EFFECT OF CASHLESS POLICY AND ELECTRONIC BANKING IN NIGERIA

BY

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BEING A PROJECT SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES, NASARAWA UNIVERSITY. KEFFI IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF MASTER OF BUSINESS ADMINISTRATION (MBA) DEGREE IN FINANCE

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DECLARATION

I hereby declare that this project “Effect Of Cashless Policy And Electronic Banking In Nigeria" was written by me under the guidance of my supervisor PROF. B. E. BARDE of the Department of Business Administration Nasarawa state University Keffi in partial fulfillment of the award of Master of Business Administration (MBA) Degree in Finance

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CERTIFICATION

The Project "Effect of Cashless Policy and Electronic Banking in Nigeria" meets the Regulations governing the award of Master of Business Administration (MBA) Degree in Finance, Nasarawa State University, Keffi and it is thereby accepted for its contribution to knowledge and literary presentation.

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DEDICATION

This Project is dedicated to Almighty (ALLAH); the most Beneficent the most merciful and my dedicated parents (Ambassador Umaru Azores Suleiman and Hajiya Barira Umar Suleiman) whose advice was so important to the success of this project.

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ABSTRACT

The introduction of electronic banking, online transaction and mobile banking in Nigeria has paved way for a new dawn of development where the use of cash and it demand is gradually declining. These recent evolution of technology in the Nigeria financial institutions creates interesting questions for financial institutions, economist, business analyst and the government regarding the current economical status, logistics, and availability of instruments to guarantee economic growth and stability, efficiency and effectiveness of the cashless policy. Since the creation of man, diverse payment methods have been used to purchase goods and services, with starting with the trade by barter.

The trade by barter system of transaction has been the bedrock for the introduction of money to solve problem of double coincidence of wants and divisibility faced by barter. The use of money/coins was introduced after the use of trade by barter system, and has solved so many challenges associated with trade and barter, but the use of money as an exchange medium has its own challenges and disadvantages and can still be replaced with a better payment system called the cashless policy or banking. Various advantages enjoyed by more developed nations such as the US has prompted the Central Bank of Nigeria (CBN) to adopt the cashless policy.

TABLE OF CONTENTS

CHAPTER THREE: RESEARCH METHODOLOGY

CHAPTER FOUR: DATA PRESENTATION AND ANALYSIS

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMNDATIONS.

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND TO THE STUDY

The introduction of electronic banking, online transaction and mobile banking in Nigeria has paved way for a new dawn of development where the use of cash and it demand is gradually declining. These recent evolution of technology in the Nigeria financial institutions creates interesting questions for financial institutions, economist, business analyst and the government regarding the current economical status, logistics, and availability of instruments to guarantee economic growth and stability, efficiency and effectiveness of the cashless policy. Since the creation of man, diverse payment methods have been used to purchase goods and services, with starting with the trade by barter.

The trade by barter system of transaction has been the bedrock for the introduction of money to solve problem of double coincidence of wants and divisibility faced by barter. The use of money/coins was introduced after the use of trade by barter system, and has solved so many challenges associated with trade and barter, but the use of money as an exchange medium has its own challenges and disadvantages and can still be replaced with a better payment system called the cashless policy or banking. Various advantages enjoyed by more developed nations such as the US has prompted the Central Bank of Nigeria (CBN) to adopt the cashless policy.

At the end of the 1980s the use of cash for purchasing consumption goods in the US has constantly dropped with inflation (Humphrey, 2004). Nigeria aim to be among the biggest economy by 2020 has driven her to gradually move from a pure cash economy to a cashless policy. Since Nigeria gained her independence in 1960, there have been different constitutional

reforms, change in economic and banking policies mainly aimed at stabilizing the economy enhancing social welfare and enhancing economic growth and development.

In view of being one of the best and biggest economies in 2020, the CBN has started implementing the cashless policy/banking in some major sates/cities in Nigeria. The CBN and pro cashless policy activists have asserted reduction in crime rates, minimized risk associated with carrying huge sums of money, reduction in political corruption, in banking cost, improvement on monetary policy in management of inflation and the overall growth and development of the economy of Nigeria as merits associated with the implementation of the cashless policy.

Over the last few years the Nigeria financial sector has witnessed increase in the call for a shift from cash-based economy to cashless economy. The policy which is becoming a major priority for governments, NGOs and companies focused on expanding it financial access to the general public. Recent statistic shows that near 2.5 billion people (almost half the world's adult population) do not have access to formal financial services.Without basic payments and savings account. Money is often kept in cash at home thus increase the circulation of money and increases the risk of theft or loss. The implications of this financial exclusion are significant and far-reaching, reinforcing the cycle of poverty and slowing economic progress.

Information technology (ICT) plays an important role in bringing about sustainable development in every nation. Without an optimal use of information technology, no country can attain a speedy socio-economic growth and development. According to Kosoko, "The future of all business, particularly those in the service industry lies in information technology. In fact, information technology has been changing the way companies compete. Banks are companies

engaged in banking business. Their future is therefore linked to the pervasive influence of information technology."

Information technology is more than computers. It encompasses the data that a business creates and uses as well as a wide spectrum of increasing convergent and linked technologies that process such data. Information technology thus relates to the application of technical processes in the communication of data. It is beyond doubt that information technology can help reduce transaction costs for banks, which will translate to lower prices for services to customers. Information technology for banks takes different forms, the forms include:

(a) Computerization of customers account and account information storage and retrieval

(b) Deposit and withdrawal through Automated Teller machines (ATMs)

(c) Networking to facilitate access to accounts from any branch of the bank.

Further forms include bio-metrics used in finger-printing and identification which should dispense with the use of passwords or Personal Identification Numbers (PINs) in the initiation of transaction of transaction by customers. The use of the internet and websites to bundle a host of services that go beyond traditional financial services which is increasing among banks, is also a product of information technology in banking. It was therefore hardly surprising that the Central Bank of Nigeria (CBN) introduced the cashless policy in Nigeria in order to ensure that banking services get to everybody and offers all platforms for empowerment that will change the way people transact business and living generally.

A cashless economy is an economy is an environment in which money is spent without being physically carried from one person to the other. The first issue in the cashless economy is the issue of electronic purse. This is electronic information that is transmitted to a device which

reveals the information about how much a person has stored in the bank and how much he can spend. The advantages of a cashless economy are enormous; cost of transportation and the danger of carrying large sum of money about will possibly reduce. The policy claimed by the makers will enhance the integration of our economy as presently 18.8 percent of the country's rural population are largely unbanked. According to the CBN, this policy when fully implemented will drive Nigerian's huge informal economy which is driven by small scale farmers, traders, craftsmen and other types of small and medium sized business and eventually integrate it into the nation's formal economy.

The move to use electronic cash, commonly dubbed "cashless" however, has its own challenges which in Nigeria appears to be accentuated by the perennial problem of inadequate physical and social infrastructure. The introduction of the policy in Nigeria therefore brings up issues that touch on security, privacy, crime and computerization. Societal acceptance of the policy is therefore critical to its sustenance or the tendency to rebel against it by the common man on the street becomes imminent. However, as the financial institutions have implemented such things as debit cards, credit cards, internet banking, etc, it has slowly brought society into the acceptance zone whereby another step could be taken. Without society being able to understand the pros and cons of electronic cash, the full benefit of the cashless society may never be realized.

The cashless policy will potentially result in an extensive application of computer technology in the financial system, as technologies are developing rapidly on the transfer of funds from one place to another. This places the Computer

Professional Registration Council at the centre of control and regulation of the emerging technology in our economy. It has been argued that cashless transactions are viable and more secured mode of payment in any economy. Currently, about 63.7 per cent of Nigerians do not

have bank accounts but the new initiative would enhance banking habit among individuals, especially among the rural dwellers so that they can easily transfer money to their people wherever they might be.

The high cost of minting the Naira has also necessitated an alternative economic system where less or no cash is required for various transactions. Specifically, the average cost of producing a naira note is about N4.00. Producing N1 billion notes of Nigerian Naira, therefore, means spending N4 billion. Hence the cashless policy introduction by CBN to reduce the cost involved in minting the naira as much as possible. This latest development, according to the apex financial regulatory authority is therefore, coming on the heels of increasing dominance of cash in the economy with its implication for cost of cash management to the banking industry, security, money laundering, among others.

The cashless policy itself is the trend in most countries of the world. Almost all the central banks across Africa are bracing up for a cashless economy because almost all African countries have the same problems associated with cash based economy. There is slow processing time involved in counting and queuing for deposits in the bank. In the other way round, the naira is not durable and security of handling cash is not guaranteed. Cash is difficult to document because it is to capture all the money in the financial system. About two years ago, a World Bank study revealed that about $10 billion cash transactions that move just between Nigeria, Ghana and Cote de voir shows no clue about how it comes and how it goes. The transactions were not recorded or reported anywhere in our system. This means government cannot even plan based on that.

A cash-based economy encourages money laundering activities. There is also a high level of tax evasion in such an economy. But the cashless policy is not all roses. It has as much challenges as its benefits. Accordingly, experts and many

Nigerians have expressed doubts about the capacity of Nigeria to truly move on progressively as a cashless society. Variously, issues have been raised about the viability of the policy in view of the enormous challenges confronting its effective implementation, and the ability of the CBN to effectively water the storm and carry out the policy as planned.

The apex bank financial institution in any economy is the central bank of that country and it plays a major role in the economic development process of that nation. De'kock (1998:4) defines a central bank as a bank which constitutes the apex of the monetary and banking structure of a country and which performs as best as it can be in the national economic interest the following function of regulation of currency in accordance with the requirements of business and the general public, custodian of cash reserves of commercial bank, custodian and management of foreign exchange observers, lender of last resort, controller of credit clearing house for transfer and settlement and also acts as the banker, fiscal agent and adviser to the government.

In Nigeria, the mission statement of the Central Bank of Nigeria (CBN) is to be proactive in providing a stable framework for economic development through effective, efficient and transparent implementation of monetary and exchange rate policy and management of the financial system (CBN, 2011). It is in line with this mandate that it has introduced various monetary policies that would strengthen the financial system and cashless policy which ensures efficient and modern payment system is one of such which is geared to achieve the goal of being

amongst the top 20 economies by year 2020 (vision 20:2020). This is in fact one of the cardinal objective of cashless policy.

The vision 20:2020 statement reads that "by 2020, Nigeria will have a large, strong, diversified, sustainable and competitive economy that will effectively harness the talents and energies of its people and responsibly exploits its natural endowments to guarantee a high standard of living and quality of life to its citizens" (NV20:2010). Nigeria occupies unenviable position of number one country in Africa with the largest number of people with no access to financial services even as cash constitutes the main mode of payment. Microfinance information Exchange (2010) posits that Nigeria and Democratic republic of Congo were found to have the largest gaps between populations living in poverty and those without access to financial services, it is said to cost the CBN a huge amount of money to print bank notes.

The effect of this is that there exist short run changes in the volume of money which causes the CBN to have little or no control over the money volume. This has made it increasingly clear and important to maintain monetary stability because it is central to the economic policy since the major task of CBN is to sustain a non inflationary environment. Furthermore, the high dependence on cash for settlement has resulted in the inefficient allocation of resources and a low dept of financial intermediation with downside effects on monetary operators and monetary policy management. To address this and many other issues facing the banks and the nation's economy, the CBN introduced cashless economy policy in cash based transactions which stipulates a "cash handling change" on daily cash transaction, withdrawals or cash deposits

which aims at reducing the amount of physical cash circulating in the economy, and encouraging more electronics based transactions.

1.2 STATEMENT OF THE PROBLEM.

Monetary policy as a technique of economic management to bring about sustainable economic growth and development through cashless policy and banking introduced by the Central bank of Nigeria (CBN) is not fully operational due to high rate illiteracy, inadequate sensitization/education of the benefits of the cashless policy, and inadequate logistic (such as the provision of internet connections in commercial area, computers and point on sales (POS) machines).

Apart from the physical challenges, economic data and indicators are not fully available and reliable. There as a great challenge in attempting to analyze the true impact of the cashless policy on the economy of Nigeria as only few monetary and macroeconomic indicators can be traced with relation to the subject matter and several scholars have attempted to analyze the cashless system or e-banking . However, it becomes clear that few studies present a comprehensive evaluation of cashless banking implications in developing countries. Most ignore its economic benefits of the equation while some do incomplete examination of its negative implications. This is often due to unreliable panel data for monetary and macroeconomic indicators although this study focuses on Nigeria; it is difficult to translate cashless studies from one country to another. Even payment instrument that looks similar across countries on the surface maybe different due to historical and legal variations (Daniel et al. 2004).

1.3 OBJECTIVE OF THE STUDY

The main objective of the study is to examine the impact of the cashless policy on the economy of Nigeria, and how it affects economic growth. Specific objectives of the study include:

i. To examine the impact of the cashless policy on customer deposits in commercial banks.
ii. To analyze the correlation that exists between cashless policy and effective implementation of cashless banking in deposit money banks.
iii. To analyze whether cashless policy challenges significantly affects banks performance Nigeria.

1.4 RESEARCH QUESTION

The question involve in these project research will help to answer the following problem encounter by operator of cashless policy and electronic banking Nigeria. The questions are a following:

i. What impact does cashless policy have on customer deposits in commercial banks?
ii. Does strong correlation exists between cashless policy and effective implementation of cashless banking in deposit money banks?
iii. Do the cashless policy challenges significantly affect banks performance in Nigeria?

1.5 RESEARCH HYPOTHESIS

H01: Cashless policy has no significant impact on customer deposits in commercial banks

H02:there is no strong correlation between cashless policy and effective implementation of cashless banking in deposit money banks

H03: Cashless policy challenges does not significantly affects banks performance Nigeria.

1.6 SCOPE OF THE RESEARCH

In pursuance of the objective of the study: attention shall be focused on electronic banking among the electronic commerce implementation. In order to conduct an empirical investigation into the adoption of electronic banking in Nigeria and will also examine the nature of electronic banking operations from the CBN bulletin from 2010-2012.

The research will also examine the benefit if the implementation of cashless policy and electronic banking survives in Nigeria.

1.7 SIGNIFICANCE OF THE STUDY

The study will give various insights into the various Implications the introduction of the cashless policy will have on the economy of Nigeria. Through examining various economic indicators such as the gross domestic product (GDP) and inflation, the study will examine and compare growth trends and changes to determine the cashless policy introduced by the CBN has a negative or positive effect on the economy of Nigeria. Various challenges and prospects identified in the study will also enable various stakeholders to tackle these challenges effectively by making policies that will address them and boost the economy of Nigeria.

The research is significant or important to the Nigeria banking system as it extend the knowledge base that currently exist in the challenges faced in the implementation of cashless policy and electronic banking in Nigerian and the possible adaptation of cashless economy and electronic

banking in the Nigerian banking sector. These concept is relatively new to majority of banking institution and their customer, the handful of banks who have chosen to embrace the concept and implement the policy have welcome technology and best customer satisfaction in the institution.

Therefore, this research which explores the challenges, prospects and implementation of cashless policy through electronic banking in Nigerian banking sector, and the research will help to create awareness among those who are unacquainted with its potential applications and benefits within the industry.

1.8 DEFINITION OF TERMS

Access products that allow consumers to access traditional payment instrument electronically, generally from remote locations.

ATM Card- An Automated Teller Machine card (also known as a bank card, client card, key card, or cash card) is payment card provided by financial institution to its customers which enables the customer use it for transactions such as: cash withdrawal, deposits, obtaining account information, and other types of banking transactions. Often through interbank network.

Chip Card- Also known as an Integrated Circuit (IC) Card. A card containing one or more computers chips or integrated circuits for identification, data storage or special purpose processing used to validate personal identification numbers, authorize purchases, verify account balances and store personal records.

Electronic Data Interchange- (EDI) Is the electronic interchange of business information using a standardized format, that is it allows a bank to send information to another bank electronically rather than using paper.

Electronic Money. Is the money balance recorded electronically on a stored value card. These card have microprocessors embedded which can be loaded with a monetary value.

Internet Banking- Also known as online banking is an electronic payment system that enables customers of a financial institution to conduct financial transactions on a website operated by the institution, such as retail bank, virtual bank, credit union or building society.

Mobile Banking – This is a product that offers customers of a bank access to services on their mobile phones any where they are. Customers can make their transactions anywhere such as balance enquiry, statement of financial position, stop checks, bill payment, electronic fund transfer, updates and history, and other customer services.

Payment System- Is a financial system supporting transfer of funds from suppliers (savers) to the users (borrowers), and from payers to the payees, usually through exchange of debits and credits among financial institutions.

Point of sale (POS)- A point of sale is the payment device that allows credit/debit cardholders make payments at sales or purchase outlets. It allow customers to perform the following services like retail payments, cashless payments, cash back balance inquiry, airtime vending, loyalty redemption, printing mini statement, etc.

Smart Card- This is a plastic card about the size of a credit card with an embedded microchip that can be loaded with data, used for electronic cash payments, telephone calling, educational and security information can be stored and processed.

Transaction Alert- Customers carry out debit or credit transaction on their accounts and the need to keep track of these transactions prompted the creation of the alert system by the bank to notify customers of those transactions. The alert system also serves as notification system to reach out to customers when necessary information need to be communicated.

Western Union Money Transfer (WUMT)- Western union money transfer is a product that allow people with relatives in Diaspora who may be remitting money for home and family up-keep, project financing, school fees, etc. Nigerian communities known for having their siblings gainfully employed in other parts of the world are idle markets for Western Union Money Transfer.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter is devoted to the review of related literature to concept of cashless policy and banking, challenges of cashless policy, advantages and disadvantages of cashless policy, as well as prospects of cashless policy. It also reviews the empirical and theoretical frame work of the study.

2.2 Concept of Cashless Policy

Cashless system is the ability to store money in an electronic purse on a card and is fast becoming standard practice throughout the workplace. The Cashless initiative currently led by the Central Bank of Nigeria (CBN) is already live in Lagos since on 1st of January, 2012. The CBN implemented this new initiative for a cashless economy and the safe and secure options for making electronic payments in other parts of the country. For better understanding of the cashless banking, the major controversial concept in context of the financial system is “electronic payment”. An electronic payment in its simplest sense is the making of payment(s) via an electronic terminal or platform and forms an integral part of the vast ecommerce ecosystem. The importance of ecommerce seems to be hinged on the prediction of JP Morgan senior analyst Imran Khan that global ecommerce revenue is expected to grow nearly 19 per cent in 2011 to the tune of $680 billion (Munich Personal Repec Archive, 2012).

Electronic payment systems can be grouped into four broad categories: online electronic cash system, electronic cheque system, smart cards based electronic payment system and online credit card payment system.

Also, Humphrey and Berger (1990) present one of the earliest attempts to comprehensively estimate the private and social costs for nine separate payment instruments- cash, cheques, credit cards, money orders, point of sale (POS), Automated Clearing House Transfers (ACH), ATM bill payments, travelers 'cheques and wire transfers. They find that from a social cost perspective, cash is the cheapest payment instrument, followed by ACH, POS and ATM bill payment. From a private perspective, cheques emerge as the cheapest payment method followed by cash, ACH and POS bill payments. However, the influence of government intervention was prematurely considered as there was no calculation of net benefits of such payments instruments (Daniel et al, 2004). For the purpose of this research work, only few of the cashless banking instruments will be considered so as to determine its impact on banks profitability. They include; the ATM, POS, E-commerce, Internet Banking, and Cheques.

2.2.1 Telephone and PC Banking Products

This is a facility that enables customers, via telephone calls, find out about their position, with their bankers merely dialing the telephone numbers given to them by the banks. In addition, the computers on the phone would require special codes given to the customers as a means of identification of authentic users before they can receive any information they requested for. This is a service introduced into the banking balance as a result of computer telephone technology being made available Ovia (2013). The technology banking has a universe of possible application limited only by the imagination. These areas include: Account balance enquiry; Account statement printing; intra-Banks Account to Account Transfer; inter-banks Account to Account Transfer; Download Account Transaction etc.

Telephone and PC banking brings the bank to the doorstep of the customer, it does not require the customer to have his premises; interactive Voice Response becomes a regular feature of

operations; Text-to-speech capability becomes reality; A uniformed messaging capability become permanent feature of the bank.

2.2.2 The Card System

The card system is a unique electronic payment type. The smart cards are plastic devices with embedded integrated circuit being used for settlement of financial obligations. The power of cards lies in their sophistication and acceptability to store and manipulate data, and handles multiple applications on one card securely (Amedu,2015). Depending on the sophistication, it can be used as a Credit Card, Debit Card and ATMs (Automatic Teller Machine). While the electronic card is gaining popularity in USA and Nigeria, the Spanish financial Institution demonstrated the highest implementation and update of smartcards across Europe (Amedu, 2015).

The Smart Card was introduced into the Nigerian market to reduce or eliminate problems of carrying cash about (Amedu, 2015). It is electronically loaded with cash value and carried about like credit card and stores information on a microchip. The microchip contains a "purse" in which value is hold electronically. In addition, it also contains security programs; these protect transactions between one card user and the other.

It can also be transferred directly to a retailer, merchant or other outlet to pay for goods and services, and like cash, transaction between individual without the needs for banks of the other third parties. Also, the system does not require central clearing. It is valued immediately. Also the system allows transfer of one value to the other hence it operates like cash.

2.2.3 The Automated Teller Machine (ATM)

ATM is a combined computer terminal, with cash vault and record-keeping system in one unit, permitting customers to enter the bank's book keeping system with a plastic card containing a

Personal Identification Number (PIN). It can also be accessed by punching a special code number into the computer terminal linked to the bank's computerized records. It is cash dispensing machines, deposits, funds transfer between two or more accounts and bill payments. A fundamental advantage is that it needs not to be located within the bank premises. It is usually in stores, shopping malls, fuel stations etc. authentication is provided by owners through different ATM service providers who are also interconnected so one needs not to worry about which company services a particular ATM machine. Inter switch for example supports visa and master cards on her ATM machine.

2.2.4 Point-of-Sale (POS) terminal

This is an electronic device that is used for verifying and processing credit card transactions. Typically connected via highly reliable telephone wired connections, they require rapid dial up time, low power and reliable performance. A Retail Point of Sales system typically includes a computer, monitor, cash drawer, receipt printer, customer display and a barcode scanner, and the majority of retail POS systems also include a debit/credit card reader. It can also include a weight scale, integrated credit card processing system, a signature capture device and a customer pin pad device. More and more POS monitors use touch-screen technology for ease of use and a computer is built in to the monitor chassis for what is referred to as an all-in-one unit.

2.2.5 Online Banking (or E-banking)

This allows customers of a financial institution to conduct financial transactions on a secure website operated by the institution, which can be a retail or virtual bank, credit union or building society. To access a financial online banking facility, a customer having personal Internet access must register with the institution for the service, and set up some password (under various names) for customer verification.

Online banking allows customers to get current account balances at any time. Customers do not need to wonder whether a cheque is cleared or deposit has been posted, at the click of a button customer can easily check the status of their current, savings and money market accounts, through online banking. Online banking gives the ability to pay bills electronically, customers can also download account transactions online, and it is also easy to import the transactions directly into typical PC at home or the office. In summary customer can access his account from any part of the globe.

2.2.6 Cheque

A cheque is a paper based payment instrument whose usages are still gaining ascendancy. The Automation focus on this instrument is to reduce the number of clearing days and improve on security arrangement in the course of settlement and collection. For example, in Nigeria the Central Bank of Nigeria CBN has just embarked upon online clearing and Nigeria has signified interest and signed path to this project **(**Johnson, 2015).

2.3 Overview of Cashless Policy

The Central Bank of Nigeria (CBN) introduced the policy on cash based transactions which stipulates a "Cash handling charge" on daily withdrawals or cash deposits. It aims at reducing (not eliminating) the amount of physical cash (coins and notes) circulating in the economy and encouraging more electronic based transactions. The pilot phase of the cashless policy commenced in Lagos on April 1st 2012 and was scheduled to be extended to be extended to 5 states and the Federal capital territory (FCT) on January 1st 2013. However, the CBN issued a statement on February 26th in Abuja stated that the policy would now commence on July 1st in the 5 states and the FCT. The states are Ogun, Rivers, Kano, Abia and Anambra.

The highpoints of the policy was decision to peg customer's daily withdrawal or deposits to a maximum of N150, 000 per individuals customers and N1 million for corporate clients. However, after series of outcry, the CBN in response to the public outcry over the daily ceiling on cash transactions and deposits raised the limits to N500, 000 for individuals and N3million for corporate clients. It is however quick to note that the policy does not prohibit withdrawals or deposits above the stipulated amounts, but that any over the counter cash transaction will be subjected to cash handling changes. Thus, withdrawals for individuals will be 3% above the N500, 000 thresholds and for corporate clients; it will be 5% above the N3million threshold. For cash deposits however, it would be 2% if an individual is depositing above N500, 000 and 3% if corporate clients are depositing above N3million.

The CBN in this policy granted partial exemption to revenue collection ministries, departments and agencies (MDAs) of the federal and state governments on lodgments for account operated by them for the purpose of revenue collection only.

Similarly, exemption was given to all diplomatic missions, multilateral and aid donor agencies and embassies in the country from penalties and charges on cash withdrawal and deposits with regards to the cashless policy, because Nigeria is a signatory to several treaties which exempts such specialized international institutions from all fees and charges in the host country. Microfinance banks and mortgages institutions penalties on cash limit was also waived.

2.4 E-Payment as a Veritable Tool to Achieve Cashless Policy

Electronic based transactions are a major tool used to discourage high circulation of cash in any economy. It is a sine qua non to the implementation of cashless policy as it desirous to make it succeed. Electronic cash is a system that allows individuals purchase goods or services in today's society without the exchange of anything tangible. The term money still exists, but it is more in

an electronic form. This is more acceptable as the world over makes a shift towards a cashless society which is being sold as a more convenient method of payment and a method of preventing crimes all the way from robbery of cash from individuals to the extent of money laundering among crime syndicates and cash stockpiling at home by corrupt government officials.

BCB (2012) defines electronic money as an electronic store of monetary value on a technical device that may be widely used for making payments to undertakings other than the issue without necessarily involving bank accounts in the transactions, but acting as a prepaid bearer instrument. The Basel Committee Report on Banking and Supervision (2013) defines electronic banking as the provision of retail and small value banking product and services through electronic channels. Such product and service can include deposit taking, lending, account management, provision of financial advice, electronic bill payment and the provision of other e-payment product and service such as e-money. Below are some of the e-banking product and services that is pivotal to implementation of the cashless policy.

2.5 E-Banking Product and Services in Modern Day Economy

2.5.1 Point Of Sale Terminals: This mode of e-banking handles cheque verification, credit authorization, cash deposit and withdrawal and cash payment. it enhance electronic fund transfer at the point of sales. Thus customers account would be debited immediately with the cost of purchase in an outlet such as a petrol station or supermarket. The implication of this is that customers can make payment for goods and services without necessarily coming in contact with physical cash as the purchase price would be debited on the buyer's card and credited on the seller's account.

2.5.2 PC Banking : The technology of e –banking has a universe of possible applications. Online banking for example provides the opportunity of paying bills and performing transactions

of any kind. The availability of online information has provided banking and customer with a powerful vehicle for research.

2.5.3 GSM/Mobile banking: This mode of e-banking primarily uses mobile phones as the electronic devices. Mobile phone gives customer the opportunity to operate their account with bank as long as their phones and network services provider support the SMS (short messaging service) which would enable the customer check account balance.

2.5.4 ATM: Automated teller machine is a computer controlled device that dispenses and provides other services to customers who identify themselves with a personal identification number (PIN). The physical carriage of cash as well as frequent visit to the banks is being reduced. The principal advantage of ATM is that it dispenses cash at anytime of the day even as it needs not to be located within the banking premises but in stores, shopping malls, fuel stations etc. unlike the traditional method where customers have to queue for a very long period of time to withdraw cash or transfer funds.

2.5.5 Bankers automated clearing services: The automation focus of the instrument is to reduce the number of clearing days and improve on security arrangement in the course of settlement and collection of cheques. it involves the use of magnetic ink character reader (MCR) for cheque processing which makes it capable to encode, read and sort out changes even as request for cheque books can be made via electronic devices.

2.5.6 Card System: it is a unique electronic payment type which involves the use of smart cards. Smart cards are devices with embedded integrated circuit being used for settlement of financial obligations. It can be used as credit card, debit card and even ATM cards. The power of these cards lies in its sophistication and acceptability to store and manipulate data as well as handling of multiple applications on one card securely.

2.6 The Entry of Nigerian Banks into Electronic Banking

Electronic banking both as a medium of delivery of banking services and as a strategic tool for business development, has gained wide acceptance internationally and is fast catching up Nigeria with more and more banks entering the fray. Nigeria can be said to be the threshold of a major banking revolution with net banking having already been unveiled (Ovia, 2013). Of all the sectors in the Nigeria Economy, Banking stands out despite "a not too good" Economy.

Electronic banking provides the facility of accessing customer accounts from anywhere in the world by using a home computer with Internet connection, is particularly fascinating to Non-Resident Nigerians and High Net worth Individuals having multiple bank accounts. The growth potential is, therefore, immense. Further incentives provided by banks would dissuade customers from visiting physical branches, and thus get 'hooked' to the convenience of armchair banking.

At present, the situation does not seem to have shown any significant improvement.

Whereas about 90 percent of the banks in the country offer other forms of electronic banking services like telephone banking. ATM and electronic fund transfer, Internet banking is yet to take centre stage. This aspect of banking is still at the basic informative stage (Ovia, 2013) this is so despite the widely acclaimed benefits of Internet banking against the traditional branch banking practice. Part of the reasons identified for the inability of banks in Nigeria to take full advantage of this mode of banking includes lack of adequate operational infrastructure like telecommunication and power, upon which Electronic banking generally relies. Due to the inability of the banks to integrate their operations into the Internet development process, Internet banking can be said to have less in the existing banking structure in the country.

Earlier articulate reasons why Internet Banking was having a moderate economic impact in the country include that Nigerian bank customers are not on the average trained on for teller jobs and the working of internet banking, a situation which makes transaction processing via internet banking prone to error; the absence of a clearly defined legal frame-work for internet banking, leaving banks with inadequate legal cover to provide the services; and poor telecommunication infrastructure all over the country.

In addition, the fact that internet assuage in the country has been abused by cyber criminals makes its window unattractive for domestic banking operations and legitimate international operations. The inherent fear associated with patronizing internet banking services in Nigeria is again re-enforced by the growing evidences that the world over, dubious Nigerians use fake websites to scoop funds from unsuspecting victims. In some cases, these crimes are committed using existing bank sites.

2.6.1 Threats of Cyber-Crimes on the Nigerian Banking Premises

The Advances fee fraud or 419, which is one of the most popular of all internet frauds, has its origin from Nigeria in the 1980s. Its development and spread follows the path of the developments in information technology at inception, postal letters were used as key media for committing 419 frauds. Later in the early 1990s, it became integrated into telecommunication facilities such as the telephone and fax from the late 1990s following the introduction of computers and internet, 419 crimes became prevalently perpetrated through the use of e-mail and other internet means (Amedu, 2015). The latest dimension taken by the perpetrators of this crime is the use of fake internet bank site, and using that to encourage victims to open accounts with them.

The country is country is the third highest ranked in internet ‘money offer’ frauds. Aswas reported in one of the national newspapers, frauds and forgeries in Nigerian bankas at June 2005 stood at 329 or N1.15 billion monetary equivalent, against 222 cases orN1.47 billion monetary equivalent in April same year. There is even global suspicionthat a Nigerian crime syndicate that coordinates global crimes such as moneylaundering, bank fraud and 419 seams exists today. These issues basically defeat thekey ingredients of electronic banking, which includes confidentiality, integrity andavailability.

Several factors are responsible for the above situation. They include inordinatetolerance for corruption among Nigerian public and government agencies; weakness ofthe existing legislative/judicial institutions to make and enforce relevant laws on cybercrimes;quality of graduates in terms of professional values and ethics; chronicunemployment among graduates, and the widening gap between the few rich and themany poor caused mainly by bad governance. In the main, erosion of good valueprinciples and corruption constitute the greatest cause of rising cyber-crimes amongNigerian (Domestic electronic payment in Nigeria) (Amedu, 2015). This, according totransparency International, is worsened by fact that several generations of Nigerianshave been raised in this norm. Hence, what is seen as a dangerous global crime issocially acclaimed and glamorized in Nigeria.

The above situation constitutes the environment upon which Electronic banking hasemerged in Nigeria. Although the level of the adoption and practice of electronicbanking (especially Internet banking) has remained quite insignificant, global projectionsstill remains that Information Technology would continue to play a revolutionary role inthe development and delivery of banking products and services all over the world. Ineffect, it is this projection that has raised pertinent regulatory questions concerning electronic banking, especially in Internet fraud-

infested countries like Nigeria. One keyissue here borders on how to handle the rising level of frauds and forgery prevalent inthe entire banking system; and how to make Internet banking fit well in the bankingstructure of a country so notoriously identifiable with criminals use Internet access.

2.6.2 Socio-Cultural Challenges

Cultural and historical differences in attitudes and the use of different forms of money (e.g. use of credit card in North America and use of debit cards in Europe) complicate the task of developing an electronic payment system that is applicable at international level (Taddesse&Kidan, 2015). According to Taddesse&Kidan (2015), difference in the degree of the required security and efficiency among people of different cultures and level of development aggravates the problem.

Consumer's confidence and trust in the traditional payments system has made customers less likely to adopt new technologies. New technologies will not dominate the market until customers are confident that their privacy will be protected and adequate assurance of security is guaranteed. (Taddesse&Kidan, 2015). New technologies also requires the test of time in order to earn the confidence of the people, even if it is easier to use and cheaper than older methods.

2.7 Cashless Banking and Nigerian Banks

The cashless banking system which is also known as 'Electronic banking' has both as a medium of delivery of banking services and as a strategic tool for business development, has gained wide acceptance internationally and is fast catching up Nigeria with more and more banks entering the fray. Nigeria can be said to be the threshold of a major banking revolution with net banking having already been unveiled (Ovia, 2013). Of all the sectors in the Nigeria Economy, Banking stands out despite "a not too good" Economy.

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again re-enforced by the growing evidences that the world over, dubious Nigerians use fake websites to scoop funds from unsuspecting victims. In some cases, these crimes are committed using existing bank sites.

2.8 Cashless Policy and the Regulatory Challenges on Commercial Banks

At the national level, the Nigerian government and the relevant regulatory agencies have strived to match the rapidly changing electronic banking environment with necessary regulations and frameworks (Soludo, 2014). Earlier efforts made to this effect included the enactment of the Failed Banks (Recovery of Debts) and Malpractices in Bank Decree No. 18 of 1994, and the Money Laundering of 1995. However, as noted above, poor enforcement procedure rendered these instruments very inactive in checking the menace of financial crimes. By the late 1990s, following record growth internet and computer usage in the country, almost all the regulations guiding the banking industry, including the Banks and Other Institution Act of 1991, were lacking adequate provisions to accommodate the emerging trend. Not even a mention of electronic banking or any manner of its application was mentioned in any of those prevailing regulatory documents. The situation created a lot of gaps between the levels of CBN regulatory tools and the advances in information technology. This at the same time made the banks vulnerable to all kinds of risks, including transaction, strategic, reputation and foreign exchange risks (Soludo, 2014**).** This deficiency notwithstanding, it is not until 2003 when the maiden guidelines on electronic banking came into force.

The electronic banking guidelines emerged from the findings of a Technical Committee on Electronic Banking set up by the Central Bank of Nigeria in 2003 to find appropriate modalities for the operation of electronic banking in the country. It was indeed the findings and recommendations of the committee that led to the adoption of a set of guidelines on Electronic

Banking in August 2003. Of the key provisions of the guidelines, only a section deals with issues relating to Internet Banking Section 1.3 paragraph 4 of the guidelines, exceptionally stresses that banks should put in place procedures for maintaining the bank's Web site, including the various security features needed for Internet banking services (CBN, 2013).

Despite its numerous technical specifications, the guidelines have been widely criticized as not being enough to check the growing popularity of Electronic banking against the backdrop of growing sophistication in technology related crimes and frauds. Closer examination of the contents of the guidelines equally shows that the document fails to meet up with the four key areas where Electronic banking may have regulatory impact – changing the traditional lines upon which existing regulatory structures are laid; handling concerns about existing public policy issues; changing the nature and scope of existing risks; and rebalancing regulatory rules and industry discretion. Again, some important recommendation of the Technical Committee that gave rise to the adoption of the guidelines was completely omitted. This is especially so with the Committee's report, which among others recommended that all banks, intending to offer transactional services on the Internet /other e-banking products, should obtain an approval-in-principle from CBN prior to commencing these services.

Part of the criticisms is that the recent guidelines are capable of constraining the practice and development of Electronic Banking Nigeria. One of such areas, for instance, is the requirement on electronic banking product development. While acknowledgement that the existing regulations would apply wholly on electronic banking, section 4.2 of the Guidelines emphasizes that only banks, which are licensed, supervised and with physical presence in Nigeria, are permitted to offer electronic banking services in Nigeria, and that virtual banks are not to be allowed. The Guidelines also gives indications that the products/services can only be offered to

residents of Nigeria with a verifiable address with the geographic boundary of Nigeria; any person residing physically in Nigeria as a citizen, under a resident permit or other legal residency designation under the Nigerian Immigration Act; any person known herein as a "classified person" who neither is temporarily in Nigeria. The Guidelines go further to indicate that the e-banking service should be offered in Naira only; and that where such a service is to be provided in foreign currency, it should be to only the holders of ordinary domiciliary accounts, and conform with all foreign exchange regulations

On some other aspects, the Guidelines have been criticized by Bank executive and customer for not addressing adequately the critical issues concerning Internet security. It failed to explicitly recommend a standard that allows banks to examine potential threats that may already be in existence in each individual financial institution's current network.

In addition to this array of criticisms, the workability of proper Internet framework is also queried amidst the poor state of basic information technological infrastructure in the country. This is essentially necessary since Electronic Banking generally relies on the existence of adequate operational infrastructure like telecommunications and power to function effective. Though little success has been recorded, the supply of these requisite facilities is very erratic in the Nigerian case. Where they exist, high cost of acquisition and maintenance tend to deny a greater percentage of the population access to them. The case of Internet access is a glaring one where majority of the citizens rely solely on the services of commercial cyber cafes to meet their Internet needs. It is expected of the E-Banking Guidelines to provide procedures not only for banks investment in Internet facilities, but also in promoting customers' access to such.

Unfortunately, none of such is contained in the document

Prior to the merger, each of the four banks maintained a unique brand, discernable areas of coverage, an easily identified degree of strength and competencies in various areas of banking services and a fair share of the market.

Technology is undoubtedly a very important tool of every bank's competitive strategy. It had drawn the line between success and failure.

2.8.1 Challenges of cashless policy implementation in Nigeria

i. **Lack of Unique National Identity System** which makes it difficult to implement the policy efficiently and effectively. The effect of this is that one can rob Peter to pay Paul. Thus, one can dupe a bank today and reappear in another area under another name.

ii. **Inadequate infrastructure** which ranges from network failure, inadequate ATM and POS machines and epileptic power supply which is critical to efficient electronic payment system will undoubtedly militate against the success of cashless policy. For example, some ATM and POS machines do not work when the consumers need them because it is out of service or unable to dispense cash.

iii. **High rate of illiteracy** and poor sensitization has been a major challenge in a country where literacy rate is still very low especially in the northern part of the country. Inadequate education coupled with poor enlightenment of bankers and customers on various aspects and issue of electronic payment transactions and cashless policy before launching the scheme has made the strategies for marketing the project fall short of expectations.

iv. **Poor timing and sequencing** for both the policy and penalty which is too stiff for Nigeria who have a strong habit of using cash for most of their transactions has limited the success of the policy because inherent implementation of a policy of this kind

demands attitudinal change from the public which constitutes an inherently complete endeavor that involves multiple players and multiple system.

v. **Prevalence of e-fraud/Consumer Protection:** Another major concern would be the risk involved, because if the process is rush and the economy losses confidence in the system due to high level of fraudulent activities, it will be devastating to the Nigeria economy.

vi. **Religious beliefs:** Recently there has been psychological war in the country over the proposed Islamic bank by the CBN. The Muslims believe that the conventional banks are guilty of sinning against God by their interest charges. This has been one of the reasons why the achievement of the cashless Nigerian society is doubted.

vii. **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 been formulated. Enforcements of new legislation would be carried by the CBN and all other executive arms that are empowered such as the EFCC. They must commit to training of personnel and the judiciary must be prudent and up to the task.

viii. **Epileptic Public Power Supply:** Another known infrastructural challenge is the public power supply system. Electric power is critical for efficient e-payment. Unfortunately in Nigeria, the power system is very epileptic where it is available and in most rural areas it is non-existent. This undoubtedly will militate against the success of the cashless policy in Nigeria.

2.9 Advantages/benefits of cashless policy

A lot has been said about the convenience of electronic cash, the time it saves for individuals, and the ease of access resulting in money being instantly available for us without having to be

carried around while currency exchange will be largely unnecessary. A cashless society will experience a high degree of control as the move from cash to electronic money (electronic credit) is a part of a well-organized attempt to unify the world and control it through its currency. It will be a big booster for bringing the economic uniformity in the world. A cashless society will further enhance the globalization that characterizes our present time. The computerized systems can be used to reduce the amount of paper trail. Also replacing paper cash with cashless credits or electronic money transfers can at least minimize crime, illegal drug trade, terrorism, illegal immigration, human trafficking and corruption. A cashless society will go a long way in making our society and the earth a better place to live, with reduced rate of criminal activities. Physical paper cash is non-traceable, unaccountable, easy to hide or lose, steal, counterfeit and spent without a trace. As such, paper cash has allowed all sorts of criminal activity to thrive. However, in a cashless economy, this will change with certain crimes almost eliminated. Violent crimes such as bank robberies, store holdups, armed robberies, employee cash theft, kidnap for ransom, and purse snatching would be significantly reduced, if not entirely eliminated, because carriage of Cash would be light. The illegal drug trade and human trafficking are „cash" businesses, and in a Cashless economy, all illegal enterprises will be disrupted. There is also the reduced risk of transferring diseases. Citizens would be less likely to become ill due to contamination from bank notes and coins, as cash has been identified as disease carriers and medium of diseases transmission. Taking a consumer point of view, mobile payments contain some practical advantages in the form of queue avoidance, time saving, place independent, remote access to payment services, availability and increased speed. Judging the bank"s perspective, the cashless society implies advantages in the form of savings. Cashiers and bank assistants would become superfluous and only a few assistants would be needed to assist at self-service counters. On the

part of government and society, this is however not desirable, as it means a reduction in the number of jobs with its inherent challenges such as crime and insecurity especially in an environment such as Nigeria. Another advantage to the bank is the possibility of a reduction in card production costs when customers pay with their personal mobile phone or their personal payment card, information on the paper is transferred together with the money, thus omitting the need for loyalty, bonus and member cards.

2.10 Prospects of cashless policy

A variety of benefits are expected to be derived by the various stakeholders from an increased utilization of e-payment system and consequently the cashless policy. These include:

i. For consumers:- The benefits ranges from increased convenience, more service option, reduced risk of cash related crimes, cheaper access to (out of branch) banking services and access to credit.

ii. For corporations:- Faster access to capital, reduced revenue leakage and reduced cash handling cost.

iii. For government:- Increased tax collections, greater financial inclusions, increased economic development.

iv. For banks: The efficiency through electronic payment process reduces cost of operation (cash handling) and increases banks penetration.

Other prospects cashless policy includes:

v. It will reduce the cost of minting and transporting cash around the country even as it will help forestall the inherent risk in dealing with cash such as armed robbery, theft, bribery and corruption. It will also reduce money laundering and terrorist financing. All this will make monetary policy to be effective.

vi. It would create more employment opportunity for financial sectors and ensure growth in the real sector of the economy because of the increase in velocity. This would not only ensure that credit is available to investors but also provide banks with more liquidity for lending to the needy sectors of the economy at attractive rates.

2.11 Disadvantages of cashless policy

Despite the usefulness of the proposed technology, there are still some disadvantages of a cashless society as enumerated below: the disadvantages include that the unstable electronic value of money will become even more volatile especially, given that people will be conducting business with imaginary money. The government would be able to monitor purchases, spending habits and businesses patronized. Under this new system, the government will have a total control of our transaction and therefore exposing the privacy of individuals. Another issue concerns the transaction involving children with the challenge of determining the age at which children will have to be allowed to such transactions as accessing their substance „pocket" money since it would need a mobile phone or a payment card to store their money. A cashless society would therefore force parents to acquire mobile phones or payment cards for their children earlier than they may wish if they would want to give their children pocket money. The proper handling of a mobile phone or payment card therefore becomes an additional challenge given that users must be able to remember details as PIN and passwords. This might be a problem for the elderly or illiterate people who might have to compromise privacy and divulge their personal codes in search of assistance. Another issue is the possibility of theft. People are likely to lose mobile phones more than their wallets. In relation to this is the security issue. It is a fact that electronic systems designed by experts can be disassembled by others who have unwholesome intensions and used for bad antisocial activities.

2.12 Threats of Cashless Banking to the Nigerian Banking System

The cashless banking system despites it numerous benefits comes with its own challenges even in the developed world. We will look at the general challenges and later on focus on specific challenges in developing economies especially Africa. The identified challenges as revealed by previous research works are Security, Infrastructure, Regulatory and Legal issues and Socio-Cultural challenges.

2.12.1 Security

The Security of Information and data is crucial in all Information systems. Information Security is the practices, procedures and technology put in place which ensure that information is safeguarded from

i. Modification or accidental change (integrity),
ii. Unauthorized access (confidentiality), and
iii. Readily available (availability) to authorized users on request.

Electronic payments systems are no exception; an unsecured e-payment system may not get trust from its users. Trust is very critical to ensure acceptance from users. According to (Worku, 2010) , e-payment and e-banking applications represent a security challenge as they highly depend on critical ICT systems that create vulnerabilities in financial institutions, businesses and potentially harm customers. “It is imperative for banks to understand and address security concerns in order to leverage the potential of ICTs in delivering e-banking applications”(Worku, 2010). A secure electronic financial transaction has to meet the following requirements:

2.12.2 Integrity and Authorization

Integrity is defined as the accuracy, completeness and validity of information in accordance with business values and expectations (CISM Review Manual, 2014). Integrity of payment systems

means that no money is taken from a user unless a payment is authorized by him. In addition, users might require not receiving any payment without their explicit consent; this is desirable when users want to avoid unsolicited bribery (Asokan et al, 2015).

2.12.3 Confidentiality

Confidentiality is defined as the protection of sensitive or private information from unauthorized disclosure (CISM Review Manual, 2014). Some parties involved may wish confidentiality of transactions. Confidentiality in this context means the restriction of the knowledge about various pieces of information related to a transaction; the identity of payer/payee, purchase content, amount etc. Typically, participants involved want to ensure that communications are private (Asokan et al, 2015). Where anonymity or untraceabilty are desired, the requirement may be to limit this knowledge to certain subsets of the participants only (Asokan et al, 2015).

2.12.4 Availability and Reliability

Availability is ensuring that information systems and data are ready for use when they are needed; often expressed as the percentage of time that a system can be used for productive work. All parties require the ability to make or receive payments whenever necessary (Asokan et al, 2015).

2.12.5 Enhancing E-payments Security

According to (Taddesse&Kidan, 2015), the most common method of securing e-payments is using cryptographic based technologies such as encryption and digital signatures. Applying these technologies reduces speed and efficiency and as a result compromise has to be made between efficiency and security. The following are some of the technological means to secure e-payments:

• Secure Electronic Transaction (SET): This is an open standard developed by Master Card and Visa to provide a solution to security problems for online credit card payment system (Ullah, 2010). This is achieved by providing digital certificate for both customer and merchant. According to (Taddesse&Kidan, 2015), this did not found acceptance because it was complicated and required both customer and merchant to download 5MB of software.

• Smart Card Security: Data stored on a smart card is encrypted and cannot be assessed without password/PIN and thus provide strong security. Taddesse&Kidan(2015) argue that magnetic strip cards i.e. debit cards, credit cards etc are being replaced by smart cards.Proper policies, procedures and appropriate Government laws must also be put in place to ensure technologies provide maximum security.

2.12.6 Infrastructure

Infrastructure is necessary for the successful implementation of electronic payments. Proper Infrastructure for electronic payments is a challenge (Taddesse&Kidan, 2015). For electronic payments to be successful there is the need to have reliable and cost effective infrastructure that can be accessed by majority of the population.

Electronic payments communication infrastructure includes computer network such as the internet and mobile network used for mobile phone. In addition, banking activities and operations need to be automated. A network that links banks and other financial institutions for clearing and payment confirmation is a pre-requisite for electronic payment systems (Taddesse&Kidan, 2015).

Mobile network and Internet are readily available in the developed world and users usually do not have problems with communication infrastructure. However, in Africa mobile networks and internet are not easily accessible. “Poor communication infrastructure is one of the reasons that

hinder the e-payment system in Africa" (Taddesse&Kidan, 2015). According to Worku (2010), low level of internet penetration and poorly developed telecommunication infrastructure impede smooth development and improvements in e-commerce in Ethiopia. A study by Microfinance Nigeria indicated that efforts by the Nigerian, Government and other financial and ICT stakeholders to move Nigeria's payment system from a cash-dependent platform to the globally acceptable electronic-driven alternative may be impeded by dearth of critical telecommunication infrastructure. In developing countries many of the rural areas are unbanked and lack access to critical infrastructure that drives electronic payments. According to Microfinance Nigeria (2010), some of the debit cards technologies like Automated Teller Machines (ATMs) are still seen by many as unreliable for financial transactions as stories told by people suggested that they could lose their money through fraudulent deductions, debits and other lapses for which the technology had been associated with by many over the last few years.

In a related work, by Mishra (2012) in Nepal, Telecommunication and electricity are not available throughout the country, which negatively affect the development of e-payments. According to Mishra, the development of information and communication technology in Nepal is a major challenge for e-payments development. Since ICT is in its infant stages in Nepal, the country faces difficulty promoting e-payment development.

2.12.7 Regulatory and Legal issues

National, regional or international set of laws, rules and other regulations are important requirements for the successful implementation of e-payment schemes. Some of the major elements include rules on money laundering, supervision of commercial banks and e-money institutions by supervisory authorities, payment system oversight by central banks, consumer and data protection, cooperation and competition issues. (Taddesse&Kidan, 2015). According to

Taddesse&Kidan, (2015) the virtual and global nature of e-payment also raises legal questions such as which jurisdiction will be competent and about applicable laws in disputed cases, validity of electronic, electronic contracts and electronic signature. A legal and regulatory framework that builds trust and confidence supporting technical efforts is an important issue to be addressed in implementing e-payments. As indicated by Worku (2010), lack of suitable legal and regulatory framework for e-payment in Ethiopia, an African country is a challenge. According to Worku (2010) Ethiopian current laws do not accommodate electronic contracts and signatures. Ethiopia has not yet enacted legislation that deals e-payments and e-commerce concerns including enforceability of the validity of electronic contracts, digital signatures and intellectual copyright and restrict the use of encryption technologies. In a related work, Mishra (2012) argues that no laws and regulations have been promulgated to cover the legal status and issues of e-payments. This matter has been given high priority and a legal framework is expected soon (Mishra, 2012)

National regulatory and legal framework that aligns with regional and international agreements is crucial in creating certain and reliable environment (Taddesse&Kidan, 2015).Adopting model laws at the global level such as UNCITAL Model law on e-signatures (2011) can help the purpose.

2.12.8 Socio-Cultural Challenges

Cultural and historical differences in attitudes and the use of different forms of money (e.g. use of credit card in North America and use of debit cards in Europe) complicate the task of developing an electronic payment system that is applicable at international level (Taddesse&Kidan, 2015). According to Taddesse&Kidan (2015), difference in the degree of the

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2.13 Theories of Cashless Policy

The theoretical framework of this study is Technology Acceptance Model (TAM) and Diffusion of Innovation (DOI) Theory.

2.13.1 Technology Acceptance Model (TAM) Theory: Technology Acceptance Model is one of the models that have been developed to provide a better understanding of the usage and adoption of information technology. It is presently a prominent theory used in modeling technology acceptance and adoption in Information systems research. TAM is an information systems theory that models how users come to accept and use a technology that will encourage economic growth. The model suggests that when users are presented with a new technology, a number of factors influence their decision about how and when they will use it. The factors are; perceived usefulness (PU) and perceived ease-of-use (PEOU). According to TAM, one's actual use of a technology system is influenced directly or indirectly by the user's behavioral intentions, attitude, perceived usefulness of the system, and perceived ease.(Davis, 2015)

2.13.2 Diffusion of Innovation (DOI) Theory: According to Gabriel and Rogers (1962) Diffusion of Innovation theory seeks to explain how, why, and at what rate new ideas and technology spread through cultures. They said diffusion is the process by which an innovation is

communicated through certain channels over time among the members of a social system. Rogers explained the process of Innovation diffusion as one which is dictated by uncertainty reduction behavior amongst potential adopters during the introduction of technological innovations. Diffusion of Innovation (DOI) Theory consists of six major components: innovation characteristics, individual user characteristics, adopter distribution over time, diffusion networks, innovativeness, adopter categories, and the individual adoption process. Arguably the most popular of the six components of DOI centers on the characteristics of the innovation itself. After analyzing a variety of previous innovation diffusion studies, Rogers singled out the following five characteristics of innovations that consistently influence the adoption of new technologies.

2.13.3 Perceived Risk Theory (PRT): Perceived risk also has some serious points to be considered on mobile banking. Earlier studies have suggested that the user's perception on risk is a main factor in the adoption of new technology. When the new innovation is done, it helps to develop the life style of the users and it will be more if the adoption increases satisfaction. It is also a fact that a progressive image could be created among the community using mobile banking services and they get self-respect and it will play a great role in adoption of the technology. On the other hand McLean and DeLonealso updated the modern view and they considered the user's satisfaction as the key measure in assessing the successfulness on a system (McLean &DeLone 2012)

2.13.4 Theory of Planned Behavior: The theory of planned behavior is a theory about the link between attitudes and behavior of customer. The model assumes behavioral intention to use as customer satisfaction determined by usefulness, risk and trust. (Luarn, &. Lin 2015)

2.13.5 Service Quality Model (SERVQUAL): Service quality is one of the important attributes of service providers as they regard measuring the service quality from consumers' perspective as

a top priority construct. Service quality is an indispensable factor for customer satisfaction, cost reduction, customer loyalty, customer relationship and retention, profitability and so on. Many have suggested that quality results from a comparison of perceived performance with expected performance based on the so-called “disconfirmation theory”. Indeed, this notion was the basis for the SERVQUAL model, which views service quality as the gap between the expected level of service and customer perceptions of the level received.

Berry, Parasuraman, &Zeithaml (2012) are the creators of this instrument that is used to measure the customer perceptions of service quality. Therefore, the evaluation of service quality results from comparing the perception about received services with prior expectations of what those services should provide(Islam, 2012). Previous studies did not support all factors structure proposed by Parasuraman et al. (2012).

The universality of the scale and its dimensions has also been the subject of criticisms and it is believed that they require customization to the specific service sector in which they are applied. The SERVQUAL model consists of five main dimensions, namely, tangibility, reliability, responsiveness, assurance and empathy. Islam (2012) examined the application of SERQUAL model in customer services of mobile operators in Bangladesh based on four dimensions (tangibles, reliability, responsiveness and empathy).

SERVQUAL model is one of the instruments used to measure the quality of services. This scale has been tested and/or adapted in a great number of studies conducted in various service settings, cultural contexts and geographic locations. For example, Islam (2012) examined application of SERVQUAL model in customer service of mobile operators. Zekiri (2011) have also proposed applying SERVQUAL model and factor analysis in assessing customer satisfaction with service quality in the case of mobile telecommunications in Macedonia. In the case of banking services,

some of the previous studies only used SERVQUAL model to examine the quality perception of the customers (Newman, 2011; Kumar et al., 2009)In these previous studies, effect of qualities of service on banking customer satisfaction has been examined (Daniel and Berinyuy, 2010; Samadi&Eskandari, 2011).

2.14 Empirical review on Cashless Policy and Banking

Empirical studies on cashless policy are sparse because it is a newly implemented policy of the CBN. However, the following are worth mentioning. 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, 28.9% complained of bad attitude of teller officers (cashiers), while 2.89% complained of long distance of bank locations to their home or work places. Likewise in her 24th NCS national conference in December 2011, CBN data shows that 51% of withdrawal done in Nigeria was through ATM, while 33.6% was through over the counter (OTC) cash withdrawals and 13.6% through Cheque. Payment was also done through point of sales machine (POS) which accounted for 0.5% and web 1.3%. Therefore, if the introduction of ATM in Nigeria cash withdrawals system reduced OTC withdrawal; then it will implies that introduction of cashless policy supported by application of information technology can achieve more to reduce over dependent on cash payment in Nigeria economy system. Adewoye (2013) empirically studied the impact of mobile banking on service delivery in the Nigerian Commercial Banks through the use of questionnaire. He found out that the introduction of e-banking services has improved banking efficiency in rendering services to customer. His findings shows that mobile banking improve banks service delivery in a form of transactional convenience, savings of time, quick transaction alert and save of service cost which has recuperate customer's relationship and satisfaction. To this end, he recommended that banks management should create awareness to inform the public

about the benefits derived on the e-banking service products, collaboration among banks should perfectly maintained, skilled manpower and computer wizard should be employed by every banks, in other to prevent fraudulent personal and hackers from manipulating the banks data and stealing money from the banks accounts. Finally, provision and maintenance of public network system such as telephone (Nitel) and the availability of these basic infrastructures is fundamental to the efficient functioning of the mobile banking services. Olatokun and Igbinedion (2009) used DOI theory to investigate the adoption of ATM in Nigeria. They found out that constraint such as relative advantage, complexity, observability, compatibility and trialability were positively related to attitude to the use of ATM cards in Nigeria. Olorunsegun (2010) used cluster sampling technique to study the impact of electronic banking in Nigerian banking system. He found out that a bank has an effective electronic banking system which has improved its customer‟srelationship and satisfaction. James (2012) used Statistical Package for Social Sciences (SPSS) to investigate the acceptance of e-banking in Nigeria. The result showed that acceptance of e-banking in Nigeria was significantly influenced by age, educational background, income, perceived benefits, perceived ease of use, perceived risk and perceived enjoyment. James (2013) used Rogers Diffusion of Innovation theory to investigate the determinants of the adoption of mobile banking in Nigeria. The study empirically showed that age, educational qualification, relative advantage, complexity, compatibility, observability and trialability were important determinants of the adoption of mobile banking. This therefore makes it imperative for relevant stakeholders to make efforts to positively influence these independent variables so as to make mobile banking more popular. Morufu and Taibat (2012) used qualitative survey to ascertain banker‟s perceptions of electronic banking in Nigeria. The results suggest that bankers in Nigeria perceive electronic banking as a tool for minimizing inconvenience, reducing

transaction costs, altering customers queuing pattern and saving customers banking time. Olajide (2012) used theories to investigate cashless banking in Nigeria and its implications on the economy. He found out that cashless banking will boost the economy on the long run. Egwali (2009) used consumer acceptance theory to investigate customers‟ perception of security indicators (SI) in online banking sites in Benin, Nigeria. He found out that SI were not very effective at alerting and shielding users from revealing sensitive information to fool e-banking sites in Nigeria.

Humphrey and Berger (2013) and Humphrey et al. (2014) suggests that the increased use of cashless payment system, that is money or scrip which is exchanged only electronically via computer networks has led to predictions of a cashless society. In a cashless society, consumers can make payments over the internet, payment at unmanned vending maching, mannned point of sale (POS) using mobile phone device, personal digital assistant (PDA), smart cards and other electronic payment systems, including debit and credit cards. Ezeoha (2014) used descriptive survey to examine regulating internet banking in Nigeria, problem and challenges. He found out that Internet banking in Nigeria is slowly been embraced by customers because Internet practice in Nigeria has been abused by cyber fraudsters who use real and deceptive banking websites to fool users‟ and set their sensitive information and funds.

Roth, (2010) observed that developed countries of the world, to a large extent, are moving away from paper payment instruments toward electronic ones, 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 all refer to how transactions and payments are effected in a cashless economy (Moses-Ashike, 2011). Marco and Bandiera (2014) argue that increased usage of cashless banking instruments strengthens monetary policy effectiveness and that the current level

of e-money usage does not pose a threat to the stability of the financial system. However, it does conclude that central banks can lose control over monetary policy if the government does not run a responsible fiscal policy.

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, 28.9% complained of bad attitude of teller officers (cashiers) while 2.89% complained of long distance of bank locations to their home or work places. Likewise, in her 24th NCS national conference in December 2011, CBN data shows that 51% of withdrawal done in Nigeria was through automated teller machine (ATM), while 33.6% was through over the counter (OTC) cash withdrawals and 13.6% through Cheques. Payment was also done through point of sales machine (POS) which accounted for 0.5% and web 1.3%.

Therefore, if the introduction of ATM in Nigeria cash withdrawals system reduced OTC withdrawal; then it will implies that introduction of cashless policy supported by application of information technology can achieve more to reduce over dependent on cash payment in Nigeria economy system.

However, Akhalumeh and Ohioka (2011) observed some challenges with the introduction of cashless policy.

Their findings show that 34.0% of the respondents cited problem of internet fraud, 15.5% cited problem of limited POS/ATM, 19.6% cited problem of illiteracy and 30.9% stayed neutral - the respondent not been sure of problem been expected or experienced. While in some quarters there was fear of unemployment, some believe it will create more jobs especially when companies manufacturing POS machine are cited in Nigeria.

More so, data sourced from Central Bank of Nigeria portal shows that Lagos state, with a population of 17 million people, only has sixty one Point Of Sales, twenty bank branches and twenty four ATMs per 100,000 people which are far less to satisfy the needs of the population. These data verify the claim of Echekoba and Ezu (2012) on the problem of cash based economy and cashless policy in Nigeria. For effective cashless implementation in Nigeria availability of sufficient and well-functioning infrastructure (notably electricity), harmonization of fiscal and monetary policy, regular assessment of the performance of cashless banking channels, consideration of the present state and structure of the economy, redesign of monetary policy framework and greater efforts towards economic growth whilst managing inflation should be considered (Odior and Banuso, 2012).

Odiorand Banuso (2012) examined "the impact of cashless banking in Nigeria, its challenges, benefits and policy implications". Against all backdrops, the objective of their research was to analyze the positive and negative policy implications of cash-less banking for the Nigerian economy, with a view to exposing the possible benefits and challenges poses on economy. The data employed in the study was from secondary sources using descriptive analysis with the aid of graphs, tables, charts and trend analysis of cash system in Nigeria. The study also improved on previous literature by explicitly stating both the potential positive and negative consequences for policy makers in Nigeria. Their findings were that; first, the development of e-money could lead to the decline in currency demand. Secondly, the consistent usage of e-channels in financial transactions would lead to network congestion. And finally, the cashless banking system would imply the existence of increase in competition between financial and non-financial institutions such as telecommunication companies.

The study concluded that "over the next decade, there would be progress towards a cashless or study-less society both in Nigeria and other countries.

In another study, Olorunsegun (2010) undertook a research on "the impact of electronic banking in Nigeria banking system". The main objective of his research work was to examine the impact of electronic Banking in Nigeria banking system on how different channels could enhance the delivery of consumers and retails products, and also how Banks choose to support their Electronic Banking component/services internally, such as internet services provider, Internet banking software, Core banking vendor, Managed security service provider, Bill payment provider, Credit Business and Credit scoring company. He used both the primary and secondary data in his study. The primary data were collected through the use of questionnaire which was administered to credit officers of Unity Bank Plc. while the secondary data were data collected from CBN electronic banking guideline, annual report of Unity Bank Plc. and CBN annual report etc. The study used both descriptive and inferential statistics in analyzing the data. Also, simple frequency counts, percentages and the chi-square were used in the data analysis. He concluded that the electronic banking system in Nigeria has made banking transaction to be easier by bringing services closer to its customers.

Furthermore, Siyanbola, Trimisiutunji (2013) examined 'the effect of cashless banking on Nigerian economy'. His primary objective was to discuss the various aspects of cashless banking channels, to know where the real e-banking should be, the problems facing cashless banking, its advantages and disadvantages to Nigerians. A descriptive research design was adopted with data gathered through questionnaire administered to respondents. Non-parametric tool of chi square was employed to analyze the data. Based on his findings, it was recommended that increased government support, uninterrupted power supply and communication link, creation of awareness,

provision of skilled manpower and computer wizard in operation of payment system, collaboration among banks, provision of adequate security and fight against corruption would assist and improve the growth and development of cashless banking in Nigeria. He came to the conclusion that "Dynamism in financial system is manifested by the nature and quality of payment products paraded in the system".

In a related study, Okey(2012) researched on "The Central Bank of Nigeria's Cashless Policy in Nigeria: Benefitsand Challenges."The objective of his paper was to examine the cashless policy of the Central Bank of Nigeria (CBN) introduced in 2011, and it commenced operation on April 1, 2012 in Lagos as a pilot project. He also wanted to see if the policy had shifted the Nigerian economy from a cash-based economy to a cashless one, with a view of achieving the requirements of Nigeria's vision 20:20 development agenda. He concluded that "If Nigeria's quest to mitigate cash related vices, reduce cost of banking services, drive financial inclusion, improve the effectiveness of monetary policy in managing inflation and hence drive economic growth as well as achieve the provisions of the vision 20:20 20 development agenda is to be realized, then the success of the cashless policy, is a task that must be done".

Onyedimekwu and Oruan (2013) examined the Empirical Evaluation of Customers' Use of Electronic Banking Systems in Nigeria. The objective of their research work was to empirically evaluate the success of Electronic Banking systems in Nigeria, and to access customers' readiness for cashless economy. The methodology employed in this study was positivistic, quantitative and hypothetic-deductive. Hypotheses were derived from the extant literature on Information Systems' Evaluation using D & M IS Success Model. The collected data were analyzed based on descriptive statistics (frequency and percentage) and correlation analyses using the statistical package for social sciences (SPSS) version 18. They came to the conclusion

using DeLone and McLean (2013) IS Success Model to show that most bank customers will use e-banking systems more often if the system quality, information quality and service quality is improved.

Okoye, Raymond Ezejiofor (2013) wrote on the topic "An Appraisal of Cashless Economy Policy in Development of Nigerian Economy". The objective of the study was to examine its significant benefits and essential elements, and tocheck the extent to which it can enhance the growth of financial stability in the country. Two research hypotheses were formulated in line with the objectives of the study. Questionnaire was structured as the main instrument used for data collection and the descriptive research design was adopted for the study with a sample size of 68. The data collected was subjected to face validity test, and was tested with ANOVA and chi – square (x2) technique was used to test the hypotheses. The results indicate that: majority of Nigerians are already aware of the policy and majority agree that the policy will help fight against corruption/money laundering and reduce the risk of carrying cash. Major problems envisaged to hamper the implementation of the policy are cyber fraud and illiteracy. Based on the findings some recommendations made are: the government should adopt a different strategy to educate the non-literate Nigerians about the cashless economy; and a framework should be worked out to provide cyber security in Nigeria. A conclusion was arrived at in the research that "The level of illiteracy in Nigeria is still very high. The cashless economy is effectively an economy and in any e-system, there is almost no place for the non-literate.

The Nigerian economy is in exciting but challenging times, the proper foundations have to be established as the CBN courageously transform the modes of operation of the Nigeria economy

CHAPETR THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the methodology and procedures that were to be used to carry out this study. The type of research design that was used is described and justified as well as the target population of the study. The sampling design, sampling frame, sampling technique, and research procedures are also described. The data collection and data analysis techniques that were used in this study are explained.

3.2 Research Design

A research design provides the framework to be used as a guide in collecting and analyzing data (Cooper and Schindler, 2003). The study assumed a descriptive research design that was triangulated with both qualitative and quantitative tools of analysis. A descriptive design was used because it helps describe characteristics associated with the subject population and explain the variables that exist between these variables in order to provide a picture of a particular phenomenon (Cooper and Schindler, 2003). According to Gill and Johnson (2002), descriptive surveys are concerned primarily with addressing the particular characteristics of a specific population of subjects, either at a fixed point in time or at varying times for comparative purposes.

3.3 Population and Sample Techniques

The population of the study covered 150 staff and customers selectedfromUBA Bank in Abuja, Nigeria. This research utilized the content analysis technique which is a research method for making replicable and valid inferences from data, to operationalize the cashless policy variables.

The study made use of primary sources of data in eliciting the required information needed for this research.

The Smith(1984) formula was used in the determination of the sample size for the study.

The sample was based on the formula:

$$n = \frac{N}{3 + N(e)^2}$$

Where;

n = sample size;

N = population size;

e= Level of precision required;

3 = constant

In determining the sample size, the following variables were used:

Confidence interval = 95 %

e = Margin of error = 0.05

Substituting into the formula,

Sample size for the number of staff and customers used:

$$n = \frac{N}{3 + N(e)^2}$$

Where,

n = sample size;

N = population size;

e= Level of precision required;

3 = constant

In determining the sample size, the following variables were used:

Confidence interval = 95 %

e = Margin of error = 0.05

Substituting into the formula,

$$n = \frac{N}{3 + Ne^2}$$

$$n = \frac{N}{3 + Ne^2}$$

$$n = \frac{150}{3 + 150(0.05)^2}$$

$$n = \frac{150}{3 + 150(0.0025)}$$

$$n = \frac{150}{3 + 0.375}$$

$$n = \frac{150}{3.375}$$

$$n = 44$$

3.4 Method of Data Collection

Questionnaire was the instrument used in data collection and distribution; and the respondents were required to read each question carefully and indicate their agreement or disagreement with the statement using a 5 – point likert scale. Response for the statements was therefore keyed using a Likert type scale ranging from: 5 =strongly agree 4=agree 3=undecided 2=disagree 1=strongly disagree. Once more, the questionnaire was structured effectively, they were then self-administered by the researcher to ensure high level of accuracy and data collection was

accurate as there was equal opportunity of participation by the respondents. A pilot study was conducted to evaluate the validity and reliability of the research instrument. The purpose of pre-testing was to assess the clarity of the items on the instrument so that those items found to be inadequate in measuring the variables could either be discarded or modified to improve the quality of the research instrument. During the pre-test study, the researcher discussed each item on the questionnaire with the respondent to determine its suitability, clarity and relevance for the purpose of the study. Modifications found necessary was made on the instrument before it is finally used to collect data for the study.

3.5 Validity and Reliability of the Instruments

The research instruments (questionnaire) were subjected to pilot test so as to ensure its validity and reliability as well as internal consistency of the measures used. Validity test is a test of the extent to which a research instrument is capable of measuring what is intended to measure. For the purpose of this study, the questionnaire were tested for face to face validity, context validity, content validity, construct validity and are found to be valid on all four count. This is a test or measure of the extent to which a research instrument yielded the same results under the same condition, that is, consistency.

The preliminary analysis of this study shows that the research instrument is valid and reliable for further analysis. The table below shows the overall result of the reliability test.

The most convenient method for testing for the internal consistency is the Cronbach's Alpha, which is computed with the following model below:

$$\alpha = \frac{N_r}{1 + r(N - 1)}$$

Where:

α= Cronbach Alpha

N= the number of items in the scale

r= the mean inter-item correlation

A minimum Cronbach's Alpha value of 0.70 is stated to be reliable (Nunally, 1978)

The preliminary analysis of this study shows that the research instrument is valid and reliable for further analysis. The table below shows the overall result of the reliability test.

Table 1: Result of Reliability Test

Reliability and Validity Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No. of Items
0.889	0.892	20

Source: Computed result using SPSS, 2016

The result of the reliability test of the research instrument shows that the Cronbach Alpha value for the questionnaire is 0.889. This means that the Questionnaire is reliable enough to conduct this research as they have Alpha value above 0.70 as the minimum Alpha recommended by Cronbach (Schaums, 2003). It thus showed that 88.9% of the variance in the score is internally consistence reliable variance.

3.6 Method of Data Analysis

Descriptive statistics, correlation coefficient matrix and ordinary least square (OLS) regression analysis using were used to estimate and analyze the data. The qualitative method of analysis provide support for anticipated directions of the association between independent and dependent variables, and therefore the study used both correlation analysis and regression analysis (OLS) to address the three hypotheses of this study since the study is addressing relationship between the various variables. This was achieved by the use of E-views 7.0 and SPSS

The simple regression result will be express as follow:

$$Y_i = \beta_0 + \beta_i X_i + \mu_t \qquad (1)$$

The product moment Pearson correlation coefficient(r) is given by the formulae:

$$r = \frac{n(\sum XY) - (\sum X)(\sum Y)}{\sqrt{[n(\sum X^2) - (\sum X)^2][n(\sum Y^2) - (\sum Y)^2]}} \qquad (2)$$

Where:

r = product moment Pearson correlation coefficient

X=are the independent variables of our observation and;

Y= are the dependent variables of our observations

3.7 Justification of Method

The Pearson product moment correlation coefficient(r) was utilized because it measures the relationships existing between two or more variables. It is simple to compute without errors and it helps to illustrate the directional outcome and strength of the variable. It further shows a precise quantitative measurement of the degree of correlation between dependent and independent variables. As a rule of thumb, the usefulness of Correlation is further to assess the level, nature, and significance of the relationships among the variables, as well as to test the existence of multicollinearity among the variables.

The regression analysis examines the relationships that exist between two or more variables. The descriptive statistics, correlation coefficient and regression are easy to measure and estimate, and does not give bias results (Gujarati, 2004).

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter presents and discusses the results of the study based on the analyzed questionnaires. The subsequent sections outlined and discussed the results of analysis of descriptive statistics, correlation and the regression of cashless policy and electronic banking in the Nigeria depository sector. Finally, the results are summarized and conclusions with regard to the study's hypotheses are presented.

4.2 Data Presentation

Table 2: Cashless policy and Electronic Banking in the Nigeria Depository Sector: Problems and Prospects

Variables	Items	Agreement scale				
		SD(%)	D(%)	U(%)	A(%)	SA(%)
Cashless Policy/banking	Cashless policy helps customer in attaining personal satisfaction and objectives	13.4	8.9	10.7	53.6	12.2
	It's easier to pay with cashless policy than another method like cash or credit card	11.6	8.1	8.8	48.2	23.2
	Transfer errors has been made on my mobile and ATM transactions without reversal	5.3	3.7	5.4	24	61.7
	I often used my mobile phone to Pay for an emergency expense, such as repairs, rent, and or a medical bill	6.3	7.1	2.7	54.5	29.5
	I transferred money directly to another person's bank, (i.e., friends, relatives, families etc) using mobile phone	5.4	3.6	5.4	25	60.7
	I find the cashless policy very beneficial	8.1	2.7	7.1	44.6	37.5
Customer Deposits	The introduction of electronic payment products such as smartcard, ATMs, internet payment e.t.c has	5.3	6.1	2.7	55.5	28.5

	enhanced your customer financial ability					
	The introduction of Electronic Monetary Transfer System (EMTS) has increased bank's deposit base	13.4	2.7	15.2	43.8	25
	The introduction of cashless policy and electronic banking will not reduce cash banking transaction	11.6	8.1	8.8	48.2	23.2
	To a large extent cashless policy has reduce queuing in bank	5.4	3.6	5.4	25	60.7
Cashless Implementation	The introduction of cashless policy has encouraged savings	5.4	3.6	5.4	25	60.7
	Cashless policy has been fully implemented in the Nigerian banking system	7	3.7	7.1	44.6	37.5
	The implementation of cashless policy and electronic banking has advanced customer satisfaction	7.3	6.1	2.7	55.5	28.5
Cashless Policy Challenges	In your own opinion has the cashless policy reduce fraudulent practices	8	2.7	7.1	44.6	37.5
	Inadequate security is not provided for cashless policy and banking	12.4	8.1	10.7	51.6	13.4
	The performance of electronic banking in the operation of cashless policy can be assessed to be poor due to online robbery	11.6	8.1	8.8	48.2	23.2
	My accounts is always debited from ATM without making withdrawals	13.4	8.9	10.7	53.6	13.4
Bank Performance	To what extent has the introduction of computer based or electronic payment services improved your banks operational efficiency	11.6	8.1	8.8	48.2	23.2
	Is there price stability since the interdiction of electronic payment system in the depository sector	5.3	3.7	5.4	24	61.7
	To a large extent, the adoption of cashless policy and electronic banking has improved banking system in Nigeria	6.3	7.1	2.7	54.5	29.5

Source: Authors Computation, SPSS, 17

4.3 Normality Statistics (Descriptive Statistics)

The normality statistics for the variables: Cashless Policy(CP), Customer Deposits(CD), Cashless implementation strategy(CIS), Cashless Policy challenges(CPC) and Bank performance(BP)are as shown in Table 4.3 below. The mean forCashless Policy(CP), Customer Deposits(CD), Cashless implementation strategy(CIS), Cashless Policy challenges(CPC) and Bank performance(BP), are all different, thus indicating that the variables exhibit significant variation in terms of magnitude, suggesting that estimation of the variables in levels will not introduce some bias in the results.

Cashless implementation strategy(CIS) has the highest mean value with a mean of 5.893636, and was closely followed by Customer Deposits(CD), with a mean value of 5.673436. Cashless Policy challenges(CPC) has the lowest mean value of 3.986747 thus suggesting that most cashless policy and banking has been relatively effective in Nigeria.

Table 3: Summary of Normality Statistics

	CP	CD	CIS	CPC	BP
Mean	4.115455	5.673436	5.893636	3.986747	4.896363
Median	4.675464	4.335330	4.336575	4.54644	4.656711
Maximum	4.54547	4.675753	5.349494	4.675464	4.670000
Minimum	4.54643	3.334353	3.336575	3.330000	3.330000
Std. Dev.	0.431656	0.505851	0.460071	0.342783	0.482721
Skewness	-0.044120	-0.524245	-0.891663	-0.776666	0.162312
Kurtosis	1.383027	2.601193	3.377642	3.902620	1.769856
Jarque-Bera	1.201928	0.576757	1.522981	1.479301	0.741874
Probability	0.07283	0.044478	0.012970	0.027281	0.040087
Sum	56.34000	54.00000	45.00000	48.32000	44.67000
Sum Sq. Dev.	2.863273	1.558855	2.116655	1.175000	2.330200
Observations	44	44	44	44	44

Source: Authors Computation, 2016 (E-views 7.0)

The Jarque-Bera statistic for all the variables is significant; hence we reject the null hypothesis and conclude that the series are normally distributed (or have a normal distribution).

4.4 Statistical Test of Hypothesis

In line with the statistical research, two of the three hypotheses formulated in this study were tested using student *t-statistics*. The level of significance for the study is 5%, for a two tailed test. The decision rule is that we shall accept the null hypothesis if the critical t-value (±1.96) is greater than the calculated value, otherwise reject the null hypothesis. That is, using the student *t*-test (*t*-statistic), we say that a variable is statistically significant if t^* (*t*-calculated) is greater than the tabulated value of ±1.96 under 95% (or 5%) confidence levels and it is statistically insignificant if the t^* is less than the tabulated value of ±1.96 under 95 %(or 5%) confidence levels.

4.4.1 Hypotheses One:*H01:Cashless policy has no significant impact on customer deposits in commercial banks*

Model one: $CD = \beta_0 + \beta_1 CP + \mu_t \text{ ---------1}$

Table 4: Regression Result on CP and CD

Stepwise Regression Analyses of ***Cashless policy*** on Outcome Variables				
Dependent Variable: ***customer deposits*** ***R^2 =0 .6713; F = 12.50; Sig = 0.0066***				
Independent Variable	Beta	t-value	Pearson Correlation(r)	Probability value
Customer deposits	14.67	2.13	0.07189	0.0021

Source: Authors Computation, E-Views, 7.0

$CD = 13.56 + 14.67CP \text{ ----------2}$

$SEE =$ 0.56 0.21

$t^* =$ 7.83 2.13

$F^* =$ 12.50; Prob (F-statistic) =0.0066

$R^2 = 0.6713; Adj.R^2 = 0.5698$

$DW = 2.01$

From the regression result in table 4, the calculated t-value for CP is 2.13 is greater than the critical value of 1.96. It falls in the rejection region and hence, we reject the first null hypothesis

($H0_1$). *The conclusion here is that* ***Cashless policy has a significant impact on customer deposits in commercial banks.***

The F-statistics which is used to examine the overall significance of regression model equally showed that the result is significant, as indicated by a high value of the *F*-statistic, 12.50 and it is significant at the 5.0 per cent level. That is, the F-statistic value of 0.0066 is less than 0.05.

The R^2 (R-square) value of 0.6713 shows that the ***CP***has a good impact on ***Customer deposits (CD)***. It indicates that about 67.13 per cent of the variation in ***CD***is explained by ***CP***, while the remaining 32.47percent is captured by the error term.

The model also indicates that there is no autocorrelation among the variables as indicated by Durbin Watson (DW) statistic of 2.01. This shows that the estimates are unbiased and can be relied upon for policy decisions.

4.4.2 Hypotheses Two: H02:*There is no strong correlation between cashless policy and effective implementation of cashless banking in deposit money banks*

Table 5: Correlation Result for Cashless Policy and Effective implementation of cashless banking

Product Moment Correlation Coefficient						
Variables	N	Mean	SD	rho	p-value	Remark
Cashless policy	44	22.43	4.46	0.897	0.0042	p<0.05
Effective implementation of cashless banking	44	22.43	5.11	0.897	0.0042	p<0.05

Source: Authors Computation, SPSS 17

Table 5 shows the correlation coefficient (rho) on whethercashless policy has significant correlation with***effective implementation of cashless banking*** in Nigeria. The rho value gave 0.897 (indicating a very good or strong correlation) and with a p-value of 0.0042. The p-value of 0.0042 was found to be less than the 0.05(or 5%) confidence level thus implying that we reject

the second null hypothesis. ***This indicates that there is a strong correlation between cashless policy and effective implementation of cashless banking in deposit money banks in Nigeria.***

4.4.3 Hypothesis three:*Cashless policy challenges do not significantly affects banks performance Nigeria.*

Model three: $BP = \beta_0 + \beta_2 CPC + \mu_t \text{ ---------} 3$

Table 6: Regression result on BP and CPC

Stepwise Regression Analyses of areas of ***Cashless policy challenges*** on Outcome Variable				
Dependent Variable: ***banks performance*** ***R^2 =0 .6942; F = 16.33; Sig = 0.0001***				
Independent Variable	Beta	t-value	Pearson Correlation(r)	Probability value
Banks performance	1.64	2.64	0.62145	0.0023

Source: Authors Computation, 2016 (Eview-7.0)

$BP = 3.19 + 2.73CPC \text{ ----------} 4$
$SEE = 0.88 \quad 0.20$
$t^* = \quad 4.10 \quad 1.64$
$F^* = \quad 16.33$; Prob(F-statistic)=0.0001
$R^2 = 0.6942; Adj.R^2 = 0.6521$
$DW = 2.16$

The calculated t-value for **CPC** was found to be 1.64 and also by rule of thumb, the tabulated value is 1.96 under 95% confidence interval levels. The calculated value of **CPC**is found to be less than the tabulated value (that is; 1.64 < 1.96), we thus, accept the third null hypotheses ($H0_3$). *In conclusion,* ***Cashless policy challenges do not significantly affect banks performance Nigeria.***

Also, by examining the overall fit and significance of the cashless policy model, it was found to have a good fit, as indicated by the high *F*-statistic value of 16.33 and it is significant at the 5.0 per cent level. That is, the F-statistic value of 0.0001 is less than 0.05.

More so, the R^2 (R-square) value of 0.6942 shows that the model have a very good fit also. It showed that about 69.42 percent of the variation in BP is explained by CPC, while the remaining 30.58 percentage unaccounted variation is captured by the error term.

Durbin Watson (DW) statistics which is also used to test for the presence of serial correlation indicates that there is no autocorrelation among the variables as captured by (DW) statistic of 2.11, and as thus the estimates are unbiased and can further be relied upon for sound policy decisions.

4.5 Discussion of Findings

Findings from the study revealed that Cashless policy has a significant impact on customer deposits in commercial banks. This is in agreement with Olorunsegun (2010) whose findings showed that bank has an effective electronic banking system which has improved its customer's relationship and satisfaction.Olorunse (2010)concluded that the electronic banking system in Nigeria has made banking transaction to be easier by bringing services closer to its customers.

The study further showed that there is a strong correlation between cashless policy and effective implementation of cashless banking in deposit money banks. The findings agrees with Morufu and Taibat (2012) results suggest that bankers in Nigeria perceive electronic banking as a tool for minimizing inconvenience, reducing transaction costs, altering customers queuing pattern and saving customers banking time.Odiorand Banuso (2013)findings which supports the results from the study whose that; first, the development of e-money lead to the decline in currency demand. Secondly, the consistent usage of e-channels in financial transactions leads to network congestion. And finally, the cashless banking system implied the existence of increase in competition between financial and non-financial institutions such as telecommunication companies.

Lastly, it was found that the challenges Cashless policy implementation do face does not significantly affects banks performance Nigeria. The findings is in-line with Marco and Bandiera (2014) who argued that increased usage of cashless banking instruments strengthens monetary policy effectiveness towards improved bank performance and that the current level of e-money usage does not pose a threat to the stability of the financial system. However, it does conclude that central banks can lose control over monetary policy if the government does not run a responsible fiscal policy.Furthermore, Siyanbola, Trimisiutunji (2013)came to the conclusion that "dynamism in financial system is manifested by the nature and quality of payment products paraded in the system".

The findings is however contrary with Ezeoha (2014) whose study showed that Internet banking in Nigeria is slowly been embraced by customers because Internet practice in Nigeria has been abused by cyber fraudsters who use real and deceptive banking websites to fool users‟ and set their sensitive information and funds.Okoye, Raymond and Ezejiofor (2013) further arrived at their research that "The level of illiteracy in Nigeria is still very high. The cashless economy is effectively an economy and in any e-system, there is almost no place for the non-literate.

CHAPTER FIVE

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

5.1 Summary

The main aim of the research is to find Cashless Policy and Electronic Banking in the Nigeria Depository Sector: Problems and Prospects, using UBA plc Abuja, as a study.

The study also presented a review of literature on the research topic by ascertaining the strengths and criticisms of previous relevant studies. Here, most researchers took a one-sided look by examining either the benefits or the costs of cashless banking while the others did not examine comprehensively the policy implications of cashless banking.A literature review was also performed covering the different concepts of cashless policy, Overview of Cashless Policy, E-Payment as a Veritable Tool to Achieve Cashless Policy, E-Banking Product and Services in Modern Day Economy, The Entry of Nigerian Banks into Electronic Banking as well as the review on Cashless Banking and Nigerian Banks. The literature further reviewed Cashless Policy and the Regulatory Challenges on Commercial Banks, Prospects of cashless policy, Disadvantages of cashless policy, Threats of Cashless Banking to the Nigerian Banking System and Theories of Cashless Policy. The literature reviewed was concluded by looking at empirical review on Cashless Policy and Banking.

Ordinary least square (OLS) regression analysis (the simple linear regression method analysis) and product moment Pearson correlation were used in the study. This analysis was used in order to find the linear relationship between the dependent and independent variables.

Findings from the study showed that Cashless policy has a significant impact on customer deposits in commercial banks. This is in agrees with Olorunsegun (2010) whose findings showed

that bank has an effective electronic banking system which has improved its customer's relationship and satisfaction.

The study further showed that there is a strong correlation between cashless policy and effective implementation of cashless banking in deposit money banks. It is in-line with Odiorand Banuso (2013)findings which supports the results from the study showed that; first, the developments of e-money lead to the decline in currency demand. Finally, it was found that the challenges Cashless policy implementation do face does not significantly affects banks performance Nigeria.The findings is however contrary with the results of Ezeoha (2014) whose study showed that Internet banking in Nigeria is slowly been embraced by customers because Internet practice in Nigeria has been abused by cyber fraudsters who use real and deceptive banking websites to fool users‟ and set their sensitive information and funds.Okoye, Raymond and Ezejiofor (2013) further arrived at their research that "The level of illiteracy in Nigeria is still very high. The cashless economy is effectively an economy and in any e-system, there is almost no place for the non-literate.

5.2 Conclusion

Over the next decade, there would be progress towards a cashless or study-less society both in Nigeria and other countries. In the presence of these trends, the responsibility of central bankers is to anticipate such change and channel it in such a way to ensure the safety, efficiency and effectiveness of domestic and international banking system.The development of innovative cashless banking has the potential to transform economic activity and achieve developmental goals. If an effective cashless banking system can be developed and the recommendations are carried out then it will have desired impact on the Nigerian banking system. Therefore, trusted

central banks and governments must play a key role in promoting the development of popular forms of e-banking channels.

The adoption and implementation of cashless policy will hence enhance banks' efficiency by making them more productive and effective. The unbanked will become banked, thereby increasing the customer base of banks which will in the long run reduce the volume of cash in circulation. This will avail banks with more deposits to do their businesses which will increase their fortunes and domestic investments.

5.3 Recommendations

Based on the findings above, the following are the recommendations that can be made for banks and managerial practice:

i. There is the need to intensify the public enlightenment programme about the cashless system so that everybody will be well acquainted with the system since it will affect everybody. Since there is a high rate of illiteracy, and all people must be brought into the system, the government should design special enlightenment programmes for the non-literates, using probably signs and symbols to educate this segment on how to operate the cashless system (post on sale vis-à-vis mobile phones). Gradual implementation of the policy with emphasis on a more comprehensive enlightenment programme on a continuous basis to deepen the message and importance in order to achieve greater success. Thus, there must be stakeholder engagement and grassroot sensitization.

ii. A major problem in the working of the cashless economy is internet related fraud. Nigeria is a major hub of electronic fraud and this can only be expected to increase as we march into the cashless economy. It is recommended that a country

as large as Nigeria should have a signed law preventing cybercrime. Nigeria should make concerted efforts to design an internet security framework to check online fraud so that the public can be assured and protected against cyber-attack and fraud.

iii. The management should ensure training and development of staff personnel tomeet the technology demand which is eminent in order to facilitate easy and fast transaction to ensure sustainable bank performance and operations.

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Questionnaire

Department of Business Admin,

Nasarawa state University Keffi,

Nassarawa State.

Dear Sir/Ma,

I am a final year student of the above department undertaking a research on “Cashless Policy And Electronic Banking In The Nigeria Depository Sector: Problems And Prospects” (A case study of United Bank For Africa, Nigeria in partial fulfillment of the award of Master of Business Admin.

It would be appreciated if you will sincerely answer the questions contained therein. Be

assured that all information will be treated with utmost confidence and will be used for the purpose of this study.

Yours faithfully,

Suleiman A Suleiman.

After reading each of the items, evaluate them in relation to your Cashless Policy and Electronic Banking in the Nigeria Depository Sector knowledge and then tick ( ) against the choices below.

Keys: 5=strongly agree; 4=agree; 3=undecided; 2=disagree; 1=strongly disagree

Variables	**Items**	**Agreement scale**				
		1	**2**	**3**	**4**	**5**
Cashless Policy/banking	Cashless policy helps customer in attaining personal satisfaction and objectives					
	It's easier to pay with cashless policy than another method like cash or credit card					
	Transfer errors has been made on my mobile and ATM transactions without reversal					
	I often used my mobile phone to Pay for an emergency expense, such as repairs, rent, and or a medical bill					
	I transferred money directly to another person's bank, (i.e., friends,					

	relatives, families etc) using mobile phone					
	I find the cashless policy very beneficial					
Customer Deposits	The introduction of electronic payment products such as smartcard, ATMs, internet payment e.t.c has enhanced your customer financial ability					
	The introduction of Electronic Monetary Transfer System (EMTS) has increased bank's deposit base					
	The introduction of cashless policy and electronic banking will not reduce cash banking transaction					
	To a large extent cashless policy has reduce queuing in bank					
Cashless Implementation	The introduction of cashless policy has encouraged savings					
	Cashless policy has been fully implemented in the Nigerian banking system					
	The implementation of cashless policy and electronic banking has advanced customer satisfaction					
Cashless Policy Challenges	In your own opinion has the cashless policy reduce fraudulent practices					
	Inadequate security is not provided for cashless policy and banking					
	The performance of electronic banking in the operation of cashless policy can be assessed to be poor due to online robbery					
	My accounts is always debited from ATM without making withdrawals					
Bank Performance	To what extent has the introduction of computer based or electronic payment services improved your banks operational efficiency					
	Is there price stability since the interdiction of electronic payment system in the depository sector					
	To a large extent, the adoption of cashless policy and electronic banking has improved banking system in Nigeria					