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# Nigerian Cash-Less Policy Prospects and Challenges

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**Abstract**
This paper examines the viability of an operational cashless policy in the Nigerian economy and the importance of a cash-based to cash-less transition that has been pursued by the Central Bank of Nigeria over the last few years. The cash-less policy, initially piloted in Lagos, and accentuated by e-banking schemes, is examined in this paper in the context of a country malaised with pressing developmental challenges including illiteracy, low standards of living, poverty and insecurity and a still developing financial and banking system. The study takes a descriptive look at the benefits to be derived from such an initiative, as well as the various challenges that have to be surmounted in order to fully harness these positive outcomes, which would aid towards the attainment of the country's developmental goals. Additionally, particular focus is given to the issue of security, and thus a section has been dedicated to explicating on the importance of electronic identity and the recently introduced Bank Verification Number system.
**Keywords:** e-banking, CBN, Nigerian economy, cash-less, BVN, development

## 1. Introduction

The dissemination of electronic factors into the workings of a modern economic system where a cash-less system is an end, the means to which is the efficient operation of electronic banking and payment systems. In the light of a global technological awareness – the exposure of more people to new technology and electronic devices, this is especially a given in the course of economic progress, and although, not without shortcomings, cash-less systems have been variously advocated as next level financial operation framework. The Central Bank of Nigeria (CBN) in an attempt to achieve one its macroeconomic objectives which encompasses providing a viral and stable environment for economic growth and development through effective financial system management, introduced the cash-less economic policy. It had been reported that Nigerian had the highest gap between population living in poverty and those with access to financial services. This coupled with the huge cost incurred by the CBN in minting bank notes according to Olanipekun, Brimah and Akanni (2013) culminates into short-run changes in the volume of money which causes the CBN to have little or no control over the money volume, therefore necessitating the maintenance of monetary stability which is central to the bank's economic policy. Moreover, the high dependence on cash for transactions has resulted in inefficient allocation of resources and a low depth of financial intermediation with negative effects on monetary operations and monetary policy management. It is on these bases, among other issues bedevilling the financial system that the CBN introduced the cash-less economic policy which stipulated a "Cash handling Charge" on daily cash transaction withdrawals or cash deposits, aimed at reducing (not eliminating) the amount of physical cash (coins and notes) circulating in the economy, and encouraging more electronic based transactions. The aim of this paper is to explore the issue of implementing the cash-less policy in Nigeria in collocation with the inherent challenges associated with such an initiative, as well as to offer suggestions for adequately tapping into the prospects of such a policy. The paper thus adopts qualitative analysis, drawing from the works of other scholars and writers both locally and internationally, penned over time in order to achieve its aim. The work is therefore, divided into five sections: introduction, review of related literature, prospects of a cash-less system in a developing nation as Nigeria, problems associated with running a cash-less economy, and finally, recommendations and conclusion.

## 2. Concept of a Cash-less Economy

The concept of *cash-lessness* generally involves the phasing out of physical cash as means of payment for goods and services in an economy. Akhalumeh and Ohiokha (2012) define a cash-less economy as one in which the amount of cash-based transactions are kept to the barest minimum, i.e., an economy in which goods and services are not predominantly bought and paid for with actual cash, but rather through electronic means. In this situation, money is being spent without being physically carried from one person to the other (Ojong, Wasiu & Bassey, 2014).

### *2.1 Nigeria's Cash-less Policy*

The Nigerian Case-less policy came to light as a metamorphoses of the National Payment System (NPS) introduced by the Central Bank of Nigeria (CBN) in 2005, which was aimed at making the economy's payment system more effective and efficient. Thus, in addition to facilitating the use of electronic channels of payment, it sought to achieve safe and sound bank practices as well as protection against systematic risks. The CBN commenced the implementation of the cash-less policy on 1st January, 2012 with initial implementation in

Lagos. However, the policy became effective in Abuja, the Federal Capital Territory and the 5 states of Abia, Anambra, Kano, Ogun and Rivers from October 2013. Based on the successes recorded in these areas, the policy was extended to the remaining 30 states of the federation. In line with the policy, the CBN pegged withdrawal by individual and corporate accounts at ₦ 500, 000 and ₦ 3 million respectively. To further ensure compliance, charges fees were instituted for withdrawal above these amounts – these were pegged at 2 percent for individual accounts and 3 percent for corporate accounts. However, Ministries, Departments and Agencies (MDAs), embassies, diplomatic missions, aid donor agencies, multilateral agencies and specialized banks were exempted from these charges. Furthermore, deposit and lodgement charges were to continue in the 7 states where the scheme was earlier launched. The CBN however granted a one year waver for withdrawal charges in the remaining 30 states that were set to roll out the policy. The basis of the CBN initiative is two-fold. The first is to reduce the size of physical cash in circulation, which is directly aimed at reducing the cost of cash management to the Nigerian financial system. The CBN described this cost as huge and increasing, so that it was very close to ₦ 50 billion by 2008. This figure was ₦ 114.5 billion by 2009 and estimated as ₦ 119.2 billion by the end of 2012. Furthermore, Cash-in-transit, cash processing and vault management costs made up 24 percent, 67 percent and 9 percent respectively by 2014 (Cashless Nigeria, n.d; CBN 2012; Osazevbaru & Yomere, 2015, Nigeria: As Cashless Policy Goes Nationwide, 2014; Ajiboye, Kalejaiye & Dada, 2013).

The second policy focus was the facilitation of electronic transactions in a bid to transform Nigeria's payment system to one that was qualitative and efficient. This was to be achieved through encouraging the use of alternative electronic products and channels for financial transactions. The CBN aimed to steer development and modernization of the country's payment system in line with Nigeria's vision 2020. It is a truism that an efficient and modern payment system is a key enabler for economic growth and must positively correlate with economic development (CBN 2012; Blankson, 2012; Achor & Robert, 2013).

*2.2 Rationale for Nigeria's Cash-less Policy*

The specific reasons for the introduction of the cash-less policy have been variously explored in literature. Among them, Shonubi (2012), Odumeru (2013), and CBN (2012) enumerate the following:

- To engender the accomplishment of the vision 2020 through driving development and modernization of the Nigerian payment system in line with international best practices, as an efficient and modern payment system is positively correlated with economic development, and is a key enabler of growth.
- To reduce the cost of banking services which culminated into high cost of credit to the real sector.
- To drive financial inclusion by providing more efficient transaction options and greater reach.
- To improve the effectiveness of monetary policy in managing inflation and driving economic growth.
- To reduce high security and safety risks.
- To foster transparency and curb corruption/leakages.

## 3. The Place of Electronic Banking in Operating the Cash-less System

An effective functioning e-banking system is a prerequisite for the attainment of a cash-less system. E-banking provides a framework of electronic payment systems which is the backbone of a cash-less policy. An effectively functioning cash-less system is thus an overall efficiently functioning e-banking system.

An electronic banking system is an innovative service delivery medium that offers diversified financial services such as cash withdrawals, funds transfer, cash deposits, payment of utility and credit card bills, cheque book requests, and other financial enquiries through intelligent electronic devices such as computers (internet banking), Personal Data Assistants (PDAs), mobile phones (mobile banking and mobile money), Point of Sales (PoS) terminals, and Automated Teller Machines (ATMs) the relevance of these measures is reflected in the adoption of all members of the Nigerian banking industry of use of Information and Communication Technology (ICT) as a platform for effective and efficient means of conducting financial transactions (Okechi & Memoye, 2013).

*3.1 Forms of e-banking in Nigeria*

The continuous advances in internet technology have had a huge impact on business operations and have in particular, brought about a paradigm shift in banking operations. In a bid to catch up with global development, improve the quality of service delivery, and reduce transaction cost, Nigerian banks have invested greatly in technology, and have widely adopted electronic and telecommunication networks for delivering a wide range of value-added products and services. The table below gives a picture of the percentage share of e-payment channels in the country pivotal to implementation of the cash-less policy.

 

Table 1. Percentage of Volume and Value of e-payment Channels, Half Year 2011

| | Transaction Channel | Per cent Share |
|---|---|---|
| **Volume Terms** | ATM | 98.09 |
| | Web (Internet) | 0.72 |
| | POS | 0.48 |
| | Mobile | 0.71 |
| **Value Terms** | ATM | 91.37 |
| | Web (Internet) | 6.04 |
| | POS | 1.67 |
| | Mobile | 0.92 |

Source: Okechi and Memoye (2013)

Today, Nigeria's electronic payment (e-payment) landscape in on a new threshold with banks, switching and transaction companies, vendors of ATMs, PoS terminals and third party companies all jostling for a larger market. When card holders use e-payment channels, they are helping to keep money in the banking system. E-payment systems can help displace shadow economies, bring hidden transactions into the banking system and increase transperancy, confidence and participation in the financial system (Yaqub, et al, 2013). The various forms of e-payment are now explained.

- ATMs
  ATMs are computer devices that dispense (and in some cases, collect) cash and provide other services to customers who identify themselves with a Personal Identification Number (PIN). ATM use in Nigeria went mainstream in 1989, and was first installed by the National Cash Registers (NCR) for the defunct Societe Generale Bank of Nigeria (SGBN) in the same year. The main shared ATM network in Nigeria, *Interswitch*, began operations in 2003 with 5 ATMs for the United Bank for Africa (UBA) and the First Bank of Nigeria (FBN). Since their introduction, many Nigerian banks have installed ATMs in response to the changing nature of modern banking operations, and this number continues to grow annually, as demand for "AnyTime Money" continues to rise, and as banks continue to expand in branches. The main advantage of ATM use is the convenience it provides in making cash available at any time of the day as need be. It also allows for location convenience, with installations located at stores, shopping malls, fuel stations, etc. ensuring bank customers quick access to their money. This is reflected in the reduction in physically carried cash, as well as a reduction in frequent visits to the bank, where customers are forced to queue for long periods of time to withdraw cash or transfer funds. These machines are the most utilized forms of e-payment mechanisms, as portrayed by table 1 shown earlier. According to Interswitch statistics, Nigeria has 30 million ATM cardholders who conduct over 100 million transactions on ATMs every month. Nigeria's 24 banks operate over 9,000 ATMs across the country. Also, to enhance effectice security measure, banks sought to upgrade their ATM cards from the magnetic stripe to the Euro-Visa-Master Card standard, popularly known as *Verve* card. This is more fraud resistant as the chip holds a record of all the customer's data (Okechi & Memoye, 2013; Adesina and Ayo, 2010, cited in Ayo, Adewoye & Oni, 2010).
- Point of Sale (PoS) Terminals
  This mode of e-payment handles cheque verification, credit authorization, cash deposit and withdrawal and cash payment. It enhances electronic fund transfer at the point of sales. Thus, customers' accounts would be debited immediately with the cost of purchase in an outlet such as a petrol station or supermarket. A retail PoS system will typically have various components – a computer, monitor, cash drawer, receipt printer, customer display and a barcode scanner, and the majority of retail PoS systems also include a debit/credit card reader. It can also include a weight scale, integrated credit card processing system, a signature capture device and a customer pin-pad device. However, more and more PoS systems come as an all-in-one unit, of which monitors use touch screen technology for ease of use and a computer is built into the monitor chassis. This device allows customers make payments for goods and services without necessarily coming in contact with physical cash as the purchase price would be debited to the buyer's card and credited on the seller's account.
- Online Banking
  Online banking provided the opportunity of paying bills and performing transactions of any kind on a secure website operated by a financial institution, which can be a retail or virtual bank, credit union or building society. Customers who wish to use this service are required to have internet access and register with the institution, setting up a password for verification. They are also required to grant

 

authorization for certain transactions that they initiate under this platform. The diagram below portrays the global change in the level of internet banking penetration and the use of online bank services between April 2011 and April 2012.

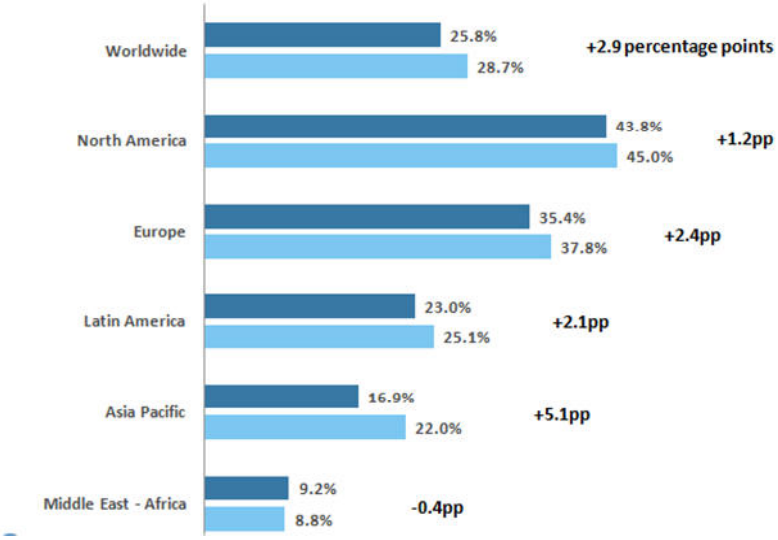


Figure 1. Growth by (%) Reach of Online Banking Sites
Source: ComScore MMX, April, 2012

The bars in Figure 1 are in pairs for each area. Percentages for individuals accessing bank sites are above those for penetration of internet banking in those areas. Globally, 423.5 million people accessed online banking sites during April 2012, reaching 28.7 percent of the internet users. Between April 2011 and 2012, Asia Pacific saw the strongest growth rate of 5.1 percentage points to 22.0 percent of the internet audience accessing bank sites in April 2012. However, in penetration, North America was the leading region with over 45 percent of its internet users accessing bank sites, followed by Europe ranking second with a 37.8 percent reach, and Latin America (25.1 percent) at third place. The Middle East and Africa performed woefully in both penetration and access. This might not be unconnected to technological and infrastructural shortcomings.

- Bankers Automated Clearing Services
  The focus of this instrument is to reduce the number of clearing days and improve on security arrangements in the course of settlement and collection of cheques. It involves the use of Magnetic ink Character Reader (MCR) for cheque processing which makes it capable to encode, read, sort out changes even as requests for cheque books can be made via electronic devices.
- Payment Cards
  This make up a unique electronic payment type involving the use of smart cards. These wallet size devices are embedded with integrated circuits capable of processing data, and are used for settlement of financial obligations. They can serve as credit, debit and even ATM cards. An example is the *Verve* card powered by *Interswitch.* This card allows for convenient payment for goods and services on all ATM, PoS Terminals, web, Mobile Kiosks, PCs, and Bank branches connected to the *Interswitch* network. The power of smart cards lies in their sophistication and acceptability to store and manipulate data as well as handling of multiple applications on one card securely (Okechi & Memoye, 2013; Olanipekun, et al, 2013).
- Implants
  Although not functional in Nigeria, this measure represents the most recent innovation in electronic finance and is worthy of mention here. Initially proposed to be introduced in the United States of America, this is a technology that involves the placement of a microchip in the human hand that would allow for their identification and provide them with a means of buying and selling without coins, paper or cards. Already, a number of biochip programs have been ran on animal, such as the "Infopet" program in Los Angeles. In this program, an identification chip is injected into the animal in order to identify them. The chip is made by the Destron Company based in Boulder, Colorado (Siyanbola, 2013, cited in Olanipekun et al, 2013).
- GSM/Mobile Banking
  Mobile or m-banking is a mode of e-banking that primarily involves the use of mobile telecommunication devices, such as mobile phones or PDAs and tablets as conduits for accessing electronic banking and financial services. With the support of network service providers, mobile

 

phone users are given the opportunity to operate their bank accounts and avail themselves of offered services including conducting bank and stock market transactions and accessing customized information. Customers can easily perform balance checks, payments, and such things as credit applications. The earliest form of mobile services were offered over Short Messaging Service (SMS), today, this has extended into a plethora of electronic avenues. The objectives of mobile services provided by banks are to enhance customer communication, information and convenience, as well as enriching mobile banking experience to non-banking financial services and building customer relationships. Other objectives are to extract the best advantages of technology, provide value-added propositions, generate revenue streams for banks, reduce banking transaction costs, achieve multi-channel advantage and automate banking services and support.

In the essence of m-banking lies *mobile money*. This allows for the creation of an e-wallet for the storage of funds on mobile devices that can be in turn used for payment of goods and services at merchant locations that support it. The e-wallet can be funded via authorized agents of the affiliated bank and network of the mobile money service through transfers from ATM/Debit cards, or any other funding method offered by the associated service provider. M-money can be then used to securely and conveniently send money to family and friends, buy call credits, pay bills, etc.

Mobile money is at the core of the CBN's cash-less policy based on the fact that a lot of Nigerians now have mobile phones – over 90 million active mobile subscriptions in fact, so that, if an efficient and convenient way can be found through which people can effect payments for goods and services via their mobile phones, a cash-less economy can be achieved faster. This perhaps informed the decision of the CBN to license about 16 mobile money operators including Fortis Mobile Money, UBA/Afripay, GTBank Mobile Money, Pagatech, etranzact, Monetise, Eartholeum, Aycom, FET, Ecobank and Kudi to carry out a pilot of a mobile financial services system for a period of 4 months to demonstrate that the system could work in the country.

## 4. Assessment of Cash-Less Policy in Nigeria

### *4.1 The Story so Far*

Since its inception, positive outcomes have been reported from the operation of the cash-less policy in the Nigerian economy. Alabadan (2014) and Okonji (2015) give the following accomplishments:

- The volume of electronic transactions through various channels jumped to over 100 percent since the introduction of the cashless policy. CBN statistics reveal that total e-payment transaction volume in Nigeria increased from about ₦ 8.1 trillion in 2012 to over ₦ 35.1 trillion in 2014
- There has been astronomical increase in the volume of PoS transactions from less than 2000 monthly as at January 2012 to 1.6 million per month in June 2014, while at the same time, the value of transactions moved up from ₦ 38 million per month in 2012 to ₦ 24 billion monthly in 2014. Additionally, licensed payment terminal service providers authorized to increase PoS terminal penetration increased from 5 to 10 with over 150, 000 PoS terminals across the country by June 2014. This is in line with the CBN's goal of increasing the number of PoS terminals to at least 350, 000 by 2015.
- There has been recorded increase in the value of inter-bank transfers, captured through the Nigerian Inter-Bank Settlement System (NIBSS). This value rose by about ₦ 51 billion monthly in January 2012 to over ₦ 1.5 trillion as at the end of June 2014.
- Recoded increase in mobile money transaction value to about ₦ 819 million monthly, while 22 mobile money operators have already secured licenses.

### *4.2 Challenges*

The cash-less system, despite its numerous benefits, is fraught with many challenges. This section looks at these challenges with specific focus on Nigeria.

- Low level of internet penetration
  A poorly developed telecommunication framework impedes smooth development and improvement in e-payments and e-commerce. Also, there is high cost of entry into the e-payment and e-commerce markets. This includes high start-up investment cost, high cost of computers and telecommunication and licensing requirements.
- Behavioural constraints
  Nigeria is highly cash-based. People are accustomed to using cash for most of their transactions.
- Security concern
  The issue of security forms one of the major challenges militating against the development of cash-less policy in Nigeria. Customers are certainly concerned of giving their bank account information online or paying an invoice through the internet. Furthermore, there is high exposure of the system to

 

fraudsters, hackers and other criminally minded persons who seek to access, retrieve and utilize confidential information from the system if security measures are weak.

- Banks attitude
  Some banks in Nigeria are very conservative. They use very few innovative products and marketing techniques.
- High rate of illiteracy
  Low literacy rate is a serious impediment for the adoption of e-payments as it hinders the accessibility of banking services. For citizens to fully enjoy the benefits of e-payments, they should not only know how to read and write, but also possess basic ICT skills. Coupled with poor sensitization, the high rate of illiteracy has been a major challenge in the country. Inadequate education and poor enlightenment of bankers and customers on various aspects and issues of electronic payment transactions and cash-less policy before launching the scheme has made the strategies for marketing the project fall short of expectations.
- Large unbanked sector
  Unbanked money in the informal sector is estimated by the CBN to be at ₦ 1.2 trillion. With 22 million bank accounts in the country, compared with the fact that 74 percent of the adult Nigerian population do not operate any form of banking services, the looming presence of an unbanked sector is worthy of concern as it has the potential to greatly undermine efforts towards a cash-less economy. A large unbanked populace is an accumulation of individuals who are not literate enough to master the needed technology, and those with other attributes equal in effect, such as having a mistrust of the banking system (Oluchukwu, 2014; Blankson, 2012).
- Inadequate and ineffective infrastructural base
  This encompasses the problem of network failure, inadequate ATM and PoS machines and epileptic power supply. The possibility of these serving as setbacks to the attainment of a cash-less system is glaring. The lack of reliable power supply is a key challenge for the smooth running of an efficient electronic payment system. Often times, ATM and PoS machines do not function properly when the consumers need them because they are out of service and/or unable to dispense cash. Instances of undue card retention and debiting customers' accounts without dispensing cash have been variously reported.

*4.3 Prospects*

It is easy to see how shortcomings inherent in the Nigerian economy – illiteracy, low infrastructural development, etc. circumscribe the attainment of an operational cash-less system in its contemporaneity. However, the important point as pointed out by Akinola (2012) is the fact that the benefits of such a policy outweigh its demerits, a point which has in fact been substantiated by various researchers. The benefits to be gained should (and indeed does) entice stakeholders to work towards the achievement of an effective cashless policy by curbing these prevailing problems. These benefits cut across various areas and economic agents, and include the following:

- Benefits to consumers
  The important word here is *convenience.* A cash-less payment system makes it possible to transfer funds; shop online, and afterwards have the goods delivered to you; make airtime recharges from handheld devices from anywhere with cell service; make bill payments, etc. This goes a long way at reducing, or even eventually eradicating completely, ATM and bank hall queuing, which is fraught with huge subjective and monetary costs. Further, customers enjoy enhanced financial services, having access to relevant customized services such as insurance, as providers are able to profile and better understand their clients through biometric and payment data. Finally, the case-less policy ensures a reduction in robberies and other cash-related crimes.
- Increased revenue for businesses
  Businesses can also benefit from the cash-less system through increased revenue. As observed by Ejiofor and Rasaki (2012), the cash-less system can increase sales of businesses by as much as 20 percent.
- Better management of staff-related issues
  Staff entitlements such as royalties and allowances, as well as funds for official assignments can be programmed on plastic debit cards with varying time frames, after which any unused allowances are lost or rolled over to the next period. Limits can be set within particular time periods of weeks or months, where the staff will be unable to spend above a certain amount for, say an official assignment. Businesses and corporations are therefore able to manage staff-related expenditure more conveniently. There is also the added advantage of faster access to capital, reduced revenue leakage and reduced

handling costs.

- Reduced cost for economic managers
  One of the noticeable benefits to the government is the reduction in the cost of printing money, which have been estimated to be in billions of naira. It also brings about reduced cost of curbing financial crimes. In the first place, crimes are reduced by the security measures in place in such a payment system, and in the second, illegal transactions can be traced.
  Furthermore, a cash-less system provides for a reduction in cost (and increase in convenience) of tax collection. In fact, as explained by EFInA (2013), the CBN published "guidelines for the electronic payment of all forms of taxes at all levels of government" before the formal introduction of the cash-less policy.

- Effectualization of the banking system
  The operation of a cash-less system keeps more money in the banking sector, facilitating financial inclusion and the increased function of banks in the economy, thereby accentuating their mediatory functions, as well as the facilitation of more effective monetary policy. There is also the advantage of reducing the high rate of subsidy in the banking system. The CBN reported that only 10 percent of daily banking transactions are above ₦ 150, 000, but the 1o per cent account for majority of the high value transactions. This suggests that the entire banking population subsidizes the costs that the tiny minority 10 percent incur in terms of high cash usage.

In order to fully achieve the potentials of the cash-less policy, there is the apparent need to surmount its limitations. For a successful operation of the policy, there is the need to systematically address pressing issues as categorized by the Electronic Payment Providers Association of Nigeria –

- Regulatory issues
  The only regulatory directive for Nigeria's cash-less economic policy is contained in the CBN's policy statement circular dated April, 2011. This circular serves as the basis for decision making as far as the cash-less policy is concerned. This document is not explicitly sufficient to be relied upon as policy framework for a vibrant and promising policy such as the cash-less policy. There has been a lot of calls among various quarters for a comprehensive framework of cyber law, needed to cover operations of e-transactions as well as meeting the need for a clear compendium of laws to be used in the prosecution of individuals involved in electronic crimes.
- Technical issues
  There is the need for banks to expand their in-house capacity to attend to customers' complaints and inquiries on the cash-less policy. This is imperative as there seem to be ineffective and inefficient desk to handle dissatisfaction arising from the use of alternative payment channels. Furthermore, as stated by Lamikanra (2012), there are no apparent procedures or framework for the tracking, management and resolution of stakeholders' (customers, merchants, etc.) complaints.
- Operational issues
  This encompasses issues such as lack of synergy between banks, e-payment providers and regulators, internal capacity deficit within the financial services sector to handle customers' inquiries and complaints with respect to electronic payment systems and significantly low technical education for merchants. Recent campaigns appear not to have addressed the skepticism of customers and merchants about the benefits of alternative channels.
- Public awareness and trust
  Ongoing campaigns on the introduction of cash-less economic policy seem not to have effectively permeated the grassroots. The populace is still skeptical about the workability of the policy given the peculiarities of Nigeria's business environment. The lack of trust therein gives a situation where businesses are done on cash basis due to the fear of been given a dud cheque. Individuals thus place less faith in cheques and prefer cash instead. Closely related to this is the need for fraud management on electronic transactions. There currently appear to be no comprehensive electronic fraud management framework, no clearly defined standards for data and network security across electronic payment channels. Not to mention that there is no clear delineation of responsibility for liability among key stakeholders in the event of fraud (Lamikanra, 2012).

*4.4 Review of Empirical Literature*

The cash-less policy has generated healthy interest among researchers over the years, their investigations ranging from issues relating to their practicability, operational assessment, areas of improvement and greatest shortcomings based on peculiarities and situational specifics of the Nigerian economic environment. Researches reviewed generally portray the introduction of the cash-less policy as a welcome development, however, not before exposing the problems hindering the successful accomplishment of such an endeavour. One of such

studies is that by Akhalumeh and Ohiokha (2012) in which the researchers assessed the policy in the Nigerian economy in terms of timeliness, preparedness and adequacy. Based on the use of primary data, the study concluded that the policy was a potent method of fighting against corruption/mney laundering and the reduction of risks of carrying physical cash. Also the major problems associated with the policy were cyber fraud and illiteracy.

In another study, Chijioke and Nwala (2014) looked at the problems encountered with the implementation of the cash-less policy among staff and students of the University of Nigeria Nsukka using a survey research design involing the use of t-test and One-way ANOVA in data analysis. The study revealed that the major problems bank customers were faced with included online fraud, insecurity of personal data, service provider inefficiency and poor connectiviy of bank network servers.

In investigating the benefits of a cashless economy and its pertinence to Nigeria's economic development, Mieseigha and Ogbodo (2013) concluded that a cashless economy was an essential tool for transperencey, accountability and the reduction of cash related fraud. Also, more importantly, it was crucial for attainment of economic growth and development.

Ezuwore-Obodoekwe, et al (2014) based on the findings of their study, stressed that in the course of adopting a cash-less policy, e-money did not compete with demand deposit, but rather significantly replace time deposits, this largely depending on the measures put in place to ensure the penetration of e-money among most of the informal sector, which constituted a large section of the economy holding time deposits.

In their work, Achor and Robert (2013) stressed the problems of payment fraud, high rate of illeteracy and infrastructural decay as hindering factors, while also arguing that the a cash-less system was the ideal framework for effective reduction in cash-related robberies and corruption.

Similar to the other studies, Ejoh and Okpa (2014) argued on the benefits of the cash-less policy and its acceptance by a number of Nigerians, while also stressing the problems inherent in the economy, but mostly in the power and telecommunications industries. In the same vein, Adeyemi, Ola and Oyewole emphasized on the importance of solving the problems associated with computer illiteracy and ICT training among bank staff.

## 5. Bank Verification Number

The safeguard of electronic identity forms a very crucial area in e-banking, the backbone of the cash-less policy. An operational electronic identity system serves as a protection for individuals in the electronic world, as well as an e-surveilance network that acts as an eye in the sky and can find and isolate origins of e-crimes. The Bank Verification Number (BVN) is a biometric identification system that gives each bank customer a unique identity across the Nigerian banking industry programme forms part of an identity management programme enforced by the CBN which was launched in February 2014, also partly ensuring the effectiveness of Know Your Customer (KYC) principles (CBN, 2014). The BVN first uses biometric information as a means of identifying and verifying all individuals that have accounts in any Nigerian bank, then goes beyond conventional security systems (password and PIN) to give greater security needed to safeguard sensitive personal information in the Banking system, founded on effective biometric system in place ensuring an enhanced form of authentication of customers' identity at point of transactions for real-time security processes (Financial Industry Bank Verification Number, n.d.).

### *5.1 Benefits of the Bank Verification Number*

The CBN gives the following features of the BVN:

- The BVN gives a uniques universal identity that can be varified across all banks in the Nigerian Banking industry.
- Its use ensures that customer bank accouontes are protected from unauthorized access.
- One of the focuses of the use of the BVN is to address issues of identity theft, thus reducing exposure to fraud.
- BVN will facilitate the ability of banks to recognize blacklisted customers.
- The use of the BVN will reduce queues in banking halls.
- Standardized efficiency of banking operations.
- Every customer has a unique BVN that is accepted as a means of identification across all Nigerian banks.

(Financial Industry Bank Verification Number, n.d.)

The BVN has the added advantage of being useful to illiterates, due to the fact that biometrics are mostly used. This goes a long way in the achievement of financial inclusion (BVN and CBN's Cashless Policy, 2015). In enrolling, bank customers are required to fill and submit a BVN enrolment form and undergo data capturing including facial imagery and fingerprinting, then once the application is confirmed, their BVNs are generated and they receive an SMS.

## 6. Conclusion

An operational Nigerian cash-less policy has various advantages and is easily one of the noticeable innovations of the 21st century. However, it is important that a country like Nigeria with its teaming problems view it as a gradual process, and therefore identifies the need to develop a functional strategic plan for its attainment in reasonable time. A lot of shortcomings still need to be tackled, especially those pertaining to infrastructural deficit and financial inclusion. It is also important to realize that advancement is not merely how much the economy resembles that of the west, or how many innovations are imported (and later, probably crash when met with an inchoate domestic infrastructural base). It is reducing the inequality in the distribution of wealth and income, providing preferential treatment to the poor and unemployed and involving people at the local levels in developmental activities.

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