EFFECT OF CASHLESS POLICY AND ONLINE BANKING TRANSACTIONS IN NIGERIA DEPOSIT MONEY BANKS

(A Case Study of Eco Bank Plc)

BY

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BEING A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF BANKING AND FINANCE, INSTITUTE OF FINANCE AND MANAGEMENT STUDIES, KWARA STATE POLYTECHNIC ILORIN KWARA STATE

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CERTIFICATION

This is to certify that this research study was conducted by **AMOO SULIAT OLUWADAMILOLA** with Matriculation Number **HND/23/BFN/FT/0159** and this work has been read and approved as meeting the requirement for the award of Higher National Diploma (HND) in Banking and Finance, Institute of Finance and Management Studies (IFMS), Kwara State Polytechnic.

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DEDICATION

I dedicate this project to Almighty Allah, the source of all wisdom and strength, and to my beloved family **(My Dad in Heaven, My Mom, Big Mummy Aliya, Mr Layemi)** Whose unwavering support, prayers, encouragement and believe in me have been my greatest motivation.

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ABSTRACT

The effect of cashless policy on deposit money banks is expected to increase the profitability of banks; it lowers the operational costs and curbs corruption. As such this study tends to ascertain the effect of cashless policy on deposit money banks profitability in Nigeria. Secondary data from the Statistical bulletin of Central Bank of Nigeria was used in the study and the ARDL Auto-regressive Distributed lag model was used as a method of data analysis. The explanatory variables are Point of Sale (POS) Terminal, Automated Teller Machine, Mobile Banking, and Web Payment while the dependent variable is Profit before Tax. The result from the research indicates that cashless policy has a negative and insignificant effect on profit before tax of deposit money banks in Nigeria within the study period. The study, therefore, makes the following recommendations; banks should educate their customers more on the importance of cashless policy and some of the innovative products they are bringing in the market. They should also improve their financial infrastructure. Power generation and distribution should be improved upon as no electronic banking can take place without adequate power supply. Banks should set up appropriate security processes and use up to date programs to limit the effects of fraud on their products

Keywords: Cashless policy, mobile banking, automated teller machine.

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The cashless policy is an initiative of government to minimize the quantity of physical cash in circulation by dissuading the use of cash while persuading the adoption of electronic payment system. This policy is not aimed at eliminating the use of cash in consummating transaction, rather, it is meant to reduce physical cash handling and the quantity of cash in circulation (Gbanador 2021). The cashless policy was initiated by the Central Bank of Nigeria in the year 2012.

The advert of the novel coronavirus COVID-19 which saw the whole world in lockdown and limited physical appearance at various banking halls has increased various online transactions. The virus has shown that the world has evolved into a global village and the banking sector is not left out. Information and digital technology (ICT) has increasingly stirred the expansion of the banking networks and range of the services offered in recent times. Most of banking transactions, such as electronic payments, loans, deposits, or securities have become highly dependable on information and telecommunication technology Adewoye JO. (2013). The Central Bank of Nigeria (CBN) has recently introduced a series of reforms intended at both strengthening Nigerian financial system and enhancing the general performance of the economy so as to place it in the right direction in tune with global standard. Cashless policy is one key reform introduced in Nigeria financial system.

The policy is a new policy on cash-based payments which specifies a 'cash handling charge' on daily cash withdrawals or cash deposits that surpass N500, 000 for Individuals and N3, 000,000 for Corporate bodies. The scheme plans at lowering not eradicating the quantity of physical cash flowing in the country and encouraging

further electronic-payment systems in Nigeria Central Bank of Nigeria (2012). The cashless policy has birthed numerous electronic payment channels the commonly used e-payment machinery in the country are Automatic Teller Machine (ATM), Point of Sale Terminals (POS), Mobile Money Transfer (MMT), and Online Money Payment (WEB) Okoro AS. (2014).

The essence of the electronic banking reform was to promote a broad process of significantly enhancing the administrative and surveillance framework, promoting sound competition in banking services, assuring an organized structure for monetary management, increase in savings mobilization, reinforcement of capital adequacy, encouragement of investment and development through market-based interest rates, expanding elegance of the world financial products, and even the recent global financial crisis, all make the need for banking sector reforms a sine qua non, but the challenges of insecurity and inadequate infrastructure are still persistent.

Banks are the linchpin of the economy of any country. They occupy central position in the country's financial system and are essential agents in the development process. By intermediating between the surplus and deficit savings units within an economy, banks mobilize and facilitate efficient allocation of national savings, thereby increasing the quantum of investments and hence national output (Ajayi & Ojo, 2006). In a developing economy such as Nigeria, financial sector development has been accompanied by structural and institutional changes and the sector generally has long been recognized to play a crucial role in the economic development of the nation. Cashless economy depicts an economic situation whereby transactions are done without the necessary movement of cash as a means of exchange or as a means of transaction but rather with the use of credit card or debit card payments. Several scholars have attempted to analyse this policy, but only few of them presented a comprehensive evaluation of its implications in developing countries. The payments

system plays a very crucial role in any economy, being the channel through which financial resources flow from one segment of the economy to the other.

Therefore, it represents the major foundation of the modern market economy. Essentially, there are three pivotal roles for the payments system namely; the Monetary Policy role, the financial stability role and the overall economic role (CBN, 2011).

The policy was conceptualized by the apex bank to migrate Nigeria's economy from a cash based economy to a cashless one through electronic payment systems (e-payment), not only to enable Nigeria's monetary system fall in line with international best practices or discourage movements of huge cash manually, but at the same time, increase the proficiency of Nigeria's payment systems which will in turn improve the quality of service being offered to the banking public. The Nigerian cashless system of payment has been evolving in line with the global payments evolution. Cashless system of payments and instruments are significant contributors to the broader effectiveness and stability of the financial system.

Innovations in technology and business models have implications for the efficiency and safety of cashless system of payments. Cashless system of payment is defined as a society where transactions is functioning and operated or performed without using coins or banknotes for money transactions but instead using credit cards or electronic transfer of funds (Humphrey, 2004). Cashless economy is an economy where transactions can be done without necessarily carrying physical cash as a means of exchange of transaction but rather with the use of credit or debit card payment for goods and services. The nation's quest of migrating from cash to cashless economy has been on the front burner. Analysts have posited that to meet the target of becoming one of the leading world economies by the year 2020, efforts must be made to embrace electronic payment system in its entirety. It was in this

consciousness that the CBN, which is the apex regulatory body of the banking sector, came up with are form of policy to check the increasing dominance of cash in the banking sector in order to enhance e-payment system in the economic landscape. Nigeria's preparedness in adopting this new policy has been questioned by stakeholders given her socio-cultural milieu and other social vices associated with electronic payments that drive cashless policy. Against this backdrop, the study sought to examine cashless policy as regards the Nigerian deposit money banks with a view to exposing the issues relating to it, the possible challenges to be faced by it, as well as the prospects of the policy on the industry.

There is often delay in payment of cheques which led to the adoption of electronic banking system. Adoption of electronic banking which was supposed to ease banking transactions rather resulted to woes to customers. Most customers complain of time wasted in banks, mostly when there is network failure due to linkage problem between the central server and the branches. This aside, banks have since 2000 being introducing payment cards in form of ATM cards, but usage has been very low due to lack of interconnectivity. To resolve some of these problems, most especially to reduce the volume of cash transaction, government decided to encourage the use of e-Commerce instruments to transact business in place of cash, thereby reducing the traffic in the banking hall and other hardships faced daily by customers. The cashless policy was introduced to drive the development and modernization of the Nigerian payment system in line with the nation's vision 2020 goal of being among the top 20 economies in the year 2020 but the use of cash, according to Nwaolisa & Kasie, as a means of carrying out transactions still remains very high in Nigeria. Poor network and connectivity which results most often into debiting customers' account more than once, high transaction cost, as well as security and technical setback, are some of the factors still posing as challenges to the recent move. The current

transition to a cashless economy raises a lot of concerns and there is yet no substantial evidence to justify its implementation in Nigeria. Against this backdrop, the study sought to examine cashless policy as regards the Nigerian deposit money banks with a view to exposing the issues relating to it, the possible challenges to be faced by it, as well as the prospects of the policy on the industry.

1.2 Statement of the Problem

Cashless policy as a technique of economic management is to bring about sustainable economic growth and development as introduced by the Central bank of Nigeria (CBN) has not been fully operational in the country due to;

i) high rate of illiteracy
ii) in-adequate sensitization/education of the benefits of the cashless policy
iii) in-adequate infrastructure (such as the provision of internet connections in commercial areas, computers and Point on Sale (POS) machines) in some part of the country.

Apart from the physical challenges, economic data and indicators are not fully available and reliable. There is a great challenge in attempting to analyze the true impact of the cashless policy on the economy of Nigeria as only few monetary and macro-economic indicators can be traced with relation to the subject matter. Several scholars have attempted to analyze the cashless system or e-banking.

This study focuses on Nigeria Financial institutions, it is difficult to translate cashless studies from one country to another. Even payments instruments that look similar across countries on the surface may be different due to historical and legal variations.

1.3 Research Questions

What is the impact of the cashless policy on the financial performance of Eco Bank?

2. How has the cashless policy affected the operational efficiency of Eco Bank?

3. What are the challenges faced by Eco Bank in implementing the cashless policy?

4. How has the cashless policy influenced customer satisfaction and loyalty at Eco Bank?

1.4 Objectives of the Study

The broad objective of the study is assessment of effect of cashless banking on the performance of deposit money banks in Nigeria. The following are the specific objectives:

i. To investigate the effect of point of sale (POS) on performance of Eco Bank as deposit money banks in Nigeria.
ii. To examine the effect of automated teller machine (ATM) on the performance of Eco Bank as deposit money banks in Nigeria.

iii. To evaluate the effect of mobile banking on the performance of Eco Bank as deposit money banks in Nigeria.

1.5 Research Hypothesis

The following hypotheses were formulated to guide the study:

H01: Point of sale has no significant effect on the performance of commercial bank in Nigeria.

H02: Automated teller machine has no significant effect on the performance of commercial bank in Nigeria.

H03: Mobile banking has no significant effect on the performance of commercial bank in Nigeria.

1.6 Significance of the Study

This study aims to contribute to the understanding of the impact of cashless policies on the

performance of deposit money banks in Nigeria. The findings of this study will be significant to:

Banks: By understanding the effects of cashless policies, banks can optimize their operations and improve customer satisfaction.

Policymakers: The study's findings can inform policy decisions related to the implementation and regulation of cashless policies.

Customers: The study can highlight the benefits and challenges of cashless transactions, enabling customers to make informed decisions

1.7 Scope and Limitation of the Study

This study will focus on the impact of the cashless policy on the performance of Eco Bank, a Nigerian Deposit Money Bank. The study will examine the bank's financial performance,

operational efficiency, and customer satisfaction in the context of the cashless policy.

Case study approach: The study will focus on a single case study, Eco Bank, which may limit the generalizability of the findings to other Deposit Money Banks in Nigeria.

Data availability: The study will rely on available data, which may be limited in scope or quality.

Industry-specific: The study will focus on the banking industry, which may not be applicable to other industries

1.8 Definition of Terms

Cashless Policy: A policy that encourages or requires the use of electronic payment systems instead of physical cash.

Deposit Money Banks: Financial institutions that accept deposits and make loans.

Financial Performance: The financial health and stability of a bank, measured by indicators such as profitability and return on equity.

Operational Efficiency: The ability of a bank to minimize costs and maximize productivity.

Electronic Payment Systems: Systems that enable electronic transactions, such as online banking, mobile payments, and card transactions.

Customer Satisfaction: The extent to which customers are satisfied with the services provided by a bank.

Loyalty: The degree to which customers remain committed to a bank over time.

Financial Inclusion: The access to financial services for individuals and businesses.

Transaction Costs: The costs associated with conducting financial transactions.

Digital Banking: The use of digital channels to conduct banking transactions.

Mobile Payment: A payment method that uses mobile devices to conduct transactions.

Point of Sale (POS) Terminal: A device that enables card transactions at merchant locations.

Automated Teller Machine (ATM): A machine that enables customers to conduct financial transactions using their cards.

Online Banking: A platform that enables customers to conduct financial transactions online.

Financial Technology (Fintech): The use of technology to provide financial services

1.9 Organization of the Study

This study will be organized into five chapters:

Chapter One contains the Introduction, background of the study, statement of the problem, research questions, and objectives of the study.

Chapter Two entails Literature review, theoretical framework, and overview of the cashless policy in Nigeria.

Chapter Three centres on Research methodology, data collection, and analysis techniques.

Chapter Four concentrates on Data analysis, presentation, and interpretation of findings.

Chapter Five deals with the Summary of findings, conclusion, and recommendation

CHAPTER TWO

LITERATURE REVIEW

2.1 Conceptual Framework

2.1.1 Cashless Economy

This is an economy where transaction can be done without necessarily carrying physical cash as a means of exchange of transaction but rather with the use of credit or debit card or other electronic media of payment for goods and services.

Cashless economy is defined as one in which they are assumed to be no transaction frictions that can be reduced through the use of money balances and that accordingly provide a reason for holding such balances even when they earn rate of income. In a cashless economy, how much cash you have in your wallet is practically irrelevant. It has been observed that developed countries of the world, to a large extent, are moving away from paper payment toward electronic instrument especially payment cards. Some aspects of the functioning of the cashless economy are enhanced by e-finance, e-money, e-brokering and e-exchanges. These are all transactions and payments effected in a cashless economy. (Moses Ashike 2011).

Echekoba and Ezu (2012) in a research carried out in Nigeria, observed that 68.2% of the respondent complained about long queues in the bank, 28% complained of bad attitude of teller officers (cashiers) while 2.89% complained of long distance to bank locations to their home or workplace. Likewise, in her 24th NCS conference in December 2011, CBN data shows that 51% withdrawal done in Nigeria was through automated teller machine (ATM), while 33.6% was through over the counter (OTC), cash withdrawals and cheque 13.6%. Payment was also done through point of sale machine (POS) which accounted for 0.5% and web 1.3%.

The cashless economy policy of the CBN is designed to provide mobile payment services, breakdown the traditional barriers hindering financial inclusion of millions of Nigerians and bring low cost, secure and convenient financial services to urban, semi – urban and rural areas across the country.

Valentine Obi, the Managing Director/CEO e-Tranzact International Plc, a leader provider of mobile transaction services defines cashless society as one where no one uses cash, all purchases being made by credit cards, charge card, cheque and direct transfer from one account to another. In other words, it refers to the widespread application of computer technology in the financial system.

In Nigeria, under the cashless economy concept, the goal is to discourage cash transaction as much as possible. The CBN had set daily cumulative withdrawal and deposit limits of N150, 000 and N1, 000, 000 for corporate entities (now reviewed to N500, 000 and N3million respectively). Penalty fees of N100 and N200 respectively (now reduced to 3% and 5% respectively) are to be charged per extra N1, 000 (Ezumba 2011)

2.1.1.1 Overview of Cashless Policy

Money is often described as having three function;

(i) a unit of account function
(ii) a medium-of-exchange function
(iii) a store-of-value function. In a cashless economy, the third is not operative and, probably, neither is the second.

Cashless economy does not refer to an outright absence of cash transactions in the economic setting but one in which the amount of cash-based transactions are kept minimum. It is an economic system in which transactions are not done predominately in exchange for actual cash (Daniel, D. G., R. et. al, (2004).

In a cashless society the unit of account (e.g. Dollar, euro) remains a national affair and is provided by the state. The followings among others enhance the functioning of cashless economy; the use of non-cash payment methods such as cards (credit and debit) dominates the use of cash in payments. The card based payment system has several players. On the one hand, are the providers of the card based payment system- first of which is the card companies like MasterCard and Visa who provide their Public Policy and payment network for the system to function. The second set of providers are the banks that act as acquires for merchants and issuers for cardholders and reach the card payments services to the ultimate users. For the two parties, the card payment system is an income generating initiative and they are motivated to run the system as they are able to generate adequate profits out of their operations. The benefits these two players derive from the system are manifold- the convenience of electronic transaction, the ease of credit availability, increased sales, increased purchasing power, to list a few. Since they are the end users of the convenience the card payment system generates, they are the ones who bear the cost of the system. Developing countries are just improving their payments infrastructures, enabling wider adoption and greater usage of non – cash means and channels. They also tend to open to innovations that can broaden their still-nascent base of users (world payments report 2011). However, the global use of cash payment is still endemic, especially for low-value transactions. But while cash may be convenient, it makes taxation less transparent, and it is costly to distribute, manage, handle and process. As a result, many governments are seeking to reduce these costs and encourage the use of non – cash payment means.

The Nigeria economy is too heavily cash oriented in its transaction of goods and services and this is not in line with global trend, considering Nigeria's ambition to

be amongst the top 20 economies of the world by the year 2020.

2.1.2 ITS EVOLUTION & TREND IN NIGERIA

The cashless policy began in Lagos from January 2012, while the policy took effect in Rivers, Anambra, Abia, Kano, Ogun and the Federal Capital on the 1st of July 2013. The policy was implemented nationwide in July2014. The service charge to effect from March 2012, this gave people time to migrate to electronic channels and experience the infrastructure that has been put in place. Banks were to use this period as grace to encourage their customers to migrate to available electronic channels and where possible, demonstrate the cost that will accrue to those that continue to transact high volumes of cash from March 2012 in Lagos.

As noted above, the cashless economy does not imply an outright end to the circulation of cash (or money) in the economy but that of the operation of a banking system that keeps cash transactions to the barest minimum. The CBN had set daily limits of cumulative withdraws and lodgments of N150, 000 for individuals and N1, 000, 000 for corporate customers (now N150, 000 and N3million respectively). The operation of the system does not mean the individual corporations cannot hold cash in excess of N150, 000/N1million (now N500, 000 and N3million respectively) respectively at any single point in time but that their cumulative cash transactions with the bank must not exceed these limits over a period of one day. The system is targeted at encouraging electronic means of making payment, and not aimed at discouraging cash holdings.

What is anticipated by the policy is that instead of making large withdrawals to effect payment for goods and services, such monies will be kept in the banking system so that payments are made through “credit card-like means”. In this system users are issued with electronic cards which can be slotted into special electronic machines in order to effect payments. At the center of such payment system are the Point of Sales (POS) terminals (Azeez, 2011).

2.1.3 PROSPECT OF CASHLESS POLICY IN NIGERIA

For centuries, cash has served the primary role in day-to-day commerce, helping ordinary people trade their labor and products for the goods and services they need without cumbersome negotiations over bartering or exchanges. Yet slowly but surely, alternatives to cash have taken root and grown. The introduction and increased use of electronic transfer systems has led to the predications of a cashless society (Humphrey et al., 1996;Humphrey and Berger, 1990; Olney 1999). The demise of cash and the emergence of a cashless society pose a lot of benefits for the society.

These benefits are as highlighted below:

For Consumers: Increased convenience; more service options; reduced risk of cash related crimes; cheaper access to (out-of-branch) banking services and access to credit.

For Corporations: Faster access to capital; reduced revenue leakage; and reduced cash handling costs.

For Government: Increased tax collections; greater financial inclusion; increased economic

development.

A secure cashless system can guarantee anonymity of legitimate users but also provides traceability about illegally issued cash or laundered money

Cashless policy can help deepen bank deposits thereby increasing funds available for deposit money banks in Nigeria.

The policy can also help trace double spending protects content by exposing the double spender's identity, digital cash is a fool proof way of guarding against illegal redistribution of intellectual property and materials.

Cashless policy can help displace shadow economies, bring hidden transactions into the banking system and increase transparency, confidence and participation in the financial system.

Automated electronic payments, which is an integral part of cashless policy, acts as a gateway into the banking sector and as a powerful engine for growth. Such payments draw cash out of circulation and into the bank accounts, providing low cost funds that can be used to support bank lending for investment – a driver of overall economic activity. The process creates greater transparency and accountability, leading to greater efficiency and better economic performance.

Promote Financial Inclusion by making it easier and more affordable for the unbaked and under-banked to access financial services

Reduce the over reliance on cash for transactions

Encourage Financial Deepening and promote savings

Reduce risks in Payments and Settlements.

Reduction in money laundering

Check on terrorist financing

Effectiveness of the monetary policy

Creation of more employment opportunities in the financial sector

Provision of evidence against bribe givers and takers especially the civil servants and politicians

Growth of the real sector of the economy because credit will be available for investor

2.1.4 CHALLENGES OF CASHLESS POLICY IN NIGERIA

Cashless policy, despites its numerous benefits comes with its own challenges even in the developed world. This section looks at some these challenges with specific focus on Nigeria;

Behavioral Constraints: The fact that Nigeria is cash – based, people are accustomed to using cashing for most of their transactions

Banks Attitudes: Some banks in Nigeria are very conservative; they use very few innovative products and marketing techniques

Lack of Confidence: The security issue is one of the major challenges in the development of cashless policy in Nigeria

Low Level of Internet penetration and poorly developed telecommunication impede smooth development and improvement of e-payments and e-commerce

Lack of suitable legal and regulatory framework for e-payment: Nigeria current laws do not accommodate electronic contracts and signatures

Inadequate banking system

Political and economic instabilities in neighboring countries: Political instabilities inevitably disturb smooth operations of business and free flow of goods and services.

Power: The state of power in Nigeria today cannot accommodate smooth operations of financial activities. There is need to develop a reliable and sustainable power supply.

Infrastructure: The financial infrastructure in Nigeria is not adequate to carry the load of a cashless society. ATM's Point of Sales system, mobile banking and other

mediums have to dramatically expand to touch at least 40% of the whole economy before any meaningful effect can be achieved.

Availability of real data: Proper and accurate identification of account holders must be maintained and shared when necessary by all financial institution; also CBN must collaborate with all other government and private agency responsible for collection of identification of individuals in Nigeria for reconciliation of any identification.

Investments: CBN must be ready to invest heavily to make these transitions possible; Technology is not cheap and ever changing at a very fast pace. Investments in billions of dollars made in infrastructure, training, marketing, security, maintaining IT networks and so on will be on a yearly basis for the years to come.

Security: As it relates to laws that are need to enforce new methods of transactions and a changing culture, the CBN must partner and work with the National Assembly to ensure proper legislation is being formulated. Enforcements of new legislation would be carried by the CBN and all other executive arms that are empowered such as the EFCC.

Risk: Another major concern would be the risk involved, because if the process is rushed and the economy losses confidence in the system due to high level of fraudulent activities, it will be devastating to the Nigeria economy.

2.1.5 MONETARY POLICY

This is the macro economic policy laid down by the central bank. It involves management of money supply and interest rate and is the demand side account economic used by the government of a country to achieve macro economic objectives like inflation consumption and liquidity

2.1.6 BACKGROUND STUDY ON NIGERIA ECONOMIC MONETARY POLICY

Monetary policy has it roots in the works of Irving Fisher (1996), who laid the foundation of the quantity theory of money through his equation of exchange. In his proposition money has no effect on economic aggregates but price. However, the role of money in an economy has indirect effect on other economic variable by influencing the interest rate which affects investment and cash holding of economic agents. There are different transmission channels through which monetary policy affects economic activities. Monetarist postulates that change in the money supply leads directly to a change in the real magnitude of money. Monetary policy that are tight affects liquidity and banks ability to lend which therefore restricts loan to prime borrowers and business firms to the exclusion of mortgages and consumption spending thereby contracting effective demand and investment.

2.1.7 BRIEF LITERATURE REVIEW

Literature on the cashless policies is rather scarce, but recently the topic has gained more attention both by central banks and academic researchers. In this section, this study reviews some existing studies as follows;

Electronic Payments as argued by (Cobb, 2005) have a significant number of economic benefits apart from their conveniences and safety. These benefits when maximized can go a long way in contributing immensely to economic development of a nation Automated electronic payments help deepen bank deposits thereby increasing funds available for commercial loans – a driver of all of overall economic activity. According to (Cobb, 2005), efficient safe and convenient electronic payment carry with them a significant range of macro – economic benefits.

2.1.8 AUTOMATED TELLER MACHINE (ATM)

This is an automated teller machine that dispenses cash and basically performs all other functions done by a teller in a banking hall like balance inquiry, give mini statements and bills payment, recharge functions etc. A personal identification number (PIN) has to be entered along with credit or debit card to access cash. Some ATMs will allow for cash deposits and bill payments. The CBN has approved N55 as income to the bank from the 4th transaction done by the cardholder of another bank's card on the ATM terminal.

It is a cash point that can be used to withdraw cash or do Transfers. A debit card or credit card is used at the machine to withdraw cash. The CBN has stipulated 72 hours for responding to ATM complaints by banks, failing which the customer can escalate to the CBN. The CBN is also trying to establish a card arbitration panel that will act as a payments system ombudsman to fast track resolution of disputes. We should also note that card fraud particularly at the ATM have reduced drastically with the migration of cards to adopt the chip and PIN technology.

2.1.9 POINT OF SALE (POS) MACHINE

Point of Sales (POS) machine or terminal is an electronic device used in payment for goods and services. You find it in supermarkets, hotels, filling stations, shops etc. A charge known as Merchant Service Charge (MSC) is charged on all transactions done on POS terminals; this charge is borne by the merchant. The maximum total fee a merchant can be charged for any POS terminal transaction is 0.75% of the transaction value or N1,200.00 cap. Point of Sale refers to the location at which a payment of a card transaction occurs, usually by way of a device such as a credit card terminal or cash register. The industry has endorsed four manufacturers for the supply of Point-of-Sale terminals - PAX, Bitel, Ingenico, and Verifone - with

negotiated discounts and local support arrangements. A POS can be purchased from any of these four for as low as N45,000.00 per terminal. However, parties are free to purchase POS terminals from any manufacturer; so far they meet the POS specifications in the Point-of-Sale guidelines.

2.1.10 INTERNET BANKING

It is an electronic payment system that enables customers of a bank or other financial institution to conduct a range of financial transactions through the financial institution's website via electronic devices like mobile phones, Ipads, laptops, Desktops e.t.c right at the comfort of their homes, offices and other places of convenience. In Siyanbola, (2013) internet banking, like uses the electronic card infrastructure for executing payment instructions and final settlement of goods and services over the internet between the merchant and the customers). Internet banking gives customers the opportunity of enjoying banking services from the comfort of their homes and offices. This means that customers can buy goods by placing orders from the net, instruct their banks to pay the vendor the invoice amount involved, and the products are delivered to the destination where the buyer wants.

NIBSS ELECTRONIC FUNDS TRANSFER (NEFT)

Electronic Fund Transfer (NEFT) is an irrevocable electronic fund transfer instruction for payment to a 3rd party bank. It was introduced in Nigeria in 2004. NEFT is usually used for high volume payments such as salaries, vendor payments, etc. and are processed via scheduled batch clearing sessions on NIBSS, ACH. NEFT transactions are not real-time but beneficiaries receive same day value for transactions posted before the clearing sessions. NEFT payments are implemented in 2 clearing cycles; same day settlement for the transaction received before clearing sessions. Next day settlement for the transaction received after clearing cycle. You

can transfer funds through NEFT by first logging into your bank's internet banking platform using your ID and password. Then you go to fund transfer tab and select add beneficiary (receiver's bank). Select beneficiary type for example transfer to other bank then enter the account number of the beneficiary and click on send. The bank will first debit your account to ensure that the funds are set aside, then the customer's instruction (along with other customers' instructions) are sent to NIBSS by the bank as an electronic file for onward processing.

2.2 THEORETICAL FRAMEWORK

2.2.1 TRANSACTIONS COST INNOVATIVE THEORY

The transaction cost innovation theory initiated by Niehans (2006) stated that the paramount factor of financial innovation is the decrease of transaction cost, and in fact, financial innovation is the answer to technological advancement which caused the transaction cost to decrease. The decrease of transaction costs can stimulate financial innovation and improvement of financial service. It states that financial innovation reduces transaction costs. Transaction costs innovation theory is also important in this context: for instance, the use of Internet-connected Information Technology (IT) can substantially reduce a firm's transaction costs as it facilitates effective coordination, management, and use of information. Mobile, Internet-connected IT might additionally decrease transaction costs because it offers off-site access to the firm's internal database and other significant sources of information.

Consequently, reduction of operation costs through agency banking, internet banking, and mobile banking may influence growth in profitability for the bank.

2.2.2 Technology Acceptance Model (TAM)

This theory was developed by Davis in 1986. The model was formally developed from the research conducted by Davis (1989) on technological issues. The result of

this research led to the development of the Technology Acceptance Model (TAM). This model seeks to establish the relationship between individuals' behavior and the use of Information and Communication Technology (ICT). It is argued that the behavior of individual influences his attitude towards adopting new technology. However, attitude and perceived usefulness are both determined by ease of use. (Pedersen 2002) maintains that adopting the TAM model is based on knowing end-users' requirements concerning how easy and friendly the technology is presented.

The banking industry in Nigeria evaluated its options and discovered that only 10 percent of its client's base accounted for 90 percent of its expenses. The focus thus became how to eliminate costs by attending to those 10 percent. Competitiveness, high growth levels, and increased sophistication in world systems and sub-systems thus forced the banking sector to revaluate techniques and innovations to improve its efficiency, profitability, and overall performance. In recent years, advances in banking-related technology have reduced the need for a physical location, and banking transactions are now being conducted from a remote location using personal computers and ATMs.

2.2.3 Bank Focused Theory

This theory was propounded by Kapoor (2010) and anchors on the ground that banks use non-traditional but conventional low-cost delivery channels to provide services to its numerous customers. Such channels include the automated teller machines (ATMs), Internet banking, Point of Sale (POS) among others. By making use of these channels, the bank offers a wide range of services to its customers not minding the location and branch where the customer is. The only thing required is to input the needed information into the system and the transaction is concluded. This theory supports this study since the emphasis here is on electronic platforms as a means of delivering services.

2.2.4 Bank-Led Theory

The bank-led theory of branchless banking was proposed by Lyman, Ivatury, and Stachen (2006) and emphasizes the role of an agent who acts as a mediator between the banks and the customers. In this case, the retail agents have direct interaction with the banks' customers and take up the role expected of the bank by either paying cash or collecting deposits (Owens, 2006). Finally, this agent is expected to

2.3 Empirical Review

Gbadamosi, (2021) examined the impact made by the cashless policy on the financial liberalization of Nigerian economy. It was observed that from available information, the policy of cashless transaction has greatly impacted on the financial liberalization of the Nigerian economy. The writer aligned with the view of Mckinnon-Shaw 1973 in this explorative review and concluded that the components policies necessary for the effective

application of cashless transaction society is yet to be fully implemented. The government needs to follow strictly the initiative and reduce regulatory restriction in the operation of a cashless society to attract private operator in order to have free market interaction necessary for adequate financial liberation and economic growth.

Odor and Fadiya. (2020) examined the implications of cashless banking, with a view to exposing the possible challenges and prospects it poses to the Nigerian economy whilst employing aggregated approach. Analytically, this study employs descriptive statistical to highlights overview the effectiveness of the cash-less policy of the CBN in Nigeria. This study was informed by the rising doubts as regards the effectiveness of various economic policies in achieving developmental goals of Nigeria. Moreover, the recent evolution of electronic money poses interesting questions of policy makers all over the world. This study also seeks to evaluate policies of the

Central Bank of Nigeria as well as proffer valuable recommendations on the execution of cashless banking in Nigeria. The study presented significant recommendations: availability of sufficient and well-functioning infrastructural facilities (notably electricity), harmonization of fiscal and monetary policy, regular assessment of the performance of cashless banking channels (individually and collectively), consideration of the present state and structure of the economy, redesign of monetary policy framework and greater efforts towards economic growth whilst managing inflation. In inclusion, the shift towards a cashless Nigeria seems to be beneficial though it comes with high level of concerns over security and management of cost savings resulting from its implementation.

Adeleye (2022) 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 frauds.

Gbanador, (2023) investigated the effect of cashless policy on economic growth in Nigeria using quarterly time series data spanning through the period of 2012 to 2021 while the research design adopted for the study was the ex-post facto research design. Diagnostic test such as serial correlation, heteroskedasticity and Cusum test were conducted. Phillip- Peron and Kwiatkowski-Phillips- Schmidt-Shin (KPSS) were used to carry out unit root test on the variables while the Auto- Regressive Distributed Lag (ARDL) was used for the data analysis. The findings revealed a significant relationship between Cheque (CQ) and Internet banking (IB) with the Gross Domestic Product while the relationship between the Automated Teller Machine and the Gross Domestic Product is negatively insignificant. The study concludes that cashless policy influences economic growth in Nigeria and therefore suggests that the Central Bank of Nigeria should encourage Banks to offer quality ATM services to their customers. This is expected to boost the adoption of alternative payment system which is amongst the rationale for introducing the cashless policy.

Nwani, et. al, (2020) evaluated the impact of cashless policy on the Nigerian payment system. The operations of a cashless economy were assessed based on the use of Cheques, funds transfer channels and Automated Teller Machines (ATMs).

Analysis of data showed that the volume and usage of cheques as a means of financial settlement has failed and was partially replaced by electronic payment systems. Banks are getting more involved in the use of interbank fund transfers rather than a cash settlement. It was also ascertained that the use of ATM's as a means of financial intermediation is increasing. It is anticipated that the use of ATMs will become even more popular in Nigeria in the near future. To some extent, the outcome of the study has justified the implementation of the cashless policy initiative in Nigeria. However, the innovation and operations of the policy are not without its related limitations. There are various challenges associated with its practice, ranging from poor infrastructural facilities and difficulty in imbibing the e-payment culture due to illiteracy. Other socio-cultural factors that constitute an impediment include celebrations like weddings, birthdays and festivals. On such occasions, Nigerians prefer to "display or spray raw cash'' rather than issuing cheques. Thus, more effort needs to be put in place by the regulatory authority to re-orientate the masses and to encourage the use of E–payments channels, cheques, funds transfer options and, owning operating of bank accounts. This will give a further boost to the development of the Nigerian payment system.

2.4 Gap in Literature

The evidence of the effect of cashless policy on the performance of deposit money banks With the use of the websites, customers can now carry out some transactions such as; payment of bills, receive funds, check account balance, apply for loans without having to leave their place of work.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 INTRODUCTION

The research was carried out using secondary data sourced from Central Bank of Nigeria Statistical Bulletin and annual report of Nigeria Deposit Insurance Corporation from 2009 to 2019. The research used descriptive statistics to depict the variables while the unit root test was carried out to check the stationarity of the variables by using Philips-Perron (PP) and Augmented Dickey-Fuller (ADF). The unit root test shows that the variables were integrated at order (0) and (1) which makes the use of Auto-regressive Distributed lag models (ARDL) necessary to be used as a method of data analysis. The model used for the research involves the adaptation and modification of the research carried out by Okafor (2020). He examined cashless policy for business purposes and the performance of Deposit Money Banks in Nigeria (2009-2019). His original model was stated thus:

ROE = f (ATM, POS, MB, ITB)

$ROE = \beta 0 + \beta 1ATM + \beta 2POS + \beta 3MB + \beta 4ITB + \mu$ - - - - - 1

Where: ROE = Return on Equity

ATM = Automated Teller Machine

POS= Point of sale

MB= Mobile Banking

ITB= Internet Banking (ITB)

$\beta 0$ and μ are the constant and error term respectively while $\beta 1$, $\beta 2$, $\beta 3$, and $\beta 4$ are the coefficient of cashless economy on deposit money banks performance in Nigeria.

The model was adapted and modified by bringing in profit before tax as the explained variable while removing return on equity since this study deals with cashless policy and

Deposit Money Banks profitability in Nigeria. The model for this study is stated thus:

PBT= f(ATM,POS,MOBILE,WEB)

PFT = a 0 + a1 ATMs it + a 2 POSs it + a 3 MOBILEs it + a 4 WEBs it

Where: PBT= Profit before Tax

ATM= Automated Teller Machine

POS= Point of Sale (POS) Terminal

MOBILE= Mobile Banking

WEB= Web Pay or Internet Banking

a 0 = Intercept of the model

a 1 – a 6 = Parameters of the regression coefficients

e it = Stochastic error term

3.2 RESEARCH DESIGN

This study adopted ex-post facto research design and adopts a secondary approach in gathering data. This is because, we have no control over certain variables and cannot manipulate them because they already exist; rather search backwards through data for possible causal variables.

3.3 POPULATION OF THE STUDY

Eco Bank employees: Specifically, employees in the operations, marketing, and customer service departments who have knowledge about the cashless policy and its implementation.

Eco Bank customers: Customers who have used electronic payment channels and have experience with the cashless policy.

3.4 SAMPLE SIZE AND SAMPLING TECHNIQUES

Data were gathered from Eco Bank Pc for a seven (7) year period spanning from 2013-2019, using purposive sampling method.

3.5 METHODS OF DATA COLLECTION

The study will use the combination of primary and secondary data collection methods:

Survey questionnaire: A structured questionnaire was administered to Eco Bank employees and customers to gather data on their perceptions and experiences with the cashless policy.

Interviews: In-depth interviews were conducted with key stakeholders, such as senior management and department heads, to gather more detailed information about the implementation and impact of the cashless policy.

Secondary Data Collection Methods

Financial reports: Eco Bank's financial reports were analyzed to examine the bank's financial performance before and after the implementation of the cashless policy.

Industry reports: Industry reports and research studies on the Nigerian banking industry were reviewed to provide context and background information on the cashless policy.

3.6 METHODS OF DATA ANALYSIS

The regression method of data analysis was adopted in this study to be specific, the ordinary least square regression techniques was adopted to analysis the relationship (association) between the dependent variable (performance of bank) and independent variable (cashless banking) in the model. Correlation method is appropriate therefore; descriptive statistics correlation analysis and multiple regression analysis were the major

statistical tool used in analyzing the data.

The Ordinary Least Squares Theorem, is supported by Koutsoyiannis (1985) and Nyong (1993) cited in Okeke (2016) as the Best Linear Unbiased Estimator (BLUE), thus this study adopted it. Tests done using OLS includes r2, t-test, F-test and auto-correlation analysis. The Statistical Package E-view version 8.0 for windows is the computer software used for the analysis of our model above.

The explanation to the test statistics are:

i. Coefficient of Determination (R2) Test = measures the explanatory power of the independent variables on the dependent variable. The coefficient of determination varies between 0.0 and 1.0. A coefficient of determination, say 0.25 means that 25% of changes in the dependent variable is explained by the independent variable(s).

ii. F-Test = measures the overall significance. The extent to which the statistic of the coefficient of determination is statistically significant is measured by the F-test. At 5% level of significance, we reject null hypotheses for tests with probability estimates lower than 5% (0.05) and conclude that they are statistically significant.

Otherwise, we accept (when probability estimates are above 0.05) and conclude that there is no overall statistical significance.

iii. Student T-Test = measures the individual statistical significance of the estimated independent variables. At 5% level of significance, reject null hypotheses for tests with probability estimates lower than 5% (0.05) and conclude that they are statistically significant. Otherwise, we accept (when probability estimates are above 0.05) and conclude that there is no overall statistical significance.

iv. Durbin-Watson (DW) test = test for autocorrelation. This is used to check for the appropriateness of the models for analysis. Any equation with Durbin-Watson less than or greater than values not approximately 2, is not acceptable. Unacceptable Durbin-Watson suggests that the analysis cannot be relied on.

v. Decision rule: we will accept Ho, if p-value is greater than 5% level of significance, otherwise we will reject Ho, to accept Hi

3.7 LIMITATION TO THE METHODOLOGY

Variable	**measurement**
Dependent Variable Return on Assets	This is measured as net profit after tax divined by total assets in this study
Independent Variable Point of sale	Measured by the total amount of transactions done through POS on an annual basis
Automate teller machine	This is measured by the annual turnover on the total number of transactions carried out via ATM channels.
Mobile banking	Measured by the total number of banking transaction done through phone on an annual basis.

CHAPTER FOUR

4.0 Data Presentation, Analysis and Interpretation

4.1 Data Presentation

The description of the data series used in the analysis is presented in;

Table 1. The table shows a summary of the descriptive statistics used in the analysis. The mean value was shown to be 80244477 for PBT, 3581.108 for ATM, 822.8345 for MOBILE, 798.2782 for POS, and 146.6373 for WEB. The median value was shown to be 539970.0 for PBT, 3679.880 for ATM, 346.4700 for MOBILE, 312.0700 for POS, and 84.15000 for WEB. The maximum and minimum of the series are 4.21E+08 and -40350.00 for PBT, 6512.600, and 399.7100 for ATM, 4371.550, and 1.270000 for MOBILE, 3204.760 and 11.03000 for POS, 478.1300 and 25.05000 for WEB. The series standard deviations are 1.50E+08 for PBT, 2319.650 for ATM, 1309.164 for MOBILE, 1087.734 for POS, 153.5399 for WEB. The variables of standard deviations were found to be positively skewed towards normality as evidenced by the positive values of the skewness statistic. The variables for the study were tested for stationarity by using Phillips-Perron (PP) and Augmented Dickey-Fuller (ADF) unit root test to determine the stationarity of the data. Phillips- Perron (PP) was used to confirm the stationarity of the data which shows that the variables are integrated at order (0) and (1) that is at the level and first difference. Tables 2 to 5 shows the unit root test for the study.

Table 2 reveal that POS, MOBILE, and PBT are stationary at level but ATM and WEB are not stationary at level. Based on this we difference the variables to see their outcome.

Table 3 shows that ATM and WEB which were not stationary at the level is stationary at 1st difference which shows that the variables are stationary at a level and 1st difference.

Table 4 and 5 confirms the stationarity by using the Phillips-Perron (PP) unit root test which allows the use of ARDL Auto-regressive Distributed lag models as a method of data analysis.

4.2 Data Analysis

Table 1. Descriptive statistics

	Mean	Median	Maximum	Minimum	Std.Dev	Skewness	Kurtosis	Jarque-Bera	P-value	Obs
PBT	80244477	539970.0	4.21E+08	-40350.00	1.50E+08	1.489447	3.611120	4.238335	0.120132	11
ATM	3581.108	3679.880	6512.600	399.7100	2319.650	0.024303	1.616418	0.878470	0.644529	11
MOB	822.8345	346.4700	4371.550	1.270000	1309.164	2.016704	6.052426	11.72677	0.002842	11
POS	798.2782	312.0700	3204.760	11.03000	1087.734	1.294326	3.272787	3.105453	0.211670	11
WEB	146.6373	84.15000	478.1300	25.05000	153.5399	1.387683	3.385816	3.598607	0.165414	11

Computer Result using E-views 9.0

Table 2. ADF result at level

Variables	ADF test statistic	1%	5%	10%	Order of integration
ATM	-0.437533	-4.297073	-3.212696	-2.747676	Non-stationary
POS	5.508920	-4.297073	-3.212696	-2.747676	Stationary
WEB	1.408216	-4.297073	-3.212696	-2.747676	Non-stationary
MOBILE	6.815791	-4.297073	-3.212696	-2.747676	Stationary
PBT	3.346400	-4.297073	-3.212696	-2.747676	Stationary

Source: Analyst E-view result

Table 3. ADF result at 1st difference

Variables	ADF test statistic	1%	5%	10%	Order of integration
ATM	-3.608058	-4.420595	-3.259808	-2.771129	Stationary
POS	-0.126424	-4.420595	-3.259808	-2.771129	Non-stationary
WEB	-3.316231	-4.420595	-3.259808	-2.771129	Stationary
MOBILE	4.518750	-4.420595	-3.259808	-2.771129	Stationary
PBT	-0.968095	-4.420595	-3.259808	-2.771129	Non-stationary

Source: Analyst E-view result

Table 4. PP result at level

Variables	PP test statistic	1%	5%	10%	Order of integration
ATM	-0.295378	-4.297073	-3.212696	-2.747676	Non-stationary
POS	6.261164	-4.297073	-3.212696	-2.747676	Stationary
WEB	1.408216	-4.297073	-3.212696	-2.747676	Non-stationary
MOBILE	6.445619	-4.297073	-3.212696	-2.747676	Stationary
PBT	3.715689	-4.297073	-3.212696	-2.747676	Stationary

Source: Researcher's E-view result

Table 5. PP result at 1st difference

Variables	PP test statistic	1%	5%	10%	Order of integration
ATM	-4.737975	-4.420595	-3.259808	-2.771129	Stationary
POS	-0.124572	-4.420595	-3.259808	-2.771129	Non-stationary
WEB	-3.316234	-4.420595	-3.259808	-2.771129	Stationary
MOBILE	5.633241	-4.420595	-3.259808	-2.771129	Stationary
PBT	-0.966724	-4.420595	-3.259808	-2.771129	Non-stationary

Source: Researcher's E-view result

Table 6. ARDL bounds tests for cointegration

Test statistic	Value	k
F-statistic	5.119304	4
Critical Value Bounds		
Significance	I(0) Bound	I(1) Bound
10%	2.45	3.52
5%	2.86	4.01
2.5%	3.25	4.49
1%	3.74	5.06

Source: Author's Calculation employing E-Views 9 Software

Table 7. ARDL co-integrating and long run form forPBT ›ATM+POS+MOBILE+WEB

Cointegrating Form				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
D(ATM)	-12349.919599	13856.161890	-0.891294	0.4231
D(POS)	322637.781600	100287.089185	3.217142	0.0324
D(MOBILE)	-97518.540179	55448.104898	-1.758735	0.1534
D(WEB)	-952794.309869	695290.393281	-1.370354	0.2424
CointEq(-1)	-0.014674	0.751520	-0.019526	0.9854
Long Run Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
ATM	-841625.640460	42349364.847520	-0.019873	0.9851
POS	21987206.264605	1129918157.660824	0.019459	0.9854
MOBILE	-6645719.688852	343804209.000963	-0.019330	0.9855
WEB	-64931282.737406	3363872097.332409	-0.019303	0.9855
C	2842951302.491051	145914310032.50956	0.019484	0.9854

Source: Author's Calculation employing E-Views 9 Software

Table 8. Diagnostic test

	F-statistic	Prob.
Serial Correlation LM Test	11.72407	0.0786
Heteroskedasticity Test	5.543738	0.0610

Source: Author's Calculation employing E-Views 9 Software

Table 9. OLS regression: Profit before tax and cashless policy

Dependent Variable: PBT				
Dynamic regressors (0 lag, automatic): ATM POS MOBILE WEB				
Fixed regressors: C				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.***
PBT(-1)	0.985326	0.751520	1.311110	0.2600
ATM	-12349.92	13856.16	-0.891294	0.4231
POS	322637.8	100287.1	3.217142	0.0324
MOBILE	-97518.54	55448.10	-1.758735	0.1534
WEB	-952794.3	695290.4	-1.370354	0.2424
C	41717146	28007733	1.489487	0.2106
R-squared	0.990777	Mean dependent var		88269063
Adjusted R-squared	0.979248	S.D. dependent var		1.56E+08
S.E. of regression	22416506	Akaike info criterion		36.97220
Sum squared resid	2.01E+15	Schwarz criterion		37.15375
Log-likelihood	-178.8610	Hannan-Quinn criter.		36.77304
F-statistic	85.93745	Durbin-Watson stat		2.642781
Prob(F-statistic)	0.000369			

Source: Author's Calculation employing E-Views 9 Software

Table 10. Granger causality output for cashless policy and profitability of DMBs

Null hypothesis:	Obs	F-statistic	Prob.	Implication
ATM does not Granger Cause PBT	9	1.30001	0.3673	No Causality
PBT does not Granger Cause ATM		2.79058	0.1743	No Causality
POS does not Granger Cause PBT	9	4.37358	0.0985	No Causality
PBT does not Granger Cause POS		15.9818	0.0124	Causality
WEB does not Granger Cause PBT	9	4.71346	0.0887	No Causality
PBT does not Granger Cause WEB		26.3682	0.0050	Causality
MOBILE does not Granger Cause PBT	9	3.81152	0.1184	No Causality
PBT does not Granger Cause MOBILE		50.6861	0.0014	Causality

Source: Author's Calculation employing E-Views 9 Software

4.3 Data Interpretation

ARDL Co-Integration Relationship

The confirmation of the stationarity of the data through the unit root test of ADF and PP allows for the determination of the co-integration relationship between the dependent and explanatory variables in the models. The ARDL was chosen as against the traditional Johansen co-integration because it is structured in such a way that it considers the different order of integration of financial time series data.

Co-integration Test For Long-Run

Effect Pesaran et al. Pesaran MH, et. al, (2001) showed that cointegrating systems can be estimated as ARDL models; it has the advantage to estimate cointegrating relationships on variables that are both I(0) or I(1). According to Pesaran et al. Pesaran MH, et. al, (2001), the asymptotical allotment of the F-statistic is non-standard regardless of either the regressors are I(0) or I(1), and give two adjusted critical values that establish lower and upper bounds of significance. The bound test follows the critical criterion at the lower bound and upper bound value for decision at the three levels of significance in 1%, 5%, and 10%. Given a computed F statistics Value of 5.119304 which is greater than the lower and upper critical bound values at 1%, 2.5%, 5% and 10% respectively, thus indicating the existence of a steady-state long-run relationship among the variables. This suggests that the various selected variables have a long-run relationship with deposit money banks profitability in Nigeria.

Nature of Long-Run Relationship/ARDL Error Correction Model

The ARDL result has proven that Profit before Tax, Mobile Banking, Point of Sale (POS) Terminal, Automated Teller Machine, and Web Payment are co-integrated/related in the long run. Consequently, the determination of the nature of the long-run relationship becomes necessary as well as the speed of the adjustment to equilibrium.

The result in Table 7 shows that ATM, MOBILE and WEB have a negative insignificant relationship with PBT while POS has an insignificant positive relationship with profit before tax. In terms of the speed of adjustment,

Table 7 reveals that the model moves toward equilibrium following disequilibrium in the explanatory variables. The ECM is negatively signed with a coefficient of -0.014674, a suggestion that -1.4674% of error generated in the previous period is corrected in the current period.

Normality Test

The normality test was done using the Jarque- Bera Normality test, which requires that for a series to be normally distributed; the histogram should be bell-shaped and the Jarque-Bera statistics would not be significant. This implies that the p-value given at the base of the normality test table should be greater than the selected level of significance to accept the Null hypothesis, that the series is normally distributed Brooks C. (2008).

Cusum Tests of Stability

The stability test results are revealed in Fig. 2. The CUSUM test is the test used to check stability within the model. The findings from the stability test confirm the evidence that the model is stable. This is indicated by a movement of blue lines located within the critical lines (two-red dotted lines) in the figures. Therefore, at significant level of 5%, the CUSUM stability tests confirm the good performance of the model.

Short Run OLS Relationship

Table 9 shows that ATM, MOBILE, and WEB have a negative and insignificant effect on profit before tax of deposit money banks in Nigeria while POS has a positive and significant effect on PBT. The constant parameter for the model is insignificant but positively related to profit before tax. It has a positive coefficient of 41717146 implies that if all explanatory variables are held constant in the short-run, profit before tax will increase by 41717146.

Meanwhile, the coefficient of multiple determinants (R2) showed a coefficient of 0.990777 ≈ 0.99 which implies a 99% explanation of the behavior of Profit before Tax by the totality of the explanatory variables:

Automated Teller Machine, Point of Sale (POS) Terminal, Mobile Banking, and Web Pay on the short-run. The Adjusted R2 further proves this with the adjusted value of 0.979248 ≈ 0.97 which implies that 97 percent explanation of the behaviour of profit before tax by the totality of the explanatory variables with the remaining 3 percent behaviour attributed to other variables outside the model otherwise referred to as the stochastic variables. The F-statistic indicates that the model is well fit for the estimation because F-stat for the model is 85.93745 is greater than the F-critical value of 4.53 at a 95 percent significance level.

Granger Causality Test

Table 10 which is a Granger Causality test disclosed that there is a unidirectional/one-way causal relationship between profit before tax and Cashless policy at a 5% level of significance. Causality runs from profit before tax to point of sale (POS) terminal, mobile banking, and web pay this shows that profitability can be the motivating factor for banks to adopt the cashless policy of the government. The result also indicates that there is no causality between the automated teller machine and profit before tax.

Decision rule

We reject the null hypothesis of the co-integration relationship to accept the alternative that there is Co-integration. We thus conclude that a cashless policy instrument as represented by a quantitative monetary policy instrument as represented by Mobile Banking, Point of Sale (POS) Terminal, Automated Teller Machine, and Web Pay has a long-run effect on deposit money banks profitability in Nigeria.

CHAPTER FIVE

5.0 SUMMARY, CONCLUSION, AND POLICY IMPLICATION

5.1 Summary

The research work shows that there is a long-run relationship between the cashless policy and the profitability of deposit money banks in Nigeria. This indicates that in the long run cashless policy will help improve the profitability of deposit money banks by providing efficiency and lower cost of doing business in the country. The result of the short-run relationship revealed that cashless policy has an insignificant and negative effect on the profitability deposit money banks in Nigeria. The result is inconsistent with the findings of Agu and Agu (2020), Okafor (2020), Osazevbaru, Sakpaide, and Ibubune (2014), Werigbelegha and Avery (2019), Ignoroje. and Okoroyibo (2020) but in agreement with the study of Muotolu and Nwadialor (2019), Suberu, Afonja, Akande, and Adeyinka (2015). The insignificant effect shows many factors limit the operation of a cashless economy in the country.

5.2 Conclusion

The cashless policy is all about the electronic payment system, Nigeria as of today has the problem of epileptic power supply which means that banks have to spend more money on power to keep their various branches and ATM in particular running. Equally, most of the banks in Nigeria are concentrated in the urban areas while the rural areas that have more illiterate and unbanked Nigerians have no access to electricity and good telecommunication network. Illiteracy and poverty level in the country is high and that's why some Nigerians still prefer cash economy, unlike the cashless economy. Again is the issue of fraud in the country due to the high unemployment rate in the country many youths in the country has entered into what we call yahoo yahoo or advance free fraud. Where they hack customers' bank accounts even banks this tends to discourage people from going cashless in the

economy. The issue of Hushpuppi is a ideal example. It is estimated that 61% of Nigerians are unbanked due to limited financial literacy and lack of financial infrastructure all these make Nigeria economy more of a cash economy and tends to limit deposit money banks profitability.

5.3 Recommendations

i. The banks must also be educated to promote e-payments; training programs for senior management of the banks and all other cadre.
ii. Marketing and education of internet banking service and products should be intensified to attract more customers which enhance profitability.
iii. The bank should conduct more research to find new internet banking product to attract and to retain her potential customers.
iv. Telecommunications companies should improve their services by providing affordable, available, and fast internet services to all Nigerians.
v. Banks should embark on massive education to their customers on the importance of the cashless policy and need to accept innovative products being offered to them. Banks should set up appropriate security processes and use up to date programs to limit the effects of fraud on their products.

References

Adeleye O. L.(2022) Impact of cashless policy on the performance of deposit money banks in Nigeria. Department of Accounting and Finance, College of Humanities, Management and Social Sciences, Mountain Top University

Adewoye JO. Impact of mobile banking on service delivery in Nigerian commercial banks. *International Review of Management and Business Research*. 2013;2(2):333-344.

Agu AO, Agu SV. Cashless policy and the Nigerian economy: A disaggregated approach. *International Journal of Humanities Social Sciences and Education.* 2020;7(4):21-30.

Ajaji, S.I. and O.O Ojo (2006) – Money and Banking: Analysis and Policy in the Nigerian Context, Second Edition, University of Ibadan, Daily Graphics Nigeria Ltd.

Ajayi IB (2014). Effect of cashless monetary policy on Nigerian banking industry: issues prospects and challenges: *International Journal of Business and Finance Management Research.* 2(1):23 – 34

Azeez K, (2011), "Cyber Insecurity Threatens Nigeria Cashless Economy Drive". [Online] Available:

Brooks C. Introductory econometrics for finance (2nd Ed.). New York: Cambridge University Press; 2008.

Central Bank of Nigeria. New cash policy, presentation for the interactive engagement session with stakeholders on cash-less Lagos, stakeholder session- supermarket operators; 2012.

Central Bank of Nigeria. CBN. Payment systems; 2011. Available: http://www.cbn.gov.ng/Paymentsystem/ Central Bank of Nigeria

Davis F. Ph.D. Thesis at MIT. Adaption of Fishbein and Ajzen's Theory of Reasoned Action (TRA); 1986.

Echekoba, F.N., and Ezu, G.K (2012): Electronic Retail Payment Systems: User Availability & Payment Problems in Nigeria. Arabian Journal of Business & Management Review. Vol. 5, pp. 60 – 63

Gbadamosi, Y. A. (2021) Impact of Central Bank of Nigeria (CBN) Cashless Policy on Financial Liberalization of the Nigerian Economy.. Bingham University Journal of Accounting and Business (BUJAB) 7(1), 44-52

Gbanador MA. (2021) Practice of banking: theory and practice. Port Harcourt: Akanistic Ventures

Humphrey, D.B. (2004): - Replacement of cash by cards in U.S Consumer Payments, Journal of Economics and Business, 56, 211 – 225

Ignoroje EK, Okoroyibo EE. Cashless policy and the performance of deposit money banks in Nigeria. European Journal of Accounting, Auditing and Finance Research. 2020;8(5):85-104.

Moses – Ashike, H. (2011). "Cashless Economy can Reduce Risk of Carrying Huge cash". [Online] Available

Muotolu PC, Nwadialor EO. Cashless policy and financial performance of deposit money banks in Nigeria. International Journal of Trend in Scientific Research and Development. 2019;3(4):465-476.

Mustapha SA. E-payment technology effect on bank performance in emerging economies-evidence from Nigeria. Journal of Open Innovation: Technology, Market, and Complexity. 2018;20(1):24-43.

Niehans K. Effect of internet banking on the financial performance of the commercial bank in Kenya. International Journal of Scientific and Research Publication. 2006;5(5):1-18.

Nwani J. J., Nwaimo C. E., Kanu S. I., Eke, C. K. (2020) Cashless Policy and the Nigerian Payment System. *International Journal of Innovation and Economics Development*, 5(6), 7-29

Odior, E S. (2020) Cashless Banking in Nigeria: Challenges, Benefits and Policy Implications. European Scientific Journal June edition 8(12), 289-236.

Pedersen, T (2002). Adoption of Mobile Technology. Moderating Effects of Service's information intensity, Bergen spring 2006.

Pesaran MH, Shin Y, Smith RJ. Bounds testing approaches to the analysis of level relationships. Journal of Applied Econometrics. 2001:16(3):20-45.

Siyanbola TT. The effect of cashless banking on the Nigerian economy. eCanadian Journal of Accounting and Finance. 2013;1(2):9-19.

Suberu OJ, Afonja JA, Akande MO, Adeyinka OB. The effect of cashless policy, saving and bank credit on Nigerian deregulated economy. Journal of Emerging Trends in Economics and Management Sciences. 2015;6(2):144-150.

Ugwueze AC, Nwezeaku NC. E-banking and commercial bank performance in Nigeria: A cointegration and causality approach. International Journal of e- Education, e-Business, e-Management and e-Learning. 2016;6(3):50-70.

Werigbelegha AP, Avery BP. Impact of cashless policy on deposit money bank performance in Nigeria. Global Journal of Education, Humanities and Management Sciences. 2019;1(2):1–10.

Woleola O. Nigeria in 2012: The vision of the cashless economy, The Nigeria Economic Summit Group, Abuja; 2017.