EFFECT OF CASHLESS POLICY ON THE PERFORMANCE DEPOSIT MONEY BANKS IN NIGERIA

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DECLARATION

I hereby declare that this project has been written by me and it is a report of my research work. It has not been presented in any previous application for any research work. All quotations are indicated and sources of information specially acknowledged by means of references.

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CERTIFICATION

The Project "Effect of Cashless Policy on the Performance Deposit Money Banks in Nigeria" meets the regulations governing the award of Masters of Business Administration of the School of Postgraduate Studies of Nasarawa State University, Keffi, and is approved for its contribution to knowledge.

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DEDICATION

This work is dedicated to God Almighty the one that all things are possible with.

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I acknowledge God the owner of my Life.

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ABSTRACT

This study examines the challenges and prospects of the cashless policy in Nigeria for the period 2006 – 2016. The cashless policy plays an important role in the economic growth and development of a nation. The cashless policy was proxied by Automated Teller Machine (ATM) and Point of sales (POS) terminal. The data were collected from the sampled banks financial statements for the period stated above and were analyzed using multiple regression. The findings indicate that Automated Teller Machine (ATM) and Point of sales terminal (POS) significantly influence the cashless policy in Nigeria. It was concluded that effective Automated Teller Machine (ATM) and Point of sales (POS) terminal is an essential tool to achieve an efficient cashless policy in Nigeria. It is therefore recommended that more POS terminals should be deployed; ATM should properly be managed while government agencies should ensure efficient telecommunication service delivery in order to achieve desired and far-reaching results, also the policy must collectively aim to achieve customers' protection in order to boost their confidence in the system.

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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The rate of rapid development at global level has been so dynamic that it touches all aspects of human venture. The business sector and the banking industry in particular are not left out, since the art of interdependency became prominent, various transaction methods have been adopted in daily businesses starting with trade by barter. The barter system laid the foundation for the introduction of an acceptable medium of exchange (money). The use of money and coins solved the problem of double coincidence of wants and indivisibility, which were its major disadvantages. Moreover, the use of money has solved most of the challenges posed by trade by barter, yet as an exchange medium, it has its own challenges.

An outcome of the study carried out by the Nigerian Bankers Committee to identify the cost drivers and preferred solutions to cash policies and cash-based transactions was introduced which stipulated 'cash handling charge' on daily cash withdrawals on cash deposits that exceed N500,000 for individuals and N3,000,000 for corporate bodies. This banking policy aimed at reducing (not eliminating) the amount of physical cash (coins and notes) circulating in the economy and encourage the use of electronic based methods for daily transactions (payments for goods, services and transfers).

After introduction, the policy was expected to encourage the use of less physical cash by making use of electronic-based methods and cheque payments for goods and services as the alternative to cash payments (Umeano, 2012).

Electronic based transactions are a major tool used to discourage high circulation of cash in an economy. Though, Agbonifo, Adeola and Oluwadare (2012) posit that Nigeria adopted electronic banking system in the early 2000s, the pilot phase of the CLP could be traced to its operation in Lagos on April 1st 2012 and was scheduled to be extended to 5 States and the Federal Capital Territory (FCT) on January 1st 2013 which was later rescheduled for July 1st 2013. The affected States were Abia, Anambra, Kano, Ogun, and Rivers (Olanipekun, Briamah & Akanni, 2013). Other States follow suit on 1st July 2014. There is therefore great interest in assessing the journey being made so far.

The electronic banking, online transactions and mobile banking in Nigeria has paved way for a new era of development where the use and demand for physical cash is gradually declining. Recent evolution of technology in the Nigerian financial institutions possess interesting questions for economist, financial institutions, business analyst and the government regarding the current economic status, logistics, and availability of instruments to guarantee economic growth and stability, efficiency and effectiveness of the cashless policy.

Various advantages enjoyed by more developed nations such as the United States of America (U.S.A.) have prompted the Central Bank of Nigeria (C.B.N.) to adopt the cashless policy. At the end of the 1980s, the use of cash for purchasing consumption goods in USA has constantly dropped with inflation (Humphrey, 2004). Nigeria's 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, the CBN has started implementing the cashless policy/banking in some major states/cities in Nigeria such as Lagos, Kano, Port-Harcourt and Onitsha. The implementation of cashless policy was aimed at reducing crime and boosting the economy of the nation, minimize risk associated with carrying huge sums of money, reduction in political corruption, reduction in banking cost, improvement on monetary policy in management of inflation and the overall growth and development of the economy of Nigeria as advantages associated with the implementation of the cashless policy.

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 CBN is not fully operational due to high rate of illiteracy, inadequate sensitization/ education of the benefits of the cashless policy, and inadequate logistics (such as the provision of internet connections in commercial areas, computers and Point of Sale (POS) machines).

Apart from the physical challenges, economic data and indicators are not fully available and reliable. There is a great challenge in attempting to analyze the true impact of the cashless policy on the economy of Nigeria as only few monetary and macroeconomic indicators can be traced with relation to the subject matter. 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 payments instruments that look similar across countries on the surface may be different due to historical and legal variations (Daniel et al, 2004).

This study is to investigate the implementation of electronic cashless policy in Nigeria. Despite the numerous benefits that this policy brings to the nation, banks and individuals, payment systems in Nigeria during the past few years have undergone significant progress, but some transactions are still cash-based.

1.3 Research Question

The following research questions have been developed based for the study:

i. To what extent does Automated Teller Machine accessibility affects cashless policy in Nigeria?
ii. To what extent does Point of Sales Machine (POS)enhance the financial services in Nigeria?

1.4 Objectives 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. Other specific objectives of the study include:

i. To determine whether Automated Teller Machine accessibility has affected cashless policy in Nigeria.

ii. To examine whether Point of Sales Machine (POS) has enhanced the financial services in Nigeria.

1.5 Research Hypotheses

Based on the objectives of the study, the following null hypotheses are postulated:

H_{01}: Accessibility of Automated Teller Machine has no significant effect on cashless policy in Nigeria.

H_{02}: Point of Sales Machine has no significant effect on cashless policy in Nigeria.

1.6 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. This research study will be of help as it will help economic indicators such as the Gross Domestic Product (GDP) and inflation; the study will examine and compare growth trends and changes to determine whether 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 study is also of great importance to financial Institutions, in the sense that it is expected to assist the institutions in assessing the effectiveness of their programmes and to know which variables contribute mostly to the growth and development of the country. The study is expected to assist students and other researchers.

1.7 Scope of the Study

In pursuance of the objective of the study; attention shall be focused on prospect and challenges of cashless policy and its implementation in Nigeria. 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 financial statement of the sampled banks from 2006-2015.

1.8 Definition of Terms

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

ATM Card – An ATM card (also known as a bank card, client card, key card, or cash card) is a payment card provided by a financial institution to its customers which enables the customer to use an automated teller machine (ATM) for transactions such as: deposits, cash withdrawals, obtaining account information, and other types of banking transactions, often through interbank networks.

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) – The transfer of information between organizations in machine readable form.

Electronic Money – Monetary value measured in currency units stored in electronic form on an electronic device in the consumer's possession. This electronic value can be purchased and held on the device until reduced through purchase or transfer.

Internet Banking- This is a product that enables the Bank leverage on the Internet Banking System Module in-built on the new Banking Application (BANKS) implemented by the Bank to serve the Internet Banking needs of the Bank's customers.

Mobile Banking - This is a product that offers Customers of a Bank to access services as you go. Customer can make their transactions anywhere such as account balance, transaction enquiries, stop checks, and other customer's service instructions, Balance Inquiry, Account Verification, Bill Payment, Electronic fund transfer, Account Balances, updates and history, Customer service via mobile, Transfer between accounts etc.

Payment System – A financial system that establishes that means for transferring money between suppliers and of fund, usually by exchanging debits or Credits between financial institutions.

Point of Sale (POS) Machine - A Point-of-Sale machine is the payment device that allows credit/debit cardholders make payments at sales/purchase outlets. It allowed customers to perform the following services Retail Payments, Cashless Payments, Cash Back Balance Inquiry, Airtime Vending, Loyalty Redemption, Printing mini statement etc.

Smart Card – A Card with a computer chip embedded, on which financial health, educational, and security information can be stored and processed.

Transaction Alert - Our customers carry out debit/credit transactions 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 allowed people with relatives in Diaspora who may be remitting money home for family up-keep, Project financing, School fees and the likes. 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 Conceptual framework

This section covers the review of divergent definitions of the variables of the study. The concepts are defined with the view to finding the best concept that the study aligns with.

2.1.1 Concepts of Cashless Economy

Cashless economy does not mean a total elimination of cash as money will continue to be a means of exchange for goods and services in the foreseeable future. It is a financial environment that minimizes the use of physical cash by providing alternative channels for making payments (Alilonu, 2012). The cashless economy policy of the CBN is designed to provide mobile payment services, breakdown the traditional barriers hindering financial inclusion of millions of Nigerians and bring low cost, secure and convenient financial services to urban, semi-urban and rural areas across the country. This has however become an albatross to some elites, the poor, the uneducated and traders (Eromosele & Obinna, 2012). Valentine Obi, Managing Director/CEO e-Transact International Plc, a leading provider of mobile transaction services defines cashless society as one where no one uses cash, all purchases being made by credit cards, charge cards, cheques and direct transfers from one account to another. In other words, it refers to the widespread application of computer technology in the financial system. According to him, in the western world today, almost 97% of transactions are done without physical cash being exchanged and this has greatly reduced cost, corruption and money laundering. In Nigeria today, it is the opposite – with majority of transactions done with

cash. In a cashless economy, how much cash in your vault is practically irrelevant. You can pay for your purchases by any one of a plethora of credit cards or bank transfer (Roth, 2010). Some aspects of the functioning of the cashless economy are enhanced by e-finance, e-money, e-brokering and e-exchange. These all refer to how transactions and payments are affected in a cashless terms (Ashike, 2011).

In Nigeria, under the cashless economy concept, the goal is to discourage cash transactions as much as possible. The CBN had set daily cumulative withdrawal and deposit limits of N150, 000 for individuals and N1, 000,000 for corporate entities (now reviewed to N500, 000 and N3million respectively). Penalty fees of N100 and N200 respectively (now reduced to 3% and 5% respectively) are to be charged per extra N1000 (Ezumba, 2011). It should be noted that as at now there are already some forms of cashless transactions that are taking place in Nigeria. It is noted that today there are up to seven different electronic payment channels in Nigeria : Automated Teller Machines (ATM), Point of Sales terminals, mobile voice, web, inter-bank branch and kiosks. E-payment initiatives in Nigeria have been undertaken by indigenous firms and have been stimulated by improvement in technology and infrastructure (Babalola, 2008).

The cashless economy does not imply an outright end to the circulation of cash (or money) in the economy but that of the operation of a banking system that keeps cash transactions to the barest minimum. The CBN had set daily limits of cumulative withdraws and lodgments of N150, 000for individuals and N1, 000,000 for corporate customers (now N500, 000 and N3million respectively). The operation of the system does not mean the individual/corporations cannot hold cash in excess of N150, 000/N1million (now N500, 000 and N3million respectively) respectively at any single

point in time but that their cumulative cash transactions with the bank must not exceed these limits over a period of one day. The system is targeted at encouraging electronic means of making payments, and not aimed at discouraging cash holdings. This policy on limits implies that an individual can actually have N5million (more than N150,000 now N500,000) under his pillow at home, buys goods and services with them but must not pay more than N500,000 into his bank account in one day without attracting a fine of 3% per N1000 for the excess. What is anticipated by this policy is that instead of making large withdrawals to effect payment for goods and services, such monies will be kept in the banking system so that payments are made through "credit card-like means". In this system users are issued with electronic cards which can be slotted into special electronic machines in order to effect payments. At the center of such payment system are the Point of Sales (POS) terminals (Azeez, 2011). These are to be deployed across commercial points in the country. These POS terminals thus, deployed will serve like the Automatic Teller Machines (ATM). In this case, upon completing a transaction and the value ascertained, the amount is entered into a POS terminal into which the electronic card has been slotted. The cash equivalent of the amount is transferred from the payer's account into the account of the payee automatically (Olaegbe, 2011).

Users are issued with a card (the electronic purse). The electronic purse is topped using revaluation terminals. There are different types of terminals: coin and note, credit card and payroll deductions terminals. The cards are simply inserted into the revaluation terminal and certain programmed instructions are followed, and money is added onto the electronic purse. This can then be used to pay for goods/services by inserting them into the POS terminal. When the card is inserted into the POS terminal, and the transaction

amount entered, the reader reads the amount and is quickly deducted from the e-purse (the card). While cash will still remain the preferred means of payment and exchange, other alternative modes are offered. To dissuade the reliance on cash payments, daily cash limits on deposits and withdrawals are enforced and any amount above the stipulated threshold is penalized by application of handling charges by banks.

2.1.2 The need for Cashless Policy

According to okoye and Ezejiofor (2013), money is often described as having three functions: (i) a unit of account function, (ii) a medium-of-exchange function, and (iii) a store-of-value function. In a cashless economy, the third is not operative and, probably, neither is the second. Cashless economy does not refer to an outright absence of cash transactions in the economic setting but one in which the amount of cash-based transactions are kept to the barest minimum.

It is an economic system in which transactions are not done predominantly in exchange for actual cash (Daniel, D. G., R. W. Swartz, & A. L. Fermar, (2004). A cashless society possesses the following characteristics:. All the money used is issued by private financial institutions (banks, and possibly other firms). It is conceivable that the central bank continues to operate like other banks, issuing its own deposits that could be used as money in the same way as other bank deposits are. However, in that case the central bank has no monopoly in the issue of Money. In a cashless society the unit of account (let's say Dollar, euro) remains a national affair and is provided by the state. The followings among others enhance the functioning of cashless economy; e-finance, e-banking, e-money, e-brokering, e-exchanges among others. In a modern economy, the use of noncash payment methods such as cards (credit and debit) dominates the use of cash in payments. The card

based payment system has several players. On the one hand, are the providers of the card based payment system- first of which is the card companies like MasterCard and Visa who provide their payment network for the system to function. The second sets of providers are the banks that act as acquirers for merchants and issuers for cardholders and reach the card payment services to the ultimate users. For these two parties, the card payment system is an income generating initiative and they are motivated to run the system as they are able to generate adequate profits out of their operations. On the other side of the system are the users- both merchants and cardholders.

The benefits these two players derive from the system are manifold- the convenience of electronic transactions, the ease of credit availability, increased sales, increased purchasing power, to list a few. Since they are the end users of the convenience the card payment system generates, they are the ones who bear the cost of the system. Apart from these four players there is the regulator of the payment system, usually the central bank of the country. The card based payment system cannot function in absence of any of its players. The global volume of non-cash transactions totaled 260 billion in 2009 (world payments report 2011), after sustained average annual gains of 6.8% since 2001. The outright volume of these payments only remains heavily concentrated in developed markets. Developing countries are just improving their payments infrastructures, enabling wider adoption and greater usage of non-cash means and channels .They also tend to be open to innovations that can broaden their still-nascent base of users (world payments report 2011). However, the global use of cash payment is still endemic, especially for low-value retail transactions. But while cash may be convenient, it makes taxation less transparent, and it is costly to distribute, manage, handle and process. It therefore follows

that; cash as a mode of payment is an expensive proposition for any government. As a result, many governments are seeking to reduce these costs and encourage the use of non-cash payment means. The Nigerian economy is too heavily cash oriented in its transaction of goods and services and this is not in line with global trend, considering Nigeria's ambition to be amongst the top 20 economies of the world by the year 2020.For instance an overview of central bank of Nigeria policies on cash management in Nigerians financial system is high and increasing; direct cost of cash is estimated to reach one hundred and ninety two billion naira in 2012 (CBN 2011).

2.1.3 The New Cashless Policy and Law Response to Cash-Less Economy

The retail cash policy which commence from June 2, 2012 stipulates that over the counter cash transactions above N150,000 and N1,000,000 for individual and corporate respectively will attract a charge. Notwithstanding, the policy recognizes that merchants have to continue to receive payments therefore, it allows merchants and traders alike to choose either cash options for receiving payments or adopt cheaper and convenient alternative electronic payment channels to facilitate business transaction. The implementation of the policy will commence at first in Lagos, and gradually phased to cover Port Harcourt, Kano, Aba and F.C.T. A careful review of the policy reveals the following salient consideration that went into the formulation of the policy as well as actions being taken to ensure seamless implementation:

1. The central Bank of Nigeria, while acting within the limits of its statutory responsibilities in respect of the development of the payments system, did not place a limit on cash transactions in the banks rather the CBN is formally encouraging banks to shift cost burden of heavy cash management to customers conducting high volumes of

cash transactions in the banking halls. Individuals and corporate groups who are desirous of such cash usage should be willing to pay for the cash services being offered by the banks. Since the majority of Nigerians (90%) do not carry out cash transactions of up to N150,000 a day on their respective accounts, the threshold for charging was set taking into consolidation the need to protect the low income earners and savers.

2. It is should be clarified that the policy does not prohibit the withdrawal of more than N150,000. Those who still wish to conduct heavy cash transactions with their banks are free to do so within the provisions of the directive.

3. The banks are poised and committed to an aggressive rood-out of ATM, point-of scale (POS) and ensure these are readily available to the high cash driven individuals and businesses. The CBN and Bankers Committee are implementing an e-payment rollout program that will deploy additional 40,000 POS and 10,000 ATMs before December 31, 2011 and 375,000 POS and 75,000 ATMs by December 2015. These are to be deployed with strict rules on high uptime and availability.

4. Currently, there are funds transfer products of banks that ensure same day value to customers anywhere in the country through the electronic funds transfer system.

5. The CBN aims to roll out this policy with a pilot starting with Lagos, to be implemented by January 1, 2012. Following proof of concept, the roll-out will continue to the remaining identified cash-dominant localities with effect from June 1, 2012.

6. To address the communication infrastructure issues which had hitherto affected the level of availability of POS and ATMs to users in the country, the CBN and the bankers

Committee have commenced concrete actions to ensure that priority is given to payments related data traffic by telecommunication networks. Agreement has been reach to provide dedicated channels for transaction over the Point of Sale (POS).

7. Power is another key infrastructure which impacts the availability of POS and ATMs. The CBN has therefore agreed on minimum POS standards which specify adequate battery life span to support uninterrupted availability of power supply.

While the distinguishing element in e-transactions is the electronic element, virtually all of Nigeria's extant laws and regulations do not provide for the element in commercial transactions till date, there is no law that explicitly and exclusively deals with payment systems in Nigeria. This contrasts sharply with Kenya and South Africa, to name a few. With the enactment of the Kenya Communication Amendments Bill 2008, Kenya retail banking sector enjoys the benefits of using electronic signatures and the recognition of electronic records in legal proceedings.

Accordingly, cost reduction and customer related factors have emerged as the main drives of e-banking adoption in Kenya. The central bank of Nigeria Act (as amended) gives the Bank implicit powers to oversee and regulate the payments system. This role is complimented by the Nigeria Deposit Insurance Corporation (NDIC) and the Nigerian Stock Exchange.

2.1.4 Reasons for the introduction of cashless policy by CBN

The new cashless policy was introduced according to the CBN for a number of key reasons:

1. To drive development and modernization of our payment system in line with Nigeria's vision 2020 goal of being amongst the top 20 economies by the year 2020. An efficient and modern payment system is positively correlated with economic development, and is a key enabler for economic growth.

2. To reduce the cost of banking services (including cost of credit) and drive financial inclusion by providing more efficient transaction options and greater reach

3. To improve the effectiveness of monetary policy in managing inflation and driving economic growth.

In addition, the cash policy aims to curb some of the negative consequences associated with the high usage of physical cash in the economy, including;

1. High cost of cash: there is a high cost of cash along the value chain from the CBN and the banks, to corporations and traders; everyone bears the high costs associated with volume cash handling.

2. High risk of using cash: cash encourages robbery and other cash related crimes. It can also lead to financial loss in the case of fire and flooding incidents.

3. High subsidy: CBN analysis showed that only 10 percent of daily banking transactions are above 150k, but the 10 percent account for majority of the high value transactions. This suggests that the entire banking population subsidizes the costs that the tiny minority 10 percent incurs in terms of high cash usage.

4. Informal economy: high cash usage results in a lot of money outside the formal economy, thus limiting the effectiveness of monetary policy in managing inflation and encouraging economic growth.

5. Inefficiency and corruption: high cash usage enables corruption, leakages and money laundering, amongst other cash-related fraudulent activities.

Added to this is the perceived impact on the Naira. The system will reduce the pressure on the Naira. This can only happen if there is effective and standard cross-border electronic transmittal's reporting system (Ezumba, 2011). Following from the above therefore, it is anticipated that the cashless system will bring with it transparency in business transactions (Jaiyeola, 2011). In the same token, the cashless economy will bring with it a leaning towards banking culture. It is seen that the effort is directed at "ensuring a 'cashless economy' and nurturing the culture of saving in the unbanked majority in the country" (Nonor, 2011). Most Nigerians are still unbanked, and so we have large proportion of the citizenry not subject to such monetary policy instruments as are used in the banking system. This development will make CBN's policy tools more effective for achieving economic development and stability goals. It appears that the most serious appeal of the cashless system comes from the high cost of cash management in Nigeria (Eboh, 2011). Other identified reasons for the cashless economy policy are robbery, revenue leakages and inefficient treasury. The system will present some costs to the banking public, there will be some costs to be borne by government and there will be costs for the operators of the system.

2.1.5 Essentials of a Cashless Economy

For a cashless economy to work certain factors must be present, not just present but in the right quantity and quality. It is for this reason that many analysts question the readiness of Nigeria for a cashless system, amongst others. Very vital among these factors is infrastructure. The whole skepticism about Nigeria's preparedness is summed up in the following: The CBN's rhetoric of making the Nigerian economy cashless may be melodious. But that is placing the cart before the horse, an undue haste to run without first crawling. What foundations exist in Nigeria for the take-off of a cashless economy? What is the level of literacy and acquaintance with Information Communication Technology (ICT) among Nigerians? How many Nigerians can use electronic banking services? What infrastructures are there to support electronic banking, assuming most Nigerians are educated and ICT – compliant is it enough to flood the nooks and crannies with ATMs, with their vulnerability to fraud unresolved? (Ogu, 2011).

Certain problems are reported to be associated with the operation of the cashless economy: "communication issues like power, ICT and uptime payment platform, interoperability of networks as well as cheque clearing period are important issues to be considered for the smooth operation of cashless economy" (Ifeakandu, 2011).

In his article **"**Is Cashless Society a way forward**"**, Alilonu Ifeanyi suggested that the following key performance indices should be addressed for there to be a successful transition to a cashless society in Nigeria:

1. **Sensitization** ; there is still need for the greater populace to get acquainted with this policy thrust, appraise them of its merits, address their concerns and enlist their commitment.

2. **Security;** the security of the proposed and existing systems of payment must be enhanced to protect the users from malware, hackers, fraudsters, viruses and identity theft.

3. **Power**; the issue of power in Nigeria continues to be a nagging problem. Electronic power is still needed to run most of these channels. Government must do its best to increase the supply of power.

4. **Online, Real-time, Every time;** these alternative means of payment requires that the different media used should be online real-time and every time. For those who have experienced downtime in banks, it is totally a frustrating experience. The devices must be online for the transactions to sail through. For POS terminals, it has been announced that dual-sim POS terminals will be used to minimize downtime (Alilonu, 2012).

In other words, for an effective running of a cashless economy, the issue of infrastructure must be concertedly addressed. Another very important factor in the successful implementation of a cashless economy is the levels of awareness and literacy, of the populace. It is noted that : "Those who have also frowned at the policy argue that the high level of illiteracy in the country, low level of banking population and porous banking system are factors that would work against the success of the scheme" (Dada & Oronsaye, 2011). People need to know how else one can pay illiterates who do not have bank accounts, it is pointed out that, "…the high level of illiteracy among Nigerians

makes the use of cheques and electronic payments unsuitable in some cases" (Ogu, 2011). The problem with this situation of illiteracy is that a very huge proportion of the populace will come to depend on the literate few, and this will leave them at the mercy of the scruples of such "literate few". They will be vulnerable and may constitute a cog in the wheel of the cashless economy. The issue of security has been mentioned in passing. The issue is very serious, with Nigeria having been described as the hub of internet scam; one can only wonder how the vulnerability of the cashless system to various forms of internet-related crimes will be addressed. It is reported that : Information technology security experts in Nigeria have warned that, except the Central Bank of Nigeria and other regulatory agencies in the financial sector ensures that service providers adhere to minimum security standards on their web-based platform, the current move by the country towards a cashless economy may end up being a fruitless exercise (Azeez, 2011).

Thus, security concerns on the web, the platform of cashless economy, are massive. Nigeria is replete with cases of internet scam and this will only increase as we enter into the e-payment era if the issue of security is not comprehensively addressed. Another facet to the cyber security concerns is the recent spate of cyber-attacks worldwide. Can we guarantee a sufficiently sophisticated system as to scale the hurdle of cyber-attacks which are capable of derailing the whole cashless system? It is reported that: as it has been witnessed globally, the internet is the best thing (in a mundane sense) to happen to the world but offers the greatest risk and opportunities for criminals to unleash terror. Findings shows that even countries such as the United Kingdom, United States and other developed countries where high compliance to internationally acceptable security standards is maintained, cases of hacking have been continually reported (Azeez, 2011).

If the case is so with the more organized economies, it can only be imagined what can take place in an unorganized and vastly lawless economy like ours. Like the saying goes "if gold rusts what will happen to iron?". If we must go cashless, cyber security must be guaranteed by government first. Speaking at an Information Security Society of Africa, Nigeria (ISSAN) organized forum, Laja Sorunke (the Associations' Vice President) notes that, "I want to assure you that Nigeria at the cyber space is under threats. We have vulnerability. We have issues bothering on our payment networks" (Azeez, 2011). We cannot treat this issue with the same official levity and laxity as it had come to be with government programmes and projects. We must sit down together and address these security concerns if we will not rush out of the cashless economy just like we are rushing in now. There is the need for proactive measures by companies in the country to put up a defensive mechanism against these attacks. Another security expert at the same forum notes that, "Truth is Nigeria cyber space is very insecure, vulnerable, we are open to attacks. For example we have no cyber security emergency programme in place so if we are attacked on cyber space today we have no way of knowing" (Azeez, 2011). Another essential is that adequate terminals and Automatic Teller Machines (ATMs) must be provided for the system to operate smoothly. As noted: "unless about 26,000 additional POS terminals are deployed, by various merchants across the country, a proper take off of cashless economy in Nigeria may be a mirage" (Azeez, 2011).

Investigations reveal that "only about 14,000 POS currently exists in the country" (Azeez, 2011). This is supported by the following observations: Within this period (between now and the start of the cashless economy), the apex might not record much success because infrastructures such as POS, ATM, etc. needed to migrate from a cash-

aware Lagos to a cashless Lagos are not on ground. Unless the song coming from the CBN is not true, the road to a cashless Lagos is like the Ibadan Expressway, there are so many detours, so many potholes and gullies (Olaegbe, 2011).

On the need for there to be adequate POS terminals, it is noted that : Nigeria's low point of sales (POS) density and poor last mile connectivity constitutes significant drawbacks to the success of the CBN's cashless Nigeria project. Business day investigations reveal that there are only about 3000 functioning POS terminals in the country out of the existing 13,000. Spain, for instance, has 1.6 million active POS terminals with a population of 14 million people, while India which has deployed 500,000 POS terminals, conducts 360 million transactions per annum (Uzor, 2011). So then for a population of about 150 million people in Nigeria, 3000 active POS terminals are grossly inadequate for a take-off of the project.

2.1.6 Tools of Cashless Economy

The major tools of CLP as used in the Nigerian situation are mainly five though one of them (the use of Cheques) is fast becoming outdated.

ATM: is an electronic telecommunication device that enables the customers of financial institution to perform financial transaction without the need of human cashier, clerk, or bank teller. An ATM card (also known as a bankcard, client card, key card, or cash card) is a payment card provided by financial institution to its customers, which enables the customer to use an Automated Teller Machine (ATM) for transactions such as deposits, cash withdrawals, obtaining account information, and other types of banking transactions, often through interbank networks.

ATM is known to have replaces the option of human to human servicing with human to machine servicing, which enables individuals to perform banking transaction without entering a banking hall. As a tool for CLP it limits the amount of physical cash accessible owing to the fact the there is a limit to cash withdrawal per day.

Mobile (Internet) Banking Transactions: The Federal Reserve Board of Chicago's Office of the Controller of Currency - OCC (Internet Banking Handbook, 2001) as cited in Agbonifo, Adeola and Oluwadare, (2012) describe Internet Banking as "the provision of traditional banking services over the Internet". It is a product that is Module and in-built on the new Banking Application, BANKS implemented by banks to serve the Internet Banking needs of bank's customers. In reducing the cash in circulation as a CLP tool, internet banking enables individual to initiate transaction over the internet without having to physically carry cash to make transaction.

Mobile Banking: This product offers Customers of Banks access to services as they go. Customers can make their transactions anywhere. Services such as account balance, transaction enquiries, stop Cheques, account verification, bill payments, electronic fund transfer, updates, and history, and other customer services are all deliverables via mobile phones.

Point-of-Sale (POS) Machine: A Point-of-Sale machine is the payment device that allows credit/debit cardholders make payments at sales/purchase outlets. It allowed customers to perform the following services: retail payments, cashless payments, cash back balance enquiry, airtime vending and printing mini-statement.

2.1.7 The Alternative Means of Payment

Cheques; there is an expected surge in the use of cheques. However, encashment of third-party cheques across the counter is prohibited and all cheques drawn in favor of any beneficiary other than the account owner must be presented through CBN clearing house. Sequence to that, the value on cheques must not exceed N10 million.

Bank drafts and other bank instruments; bank drafts will become the toast of many merchants for big ticket transactions not more than N10 million. This is because bank draft unlike personal cheques in normal Nigerian parlance, cannot bounce except if they are fraudulent. However, they cannot be paid across the counter and will still be subject to the three days clearing rule of CBN for cheques.

ATM; Automated Teller Machines will be used much frequently for making variety of online payments such as utility bills, T.V subscriptions, GSM recharges and a host of others Customers are advised to keep their ATM cards (Debit and Credit) safe and never to divulge their PINs.

NIBSS Funds Transfers ; The Nigerian Interbank Settlement Scheme is an online platform where banks exchange value thereby enabling the performance of interbank transfers such as NEFT and NIBSS instant transferring funds between banks for single or multiple beneficiaries for individual amounts not exceeding N10 million. NEFT transfers, once effected works with the next available clearing session of CBN and is received in the beneficiary's account the same day or next working day, but NIBSS instant payments are immediate.

RTGS: Real Time Gross Settlements is used to transfer sums above N10 million in favor of a single beneficiary. It is used for big ticket transactions which must have been effected before noon for most banks if the funds are to reach the recipient bank the same day.

Mobile Money: this is a product that enables users to conduct funds transfers, make payments or receive balance enquiries on their mobile phones.

E- Transfers: refers to electronic transfers which can be effected via the internet on PCs, laptops and other devices. Bank customers who have subscribed to internet banking can do basic banking transactions via the web.

POS Terminal: Point of Sale (POS) terminals are deployed to merchant locations where users swipe their electronic cards through them in order to make payment for purchases or services instead of using raw cash. As the POS terminals are online real-time, the customers bank account is debited immediately for value of purchases made or services enjoyed. (Alilonu, 2012). There are indeed alternatives to handling or transacting in cash for transfers and for payments of goods and services purchased. These include : ATMs, which can mobile banking/payments, which can be done through the use of mobile phones for balance inquiry, funds transfers and bills payment ; internet banking, which can be used for instant balance enquiries, funds transfer, bills payment and other transactions. Most banks require you to have a token device for internet banking services in order to give some security for customers banking applications. Yet, other alternative includes Point of Sales (POS) terminals which allow merchants access to card payments for sale of products and services. They also allow merchants to make commission from

sales of third party products and services such as recharge cards, bill payments, lottery tickets etc., and finally there is electronic funds transfer through which one can transfer money electronically from his account to other accounts. Some banks also offer an instant electronic funds transfer service. However, most of these e-payments channels require you to have an ATM/Debit card (Oyetade & Ofoelue, 2012).

It has to be noted that the operation of the cashless economy (electronic payment) system is not entirely free. It is noted that using the POS comes with a hefty price tag of 1.25 percent of the cost of every purchase or transaction that is affected in addition to the N5 for every N1000 commission on turnover that our deposit money banks are allowed by CBN to charge every time money is taken from our account (Omose, 2011).

2.1.8 E-transactions and Consumer Protection

Consumer protection issues revolved round infrastructure, interconnection, investment, trade, and liberalization among others. Dispute resolution mechanisms must therefore be put in place to assuage the concerns of consumers. These may range from official to non-official approaches, including regulatory adjudication, court adjudication, alternative dispute resolution, negotiation and mediation to arbitration. Whatever model is adopted, the key elements must include speed and efficiency. Uganda's the communications (Fair competition) Regulations, 2005; Kenya's Act of 1998, and the UK Consumer protection Regulations 2000 all deal with consumer-related issues. However, in Nigeria, the consumer does not seem to have adequate legal cover in the event of a commercial dispute. For instance, the duty of care and skill in handling and securing customer funds by bankers has increasingly come under scrutiny, more so in the light of the seeming helplessness of ATM fraud victims in obtaining legal redress. This is not unconnected

with Nigeria's unsatisfactory e-commerce legal regime. Transaction Bill also provides, *inter alia,* that "A person using electronic communications to sell goods or services to consumers shall provide accurate, clear and accessible information about themselves, sufficient to identify the legal name of the person, its principal geographic address, and an electronic means of contact or telephone number, facilitate prompt, easy and effective consumer communication with the seller, and allow service of legal process." It is however instructive that though the bill mentions "service of legal process" in anticipation of litigations relating to e-transactions, it is ominously silent on possible offences by individuals and corporate groups that may be actionable in e-transactions as well as the attendant penalties. Remedies available to injured parties are equally not provided for; more so, as the bill is also silent on the mode of intermediaries also remains unclear. The bill is also silent on the role of a certification service provider towards ensuring the integrity of e-transactions.

2.1.9 Prospect 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 a reduced rate of criminal activities. Physical paper cash is non-traceable, unaccountable, easy to hide or lose, steal, counterfeit, and spend 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, armor car heists, kidnap for ransom, and purse snatching would be significantly reduced, if not entirely eliminated, because carriage of Cash would be lite. 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, place independence, 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.

Experts and government officials have continued to paint the system in very colorful tones. For instance, the World Bank says that "operating a cashless society in Nigeria was strategy for fast-tracking growth in the nations' financial sector". If the World Bank says so, one expects that to be true. Experts have pointed out specific areas in which the cashless economy will enhance the quality of life. This includes:

1. Faster transactions – reducing queues at point of sales.

2. Improving hygiene on site – eliminating the bacterial spread through handling notes and coins.

3. Increased sales

4. Cash collection made simple – time spent on collecting; counting and sorting cash is eliminated.

5. Managing staff entitlements.

It is also beneficial to the banks and merchants; there are large customer coverage, international products and services, promotion and branding, increase in customer satisfaction and personalized relationship with customers and easier documentation and transaction tracking (Ashike, 2011).

E-payments have several advantages, which were never available through the traditional modes of payment, some of which are; privacy, integrity, compatibility, good transaction efficiency, acceptability, convenience, mobility, low financial risk, anonymity (Keck, 2012). E-payment tends to benefit businesses by extending customers base, boosting cash flow, reducing costs, enhancing customer service and improving competitive advantage.

Five reasons why e-payment improves customer service – the five C's ;

1. Choice – like competitors, it can offer a wide range of payment options.

2. Convenience – they remove the need for invoices, cheques, cash and Banks Automated Clearing System (BACS).

3. Credit – they may allow purchases that would otherwise be delayed.

4. Concessions – small discounts to encourage online purchases improve the perception of value.

Five reasons why e-payment increases profitability;

1. Convenience – removing administrative resources required by invoices, cheques and cash.

2. Immediacy – credit cards enable instant purchasing without delay.

3. Improved cash flow – payment at the time of purchase reduces the pressures caused by 30-days invoicing.

4. Growth – opens additional payment channels via the phone, mail order, and internet and increase customers' base. More customers mean more revenue.

5. Competitive advantages - match and beat the services of competitors and gain the edge.

The government will benefit from the cashless economy in the area of adequate budgeting and taxation, improved regulatory services, improved administrative processes (automation), and reduced cost of currency administration and management (Ashike, 2011).Other benefits include;

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

(2) For Corporations; faster access to capital, reduced revenue leakage, and reduced cash handling costs.

(3) For Government; increased tax collections, greater financial inclusion, increased economic development.

(4) For Banks; efficiency through electronic payment processing, reduced cost of operations and increased banking penetration. (Oyetade & Ofoelue, 2012).

(5) Benefits to the economy ; through the system, users can also pay utility bills, school fees, hotel bookings, and house rents, among other transactions, using a mobile phone device. (Eromosele & Obinna, 2012).

As a policy instrument, CBN has heaped a lot of praises on the cashless system; it sees it as a tool for tackling corruption and money laundering. It has been pointed out that :

"Among the reasons glibly advanced by the CBN for this policy include reducing the cost of cash management, making the Nigerian economy cashless, checking money laundering and the insecurity of cash in transit (CIC)" (Ogu, 2011). Statistics show that cash management in 2009 cost N114.5 billion and this is projected to stand at N200 billion in 2020 (Ezumba, 2011). In the same vein, the cashless system provides the opportunity of being able to "follow the money" and thus check money laundering across boarders. Other reasons cited by the Apex bank was ; to improve the effectiveness of monetary policy in managing inflation and driving economic growth, to reduce the cost of banking services (including cost of credit) and driving financial inclusion by providing more efficient transaction options and greater reach (Oyetade & Ofoelue, 2012).

For many years, bankers, IT experts, entrepreneurs and others had advocated for the replacement of physical cash and the introduction of a more flexible, efficient and cost Effective retail payment solution (Baddeley, 2004). Nigerian banks are making huge investments in technology to upgrade their infrastructure in order to provide new electronic information based services. Such services as online retail banking, Point of Sale terminals (POS), make it possible for individuals and corporate bodies to take advantage of new technologies at reasonable costs. Before the emergence of a modern banking system, banking operations were manually done.

The manual system which involved posting of transactions from one ledger to another without the aid of computer systems accounted for inefficiency in settlement of transactions. Computations done manually led to miscalculation due to human errors, and resulted in extension of closing hours when account were not balanced on time. The

introduction of cashless system is therefore meant to ameliorate the sluggish nature of banking transactions.

Vassiliou (2004) defines a cashless payment as a form of financial exchange that takes place between the buyer and seller facilitated by means of electronic communication. According to (Cobb, 2004), the value of electronic payment goes way beyond the immediate convenience and safety of cards to a greater sphere of contributing to overall economic development. Undoubtedly, the last three decades have witnessed major advancement in payment technologies.

Today, Nigeria electronic payment (e-payment) landscape is on a new threshold with banks, switching and transaction companies, vendors of Automated Teller Machine (ATMs), Point of sale (POS) and third party companies all jostling to expand the scope of market. For instance according to CBN reports; The volume and value of electronic card (e-card) transactions has increased significantly from 195,525,568 and N1,072.9 billion in 2010 to355,252,401 and N1,671.4 billion, in 2011 reflecting an increase of 81.5 and 55.8 per cent, respectively. The increase was attributed to enhanced public confidence in electronic card payments in addition, data on various e-payment channels from another CBN reports indicated that ATMs remained the most patronized, accounting for 97.8 per cent, followed by web payments, 1.0 per cent, Point-of-Sale (POS) terminals, and mobile payments, 0.6 per cent each. Similarly, in value terms, ATMs accounted for 93.4 per cent, web 3.5 per cent, POS 1.9 per cent and mobile payments, 1.2 per cent. The number of ATMs stood at 9,640, while the volume and value of transactions amounted to 347,569,999 and N1, 561.75 billion, at end-December 2011, respectively. These figures reflected increases of 86.7 and 63.7 percent respectively over the volume and value of

186,153,142 and N954.04 billion, at end December 2010. The volume and value of mobile payments increased by 215.6 and 185.8 per cent from 1,156,553 and N6.7 billion to 3,649,374 and N19.0 billion, respectively, at end-December 2011.The market share in the e-payment market in Nigeria between 2008 to 2011 A report by financial research and consulting firm; Celent in India indicates that the value of retail e-payments in India is expected to reach between US$150 billion to US$180 billion by the end of 2010 (Delali Kumaga). “More than two thirds of all non-cash transactions payments in the United States are made electronically, with the biggest increase in electronic payments occurring between 2003 and 2006 according to a US central bank (Delali Kumaga). The central bank’s non-cash payments study found that about 19 billion dollar of more electronic payments was made in 2006 than 2003”. Basically, the cashless banking system cannot be discussed explicitly without looking at the theory of money. Money is the ‘brain box’ behind every successful transaction and the economy as a whole.

In other words, for an effective running of a cashless economy, the issue of infrastructure must be concertedly addressed (Alilonu, 2012). Another very important factor in the successful implementation of a cashless economy is the levels of awareness and literacy, of the populace. It is noted that : “Those who have also frowned at the policy argue that the high level of illiteracy in the country, low level of banking population and porous banking system are factors that would work against the success of the scheme” (Dada & Oronsaye, 2011). People need to know how else one can pay illiterates who do not have bank accounts; it is pointed out that, “the high level of illiteracy among Nigerians makes the use of cheques and electronic payments unsuitable in some cases” (Ogu, 2011). The problem with this situation of illiteracy is that a very huge proportion of the populace will

come to depend on the literate few, and this will leave them at the mercy of the scruples of such “literate few”. They will be vulnerable and may constitute a cog in the wheel of the cashless economy. The issue of security has been mentioned in passing. The issue is very serious, with Nigeria having been described as the hub of internet scam; one can only wonder how the vulnerability of the cashless system to various forms of internet-related crimes will be addressed. It is reported that : Information technology security experts in Nigeria have warned that, except the Central Bank of Nigeria and other regulatory agencies in the financial sector ensures that service providers adhere to minimum security standards on their web-based platform, the current move by the country towards a cashless economy may end up being a fruitless exercise (Azeez, 2011).

Thus, security concerns on the web, the platform of cashless economy, are massive. Nigeria is replete with cases of internet scam and this will only increase as we enter into the e-payment era if the issue of security is not comprehensively addressed. Another facet to the cyber security concerns is the recent spate of cyber-attacks worldwide. Can we guarantee a sufficiently sophisticated system as to scale the hurdle of cyber-attacks which are capable of derailing the whole cashless system? It is reported that: as it has been witnessed globally, the internet is the best thing (in a mundane sense) to happen to the world but offers the greatest risk and opportunities for criminals to unleash terror. Findings shows that even countries such as the United Kingdom, United States and other developed countries where high compliance to internationally acceptable security standards is maintained, cases of hacking have been continually reported (Azeez, 2011).

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"if gold rusts what will happen to iron?". If we must go cashless, cyber security must be guaranteed by government first. Speaking at an Information Security Society of Africa, Nigeria (ISSAN) organized forum, Laja Sorunke (the Associations' Vice President) notes that, "I want to assure you that Nigeria at the cyber space is under threats. We have vulnerability. We have issues bothering on our payment networks" (Azeez, 2011). We cannot treat this issue with the same official levity and laxity as it had come to be with government programmes and projects. We must sit down together and address these security concerns if we will not rush out of the cashless economy just like we are rushing in now. There is the need for proactive measures by companies in the country to put up a defensive mechanism against these attacks. Another security expert at the same forum notes that, "Truth is Nigeria cyber space is very insecure, vulnerable, we are open to attacks. For example we have no cyber security emergency programme in place so if we are attacked on cyber space today we have no way of knowing" (Azeez, 2011).

Another essential is that adequate terminals and Automatic Teller Machines (ATMs) must be provided for the system to operate smoothly. As noted : "unless about 26,000 additional POS terminals are deployed, by various merchants across the country, a proper take off of cashless economy in Nigeria may be a mirage" (Azeez, 2011). Investigations reveal that "only about 14,000 POS currently exists in the country" (Azeez, 2011). This is supported by the following observations: Within this period (between now and the start of the cashless economy), the apex might not record much success because infrastructures such as POS, ATM and other means needed to migrate from a cash-aware Lagos to a cashless Lagos are not on ground. Unless the song coming from the CBN is

not true, the road to a cashless Lagos is like the Ibadan Expressway, there are so many detours, so many potholes and gullies (Olaegbe, 2011).

Highlighting other aspects to POS terminals deployment problem, the question asked is : When will they be deployed? How about the POS and ATM users, have they been educated? Are they aware enough about the cashless Lagos? How about malls, supermarkets, and other merchant locations; are they ready for the take-offs of the project? These are some of the issues that should be addressed before we contemplate taking a walk on the road that a leads to a cashless Lagos (Olaegbe, 2011).

On the need for there to be adequate POS terminals, it is noted that : Nigeria's low point of sales (POS) density and poor last mile connectivity constitutes significant drawbacks to the success of the CBN's cashless Nigeria

2.1.10 ICT as Drivers of Cashless Economy

According to Olusola and Oludele (2013) ICTs are more than just computers or the Internet. Although, there has been a tendency to focus on Internet technology, the study of technological effects in economy and business fields must also be closely considered. Today, ICTs must be conceived broadly to encompass the information that businesses create and use, as well as the wide spectrum of increasingly convergent and linked technologies that process such information. Therefore, ICTs can be viewed as a collective term for a wide range of software, hardware, telecommunications and information management techniques which are used to create, produce, analyze, process, package, distribute, receive, retrieve, store and transform information. In particular, ICTs have a valuable potential for developing a cashless society through more effective use and better

integration of ICTs in business processes while assisting them to make more efficient decisions relevant to their performance. ICTs have the potential to generate a step change in a Cashless society and make them more competitive and generate growth. Nowadays, economy must be understood as a global process. In this scenario, ICT can provide a wide variety of benefits to different firms. More specifically, ICT can reduce business cost, improve productivity and strengthen growth possibilities when a cashless society is introduced. Besides, the adoption and implementation of ICT by firms, it can also improve business relationships, quality and diffusion of knowledge in a cashless society.

2.1.11 Costs and disadvantages of the Cashless policy

Good as it sound; the system will come at some costs. A price tag of 1.25% of the cost of every transaction done through POS terminals will be charged by the operators of the terminals (Omose, 2011). This may be considered over-burdensome on the banking public given that this will not obviate nor lessen the normal commission on turnover charged by banks on withdrawals. Apart from being an additional charge on bank customers, the charges appear to be too high. Normal bank commission on turnover is N5 for every N1000 representing 0.5% of the amount of such transactions, compared to the CBN approved charges of 1.25% which would mean N12.50 for every N1000.

Another area of problem is seen in it is record keeping. Some questions have been asked: if the cards are capable of keeping records of a customers' banking and buying patterns, could a situation arise where every transaction a person makes is recorded? Will the individual not be powerless in a dispute with a financial institution over money that exists only as a computer record? (Fisher,1996). Will the convenience and versatility of cash be lost as all transactions come to rely on terminals and passwords? The big issue is privacy.

Fears have also been expressed by some that a cashless system might lead to loss of jobs as the banks will not have need for most of the tellers under a cashless system. Since most transfers and settlements will be done electronically, there is fear that banks will lay off some of the staffs who are normally involved in telling jobs. While this fear appears founded, we may need to wait and see the extent of the actual impact. The same fear had followed the introduction of computers when it was feared that computerization will lead to massive job losses resulting from laying off of secretariat and clerical staff. Beautiful as the policy has been made to sound, the challenges are many; the insufficiency of the POS machines; non-functioning internet connectivity; problem of power and the possibility of cloning and hacking into the system by fraudulent persons. There equally is the possibility of some individuals and corporate entities, in an effort to escape the punitive charges, to take some steps in order to circumvent or weaken the effect of the policy on their operations. According to some analysis, customers can convert their naira holdings to foreign currencies like the USD, GBP,YEN, EURO, CFA and CEDI, and also price their goods and services in these foreign currencies, as the burden on handling cash transactions above the approved limits only applies to the Naira and not foreign currency. Moreover, since the limit for individual and corporate cash lodging/withdrawals is N150,000 and N1,000,000 (now N500,000 and N3million respectively), it is not inconceivable that bank customers will open more corporate accounts either through registering a business name or incorporating a liability company, which increases their cash handling limits without penalty by N850,000. Customers can decide to open multiple individual or corporate accounts with different banks, and other than the trouble of going to these different banks to cash or lodge money, it can be business as usual for

cash lovers who can withdraw N150,000 from two or more accounts in different banks (Oyetade & Ofoelue, 2012).

There is also the fear in some quarters that some customers can decide to boycott the banks entirely and join up with millions of Nigerians who operate in the informal sector of the economy and have nothing to do with bank transactions, and there is a strong possibility that informal institutions will spring up in the informal economy to fill the gap of handling cash on behalf of desperate Nigerians. Moreover, the system may fuel the corruption it aims to curb or abolish, as it could be used to launder large sums of money electronically, even without trace (Oyetade & Ofoelue, 2012).

2.2.12 Challenges Of Cashless Policy in Nigeria

Lack of Unique National Identity System 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.

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.

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.

Poor timing and sequencing for both the policy and penalty which is too stiff for Nigerians 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.

2.2 Empirical Literature

Echekoba and Ezu (2014) in a research carried out in Nigeria, observe that 68.2% of the respondents 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's 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 studies 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 and the availability of these basic infrastructures is fundamental to the efficient functioning of the mobile banking services.

Olatokun & Igbinedion (2013) 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.

At this point, James (2013) use 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) uses 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 trial ability 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) use 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.

Ezeoha (2012) uses descriptive survey to examine regulating internet banking in Nigeria, problems and challenges encountered. 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.

Omotunde, Sunday and John (2013) using accidental sampling method on some 500 traders, students and civil servants through administered questionnaires; showed that CLP increases employment and reduce cash related robbery thereby reducing risk of carrying cash around. They also reported that CLP also reduce cash related corruption and attract more foreign investors to the country. It is therefore, a step in the right direction as its impact will be felt in the modernization of Nigerian payment system, reduction in the cost of banking services, reduction in high security and safety risks and also curb banking related corruptions (Ejiofor & Rasaki, 2012; Omotunde, Sunday & John 2013).

James (2013) in an investigation of the determinants of the adoption of mobile banking in Nigeria using Rogers' Diffusion of Innovation theory, and a questionnaire as the main form of data collection and multiple regression to analyze the data; discovered that age

and educational background are the key to the adoption of mobile banking. He recommended that relevant stakeholders should pay adequate attention to the relative advantage, complexity, compatibility, trialability, and observability of the use of mobile banking to increase its usage.

Oluwasogo, (2013) presents a remedy to stabilize and achieve the purpose of the new CLP in Nigeria's economy by the proposition of Bayes' theorem to centrally monitor, control and checkmate the customers' multiple opening of bank account at account opening desk. The result which is the probability of 'x' [P(x)] calculated was less than 0.5 ((that is if $P(x) < 0.5$)). This would allow the continuation of the account opening process, otherwise (if $P(x) \geq 0.5$) it will alert that the account is already existing and would prevent further opening of such an account. Some studies have sought to point out the prospects and challenges of CLP in a developing country like Nigeria (Yaqub, Bello, Adenuga, & Ogundeji, 2013). They emphasized on moves towards a Cashless Nigeria with its numerous benefits. More awareness should be created in order to entice the numerous unbanked Nigerians into the banking system.

Princewell and Anuforo (2013) show that majority of the stakeholders support the CLP because of the reasons of it being potential in reducing cash-related robberies, corruption, and other fraudulent practices among others. They however, noted that stakeholders who are against the policy-shift hinged their reasons on payment fraud associated with the Cashless economy; high rate of illiteracy and infrastructural decay in Nigeria. They had a similar recommendation to that of Yaqub, Bello, Adenuga, and Ogundeji (2013). In the same vain Maitanmi, Awodele, Ogbonna and Osundina (2013) examine the Cashless economic system in order to assess its feasibility in Nigeria concerning timeliness,

preparedness, and adequacy against the backdrop of low level of development both technologically and educationally. Likewise Okey (2012) and Okoye and Raymond (2013) study the significant benefits and essential elements of CLP, and to check the extent to which the policy can enhance the growth of financial stability in the country. They came out with similar result as Yakub, Bello, Adenuga and Ogundeji (2013), Princewell, and Anuforo (2013).

Agbonifo, Adeola and Oluwadare, (2012) assess the role of ICT in readiness for the implementation of cashless transactions in Nigeria and identify the challenges associated with the implementation of the proposed cashless transactions as affecting banks customers. Questionnaires were used in collecting data on sampled respondents. In addition, data on the volume of transaction of the alternative payment systems in use in Nigeria was collected from the Central Bank of Nigeria.

Nwanko and Eze, (2013) examine the extent to which electronic payment affect the Cashless economy of Nigeria. The study indicates that the electronic system of payment has great implications on the economy by leading to a significant decrease in deposit mobilization and credit extension by Nigerian banks. They put forward a critical appraisal of the pros and cons of the Cashless economy policy within the context of socio-economic realities of Nigeria, with a view to determining its workability as intended by the Central Bank of Nigeria (CBN). In another study considering the role of the CBN acting as a monopolist (Tobias & Stephen, 2012), it was discovered that the CBN acts as an operator of an individual payment system for optimal solution.

Ebipanipre & Uyoyou, (2013) study the merits of the Cashless economy to the Nigerian populace and the pains of a cash-based economy. Using accidental sampling method and descriptive statistics and regression with the Chi-square and Analysis of variance (ANOVA) tests, their result reveal a positive and significant relationship between Cashless economy and transparency, accountability and reduction of cash-related fraud. It showed that a Cashless economy has a positive impact on economic development. The research recommended adherence to minimum-security standards and deployment of more ATMs for smooth implementation of the CLP in Nigeria.

Tajudeen, (2013) assesses the perceptions of stakeholders on the types of corruption that can be reduced by the CLP and examined the effectiveness of the policy in curbing corruption; and identified critical success factors for effective implementation of the policy. Primary and secondary data were sourced for the study. His results found out that, no single strategy can address all types of corruption and that the CLP can only reduce petty corruption, which is the lowest level of corruption as against all forms of corruption. It concluded that the inevitability of addressing the root-cause of corruption and devising compatible, systemic, and multi-pronged solutions is the most appropriable approach to addressing the menace which require enacting or modifying legislation, having effective punishment for corrupt individuals, and systemic changes occasioned by re-engineering processes that interface with the common man through the use of innovative technology solutions such as electronic governance; which will play the role of empowering the citizens by making governance more transparent and citizen friendly. The success of CLP hinges on strong legal framework, state of infrastructure, availability of real data, investments in technology, adequate security and an effective Judicial

Process (Ikpefan & Ehimare, 2012), in a study that addresses the benefits and challenges of a Cashless economy in Nigeria. Oginni, El-Mande, Mohammed and Michael, (2013) explore the relationship between e-payment system and economic growth as a means of reviewing current transition to Cashless economy in Nigeria. Data was analyzed using OLS method covering a period of 7 years (2005-2012). The result indicates a significant positive relationship between e-payment system and economic growth in terms of real GDP per capita and trade per capita. In terms of other variables, only ATM was found to positively contribute to economic growth while other e-payment channels contribute negatively. Hence, current CLP should be tailored towards effective e-payment system and other factors, which bear much relevance on successful transition to Cashless economy, should be prioritized.

The philosophy of the Triple-A (Arrange, Acquire and Appraise) must be adopted (Ochel, 2012) for flexibility, if proper monitoring and controlling of overspending among citizens in Cashless society is to be anchored. The strategies are presented in such a way that it can be applied by single persons as well as small to medium size businesses. If properly, implemented it will help citizens to monitor and control their spending habits.

Fidelis, Francis, Samuel, Frank and Calister, (2012) survey the security challenges facing the full implementation of the Cashless e-payment policy of Nigeria and at the end recommends the introduction of an enhanced modified security framework for Nigeria's cashless economy that may be easier and cheaper to implement by the majority of the stakeholders after studying the loopholes in the current Nigeria e-payment system models.

Sequel to the above review of empirical cases, it is evident that most researches have concentrated on issues other than relating CLP tools to the amount of money in circulation outside banks. In Nigeria the policy is new, coming into effect around 2012, thus, making it a virgin area of exploration. This study therefore, intends to investigate the gap on the relationship between tools of CLP and the amount of currency circulating outside banks in the Nigerian economy.

2.3 Theoretical Framework

2.3.1 Theory of Money

The theory of Money has its roots in the 16th century during which classical economists such as Jean Boldin at that time sought to know the cause of the increases in French prices. He concluded that, among other factors, increases in gold and silver which served as currencies were responsible for the rise in the demand for French-made goods and, hence, French prices, thus linking movements in prices to movements in money stock. By 1690s, the quantity theory of money was further advanced by John Locke to examine the effects of money on trade, the role of interest rate and demand for money in the economy (Omanukwue, 2010). In particular, the role of money as a medium of exchange to facilitate trade transactions was born. Economists at the time inferred that the quantum of money needed for such transactions would depend on the velocity of money in circulation and the relationship between the demand and supply of money such that where there was excess demand over supply interest rates rose and vice versa (Cantillon, 1755; Locke 1692 as cited in Ajuzie, et al, 2008).

The theory of money has been described by different school of thought in their different opinions. For example, the modern classical schools of thought who are also called the monetarist are concerned with the explanation for the changes in price level. To them, a stable and equilibrating relation exists between the adjustments in the quantity of money and the price level. In other words, they refute any form of monetary influence on real output both in the short-and long-run. For the less stringent monetarist, they agree that money influences output in the short-run, but only prices in the long-run. Nevertheless, irrespective of the path of adjustment, the monetarist all seem to concur that in order to reduce or curtail inflationary growth, money growth should be less than or equal to the growth in output.

The quantity theory of money is hinged on the Irvin Fisher equation of exchange that states that the quantum of money multiplied by the velocity of money is equal to the price level multiplied by the amount of goods sold. It is often replicated as MV= PQ, M is defined as the quantity of money, V is the velocity of money (the number of times in a year that a currency goes around to generate a currency worth of income), P represents the price level and Q is the quantity of real goods sold (real output). By definition, this equation is true. It becomes a theory based on the assumptions surrounding it.

2.3.2 Technology Acceptance Model

The theory of Technology Acceptance Model was proposed by Fred Davis in 1989. The theory has 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. Technology Acceptance Model

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 Technology Acceptance Model, 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 of the system.

2.3.3 Diffusion of Innovation Theory

This theory was developed by Gabriel and Rogers in 1962. DOI's theory seeks to explain how, why, and at what rate new ideas and technology spread through cultures. He 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. Innovation Diffusion Theory (IDT) consists of six major components: innovation characteristics, individual user characteristics, adopter distribution over time, diffusion networks, innovativeness and adopter categories, and the individual adoption process. Arguably, the most popular of the six components of IDT centers on the characteristics of the innovation itself.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Design

The research design for this study was based on the ex-post facto research design. Ex-post facto research design involves the ascertaining of the impact of past factors on the present happening or event. Agburu (2001) defines ex-post facto research design as an inquiry to discover whether and to what extent a variable or event which occurred in the past has impact on the occurrence of the present event. Ex-post facto research design is concerned with the existence of two variables: independent and dependent variables. This research design is adopted for this study because of its strengths as the most appropriate design to use when it is impossible to select, control and manipulate all or any of the independent variables or when laboratory control will be impracticable, costly or ethically questionable Akpa and Angahar (1999). This design therefore examine the data collection sources, population, sample plain, method and instruments of data collection used.

3.2 Population, Sample Size and Sampling Technique

Population is the total number of element in which the researcher's interest lies. It may be considered as the universal, aggregate or entire groups whose characteristics are to be studied the theoretical population for the purpose of this research are inexhaustible. The targeted population of this study is all the variables that determine the cashless economy. These consist of all stationary and non-stationary variables.

3.3 Methods of Data Collection

In the collection of data the researcher made use of secondary data only as this study involves a time series analysis and because of its authenticity and reliability. The Return on equity (ROE) the Automated teller and point of sales(POS) terminal was obtained from the banks financial statements. The time series data cover the period 2006- 2015.

3.4 Technique for Data Analysis and Model Specification

Regression analysis is concerned with the study of the dependence of one variable on other variables. The multiple regression is run by the use of statistical package for social sciences (SPSS) to correlate the variables used in the research work. The choice of multiple regression for this study is based on the merit of its strength in determining the variability of the variables in a study. When the product movement correlation co-efficient (r) is positive, it implies that as one variable increases in value, the other also increases in value. In a negative correlation the reverse is the case, because as one variable increases in value, the other has the tendency to decrease in value Agburu (2001). The level of significance for this study is 5%, and for a two tailed test, the critical value is (n-1), where n is the number of observation and 1 is a constant. Based on this, the decision rule for testing the hypothesis will be to accept or reject the null hypothesis if the critical value is greater or less than the calculated value Agburu (2001). This study is on how the Cashless policy has contributed positively to the Nigerian economy. The model adopted for this study was based on the improvement suggested by Demirgue-Kunt and Levine (1996), Levine and Zervos (1996), and Ewah et al (2009) investigate linkage between cashless policy and economic growth. Their studies infer that the economic

growth (Proxies by Gross Domestic Product) is significantly influenced by the cashless policy indices such as Automated teller machine (ATM) and Point of sales (POS). The model is thus specified as: ROE=f (ATM and POS) Where; ROE= Return on Equity, ATM= Automated Teller Machine and POS= Point of sales. Specifying it in econometric form: ROE= β0+ β1ATM + β2POS +U Where;

β0= intercept

β1= Impact of Automated Teller Machine

β2 = Impact of Point of Sales

U= Error term

3.5 Justification of Methods

The descriptive research design was used essentially to know the extent to which cashless policy has effects the economy of Nigeria. The population and sampling technique includes Return on equity (ROE). Data collected for this research work was secondary data.

Statistical package for social sciences (SPSS) method was preferred because the data obtained was secondary data from the banks financial statement.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Data Presentation

In analyzing the data, in other to establish the cause and effect relationship between the dependent variable, Y (Return on equity (ROE)) and the independent variable (impact of automated teller machine(ATM) and impact of Point of sales terminal(POS), the statistical package for social sciences (SPSS version 22) was used to run the regression of the data, so as to enhance accuracy of result.

Table 4.1 Data for 2006 to 2016 on Return on Equity, Automated Teller Machine and Point of Sales

S/N	BANK/YEARS	ATM	POS	ROE
	UBA	Units	Units	%
1	2015	1967	13,452	16.77
2	2014	1730	10,690	71.4
3	2013	1500	5,303	17.9
4	2012	1352	2,230	21.50
5	2011	2230	1,352	-9.63
6	2010	1223	1,230	1.15
7	2009	1635	1,320	6.85
8	2008	1256	3,296	21.6
9	2007	1240	3,256	12.03
10	2006	1176	2,240	24.08
	FIRST BANK			
1	2015	2749	21,675	25.42
2	2014	2,597	20,107	23.7
3	2013	2,421	19,963	8.97
4	2012	1,865	18,581	10.0
5	2011	1,538	17,005	8.0
6	2010	1,469	17.020	13.2
7	2009	1,221	18,685	23.19
8	2008	987	16,225	15.5
9	2007	522	15,829	16.7
10	2006	503	13,146	2.9%

Source: researcher's computation 2017

Table 4.2

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.773[a]	.630	.584	16.52786

a. Predictors: (Constant), POS, ATM

Table 4.3

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	143.521	2	71.761	12.263	.002[b]
	Residual	4643.895	17	273.170		
	Total	4787.416	19			

a. Dependent Variable: ROE

b. Predictors: (Constant), POS, ATM

Table 4.4

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.223	10.557		4.063	.003
	ATM	6.001	.906	.052	3.206	.001
	POS	2.310	.701	.151	1.801	.014

a. Dependent Variable: ROE

The regression results show a positive relationship between Return on Equity (ROE), Automated Teller Machine (ATM) and Point of Sales (POS). This is in conformity with the A'priori expectation. The degree of responsiveness of Return on Equity (ROE) to

changes in the explanatory variables was more proportionate for Automated Teller Machine (ATM) than Point of Sales (POS).

From the t-table, the theoretical t-value at 5% level of significance with seventeen degree of freedom is 1.740. Since the theoretical t-value is less than calculated t-values for Automated Teller Machine (ATM) and Point of Sales (POS), we shall therefore accept the null hypothesis. This implies that the parameter estimates are statistically different from zero i.e. they are relevant variables in the determination of the Return on Equity of the banks under review.

The coefficient of determination gives 0.630 or 63.0% meaning that the regression model is 63% significant i.e. the variations in the dependent variable attributable to the changes in the independent variable that is Automated Teller Machine (ATM) and Point of Sales (POS). This result is also supported by the value of the adjusted R-Square, which is to the tune of 58.4%.

The theoretical F-value at 5% level of significance is 12.263. Since the P-value (0.002) is less than 0.05 level of significance, we shall accept the null hypothesis . This signifies that the overall regression or relationship between the Return on Equity (ROE), Automated Teller Machine (ATM) and Point of Sales (POS) is significant. So, the changes in the Return on Equity can be attributed to changes in the explanatory variables.

4.2 Test of Research Hypothesis

In this section, the hypothesis earlier formulated by the researcher in chapter one will be tested to enable an opinion and inference to be drawn.

Hypothesis

H_{01}: Accessibility of Automated Teller Machine has no significant effect on cashless policy in Nigeria.

H_{02}: Point of Sales Machine has no significant effect on cashless policy in Nigeria.

The theoretical F-value at 5% level of significance is 12.263. Since the P-value (0.002) is less than 0.05 level of significance, we shall accept the null hypothesis. This signifies that the overall regression or relationship between the Return on Equity (ROE), Automated Teller Machine (ATM) and Point of Sales (POS) is significant. So, the changes in the Return on Equity can be attributed to changes in the explanatory variables.

4.3 Discussion of Findings

The analysis and test of the research hypothesis on the challenges and prospects of cashless policy in the Nigerian economy indicates a positive and significant relationship between Automated Teller Machine (ATM) and Point of Sales (POS). ATM is the most widely use e-payment instrument in Nigeria. It is responsible for about 89% (in volume) of all e-Payment instruments since 2006 to 2008 (Ayo & Ukpere, 2010).

Point of sales terminal is an important infrastructure for an effective e-payment system and will enhance efficient cashless policy.

This study reveals that there is a linkage between cashless policy and the development of Nigerian economy vis-a-viz return on equity, Automated Teller Machines and Point of Sales Terminals. The research question drawn to guide the study were: To what extent does Automated Teller Machine accessibility affects cashless policy in Nigeria; To what extent does Point of Sales Machine (POS) enhance the financial services in Nigeria.

Also two hypotheses were tested in order to provide answers to the study question were: Firstly, Accessibility of Automated Teller Machine has no significant effect on cashless policy in Nigeria. Secondly, Point of Sales Machine has no significant effect on cashless policy in Nigeria.

Descriptive survey research design was used for the study. The population of the study is all the variables that determine the cashless economy. The major source of data for the study was secondary data. The analysis techniques used to analyze the data was the multiple regression analysis technique. The design of the study is limited in many ways such as: lack of control over the dependent variables and the uncertainty over whether all the relevant casual factors are included among the many other factors used study.

Therefore the Findings of the study should be interpreted taking into cognizance the limitations stated in chapter three.

The major Findings of this study is that Point of Sales Terminal and Automated Teller Machines has a significant impact on the Return on Equity of the sampled banks. In other words, cashless economy has a significant effect on the Nigerian economy via the variables used. Summarily, the e-payment infrastructure studied is so essential for an efficient cashless policy but they are neither sufficient nor very efficient.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary

This research work examined the challenges and prospect of cashless policy in Nigeria. In carrying out this research, the researcher was able to examine the concept of cashless economy, the need for cashless policy, reasons for the introduction of cashless policy, essentials of a cashless economy, tools of cashless economy, ICT as drivers of cashless economy, and challenges of cashless policy implementation in Nigeria. The variables used for this study were Return on Equity, Automated Teller Machines, and Point of Sales Terminals. The two hypothesis formulated in this study were tested, the result of the study provided evidence for the acceptance of null hypothesis. This clearly shows that the cashless policy is significantly influenced by Automated Teller Machines and Point of Sales Terminals.

5.2 Conclusion

Nigeria is part of the global community and should imitate policies that will have benefit to countries. The cashless policy is a veritable tool that can be used to enhance the development of Nigeria economy. The empirical and theoretical studies on the impact of the cashless policy on the development of the Nigerian economy have increased. This study therefore, examined challenges and prospect of cashless policy in the Nigerian economy. The data analysis was performed using data from the financial statements of sampled banks for a ten year period (2006-2015). The multiple regression analysis technique was used to analyze the data with the aid of statistical package for social sciences (SPSS version 22). The Findings indicate that Automated Teller Machines and

Point of Sales Terminals has significant Influence on the cashless policy and which will lead to the development of Nigerian economy

5.3 Recommendations

The following recommendations were made and if properly implemented will further enhance an efficient cashless policy in Nigeria:

1. More POS should be deployed across the federation where it is not sufficiently available as well as ATM to reduce long queue at ATM locations. There should be a careful study of the system to determine the number of POS terminals that will ensure its smooth running in Nigeria so as to prevent unnecessary friction in the system.

2. States governments should tap the benefit of Public Private Partnership in generating electricity that will be sufficient for their residents.

3. Banks should properly maintain their ATM so that it will be more efficient for customers' use and competent staff should be deployed to the unit to minimize human error

4. Training and re-training of bank staff is also recommended in handling the infrastructures; like ATM. 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.

5. The government through National Communications Commission (NCC) and Consumer Protection Council (CPC) should ensure that the telecommunication service providers are delivering efficient service to their customers as it has great impact on cashless policy. There should be adequate legislation on all aspects of the operations of the cashless system so that both the operators of the system and the public can be

adequately protected. 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 non-literates, using probably signs and symbols to educate this segment on how to operate the cashless system.

5.4 Suggestions for further study

The present study has examined the challenges and prospect of cashless policy in Nigeria economy. Another direction for future research is a cross-national study involving other developing countries such as the West African countries as well, in order to bring out further empirical evidence with regard to the challenges and prospect of cashless policy. In future, when larger samples of observations are available, the regression parameters may be re- estimated for comparative analysis with the empirical results of the study.

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