT, and the improvement in banking performance is still exceptionally poor. Furthermore, the

cashless policy aims to plan some of the negative consequences associated with the use of actual money in the economy, such as high money costs, high risk of using money, high endowment, casual economy, failure, and debasement.

According to Agbjuekere (2018)'s review, the current banking environment is extremely powerful and undergoes rapid changes as a result of advancements and developments in data and correspondence innovation, expanded mindfulness, and client requests. The financial industry of the twenty-first century operates in a perplexing and serious environment characterized by changing conditions and a significant monetary environment. This has modified the strategy for a retail banking challenge. As a result, following the introduction of electronic banking and web computerized teller machines, the expanded reception, and entry of portable banking and web banking have added another appointment channel to retail banking i.e Web/Internet banking. According to Adubgoi (2018), the mission for banks in Nigeria to have proficient customer service conveyance and keep up overall importance in the framework has resulted in the misuse of the numerous advantages of ICT utilizing robotized contraptions critical in the business. Several outlines have also been written to broaden the significance of data and correspondence innovation to business bank execution. Another reason for the various e-banking examinations is buyer trust. Shopper fulfillment has the potential to expand an organization's client base, extend the use of a more unpredictable customer mix, and improve the company's reputation.

It overcomes the advantage of meeting buyers' needs better than continuously competing and eating them through better management in this manner. A satisfied customer will continue with his exoneration assistance regardless, whereas an unsatisfied customer will be willing to discontinue his exoneration assistance. There is a requirement to provide evidence of how much ICT exercises have influenced purchaser administration conveyance in Nigerian banks. A credit-

only economy, also known as a cashless policy, is one in which an agreed-upon society is controlled to have the least amount of money available for use, with the remainder being executed electronically via direct debit, mobile payments (MB), internet banking (IB), Automated Teller Machines (ATMs), point of sale stations (POSs), and Nibs Electronic Fund Transfer (NEFT), etc.

The structure gives a way for attempts and things to be sold through character without anything extraordinary estimated being exchanged, using what's insinuated as mechanized cash. The word cash really exists; regardless, it is more in an electronic system structure than as of now. The upside of affirmation of a credit-only economy remembers a reduction in defilement and the cost of performance by banks working on banking efficiency, working for monetary thought, and working on the adequacy of monetary systems in dealing with the size of the extension and advancing financial improvement. Atanda & Alimi (2018). All things considered, carrying out a credit-only strategy poses a few dangers. Since individual data and information will presently dwell on the web. Different hindrances are the potential expansion of cybercrimes, further developed refinement in the activity of programmers and con artists, expansion in burglary of ATM, credit and charge cards, etc.

#### 1.2 STATEMENT OF THE PROBLEM

The presentation of the cashless policy arrangement by the Peak bank, National Bank of Nigeria brought e-payment through the use of Automated Teller Machines (ATM), Point of Sales (POS), Nibs Electronic Transfer Fund (NEFT), internet banking (IB), and others to the fore. This became possible in light of the rising in ICT from one side of the planet to the other. The deposit money banks invested a lot in ICT to confront the difficulties acted by cashless policy so as to

remain important and relevant. Obiekwe, and Anyanwaokoro (2017) really utilized the e-banking products to proxy cashless banking and observed that they are positively connected with the presentation of banks.

The constraint limiting the effect of the CBN's effort to achieve price and economic stability is due to the estimation that approximately 65% of the money in circulation in Nigeria's economy is not contained within the banking system. Furthermore, in deposit forms, the amount of money available for Banks' ability to create more money is reduced. Bank profitability is thus primarily determined by the amount of money at their disposal. A large portion of the informal sector influences borrowing disposal. The Breakthrough and consistent developments in Information and Communication Technology (ICT) have occurred in the revolutionization of human areas such as communication and efficiency in processes, as well as in the exchange of goods and services.

Nigeria's Central Bank, the apex bank, collaborated with the Committee on Bankers' Development to develop and implemented a cashless policy for the provision of mobile payment services, as well as to clear the roadblocks impeding the financial inclusion of millions of Nigerians and rendering nationwide convenient financial services. The CBN's cashless strategy was designed to reduce cash-based transactions to the bare minimum. It is hoped that the system will not only benefit customers in terms of banking speed and convenience but it will also benefit the government and corporations to reduce high cash expenses as well as the risks associated with cash transportation. It is, however, necessary to assess the policy's impact in terms of the level of performance given banks' return on assets in light of the high cost of digital devices and other Infrastructure is being built to support the cashless policy.

This study seeks to determine whether or not bank performance has improved in the last year of which CBN's charges resulted in a cashless scheme.

This study investigates the impact of Nigeria's cashless policy on the performance of all deposit money banks. Figures and values obtained from cashless services such as ATM, IB, NEFT and POS to determine the effect of the cashless policy on the performance (ROA) of Nigerian deposit money banks.

# 1.3 OBJECTIVE OF THE STUDY

The main objective of this study is to examine the impact of the cashless policy on the performance of deposit money banks in Nigeria. To achieve this objective, the following specific objectives are imperatives:

- To examine the impact of ATM transactions on the return on assets of Deposit Money Banks in Nigeria.
- 2. To ascertain the degree to which internet banking (IB) transactions influence the return on assets of Deposit Money Banks in Nigeria.
- To determine how NEFT transfers improve the return on assets of Deposit Money Banks in Nigeria.
- 4. To examine the impact of POS transactions on the return on assets of Deposit Money Banks in Nigeria.

# 1.4 RESEARCH QUESTIONS

To be able to achieve the above purpose, these questions would be asked which assist the scientist with a social affair to gather the essential data required and which are:

- 1. What is the extent of the impact of ATM (automated teller machine) transactions on the return of assets of deposit listed banks in Nigeria?
- 2. To what degree at any point ascertain the level of web banking (IB) Exchanges to return on assets in deposit money banks in Nigeria?
- 3. How does Nibs Electronic Transfer Fund (NEFT) transfer improve the return on assets of Deposit Money Banks in Nigeria?
- 4. What is the extent of the impact of POS Transactions on the return on assets of Deposit Money Banks in Nigeria?

#### 1.5 RESEARCH HYPOTHESIS

Consequently, upon the research objective and research question the study formulate this research hypothesis in it null form (H0) to guide the research:

- 1.  $H0_1$  ATM has no significant impact on return on asset of Deposit Money Banks in Nigeria.
- H0<sub>2</sub>- IB (Internet Banking) has no ascertainment degree on return on assets of Deposit Money Banks in Nigeria.
- 3. H0<sub>3</sub> Nibs Electronic Fund Transfer (NEFT) transaction does not improve return on assets of Deposit Money Banks in Nigeria.
- H0<sub>4</sub>-POS transactions have no significant impact on the return on assets of Deposit Money Banks in Nigeria.

#### 1.6 SIGNIFICANCE OF THE STUDY

This research project will thus be extremely beneficial to the management of banks, sole proprietors, and other business associations that use a cashless policy system. The investigation will also contribute to improving proficiency in the fast and precise use of dynamic e-banking frameworks.

In the realm of academia, the study will be useful to a broader audience as it applies in the courses of accountancy, banking, and finance, as well as executive development and management courses taught in universities and colleges. And also, in the payment of tuition fee in colleges schools and universities.

The BOFIA Act (Bank and other Financial Institutions Act) and the CAMA Act (Companies and Allied Matters Act) are the regulators that govern all aspects of doing business in Nigeria. The Nigeria Deposit Insurance Corporation Act (NDCIA) governs insurance licensed banks and protects contributors' premiums in the event that financial institutions fail.

# 1.7 SCOPE OF THE STUDY

This study is restricted to review the impact of cashless policy as the principal factor, and the level of performance of deposit money banks in Nigeria as the dependent variable since the two are interconnected. The study covers a period of ten [10] years [I.e., from 2011-2020] of ten selected deposit money banks, the choice of the 10banks is based on the ability to obtain comprehensive and complete data that will be used for this research work. Money deposit banks will cover several economies i.e., CBN releases 31 authorized money deposit banks and financial holding operating in Nigeria according to the report eight commercial banks with an

international authorization were operational as of December 31<sup>st</sup> of 2019 including Access Bank Plc, Fidelity banks, etc

# 1.8 LIMITATION TO THE STUDY

#### TIME RESTRICTIONS

The researcher is constrained by time because he is conducting this investigation alongside other academic work. As a result, the amount of time dedicated to research work may be reduced.

#### FINANCIAL CONSTRAINTS

A researcher's ability to conduct research will be limited if sufficient funds are not available.

# INADEQUATE INFRASTRUCTURAL PROGRESSION

The absence of infrastructural improvement, particularly vitality puts a lot of necessities on tasks of re-installment machines. There are furthermore unprecedented stresses over the procedure undertakings in the natural domain, especially where there is at this point no framework consideration.

# **NETWORK TRICKINESS**

Unsteadiness of POS systems which is normal over all directors addresses a test which might fill in as a deterrent to using especially cash sent isn't gotten when required which is critical.

# 1.9 DEFINITION OF TERMS

# **CASHLESS TRANSACTIONS**

Cashless transactions are financial transactions that are processed using debit or credit cards, bank transfers, cheques, or any other electronic method rather than cash.

# POINT OF SALE (POS)

A computer-based platform controlled by a central virtual system and linked to multiple checkout terminals. It is the location in a store where a commodity is moved from the vendor to the consumer (Collins's dictionary).

# E-BANKING

E-banking is a banking method that allows customers to conduct banking transactions from home or anywhere else using the internet.

# AUTOMATED TELLER MACHINE (ATM)

This is an online banking platform that allows customers to perform or complete transactions without the presence of a branch or ATM delegate or teller at a bank When a credit card is used, it is a machine that dispenses cash or other banking services.

#### WIRE TRANSFER

Wire transfers are electronic transfers of funds from the payer's account in one bank to the payee's account in another.

# MOBILE MONEY

Mobile Money is a service that allows users to conduct fund transfers, make payments, and check their balances on their phones. This term also refers to the broader realm of electronic commerce; it can refer to using a mobile device to acquire items, both physical and electronic.

# NIBSS FUND TRANSFER

The Nigerian Interbank Settlement Scheme (NIBSS) is an online value swap platform for banks. It enables direct interbank transactions such as NEFT and NIBSS by exchanging funds between banks for individual or multiple recipients for sums not exceeding N10 million. NIBSS developed an account-number-based, online-real-time Inter-Bank payment solution in 2011.

# NATIONAL ELECTRONIC FUNDS TRANSFER (NEFT)

Once effected, it acts with the next available CBN clearance session and is collected into the beneficiary's account that day or the following day of work, but NIBSS instant payments are immediate, a nation-wide payment mechanism that enables the movement of one-to-one funds. Individuals can transfer funds electronically using this system.

Individuals can use this system to electronically transfer funds from any branch of a bank to a person who has an account with any other bank division in the country participating in the Scheme.

#### ONLINE TRANSACTION

This is a collection of URLs that have been combined into a single operation. A typical online transaction involves a customer signing in to a member's page, placing an order on a retail platform, filling out and submitting an online form, and completing various web page and web request transactions.

# RETURN ON ASSET (ROA)

Return on assets (ROA) is a financial calculation that depicts a company's profit in relation to its total capital. Net income divided by total assets is a common definition.

# **CHAPTER TWO**

# LITERATURE REVIEW

#### 2.0 Introduction

The chapter consists of three subsections of conceptual, theoretical, and empirical review.

# 2.1 CONCEPTUAL REVIEW

A cashless economy is a society, community, and state where no one utilizes cash, all payments being made are by cheques, credit cards, charge cards, or movement of money from one bank account to another through mobile banking. The cashless policy was intended at restricting various adverse consequences associated with the utilization of physical currency in the economy, including the immense expense of cash, increase risk of using cash, theft, as well as extortion of money. A cashless economy is a financial system where business can be carried out without necessarily using physical cash as a means of exchange of transactions but instead with the use of credit or debit card for payment of goods and services.

The cashless economy policy program of the Central Bank of Nigeria (CBN) is a move to foster the financial terrain but in the long-term sustainability of the policy will be a function of adoption and compliance by end-users. The cashless economy anticipated here points to the comprehensive use of computer technology in the financial system. The cashless policy introduced by The CBN in 2012 kicked off with the commencement of the mobile payment,

Nigeria is only keying into a swift-developing global payment framework. The mobile money structure is a technology-driven payment system that will open up several other business opportunities in the economy.

The mobile money payment system allows clients to make payments with their GSM phones, and other gadgets etc. It is a transfer and savings system that changes GSM phones into a savings account platform, permitting the owner to accumulate money in it and from which withdrawals or transfers could be done. Under the payment system, users could do their normal basic financial transactions daily by making payments for goods and services or by engaging in person-to-person transfers directly on their GSM phones. There are various components of cashless policy in Nigeria. Woleola observed that the most involved cashless payment in the banking system is automated teller machine (ATM), point of sale (POS), internet banking, mobile banking, etc.

# 2.1.1 THE POLICY

It is estimated that approximately 65 percent of the cash in circulation in Nigeria is outside the banking system, severely limiting the price and economic stability effect of the CBN's efforts. (CBN, 2011). As a result of saving, the amount of money available to banks for the creation of new money is reduced. As a result, the large scale of this informal sector has an impact on the viability of banks, which is heavily reliant on the volume of capital available for lending (Alagh & Ene, 2014). Among other things, this situation prompted the Nigerian Central Bank, in collaboration with the Bankers Committee, to implement the cashless policy, which was designed to provide mobile payment services aimed at breaking down traditional barriers to

commerce to the financial inclusion of millions of Nigerians, as well as the protection and provision of convenient financial services throughout the country's metropolitan, semi-urban, and rural areas.

The CBN cash policy, effective March 30, 2012, established a regular combined cap of N150,000 and N1,000,000 for automatic cash withdrawing and lodging by persons and business customers in Lagos State, respectively. Persons and private organizations that make cash purchases in excess of the cap would be charged a processing fee. Furthermore, as of January 1, 2012, third-party cheques in excess of N150,000 will not be redeemable over the counter. All Nigerian banks were expected to discontinue cash-in-transit merchant-customer lodging services on January 1, 2012. According to the Central Bank of Nigeria (CBN, 2011), Lagos state was chosen as the first port of call for implementation because it accounted for 85% of POS and 66% of cheque transactions in Nigeria (Muotolu & Nwadialor, 2019).

Cashless banking channels Below are some electronic payment channels in Nigeria:

- ATM
- POS Terminals
- NIP
- NIBSS (Nigerian Interbank Settlement Scheme)
- NEFT (Nigeria Electronic Fund Transfer
- Internet (WEB)
- Mobile Money.

# 2.1.2 AUTOMATED TELLER MACHINE(ATM)

An ATM is a computer-controlled device that can be programmed to dispense cash as well as provide other services to customers who have a personal identification number (PIN). The invention of this service has significantly reduced the physical transport of cash and regular visits to banks. Cash is dispensed by ATM at any time of day and must not be located inside the banking premises. It could be found in stores, shopping malls, gas stations, salons, churches, and other public places.

This differs from the traditional method, in which customers queue, sometimes for lengthy periods of time, to withdraw cash or transfer funds. This is one of the top advantages of ATMs. In Nigeria, the most common e-transaction method is the ATM. Its popularity stems from its ease of use, as it has made withdrawing cash and checking account balances much easier.

However, despite their popularity, ATMs have not had the expected impact because there is still a large amount of cash in circulation in the economy. It appears that its execution has done very little to reduce the amount of cash in the economy. This could be due to the fact that most Nigerians only use ATMs for cash withdrawal. The vast majority of customers are unaware that ATMs can perform additional functions such as fund/cash transfer, mobile phone credit recharge, and bill payment. Cash withdrawals and balance inquiries have been identified as the most frequently requested applications by Nigerian users.

Perhaps this is due to a lack of education on the part of banks, which are expected to properly educate their customers. Because ATM machines are primarily used for cash withdrawals, their impact on transforming Nigeria into a cashless economy has been limited. Because depositors can easily withdraw cash from ATMs, more cash is available in the economy.

# 2.1.3 POINT OF SALE (POS)

A point of sale (POS) machine, also known as a terminal, is an electronic device used to pay for goods and services. It can be found in supermarkets, hotels, gas stations, and shops, among other places. All POS terminal transactions are subject to a charge known as the Merchant Service Charge (MSC), which is borne by the trader. A trader's maximum total fee for any POS terminal transaction is 0.75% of the transaction value or N1,200.00. The location at which a card transaction is paid, typically via a device such as a credit card terminal or cash register, is referred to as the point of sale. PAX, Bitel, Ingenico, and Verifone have been endorsed by the industry for the supply of Point-of-Sale terminals, with negotiated discounts and incentives. A POS terminal can be purchased from any of these four companies for as little as N45,000.00 per terminal. Regardless, parties may purchase POS terminals from any manufacturer as long as they meet the POS specifications in the Point-of-Sale guidelines.

# 2.1.4 INTERNET BANKING

According to Olorunsegun (2010), Internet banking refers to customers having access to their various accounts as well as broad information on bank products and services and using banks' websites without inconveniencing themselves by sending letters, faxes, original signatures, and/or telephone confirmation. According to Siyan bola (2013), it entails conducting banking transactions via the internet (www) using electronic tools such as a computer, rather than visiting a banking hall. Internet banking, like mobile banking, uses the electronic card infrastructure to execute payment instructions, and merchants use it for the final settlement of goods and services with their customers over the internet.

Some of the most common internet banking transactions in Nigeria include the settlement of commercial bills and the purchase of airline tickets via merchant websites. Internet banking (e-banking) is the use of the internet and telecommunication networks to deliver a wide range of value-added products and services to bank customers (Uchenna, 2015) through the use of a system that allows individuals to perform banking activities at home, from their offices, or over the internet. Customers could use online banking in traditional banks to perform most routine transactions, such as account transfers, balance inquiries, bill payments, and stop-payment offers. Some even offer online loan applications. Customers can now access account information at any time. Internet banking has increased the efficiency with which banks provide services to their customers. Internet banking allows customers to enjoy banking services from the comfort of their homes and offices by taking and responding to their instructions via the internet.

# 2.1.5 NIBss Electronic Funds Transfer (NEFT)

Nibs Electronic Funds Transfer (NEFT) is an irrevocable electronic fund transfer instruction sent to a third-party bank. It was launched in Nigeria in 2004. NEFT is typically used for high-volume payments such as salaries and vendor payments, and is processed through NIBSS ACH via scheduled batch clearing sessions. Although NEFT transactions are not instant, beneficiaries receive same-day value for transactions posted prior to the clearing sessions.

#### **2.1.6 REMITA**

Remita is an electronic-payment system licensed by CBN to attend to the needs of individuals and organizations as regards payment. It was developed by Financial Technology giant System specs and commenced operation in Nigeria in 2017 intending to help the people make and receive payments easily. Remita is the payment gateway that helps in the transfer of funds (taxes, levies, tariffs) into the single treasury accounts.

# 2.1.7 Performance (Return on Asset)

The dependent variable in this study is performance, which is proxied by return on assets (ROA). Performance can be defined as a measure of how well a company can use resources and assets from its core business to generate revenue. It demonstrates how effectively an organization's management uses its assets to generate benefits. Various intermediaries can be used to estimate a company's performance. Abaenewe calculated performance based on return on asset (ROA) and return on equity (ROE) (ROE). However, it is important to note that a company's profitability is not its primary performance indicator. Ibukun and James (2012), Olorunsegun (2010), and other researchers have measured performance from various perspectives such as productivity, sales growth, and cost reduction.

As a result, this review measures bank performance using return on assets (ROA), which is comparable to that of Abaenewe et al (2013). According to Emekekwue (2008), the return on assets (ROA) is a ratio that attempts to measure the amount of profit made from the firm's total assets. It is calculated as Profit before tax Total Assets. Ekwe and Duru (2012) believe that return on assets (ROA) was used as a dependent variable because it is an indicator of managerial adequacy. Return on assets (ROA) is a dependent variable. It is calculated by dividing profit after tax by total assets. According to Falope and Ajilore (2009), the equation for return on assets (ROA) is Profit before tax divided by Total Assets.

# 2.2 THEORETICAL FRAMEWORK

# 2.2.1 Bank-Focused Theory:

This hypothesis was proposed by Kapoor (2010) and is based on the fact that banks use modern yet common low-cost conveyance channels to provide various types of assistance to their various customers. Automated teller machines (ATMs), Internet banking, and Point of Sale (POS) are examples of such channels. The bank provides a wide range of services to its customers through these channels, regardless of the area or branch where they live. The only thing needed is to enter the necessary data into the system, and the exchange will be completed. Because the emphasis here is on electronic forums for the purpose of conveying administration services, this hypothesis supports the review.

# 2.2.2 Bank-Led Theory

Lyman, Ivatury, and Stachen (2006) proposed the bank-led theory hypothesis of branchless banking, which emphasizes the role of international Journal of Trend in Scientific Research and Development (IJTSRD) of the bank by either paying cash or collecting deposits (Owens, 2006). Finally, this agent is expected to electronically transmit all of his dealings with bank customers to the bank he is representing (such as phones, the internet, etc.).

# 2.2.3 Non-Bank-Led Theory

Hogan developed this theory (1991). Customers in this hypothesis manage no bank and keep no financial balance. Customers only deal with a non-bank financial institution, such as a versatile business administrator or prepaid card issuer, with whom they exchange their cash for an emoney account. The e-money account is then stored on this non-bank specialist's server. As a

result of the existing regulatory structure in which these specialists work, this tends to represent the highest-risk forum in electronic payment methods.

#### 2.3 EMPIRICAL REVIEW

The research specifically investigated the impact of Automated Teller Machine (ATM), Point of Sale (POS), Internet Banking (IB) and Nigeria Electronic Fund Transfer (NEFT) on the profitability of commercial banks in Nigeria. A complete example of ten (10) banks was considered for the period 2011 to 2020 and the review embraced the Panel Least Squares (PLS) estimation method as the logical instrument. Information was gathered from the Central Bank of Nigeria (CBN) Statistical Bulletin and Annual Reports and Statements of Accounts of the Ten banks used in the review.

Umanhonlen and Omoruyi (2015) examined the economic impact of e-banking and a cashless society in Nigeria. The review looks into various aspects of e-banking and the credit-only economy, with the Nigerian financial sector serving as a point of convergence. In particular, the paper verbalizes observational feelings that highlight the potential ways these strategy measures have direct connections to recipients and the weighted results when uniqueness is observed, as well as how to restore the sufficiency, reasonable, and rebranding strategy that ensures economic growth. According to the paper, in order for a sustainable cashless community to emerge, all hands must be on deck; banks should de-stress all opportunities and ensure that the efficiencies of e-banking instruments are given top priority.

Taiwo, Ayo, Afieroho, and Agwu (2017) examined the implementation of the cashless policy arrangement since its introduction into the Nigerian monetary system in 2012, as well as the

identified difficulties confronting its implementation. Taking into account the above-mentioned unbiased, essential information was gathered with the help of the survey, which was arbitrarily controlled to 120 respondents beginning with First Bank, Zenith Bank, and United Bank for Africa. The banks were chosen based on their absolute resources, and the data gathered covered the CBN's and these banks' efforts to implement the cashless policy strategy from 2012 to the present. The collected data were introduced and investigated using descriptive statistics and the Statistical Package for Social Sciences (SPSS) statistics, as well as a one-sample t-test. The result led to the conclusion that, despite the need to conduct cashless exchange transactions in the modern Nigerian economy, the cashless policy strategy will have the best effect if a lot is done to ensure the implementation of an effective cashless framework.

Princewell (2013) examined monetary strategy float in payment systems in relation to Nigeria's transition from a money-based to a cashless economy. The review tested 650 partners (respondents) using the review strategy, which included financial specialists, college university employees, and government employees. The findings show that the majority of stakeholders support the approach. The primary reason they support the arrangement is that it has the potential to reduce money laundering, corruption, and other fraudulent practices, among other things. However, stakeholders who are opposed to the strategy shift cite payment misrepresentation related fraud associated with the cashless economy; a high rate of lack of education; and infrastructural rot in Nigeria.

Okoye and Ezejiofor (2013) examined the critical advantages and fundamental components of a cashless policy strategy arrangement in order to assess the extent to which it can improve the

country's financial stability development. In accordance with the review's objectives, two research examination hypotheses were developed. The descriptive research design was used for the study, which had a sample size of 68 people. The convenience sampling method was used. The collected data was subjected to a legitimacy test, and the hypotheses were tested using ANOVA and the chi-square (x2) method. The results show that: a greater number of Nigerians are now aware of the strategy, and a greater number agree that the arrangement will aid in the fight against defilement and reduce the risk of transporting money.

Adewoye (2013) examined the impact of variable counts on help conveyance in Nigerian commercial banks in his review. The review was held in the state of Lagos. One hundred forty (140) questionnaires were administered and distributed to both senior and junior staff of the selected banks, with thirty-five (35) staff selected from each of the four (4) selected banks. One hundred twenty-five (125) questionnaires were deemed valuable, with the review aiming to address 83.3% of all questionnaires distributed. The collected data was analyzed using a frequency table, percentage, and mean score analysis, while the non-parametric factual test Chisquare was used to test the formulated hypothesis using STATA 10 data analysis software to analyze the effect of versatile relying on administration conveyance and additionally examine the relationship between mobile banking and administration conveyance in the banks under consideration. The findings show that mobile banking improves bank service delivery in terms of conditional comfort, time savings, and service cost savings, all of which are required to recover customer relationships and fulfillment.

Ajayi (2014) examined the impact of monetary policy on the Nigerian banking industry in his review. Taro Yemane's test size formula was used to select 370 sample sizes from 5000

Guaranty Trust Bank (GTBank) employees. The review was conducted in Ekiti State, Nigeria, with 370 questionnaires distributed to bank employees in the state. Of the total number of questionnaires distributed, 350 (95%) were returned. The received data were analyzed using a recurrence table and rates, while Chi-square was used for the non-parametric statistical test to test the determined hypothesis. The review's findings revealed that there are numerous significant reasons and benefits to implementing a cashless policy. It also demonstrated that the strategy had a positive impact on the development of banks; for example, it works with simplicity of activities and reduces queues and blockage in banking premises.

Asia (2015) investigates the impact of E-banking on the performance of Rwandan banking institutions because, according to the National Bank of Rwanda (NBR Report, 2012), there is a delay in the payment of checks between banks; time squandered in banks as individual lines in the queue waiting for service, blunders as a result of manual work, and misrepresentation related cases were common. As a result, some clients are dissatisfied with the above review. The researcher would like to investigate the framework's contribution to banking efficiency in Rwanda. The review will be critical for the researcher, as well as the Bank of Kigali, Jomo Kenyatta University of Agriculture and Technology, and other scholars with an interest in a similar area.

Abaenewe, Ogbulu, and Ndugbu (2013) investigated the profitability performance of Nigerian banks after the full implementation of the electronic banking system. The review became critical due to the increased penetration of electronic banking, which has reimagined the financial task in Nigeria and around the world. The critical testing strategy was implemented by utilizing data

from four Nigerian banks. Since 1997, these four banks have consistently maintained their image and remained listed on the Nigerian Stock Exchange.

These banks' profitability was estimated using return on equity (ROE) and returns on assets (ROA). We tested the pre- and post-adoption of e-banking performance difference between implies using a standard statistical technique and a random sample with a 5% level of significance for performance factors such as ROE and ROA The review discovered that the adoption of electronic banking has significantly improved Nigerian banks' returns on equity (ROE). Furthermore, it was discovered that e-banking has not significantly improved the returns on assets (ROA) of Nigerian banks.

Ugwueze and Nwezeaku (2016) focused on the relationship between web banking and Nigerian commercial bank performance. The review became critical due to the widespread adoption of web banking, which has redefined banking services in Nigeria and around the world. The value of Point-of-Sale transactions proxied electronic banking performance, while customer deposits proxied commercial banking performance. The end result demonstrates that POS is not integrated with both savings and time deposits, but is coordinated with demand deposits.

Morufu (2016) examined the impact of four (ATM, POS, web/Internet, and mobile) e-payments adoption and bank explicit factors on the benefit of Nigerian Deposit Money Banks in their review (DMBs). Between 2005 and 2012, secondary data were obtained from annual reports and frequently quoted accounts (DMBs). Panel logistic regression was used to analyze the data. Data analysis shows that when banks adopt e-payment systems, their performance levels, such as gross margin, profits after tax, return on assets, and return on equity, change. This is reflected in

the positive relationship between bank adoption and gross earnings. Furthermore, the adoption of the four e-payment instruments such as ATM, IB, POS, and Mobile banking influenced performance indices such as return on assets (ROA), gross profit (GP), and net profit (NP), profit after tax (PAT) of the sample project.

Ighoroje and Okoroyibo (2020) investigated the Cashless Policy and the Performance of Nigerian Deposit Money Banks. The research was descriptive and used an ex post facto design. Secondary data were used, and the main sources of data collection were the CBN data browser website and TheGlobalEconomy.com. The Augmented Dicker Fuller and Philip Perron Checks for Unit Roots, as well as the Autoregressive Distributed Lags (ARDL) for coefficient analysis and cointegration, were also used. ATMs, POS machines, mobile banking, and Internet banking were used as proxies for cashless policies, while ROE was used as a measure of bank performance. The study found that both ATMs and Internet Banking had a positive and significant ROE. POS had a positive but insignificant effect on return on equity, whereas mobile had no effect. Banking (MB) had a statistically significant negative effect on ROE. The study concluded that the cashless policy had a positive impact on the performance of Nigerian deposit money banks. According to the study, the government should provide continuous electricity supply and adequate contact links, while banks should be able to fund shortfalls through back-up plans to power backup generators in the event of a power outage.

Muotolu and Nwadialor (2019) investigated the "Cashless Policy and Financial Performance of Nigerian Deposit Money Banks." Ex post facto research was used in the study. The study relied

heavily on secondary data, which was obtained from bank annual reports and accounts, as well as CBN payment statistics. Bank samples were assembled using panel data. The linear regression model was used in the study. For diagnostic testing, the study employed Descriptive Statistic Analysis, Multicollinearity testing, Correlation testing, and Heteroskedasticity testing. ROA was used to represent bank performance, while cashless policy was represented by the value transactions performed through ATM, POS, Internet Banking, NIP, and NEFT platforms (E-banking Products). ATMV was shown to have a positive and significant effect on ROA While POSV, WEBV, NIPV, and NEFV were shown to have a positive but insignificant effect on the ROA of quoted Nigerian banks. The study concluded that E-banking products, as a representative of the cashless policy, have a positive impact on the financial performance of Nigerian DMBs. It was suggested, among other things, that bank management pay more attention to activities that will improve ATM services if they want to increase their ROA.

Andabai and Bina (2019) investigated "The Impact of Cashless Policy on the Performance of Deposit Money Banks in Nigeria." To gather essential information, the study used an ex post facto research design. The secondary data used in this study were obtained from the CBN statistical bulletin. The study used ATM, POS, and Mobile Banking (MB) as expounding variables to measure cashless policy, while ROA of DMBs was used as the dependent variable to represent DMB performance. Ordinary Least Squares was used to formulate and test hypotheses (OLS). According to the study, ATM transactions, POS terminals, and electronic mobile payments all had a significant impact on the ROA of Nigerian DMBs. Changes in the coefficient of determination explained approximately 47% of the variations in bank profitability in Nigerian cashless policy variables (ATM, POS, MB). According to the findings of the study, the cashless

policy has a significant impact on the performance of Nigerian deposit money banks. According to the study, policymakers should ensure the effective deployment of information technology due to its sophistication as the technology with the perceived advantage. To reduce the prevalence of hacking by fraudsters, policymakers and regulatory authorities should be able to provide physical and electronic security.

Asenge et al. (2019) investigated the impact of cashless policies on customer satisfaction in the Nigerian banking industry. POS, mobile banking, and internet banking were the variables used. For this study, a survey research design was used, with the Questionnaire serving as the data collection tool. The convenience sampling technique was used to determine sample sizes. Multiple regression was used to test hypotheses with the help of the Statistical Package for Social Sciences (SPSS 21). Internet banking and mobile banking were found to have a significant impact on customer satisfaction in the Nigerian banking industry. However, the study found that the POS Terminal had no significant impact on customer satisfaction in the Nigerian banking industry. The study concluded that the cashless policy has reduced stress in banking operations thereby Customers will benefit as a result. It was suggested that Nigeria's government and bank management implement measures to reduce cases of internet banking and other cybercrime.

Chison and Mike (2018) investigated the "Cashless Policy and Commercial Bank Profitability in Nigeria." The Ex Post Facto research design was used in this study. Data were obtained from a variety of secondary sources. It was discovered that there was a high positive correlation between the adoption of cashless policy and the profitability of DMBs in Nigeria by using ATM

and POS as a representative for the adoption of cashless policy and ROA and ROE as a representative for profitability and using the Ordinary least Square multiple regression analysis. The use of cashless policy instruments, particularly ATMs and POS, increased the banks' ROA and ROE, according to the multiple regression analysis. The study also used the augmented Dickey-Fuller unit root test and the Johansen co-integration test of research design. It was recommended that the cashless policy be strengthened and that all bottlenecks, such as poor power supply, and all loopholes that could lead to fraudulent exposure be addressed tactically and proactively.

Omotunde et al. (2013) used a survey method to investigate "The Impact of Cashless Economy in Nigeria." A questionnaire was used to collect data. Data was gathered using the accidental sampling method. The descriptive statistical technique was used extensively in the study. It was agreed that a cashless policy would not only increase employment but would also lower the cost of banking services, reduce cash-related corruption, and attract more foreign investors to the country. As a result, it was discovered that establishing a cashless environment in Nigeria is a step in the right direction. It is expected to have an impact on the modernization of Nigeria's payment system, the reduction of bank service costs, and the reduction of security risks and high security, as well as the reduction of banking-related corruption

Alagh and Ene (2014) conducted research on the "Impact of Cashless Banking on Bank Profitability (Evidence from Nigeria)." The Ex Post Facto research design was used in this study. The information was collected mainly from secondary sources, which included annual financial reports from Nigerian banks and various issues of fact books from the CBN. The study used

cashless banking proxies such as ATMs, POS, and Web-Based Transactions (WBT) through an OLS of log-linear multiple regression method of analysis to investigate its impact on the aggregate ROE of DMBs in Nigeria. Each variable was subjected to an ADF test. The study found that ATM and POS were positively related to ROE, while WBT was negatively related to ROE due to high bank fee rates, for online deposits, which makes many 22 customers reluctant to use the product The failure to use the WBT for online deposits had a negative impact on the profitability of Nigerian banks. Recommendations included banks providing adequate backup generators that could be used in the event of a power outage, providing adequate ICT infrastructure and management systems, and educating the public about the importance of using ICT banking products.

Yaqub and colleagues (2013) investigated "The Cashless Policy in Nigeria: Prospects and Challenges." The descriptive method was used. The data used came from a secondary source, the CBN's annual report. ATM, Web, POS, and Mobile Banking were used as proxies for the cashless policy. The Nigerian problem, being a heavily cash-based economy, has caused the cost of cash to the Nigerian financial system to be high and increasing. According to the researchers, while the transition to a cashless Nigeria has numerous advantages, more knowledge must be generated in order to attract the many previously excluded Nigerians into the banking system..

Ernest and Fadiya (2012) used an aggregate approach to investigate the implications of their cashless banking investigations to reveal the potential challenges and prospects for the Nigerian economy in Cashless Banking in Nigeria: Challenges, Benefits, and Policy Implications. The Ex Post Facto research design was used in this study. The data used came from a secondary source,

the CBN's statistics. The study employed descriptive analysis and focused primarily on the cash economy. ATM withdrawals, cash withdrawals (over-the-counter), POS terminals, cheques, and WEB were the cash-related transactions used. The study was based on growing concerns about the effectiveness of various economic policies in achieving Nigeria's development goals, as well as the questions that the recent development of electronic cash raises for policymakers around the world. The study analyzed the CBN's policies and made useful recommendations for implementing cashless banking in Nigeria. The study's key recommendations included: the availability of adequate and well-functioning infrastructure facilities (particularly electricity), the harmonization of monetary and fiscal policy, the periodic evaluation of the performance of cashless banking channels (individually and jointly), taking into account the economy's current state and structure, redesigning the framework of monetary policy, and increased economic growth efforts, whilst also 23 controlling inflation and concerns regarding the protection and management of cost savings arising from its implementation.

Alao & Sorinola, (2015) investigated "Cashless Policy and Customers' Satisfaction: A Study of Commercial Banks in Ogun State, Nigeria". The research used survey method. Data were gotten from primary and secondary sources. For Primary data, the random sampling method was employed in gathering data, and data were collected with a questionnaire and analyzed with descriptive statistics, while the formulated hypotheses were tested with correlation co-efficient. Secondary data were gotten from journals, handbooks, and related textbooks. The study results showed that the cashless policy contributed significantly to customers' satisfaction in Ogun State. The report also showed that the cashless strategy greatly added to the loyalty of consumers across electronic networks. Lastly, the researchers concluded that consumer-friendly and

progressive is the cashless policy. Therefore, amongst others, it was recommended that infrastructure should be improved upon to guarantee the easy execution of the policy in Ogun State.

Uzonwanne & Ezenekwe (2017), carried out their study on "Financial Illiteracy and Cashless System in Nigeria". The study adopted a survey method. The questionnaire was the data collection instrument. A random sampling method was employed in gathering data. Descriptive statistics were used in analyzing the data. The Chi-square and the F-distribution with stipulations of ANOVA and SPSS were used in testing the data. The variables used to measure the literacy of the cashless system were ATM, POS, Mobile money, and Internet banking. It was found that financial illiteracy's impact on the cashless policy strategy has a significant influence on the Nigerian economy. The study recommended that the CBN need to increase the level of mass education/enlightenment on finance management so that the populace can achieve the most from the latest developments in the cashless structure.

Ejoh et al, (2014) investigated —Information and Communication Technology - An Indispensable Tool for the Implementation of Cashless Policy in Nigeria". The study employed the survey method using the random sampling method to gather data. Questionnaires were used as data collection instruments. A simple percentage procedure was used in analyzing the data gathered, and the chi-square technique used in testing the collated data. The research revealed that ICT has a significant relationship with the implementation of cashless policy in the financial environment 24 of Nigeria. It was recommended based on the results that the Nigerian federal government should partner with all the ICT centers in all states and government should partner

and other commercial institutions to provide computer illiterates with mass ICT education, and there should be more investment by banks in e-banking technologies to raise public awareness, which will, in turn, encourage cashless economy in Nigeria.

Acha, Kanu & Agu, (2017) presented a study on "Cashless Policy in Nigeria: The Mechanics, Benefits and Problems". The study employed both the Ex-Post Facto and the survey method. In the study of results, descriptive statistics were adopted and the outcome showed a growing acceptance by Nigerians of cashless options. Data used were sourced from both primary and secondary sources. Secondary data came from CBN Statistical Bulletins, and the primary data was the result of a survey. The respondents were purposively chosen and given structured questionnaires. The study was carried out using tables, simple percentages, and relative mean scores. The Electronics Transactions used include ATM, POS, Web (Internet), Mobile payment, NIBSS Instant Payment, and NEFT. The findings showed that despite many established advantages, several variables nevertheless militate against the success of this policy. The lack of an enabling climate, particularly power infrastructure, is part of the main challenges facing the cashless policy. Therefore, it was suggested that attention should be given to stabilizing the country's power supply.

Osazevbaru et al, (2014) in their study "Cashless Policy and Banks's Profitability in Nigeria" investigated the effects of cashless policy on the viability of Nigerian banks, against the backdrop that, even in the face of associated high operating costs, these banks in a cash-driven economy are known for their huge profits and the issue of how banks will still make as much profits as they use to make in the cashless regime. The study adopted the Ex Post Facto research

design. Secondary data were used in this study and collected from various publications by the CBN and analyzed using content analysis to compare revenues under a cash-based scheme with a cashless regime. ATM withdrawals, OTC cash withdrawals, cheques, POS, and WEB were used as proxies to measure banks' income. It was shown that cashless policy of the economy had a positive influence on banks' earnings by reducing operating costs and banking the financially excluded population. The study recommended that implicitly, future economic and financial policies targeted at the financial sector of the economy should build on the electronic banking 25 platform to give room for its development and subsequent entrenchment into societal banking practice.

Kket & Egu, (2016) in their study "Evaluating Nigeria Cashless Policy Implementation" investigated through questionnaires if the cashless policy is a myth or reality. The survey research method was employed in this study. A Likert scale questionnaire was used to gather data. The study was analyzed with the use simple percentages and the Relative Important Index (R.I.I). The research wanted to know majorly the availability of adequate ATMs and their functionality in localities. The study revealed that social infrastructures in power and telecommunications need improvement and expansion and the need to generate more awareness to encourage the unbanked to embrace banking culture. The study proposed robust investments in cyber infrastructure, improving banks' internet protocols and controls, and enacting applicable cybercrime prevention legislation.

Nweze et al, (2017) in their study —Empirical Analysis of the Effect of Cashless Policy on the Performance of Banking Industry in Nigerial employed Ex Post Facto research design to

compare two periods, before and after the adoption of the cashless policy in 2012. The data nature used was secondary and sourced from the yearly reports of selected Nigerian deposit money banks. A Purposive (non-probabilistic) sampling technique was used to gather data. In testing the hypotheses, the study employed the parametric statistical pooled variance/ paired sample t-test, model. The study adopted the ROA, ROE, and earnings per share (EPS) as measures for bank performance. Findings from the study suggested that the cashless policy implementation by Nigeria's Central Bank had not enhanced the ROA and ROE of the banks operating in Nigeria but had enhanced banks' EPS. Given the study findings, the study noted that the cashless policy is not a policy targeted towards enhancing bank performance in the aspect of profitability specifically. The study recommended that banks in Nigeria should take advantage of cashless policy benefits and participate in competent financial intermediation to boost bank performance and bank profitability in particular. Shittu & Yusuf, (2014) examined "An Assessment of E-Payment Infrastructures towards an Efficient Cashless Policy in Nigeria: A Case Study of Bauchi State". The research adopted the descriptive survey method and it was based on the administration of questionnaires. Tables and percentages were used to make analyses while the chi-square statistical method was used to test 26 the hypothesis. The E-Payment transactions analyzed were POS, ATM transactions, Mobile Banking, and Internet Banking. It was finalized that effective e-payment infrastructure is an important instrument for achieving an effective cashless policy in Nigeria. It is important to deploy more POS terminals; ATMs should be properly managed and government agencies should ensure effective delivery of telecommunication services.

Agu & Agu, (2020) in their study "Cashless Policy and the Nigerian Economy: A Disaggregated Approach" examined the impact of cashless policy on economic growth in Nigeria. The investigation implemented quarterly time series data using the technique of ordinary least squares (OLS). Data used were gotten from secondary sources. The data were gotten from the CBN Statistical Bulletin, World Bank Development indicator, Annual Report, and Statement of Account for the year 2019. The data was subjected to tests of Unit Root, Cointegration, and Granger causality. It was shown that Cashless Policy has been a true weapon in affecting economic performance, especially with ATM transactions and payment patterns for POS. Based on the results, it was proposed that there should be more investment in Information Communication Technology (ICT) to enhance the efficiency of e-payment systems as this will enhance the revenue of banks in the long-run and improve Nigeria's economic growth. Public awareness should also be given by the Nigerian Central Bank to enlighten the general public more on the nitty-gritty of the cashless method particularly regarding web payment and cheque transactions. This is supposed to increase public consciousness and reduce the banking population's potential resistance so that the economy can be well-positioned to reap the gains of the cashless policy.

Amu & Nathaniel, (2016) examined —E-Banking and Commercial Bank Performance in Nigeria: A Cointegration and Causality Approach. The data used were obtained from a secondary source which was the CBN statistical bulletin. The proxy used for electronic banking was the value of Point-of-Sale purchases, whereas the proxy used for the performance of commercial banking was the deposits of customers. The study was analyzed using the Engle-Granger cointegration model. The results showed that POS was not cointegrated with both the

time savings and deposits but was cointegrated with demand deposits. The study recommended that financial institutions and commercial banks should embark on an all-inclusive enlightenment drive for the banking 27 community on the advantages, ease, and importance of embracing ebanking platforms while completing their transactions.

Ikpefan et al, (2018) examined "Electronic Banking and Cashless Policy in Nigeria" The study was evaluated using the ordinary least square method. Data were sourced from the NIBSS website and the CBN annual report. ATM, POS, Mobile banking, and WEB were used as ebanking tools to assess the effect on the circulated currency and the gross domestic product. The key results of this investigation indicated that electronic banking instruments have no significant impact on the circulated currency. The study recommended that to promote further usage of epayment platforms and CBN, transaction fees should be further updated at a slight (single digit) or zero charge also DMBs and other non-bank financial institutions should deliver public education and awareness programs that would generate awareness and draw unbanked individuals into the banking society particularly those in Nigeria's informal sector.

#### CHAPTER THREE

### 3.0 METHODOLOGY

The term methodology refers to all activities involved in gathering the necessary information for this research project. This chapter describes the study design by describing the research techniques and procedures used, as well as the data collection for the study. It includes the research design narrative, population, sample and sampling techniques, data sources and methods, data collection instrument, model specification, data analysis and techniques.

### 3.1 RESEARCH DESIGN

The Ex Post Facto research design will be used for this study. This is a research design category in which the investigation begins after the fact has occurred, with no intervention from the researcher. Kerlinger (1973) and Onwumere (2009) defined an ex post facto study design as a formal analytical investigation involving the use of variables in which the researcher does not change its condition or direction during the exercise. The current study employs cashless policy variables such as POS, ATM, IB and NEFT Transactions to obtain data used to assess the impact of the CBN's cashless policy on deposit money banks' performance in Nigeria in terms of return on assets.

#### 3.2 POPULATION

The population of the study will comprise of all the 31 listed Deposit Money Banks in Nigeria as at 31<sup>st</sup> March, 2021

#### LIST OF DEPOSIT MONEY BANKS IN NIGERIAN AS AT 31ST DECEMBER 2021

NAME OF INSTITUTION	HEAD OFFICE ADDRESS	STATE
ACCESS BANK PLC	14/15, Prince AlabaOniru Road, Victoria	LAGOS
	Island, Lagos.	
FIDELITY BANK PLC	2, KofoAbayomi Street, Victoria Island,	LAGOS
	Lagos	
FIRST CITY	Primose Towers, 17a, Tinubu Street,	LAGOS
MONUMENT	Lagos	
BANK PLC		
FIRST BANK NIGERIA	Samuel Asabia House, 35 Marina, Lagos	LAGOS
LIMITED		
GUARANTY TRUST	635, Akin Adesola Street, Victoria Island,	LAGOS
BANK	Lagos	
PLC		
UNION BANK OF	Stallion Plaza, 36 Marina, Lagos	LAGOS
NIGERIA		
PLC		
NITED BANK OF	57 Marina, Lago	LAGOS
AFRICA		
PLC		
ZENITH BANK PLC	Plot 84, AjoseAdeogun Street, Victoria	LAGOS
	Island, Lagos	
CITIBANK NIGERIA	27, KofoAbayomi Street, Victoria Island,	LAGOS
LIMITED	Lagos	
	ACCESS BANK PLC  FIDELITY BANK PLC  FIRST CITY  MONUMENT  BANK PLC  FIRST BANK NIGERIA  LIMITED  GUARANTY TRUST  BANK  PLC  UNION BANK OF  NIGERIA  PLC  NITED BANK OF  AFRICA  PLC  ZENITH BANK PLC	ACCESS BANK PLC  14/15, Prince AlabaOniru Road, Victoria Island, Lagos.  FIDELITY BANK PLC  2, KofoAbayomi Street, Victoria Island, Lagos  FIRST CITY  Primose Towers, 17a, Tinubu Street,  MONUMENT  Lagos  FIRST BANK NIGERIA  Lagos  GUARANTY TRUST  635, Akin Adesola Street, Victoria Island,  Lagos  PLC  UNION BANK OF  NIGERIA  PLC  NITED BANK OF  AFRICA  PLC  ZENITH BANK PLC  Plot 84, AjoseAdeogun Street, Victoria Island,  Island, Lagos  CITIBANK NIGERIA  27, KofoAbayomi Street, Victoria Island,

10	ECOBANK NIGERIA PLC	21, Ahmadu Bello Way, Victoria Island,	LAGOS
		Lagos	
11	HERITAGE BANK	292b, AjoseAdeogun Street, Victoria	LAGOS
	LIMITED	Island, Lagos	
12	KEYSTONE BANK	Keystone House, 1, Keystone Crescent,	LAGOS
	LIMITED	Victoria Island,	
		Lagos	
13	POLARIS BANK PLC	3, Akin Adesola Street, Victoria Island,	LAGOS
		Lagos	
14	STANBIC IBTC BANK	IBTC Place, Walter Carrington Crescent,	LAGOS
	PLC	Victoria Island,	
		Lagos	
15	STANDARD	142, Ahmadu Bello Way, Victoria Island,	LAGOS
	CHARTERED	Lagos	
	BANK LIMITED		
16	STERLING BANK PLC	Sterling Towers, 20 Marina, Lagos	LAGOS
17	TITAN TRUST BANK	Plot 1680 SanusiFafunwa Street, Victoria	LAGOS
	LTD	Island, Lagos	
		State.	
18	UNITY BANK PLC	Plot 42, Ahmed Onibudo Street, Victoria	LAGOS
		Island, Lagos	
19	WEMA BANK PLC	Wema Towers, 54 Marina, Lagos Island,	LAGOS
		Lagos	

20	GLOBUS BANK	No. 6 AdeyemoAlakija Street, Victoria	LAGOS
	LIMITED	Island, Lagos	
21	SUNTRUST BANK	1, OladeleOlashore Street, Victoria Island,	LAGOS
	NIGERIA	Lagos	
	LIMITED		
22	PROVIDUS BANK PLC	Plot 54, AdetokunboAdemola Street,	LAGOS
		Victoria Island,	
		Lagos	
23	PARALLEX BANK LTD	31B, Oyeleke Street, Alausa, Ikeja, Lagos	LAGOS
24	JAIZ BANK PLC	Kano House, Plot 73, Ralph Shodeinde	ABUJA
		Street, Central	
		Business District, Abuja	
25	TAJ BANK LIMITED	Benue Plaza, No. 76 Ahmadu Bello Way,	ABUJA
		Central Business District, Abuja	
26	CORONATION	St. Nicholas House, 6th Floor, 28A,	LAGOS
	MERCHANT	Catholic Mission Street, P.M.B 12511,	
	BANK	Marina, Lagos	
27	FBN MERCHANT BANK	2, Broad Street, P.O. Box 4238, Lagos	LAGOS
28	FSDH MERCHANT	UAC House, 5th-8th Floor, 1/5 Odunlami	LAGOS
	BANK	Street, P.M.B	
		12913, Lagos	
29	GREENWICH	Plot 1698A OyinJolayemi Street, P. M. B.	LAGOS
	MERCHANT	80074, Victoria Island, Lagos	

	BANK		
30	NOVA MERCHANT	23, KofoAbayomi Street, Victoria Island,	LAGOS
	BANK	Lagos	
31	RAND MERCHANT	3rd Floor Wings East Tower, 17A,	LAGOS
	BANK	OzumbaMbadiwe	
		Street, Victoria Island, Lagos	

## **SAMPLING UNIT**

Sample study

- 1. GUARANTY TRUST BANK PLC
- 2. WEMA BANK PLC
- 3. ACCESS BANK PLC
- 4. ZENITH BANK PLC
- 5. ECO BANK PLC
- 6. UNITY BANK PLC
- 7. FIDELITY BANK PLC
- **8 UNION BANK PLC**
- 9. FIRST BANK OF NIGERIA PLC
- 10. STERLING BANK PLC

## 3.3 SAMPLE SIZE AND SAMPLING TECHNIQUE

- The population of the study will comprise of all the 31 listed Deposit Money Banks in Nigeria as at 31<sup>st</sup> March, 2021.
- 2. However, 10 Banks of the population will constitute the sample size of this study, which are (Guaranty trust bank plc, Wema bank plc, Access bank plc, Zenith bank plc, Eco bank plc, Unity bank plc, Fidelity bank plc, Union bank plc, First bank of Nigeria plc, and Sterling bank plc.)
- 3. A systematic random sampling technique will be applied on the population.
- 4. Data for a period of 10 years (2011-2020) is collected from the published audited annual reports of the selected deposited money banks

### 3.4 SOURCES AND METHOD OF DATA COLLECTION

A secondary method of data collection will be adopted for this study.

Secondary data are data obtained second-hand from published or recorded sources and used for a different purpose from that of the agency that initially collected and published the data. These are data gotten from reports, financial statement, account and budget plans, magazines etc. In this case, the information was gotten from official documents of the banking industries, Nigeria statistical bulletin and Central bank of Nigeria (CBN).

### 3.5 INSTRUMENT FOR DATA COLLECTION

For this study, the CBN statistical bulletin was the main instrument used to collect secondary data for cashless policy transactions. It was used to gather information including the ready-made information given by the CBN. Data from the CBN statistical bulletin, publications from the Nigerian Central Bank, and other related journals constitute the secondary source of data for the research study due to its versatility in collecting opinions, data, and intentions.

## 3.6 METHOD OF DATA ANALYSIS

- The data collected will be examined and analyzed using both descriptive and inferential statistics.
- 2. Inferential Statistics: Correlation
- 3. Correlation: To test hypotheses 1, 2,3 and 4

## Operationalization of variables

Variables (code)	Proxies (operational definitions)		
Dependent Variable			
Return on Assets (ROA)	Profit after Interest and Tax/ Total Assets		
Independent Variables			
ATM Transactions	Volume/value of ATM transactions		
POS Transactions	Volume/value of POS transactions		
Internet Banking Transactions	Volume/value of IB transactions		
NIBss Electronic Fund Transfer Transactions	Volume/value of NEFT transactions		

### 3.7 MODEL SPECIFICATION

The linear regression model used in this study is adapted from the prior studies of Shehu et al (2013) and Ogare, (2013) with modification. Consistent with previous studies, this model modified and extended the model tested by prior studies and the ordinary least square was guided by the following linear model

$$Y = F[X1, X2, X3, X4, X5]$$
 (1)

Performance = $\int [ATM, POS, IB, NEFT,]$ (2)
Based on the above model, we specify the following regression equation
$ROA = \beta 0 + \beta 1 \text{ ATM} + \beta 2 \text{ POS} + \beta 3 \text{ IB} + \beta 4 \text{ NEFT} + \epsilon.$ (3)
Where ROA denotes the return on assets (the proxy for DBMS Performance)
ATM = Volume of Transactions done through the Automated Teller Machine
POS = Volume of Transactions done through the Point-of-Sale machine
IB = Volume of Transactions done through the internet
NEFT = Volume of Transactions done through the mobile platform
$\epsilon$ is the error term of the model and $\beta$ 0, $\beta$ 1, $\beta$ 2, $\beta$ 3, $\beta$ 4,=Regression model coefficients.

## Where:

- ROA =Return on Assets
- ATM = Automated Teller Machine
- POS= Point of Sale
- IB= Internet Banking
- NEFT= NIBss Electronic Fund Transfer
- <sub>0</sub>= Intercept
- $\alpha_{1-5}$  = Regression Coefficients
- $\varepsilon = \text{Error Term}$

## CHAPTER FOUR

## DATA ANALYSIS, RESULTS AND DISCUSSION OF FINDINGS

## 4.0 Introduction

This chapter presents the results of the analysis in line with the research questions put forward in the study in order to make a valid conclusion on the stated research problems. The study findings were presented to examine the impact of the cashless policy on the performance of deposit money banks (DMBs) in Nigeria.

To generate data, annual reports of ten selected DMBs over a period of 10 years spanning from 2011 to 2020 were used for the purpose of acquiring secondary data. Other sections of the data analysis were done in congruence with the research objectives and hypothesis.

The statistical analysis was done using both descriptive and inferential analysis. The descriptive analysis involves the use of mean, standard deviation, minimum and maximum which were presented in a descriptive table. This inferential statistics was presented with the aids of correlation matrix table and regression table using model summary table, ANOVA table and coefficient table

## 4.1: Descriptive Statistics

**Table 4.1: Descriptive Statistics** 

	N	Minimum	Maximum	Mean	Std. Deviation
Return on Asset	100	-0.098	0.5122	0.03501	.0056

Automated Teller  Machine	100	.00007438	.22256371	.0201413532	.06397959368
Point of Sale	100	.0000534	.0002092	.000093644	.0000344654
Internet Banking	100	0.0015	0.2125	.02134	0.0640
NEFTT Transfer	100	0.0100	0.241	0.0701	0.0510
Valid N (listwise)	100				

The descriptive table above Table 4.1 above shows the mean (average), standard deviation, the maximum values, and minimum values of the major variables. The results expressed helps to provide some insight into the nature of DMBs in Nigerian which were selected for this study. Firstly, return on asset (ROA) of the sampled DMBs used for this study was characterized by positive ROA, 0.350±102.00 (Min -0.098%, max 0.0512%). Automated Teller Machine (AT) transactions was found to be approximately 2.14 x10<sup>6</sup>±0.0640 (min 0.74 x10<sup>4</sup>, max 2.22 x10<sup>8</sup>). Also, the average Point of Sale (POS) transactions was found to be 5.34 x10<sup>6</sup>±0.0340 (min 2.094 x10<sup>4</sup>, max 5.34 x10<sup>8</sup>). Furthermore, average Internet Banking (IB) transactions was found to be 212.25 x10<sup>6</sup>±0.0640E6 (min 1.50 x10<sup>4</sup>, max 2.22 x10<sup>8</sup>). Finally, average NEFTT transfer (NEFTT) was 7.01 x10<sup>5</sup>±0.0510 (min 0.10 x10<sup>4</sup>, max 0.241 x10<sup>8</sup>)

## **4.2 Test of Multicollinearity**

## **Table 4.2: Correlations**

		DO 4	A TEN 6	Internet	NEFTT	DOG
		ROA	ATM	Banking	Transfer	POS
Return on Asset	Pearson Correlation	1	.870**	.922**	125	.179
	Sig. (2-tailed)		.000	.000	.214	.075
	N	100	100	100	100	100
Automated Teller Machine	Pearson Correlation	.870**	1	.943**	128	055
	Sig. (2-tailed)	.000		.000	.206	.586
	N	100	100	100	100	100
Internet Banking	Pearson Correlation	.922**	.943**	1	134	.044
	Sig. (2-tailed)	.000	.000		.184	.663
	N	100	100	100	100	100
NEFTT Transfer	Pearson Correlation	125	128	134	1	048
	Sig. (2-tailed)	.214	.206	.184		.633
	N	100	100	100	100	100

Point of Sale	Pearson  Correlation	.179	055	.044	048	1
	Sig. (2-tailed)	.075	.586	.663	.633	
	N	100	100	100	100	100

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

Correlation provides necessary insight in the relationship or association between the variables. The use of correlation matrix in most regression analysis is to check for multicollinearity and to explore the association between each explanatory variable (ATM, IB, NEFT and POS) and the dependent variable (ROA). Table 2 focuses on the correlation between Return on Asset measured as ROA and the independent variables (ATM, POS, IB and NEFT). The finding from the correlation matrix table shows that two of our independent variables were observed to be positively and strongly associated with ROA.

The occurrence of a linear relationship among explanatory variables is referred to as multi-co-linearity. The correlation matrix was used to conduct the test. According to Barry and Feldman (1985), "multi-co-linearity is not an issue if no correlation co-efficiencies surpass 0.80," but multi-co-linearity exists if the correlation co-efficiencies exceed 0.80. In checking for multicollinearity, we notice that two of the explanatory variables were strongly correlated (IB, ATMV 0.922). This means that there is problem of multicollinearity between the two explanatory variables. Multicollinearity usually results to wrong signs or implausible magnitudes in the estimated model coefficients obtained.

## 4.3 Test of Research Hypothesis

Consequently, upon the research objective and research question the study formulate this research hypothesis in it null form (H0) to guide the research:

# 5. $H0_1$ – ATM has no significant impact on return on asset of Deposit Money Banks in Nigeria.

**Table 4.3: Correlations** 

		Return on Asset	Automated Teller Machine
Return on Asset	Pearson Correlation	1	.870**
	Sig. (2-tailed)		.000
	N	100	100
Automated Teller	Pearson Correlation	.870***	1
Machine	Sig. (2-tailed)	.000	
	N	100	100

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

From the correlation table above (Tables 4.3), results imply automated teller machine (ATM) transactions have a significant very strong positive correlation with return on asset, ROA (proxy for performance) of deposit money banks (DMBs) in Nigeria. This is reflected in the value of the co-efficient of the correlation (Pearson correlation) which is 0.870. This value indicates that the

strength of the relationship between the two variables under study is 87% while holding other independent variables constant. A unit increase in ATM transactions will yield 87% increase in the same direction in ROA of deposit Money banks (DMBs) in Nigeria. R-value of 0.870 with corresponding p-value of 0.000 (P<0.001) which is less than the 0.05 (5%) significance level (at 95% Confidence Interval). This depicts a statistically significant very strong direct impact of ATM transactions on return on asset (ROA) of DMBs. We, therefore, reject the null hypothesis of no significant relationship between ATM transactions and ROA of DMBs in Nigeria.

## **Test of Hypothesis Two**

6. H0<sub>2</sub>- IB (Internet Banking) has no ascertainment degree on return on assets of Deposit Money Banks in Nigeria.

**Table 4.4: Correlations** 

		Return on Asset	Internet Banking
Return on	Pearson Correlation	1	.922***
Asset	Sig. (2-tailed)		.000
	N	100	100
Internet	Pearson Correlation	.922**	1
Internet	r carson Correlation	.922	1

Banking	Sig. (2-tailed)	.000	
	N	100	100

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

From the correlation table above (Tables 4.4), results imply internet banking (IB) transactions have a significant very strong positive correlation with return on asset, ROA (proxy for performance) of DMBs in Nigeria. This is reflected in the value of the co-efficient of the correlation (Pearson correlation) which is 0.922. This value indicates that the strength of the relationship between the two variables under study is 92.2% while holding other independent variables constant. A unit increase in IB transactions will yield 92.2% increase in ROA of deposit Money banks (DMBs) in Nigeria. R-value of 0.922 with corresponding p-value of 0.000 (P<0.001) which is less than the 0.05 (5%) significance level (at 95% Confidence Interval). This depicts a statistically significant very strong direct influence of IB transactions on return on asset (ROA) of DMBs. We, therefore, reject the null hypothesis of no significant relationship between IB transactions and ROA of DMBs in Nigeria.

## **Test of Hypothesis Three**

7. H<sub>03</sub> Nibs Electronic Fund Transfer (NEFT) transaction does not improve return on assets of Deposit Money Banks in Nigeria.

**Table 4.5: Correlations** 

Return on Asset	NEFTT Transfer

Return on	Pearson Correlation	1	125
Asset	Sig. (2-tailed)		.214
	N	100	100
NEFTT	Pearson Correlation	125	1
Transfer	Sig. (2-tailed)	.214	
	N	100	100

From the correlation table above (Tables 4.5), results imply that Nibs Electronic Fund Transfer (NEFT) transactions have a insignificant weak negative influence on return on asset, ROA (proxy for performance) of DMBs in Nigeria. This is reflected in the value of the co-efficient of the correlation (Pearson correlation) which is -0.125. This value indicates that the strength of the relationship between the two variables under study is -12.5% while holding other independent variables constant. A unit increase in NEFT transactions will yield 12.5% decrease in ROA of deposit Money banks (DMBs) in Nigeria. R-value of -0.125 with corresponding p-value of 0.214 which is greater than the 0.05 (5%) significance level (at 95% Confidence Interval). This depicts a statistically insignificant weak inverse effect of NEFT transactions on return on asset (ROA) of DMBs. We, therefore, fail to reject the null hypothesis of no significant relationship between NEFT transactions and ROA of DMBs in Nigeria.

## **Test of Hypothesis Four**

# 8. $H0_4$ -POS transactions have no significant impact on the return on assets of Deposit Money Banks in Nigeria.

**Table 4.6: Correlations** 

		Return on Asset	Point of Sale
Return on	Pearson Correlation	1	.179
Asset	Sig. (2-tailed)		.075
	N	100	100
Point of Sale	Pearson Correlation	.179	1
	Sig. (2-tailed)	.075	
	N	100	100

From the correlation table above (Tables 4.6), results imply point of sale (POS) transactions have a nonsignificant weak positive impact on return on asset, ROA (proxy for performance) of DMBs in Nigeria. This is reflected in the value of the co-efficient of the correlation (Pearson correlation) which is 0.179. This value indicates that the strength of the relationship between the two variables under study is 17.9% while holding other independent variables constant. A unit increase in POS transactions will yield 17.9% increase in ROA of deposit Money banks (DMBs) in Nigeria. R-value of 0.179 with corresponding p-value of 0.075 which is greater than the 0.05 (5%) significance level (at 95% Confidence Interval). This depicts a statistically nonsignificant weak positive influence of POS transactions on return on asset (ROA) of DMBs. We, therefore, fail to reject the null hypothesis of no significant relationship between POS transactions and ROA of DMBs in Nigeria.

## 4.4 Regression Matrix

**Table4.7a: Model Summary**<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.934 <sup>a</sup>	.872	.866	.000002562	2.958

a. Predictors: (Constant), Point of Sale, Internet Banking, NEFTT Transfer, Automated Teller Machine

b. Dependent Variable: Return on Asset

Table 4.7b: ANOVA<sup>a</sup>

Mod	el	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.000	4	.000	161.471	$.000^{b}$
	Residual	.000	95	.000		
	Total	.000	99			

a. Dependent Variable: Return on Asset

b. Predictors: (Constant), Point of Sale, Internet Banking, NEFTT Transfer, Automated Teller Machine

Table 4.7c: Coefficients<sup>a</sup>

	Unstand	Unstandardized			
	Coefficients		Coefficients		
Model	В	Std. Error	Beta	t	Sig.
1 (Constant)	6.957E-8	.000		.088	.930
Automated Teller  Machine	1.436E-5	.000	.131	1.131	.261
Internet Banking	8.675E-5	.000	.793	6.844	.000
NEFTT Transfer	5.939E-7	.000	.005	.127	.899
Point of Sale	.031	.008	.151	3.925	.000

a. Dependent Variable: Return on Asset

From the regression matrix tables above (Tables 4.7a-4.7c), results indicate a significant impact of the cashless policy on the performance of deposit money banks (DMBs) in the Nigeria. Coefficient of the correlation (R-value) of 0.934 indicates that the strength of the relationship between the cashless policy [proxy by automated teller machine (ATM), internet banking (IB),

nibs electronic fund transfer (NEFT), and point of sale (POS)] and the performance (proxy by ROA) of selected DMBs in Nigeria for the period under study is 93.4%. This implies that a unit change in cashless policy will cause 0.934 unit shift in ROA of DMBs. The coefficient of determination (R2) showed a value of 0.872 which indicates about 87.2%. Thus, not more than 12.8% of variations in ROA of the selected DMBs can be attributed to other extraneous variables. Diagnostic tests were performed on the regression model. The adjusted R-square of 0.866 shows that 86.6% of the variation in the dependent variable (ROA) is determined by the variation in the independent variables combined. This high adjusted r-squared should not be used with other diagnostic tests to arrive at a concrete answer in terms of the goodness of fit. Notwithstanding, the model was checked further for serial correlation using the Durbin Watson statistic. The Durbin-Watson statistic is always between 0 and 4. A value of 2 means that there is no autocorrelation in the data, and values approaching 0 indicate positive autocorrelation and values toward 4 indicate negative autocorrelation. The results from the ROE model show a Durbin Watson value of 2.958. This outcome means that there is negative autocorrelation in the residuals. Meanwhile, Field (2009) suggests that values under 1 or more than 3 are a definite cause for concern. In this case, we are not concerned about serial correlation because the Durbin-Watson value is less than 3. Since the calculated very high F-value (161.471) with its corresponding p-value (p<0.001) which is less than the tabulated p-value (5%  $\alpha$ -level), we know there is a significant statistical relationship between the dependent and independent variables.

ROA = 
$$\beta$$
0+ $\beta$ 1 ATM + $\beta$ 2 POS + $\beta$ 3 IB + $\beta$ 4 NEFT+ $\epsilon$ 

$$ROA_{it} = 6.957 + 1.43(ATM)_{it} + 8.675(IB)_{it} + 5.939(NEFTT)_{it} + 0.031 (POS)_{it} + 0.00_{it}$$

## 4.4 Discussion of results

This study examined the impact of cashless policy on the performance of deposit money banks in Nigeria, using return on asset (ROA) as a proxy for performance. The generated data was subjected to descriptive and inferential statistics. The descriptive statistics revealed the individual features of the variables employed in this study, whilst the inferential statistics used bivariate (Pearson') correlation analysis to evaluate the hypotheses. This section of the study discussed the result of the estimation in line with the objectives of the study. There are four specific objectives in this study.

# Objective 1: To examine the impact of ATM transactions on the return on assets of Deposit Money Banks in Nigeria.

Findings of this study implied that automated teller machine (ATM) transactions have a significant very strong positive correlation with return on asset (ROA) of deposit money banks (DMBs) in Nigeria (p<0.001, r=0.870). The coefficient of ATM of 0.87 showed that a unit increase in value of ATM transaction will lead to 87% increase in returns on asset ROA of DMBs and vice versa. This finding supports researcher's prior expectation as it is expected that the use of ATM will lead high performance of ROA of banks in Nigeria. The outcomes of this finding is consistent with the work of Adu, (2016) which showed that automated teller machine has positive effect on the performance of deposit money banks in Nigeria. This finding is also in line with the findings of Ogutu and Fatoki (2019) who examined the effect of electronic banking on financial performance of listed commercial banks in Kenya and reported strong positive relationship between ATM banking and financial performance of listed commercial banks in

Kenya. Also, Obiekwe and Anyanwaokoro (2017) study revealed that Automated Teller Machine (ATM) has a significant effect on the profitability of commercial banks in Nigeria. Similarly, Pam (2018) study revealed that that ATM transactions has a positive and significant effect on return on assets (ROA) of banks in Nigeria. Joseph et al., (2021) found that ATM has a positive and significant association with Earning EPS and RO Finally, Ighoroje and Okoroyibo (2020), also that reported Automated Teller Machine (ATM) and Internet Banking each has a positive and significant effect on return on equity (ROE) and concluded concludes that cashless policy has positively affected the performance of money deposit banks in Nigeria. This result implies that in addition to improve the ease of banking, ATM as also increase profitability of DMBs by making banking activities available and accessible, twenty four hours a day and seven days a week

Objective 2: To ascertain the degree to which internet banking (IB) transactions influence the return on assets of Deposit Money Banks in Nigeria.

The second test of hypothesis was done to ascertain the extent to which internet banking influence return on asset of the DMBs in Nigeria. This is also in congruent with the second objective and research question. Correlation analysis revealed a significant very strong positive correlation between IB and return on asset, ROA (proxy for performance) of DMBs in Nigeria (p<0.001, r=0.922). The coefficient of IB 0.922 showed that a unit increase in internet banking will result to a 92.2% increase in ROA of deposit money banks. The finding is consistent with the work of Okoro (2014) which revealed that internet banking has significant effect on the

performance of Deposit money Banks in Nigeria. This finding is in line with the findings of Obiekwe and Anyanwaokoro (2017) study that revealed that Internet Banking (IB) has a significant effect on the profitability of commercial banks in Nigeria. Similarly, Hussein and Elyjoy (2018) study established that internet banking had a positive significant effect on operational performance of the commercial banks. Adekoya (2011); Alagh and Emeka(2014), examined the impact of cashless banking on the profitability of banks in Nigeria. The result showed that ATM is positively related to ROE,

Ighoroje and Okoroyibo (2020), also reported Internet Banking each has a positive and significant effect on return on equity (ROE) with conclusion that cashless policy has positively affected the performance of money deposit banks in Nigeria. The study revealed that the adoption of electronic banking has positively and significantly improved the returns on asset (ROA) of Nigerian banks. These finding is in line with a priori expectations due to the fact that IB allow customers to perform transactions independently at their comforts, these transactions are done at a very minimal cost to the banks.

# Objective 3: To determine how NEFT transfers improve the return on assets of Deposit Money Banks in Nigeria.

The focus of hypothesis three was to ascertain how NEFT transfers improve the return on assets of Deposit Money Banks in Nigeria. Results of correlation analysis indicated a nonsignificant weak positive impact of NEFT on return on asset, ROA (proxy for performance) of DMBs in Nigeria (p=0.214, r=0.125). This implies that, though insignificant, NEFT transfer has a weak positive influence on ROA OF DMBs. However, Tarus *et.al.*, (2016) discovered that mobile

banking fund transfer positively and significantly affects the financial performance and market share of commercial banks in Kenya and that many mobile banking products are being offered by banks such as Fund Transfer between Accounts/ E-funds transfer, Bill Payment, order for cheque books and bank statements and therefore concluded that the financial performance of the banks that provide these mobile banking products has improved because they ensure efficiency of the banking services.

Kathuo *et al.* (2015) reported that the financial performance of banks providing NEFT fund transfer has improved as they ensure the efficiency of banking services. Hassan *et al.* (2013), in a similar study of Nigeria, used ROE to measure financial performance and NEFT and ATM to measure electronic banking with a sample of six banks and revealed a positive and strong relationship between NEFT and financial performance of deposit money banks in Nigeria.

# Objective 4: To examine the impact of POS transactions on the return on assets of Deposit Money Banks in Nigeria.

Finally, test of hypothesis four was designed to examine the impact of POS transactions on the return on assets of Deposit Money Banks in Nigeria, correlation analysis revealed insignificant weak positive impact of POS transactions on ROA of DMBs in Nigeria (p=0.075, r=0.179). The coefficient of POS of 0.176 showed that a unit increase in POS transaction will result to a 17.9% increase in ROA of deposit money banks. The result indicates that point of sale has an insignificant positive effect on the performance of deposit money banks in Nigeria. The result of the findings is inconsistent with the work of Agwu, Atuma, Ikpefan, and Aigbiremolen, (2014) (2016) they posited that point of sale has negative and insignificant effect on the performance of deposit money banks in Nigeria. These findings are in alignment with the findings of Ighoroje

Okoroyibo (2020) who reported a positive but insignificant impact of POS transactions on ROE of commercial banks in Nigeria. Also, Adekoya (2011); Alagh and Emeka (2014), examined the impact of cashless banking on the profitability of banks in Nigeria and reported that POS is positively related to ROE.

In the same manner, Obiekwe and Anyanwaokoro (2017) reported that Point of Sale (POS) has an insignificant effect on commercial banks' profitability in Nigeria. On the contrary to the findings of this study, Alao, and Sorinola, (2015) suggest that cashless policy has negative effect on the performance of commercial banks in Nigeria.

#### **CHAPTER FIVE**

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.0 Introduction

In this section of the research work, the researcher provides a summary of the findings derived from the study, the conclusion of the study, and recommendation for the study.

## 5.1 Summary of the Study

The main objective of this study was to examine the impact of the cashless policy on the performance of deposit money banks in Nigeria. The following are the specific objectives:

- To examine the impact of ATM transactions on the return on assets of Deposit Money Banks in Nigeria.
- 2. To ascertain the degree to which internet banking (IB) transactions influence the return on assets of Deposit Money Banks in Nigeria.
- To determine how NEFT transfers improve the return on assets of Deposit Money Banks in Nigeria.
- 4. To examine the impact of POS transactions on the return on assets of Deposit Money Banks in Nigeria.

The study carried out extensive reviews of relevant studies on cashless policy and all its parameters in addition to the performance of deposit money banks (DMBs) under three broad headings- conceptual review, theoretical review and empirical review. The study was anchored on the following theoretical frameworks- bank-focused theory, bank-led theory, and nonbank-led theory.

The study adopted an ex-post facto research design and depends on verifiable time series quarterly information gathered from the Central Bank of Nigeria (CBN) and Nigerian statistical bulletin, and existing data from the financial statement of the quoted firms which can't be controlled. The review covers all listed Deposit Money Banks for the period of 10 years (2011-2020). The period was picked as the cashless policy took effect in Nigeria in 2011. The data on the cashless banking products (ATM transactions, POS transactions. Internet banking transactions, and Mobile Banking transactions) were analyzed using Descriptive Statistic Analysis, Correlation testing with the aid of statistical programmed for social sciences (SPSS) Version 23. Furthermore, the four research hypotheses were tested using Pearson's correlation analysis. The significance level for the probability level was chosen at 0.05.

According to the findings of the Pearson's correlation, there is a strong positive and significant impact of ATM transactions on the financial performance (ROA) of DMBs in Nigeria (p<0.001, r=0.870). Similarly, internet banking (IB) transactions had significant direct impact on DMB financial performance in Nigeria (p<0.01, r=0.922). However, NEFT transactions was found to have insignificant negative effect on DMB financial performance (p=0.214, r=-0.125). Furthermore, POS transactions and DMB performance in Nigeria were insignificantly positively correlated (p= 0.075, r=0.179). Finally, all of the independent variables (POS transactions, IB transactions, NEFT transactions and POS transactions) were significantly and positively correlated with the financial performance of DMB in Nigeria (p<0.001, r=0.934).

## 5.2 Conclusion

This study investigated the effect of CBN cashless policy on return of assets (ROA) of deposit money banks in Nigeria. According to the findings, ATM and IB transactions were significantly

and positively correlated with the financial performance (as assessed by ROA) of selected DMBs listed on the Nigerian stock exchange. POS transactions has insignificant but positive influence on the financial performance of selected DMBs in Nigerian. NEFT transactions have insignificant and weak negative correlation with the financial performance of the selected DMBs.

Finally, the study concludes that cashless policy (proxied by ATM transactions, IB transactions, NEFT transactions and POS transactions) has a profound direct and significant effect on the financial performance of DMBs in Nigeria and highlighted its essentiality in the enhancement of financial performance of deposit money banks in Nigeria.

#### 5.3 Recommendations

As a result of the research findings, the following recommendations are made that will be useful to stakeholders:

- 1. There should be education and awareness on the benefits of automated teller machine, point of sales, and internet banking as enhancers of cashless policy in Nigeria.
- 2. Board of directors should place more emphasis on the events that will improve the ATM services of their banks in order to increase their ROA.
- 3. Management in attempting to improve the ROA should not base its decision on the NEFTV though it is still necessary for customers' convenience and satisfaction.
- 4. To improve financial performance, premium emphasis should be placed on internet banking activities.

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# **APPENDIX**

#### GUARANTY TRUST BANK

	ROA	ATM	POS	IB	NEFT
Yr 1	0.00003390	0.00007438	0.00019271	0.21251645	0.00002439
Yr 2	0.05262169	0.00018918	0.00005339	0.00007225	0.00000210
Yr 3	0.04492073	0.00010437	0.00005842	0.00006130	0.00000208
Yr 4	0.02028026	0.00010871	0.00006671	0.00007503	0.00000204
Yr 5	0.04140627	0.00010920	0.00007518	0.00008715	0.00000221
Yr 6	0.04853436	0.00011833	0.00008395	0.00010644	0.00000204
Yr 7	0.05618821	0.00012436	0.00010375	0.00015705	0.00000208
Yr 8	0.06153675	0.00013511	0.00012416	0.00012560	0.00000243
Yr 9	0.05654221	0.00012895	0.00013624	0.00021646	0.00001089
Yr 10	0.04387209	0.00008068	0.00013642	0.00001457	0.00000073

## WEMA BANK

	ROA	ATM	POS	IB	NEFT
Yr 1	-0.01912182	0.22256371	0.00005842	0.21251645	0.00002439
Yr 2	-0.02051500	0.00018918	0.00005346	0.00007225	0.00000210
Yr 3	0.00482522	0.00010437	0.00005842	0.00006130	0.00000208
Yr 4	0.00620146	0.00010871	0.00006671	0.00007503	0.00000204
Yr 5	0.00586595	0.00010905	0.00007518	0.00008715	0.00000221
Yr 6	0.00615306	0.00011833	0.00008395	0.00010644	0.00000204
Yr 7	0.00598045	0.00012436	0.00010375	0.00015705	0.00000208
Yr 8	0.00702898	0.00013511	0.00012416	0.00012560	0.00000243

Yr 9	0.00739160	0.00012895	0.00013624	0.00021646	0.00001089
Yr 10	0.00474117	0.00008068	0.00013642	0.00001457	0.00000073

### ACCESS BANK

	ROA	ATM	POS	IB	NEFT
Yr 1	0.00552872	0.22256371	0.00005842	0.21251645	0.00002439
Yr 2	0.02398386	0.00018918	0.00005346	0.00007225	0.00000210
Yr 3	0.01538169	0.00010437	0.00005842	0.00006130	0.00000208
Yr 4	0.02015238	0.00010871	0.00006671	0.00007503	0.00000204
Yr 5	0.02443039	0.00010905	0.00007518	0.00008715	0.00000221
Yr 6	0.02068722	0.00011833	0.00008395	0.00010644	0.00000204
Yr 7	0.01521247	0.00012436	0.00010375	0.00015705	0.00000208
Yr 8	0.01854692	0.00013511	0.00012416	0.00012560	0.00000243
Yr 9	0.01111613	0.00012895	0.00013624	0.00021646	0.00001089
Yr 10	0.01049699	0.00008068	0.00013642	0.00001457	0.00000073

#### ZENITH BANK

	ROA	ATM	POS	IB	NEFT
Yr 1	19.04085294	0.22256371	0.00006671	0.21251645	0.00002439
Yr 2	39.31369789	0.00018918	0.00005346	0.00007225	0.00000210
Yr 3	28.97634447	0.00010437	0.00005842	0.00006130	0.00000208
Yr 4	27.01048157	0.00010871	0.00006671	0.00007503	0.00000204
Yr 5	26.34010314	0.00010905	0.00007518	0.00008715	0.00000221
Yr 6	27.84602039	0.00011833	0.00008395	0.00010644	0.00000204
Yr 7	32.51057481	0.00012436	0.00010375	0.00015705	0.00000208
Yr 8	33.39357010	0.00013511	0.00012416	0.00012560	0.00000243
Yr 9	32.75080206	0.00012895	0.00013624	0.00021646	0.00001089
Yr 10	27.76875242	0.00008068	0.00013642	0.00001457	0.00000073

### ECO BANK

	ROA	ATM	POS	IB	NEFT
Yr 1	0.01205227	0.22256371	0.00006671	0.21251645	0.00002439
Yr 2	5.88916597	0.00018918	0.00005346	0.00007225	0.00000210
Yr 3	0.00655823	0.00010437	0.00005842	0.00006130	0.00000208
Yr 4	0.01628350	0.00010871	0.00006671	0.00007503	0.00000204

Yr 5	0.00456247	0.00010905	0.00007518	0.00008715	0.00000221
Yr 6	-0.00999260	0.00011833	0.00008395	0.00010644	0.00000204
Yr 7	0.01018804	0.00012436	0.00010375	0.00015705	0.00000208
Yr 8	0.01455346	0.00013511	0.00012416	0.00012560	0.00000243
Yr 9	0.01162945	0.00012895	0.00013624	0.00021646	0.00001089
Yr 10	0.00340481	0.00008068	0.00013642	0.00001457	0.00000073

# UNITY BANK

	ROA	ATM	POS	IB	NEFT
Yr 1	0.00646859	0.22256371	0.00007518	0.21251645	0.00002439
Yr 2	0.01561725	0.00018918	0.00005346	0.00007225	0.00000210
Yr 3	-0.05594822	0.00010437	0.00005842	0.00006130	0.00000208
Yr 4	0.02587066	0.00010871	0.00006671	0.00007503	0.00000204
Yr 5	0.01057734	0.00010905	0.00007518	0.00008715	0.00000221
Yr 6	0.00443247	0.00011833	0.00008395	0.00010644	0.00000204
Yr 7	-0.09531833	0.00012436	0.00010375	0.00015705	0.00000208
Yr 8	0.00537950	0.00013511	0.00012416	0.00012560	0.00000243
Yr 9	0.01154467	0.00012895	0.00013624	0.00021646	0.00001089
Yr 10	0.00424046	0.00008068	0.00013642	0.00001457	0.00000073

#### FIDELITY BANK

	ROA	ATM	POS	IB	NEFT
Yr 1	0.00723539	0.22256371	0.00005842	0.21251645	0.00002439
Yr 2	0.01960278	0.00018918	0.00005346	0.00007225	0.00000210
Yr 3	0.00714103	0.00010437	0.00005842	0.00006130	0.00000208
Yr 4	0.01162233	0.00010871	0.00006671	0.00007503	0.00000204
Yr 5	0.01128826	0.00010905	0.00007518	0.00008715	0.00000221
Yr 6	0.00749842	0.00011833	0.00008395	0.00010644	0.00000204
Yr 7	0.01367228	0.00012436	0.00010375	0.00015705	0.00000208
Yr 8	0.01332998	0.00013511	0.00012416	0.00012560	0.00000243
Yr 9	0.01344584	0.00012895	0.00013624	0.00021646	0.00001089
Yr 10	0.00966228	0.00008068	0.00013642	0.00001457	0.00000073

### UNION BANK

	ROA	ATM	POS	IB	NEFT

Yr 1	-0.09865211	0.22256371	0.00006671	0.21251645	0.00002439
Yr 2	0.00357599	0.00018918	0.00005346	0.00007225	0.00000210
Yr 3	0.00580548	0.00010437	0.00005842	0.00006130	0.00000208
Yr 4	0.02226183	0.00010871	0.00006671	0.00007503	0.00000204
Yr 5	0.01775408	0.00010905	0.00007518	0.00008715	0.00000221
Yr 6	0.01413907	0.00011833	0.00008395	0.00010644	0.00000204
Yr 7	0.00961780	0.00012436	0.00010375	0.00015705	0.00000208
Yr 8	0.01392286	0.00013511	0.00012416	0.00012560	0.00000243
Yr 9	0.01423990	0.00012895	0.00013624	0.00021646	0.00001089
Yr 10	0.01188808	0.00008068	0.00013642	0.00001457	0.00000073

### FIRST BANK

	ROA	ATM	POS	IB	NEFT
Yr 1	0.01926575	0.22256371	0.00020917	0.21251645	0.00002439
Yr 2	0.02567751	0.00018918	0.00005346	0.00007225	0.00000210
Yr 3	0.01828540	0.00010437	0.00005842	0.00006130	0.00000208
Yr 4	0.02153474	0.00010871	0.00006671	0.00007503	0.00000204
Yr 5	0.01110319	0.00010905	0.00007518	0.00008715	0.00000221
Yr 6	0.01407394	0.00011833	0.00008395	0.00010644	0.00000204
Yr 7	0.03440014	0.00012436	0.00010375	0.00015705	0.00000208
Yr 8	0.03455853	0.00013511	0.00012416	0.00012560	0.00000243
Yr 9	0.05019263	0.00012895	0.00013624	0.00021646	0.00001089
Yr 10	0.11263277	0.00008068	0.00013642	0.00001457	0.00000073

### STERLING BANK

	ROA	ATM	POS	IB	NEFT
Yr 1	0.00920691	0.22256371	0.00012913	0.21251645	0.00002439
Yr 2	0.01198419	0.00018918	0.00005346	0.00007225	0.00000210
Yr 3	0.01169101	0.00010437	0.00005842	0.00006130	0.00000208
Yr 4	0.01092122	0.00010871	0.00006671	0.00007503	0.00000204
Yr 5	0.01287455	0.00010905	0.00007518	0.00008715	0.00000221
Yr 6	0.00623732	0.00011833	0.00008395	0.00010644	0.00000204
Yr 7	0.00791076	0.00012436	0.00010375	0.00015705	0.00000208
Yr 8	0.00871923	0.000135109	0.00012416	0.00012560	0.00000243
Yr 9	0.00871980	0.00012895	0.00013624	0.00021646	0.00001089