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**ASSESSMENT OF THE IMPLEMENTATION OF FEDERAL  
GOVERNMENT CASHLESS POLICY FOR THE SECURITY OF  
MONEY AND INVESTMENT IN NIGERIA.**

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**Abstract**

*This study assessed the implementation of the CBN cashless policy on security of money and investment in Nigeria. The move to use electronic cash system has its own challenges, which in Nigeria. This is as a result of inadequate physical and social infrastructure. The introduction of the cashless policy through the Central bank of Nigeria, therefore throws up questions that bother on issues such as security of public fund and investments and the general problem of safety pertaining movement of money from one area to another. Therefore, this study assessed the implementation of Federal government of Nigeria cashless policy has promotes the security of money and investment in Nigeria. Identifying the measures taken by the CBN to ensure the security of money and investment in a cashless-based economy like Nigeria. The study adopted the survey research design. Questionnaires were administered; out of the total population of 1090 of the beneficiaries of the Cashless policy in suleja local government, 109 were selected as the sample size which is approximately 10% of the entire population, data collected were analyzed using mean and frequency tables and the Chi-Square formula was used to test the hypotheses. Findings of this study has reveals that the Federal government cashless policy has a positive effects on security of money and investment. The study concludes that for the period under study there was inadequate facilities to enable the policy to be fully implemented like ATM machines, POS terminals, internet facilities, power, trained personnel , mobile money devices etc.It recommended*

*that much needed to be done in terms of deliberate effort toward the deployment of biometric data capturing machines and the use of superior internet security software for ensuring that hackers and fraudsters are easily identified and intercepted.*

**Keyword:** *Cashless, policy, Security, Money, Investment.*

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## **Introduction**

Nigerian financial sector since the establishment of the fourth republic has witnessed a growing shift from cash – based economy to cash – less economy. The move has become a top priority for governments NGOs and companies particularly in expanding financial access. Gabriel (2012) noted that recent statistics show that nearly 2.5 billion people (almost half the world’s adult population) do not have access to formal financial services. Without basic payments and savings accounts, money is often kept in cash under the mattress then moved around from person to person, drastically increasing the risk of theft or loss. A simple task as paying bills in person and via cash can be unsafe, costly and time consuming. The implications of this financial exclusion are significant and far reaching, reinforcing the cycle of poverty and slowing economic progress.

A cashless economy is an environment in which money is spent without being physically carried from one person to the other. The first issue in the cashless economy is the issue of electronic purse. This is electronic information that is transmitted to a device which reveals the information about how much a person has stored in the bank and how much he can spend.

The policy, it is claimed by the makers, will enhance the integration of our economy as presently 78.8 percent of the country’s rural populations are largely unbanked. According to the CBN, this policy, when fully implemented therefore, will drive Nigerian’s huge informal economy which is driven by small scale farmers, traders, craftsmen and other types of small and medium sized businesses and eventually integrate it into the nation’s formal economy.

Financial experts and businessmen alike have argued that the move to use electronic cash, commonly dubbed “Cashless” however, has its own challenges, which in Nigeria; appear to be accentuated by the perennial problem of inadequate physical and social infrastructure. However, as the financial institutions have implemented such things as debit cards, credit cards, internet

banking, etc, it has slowly brought society into the acceptance zone whereby another step could be taken. Without society being able to understand the pros and cons of electronic cash, the full benefit of the cashless society may never be realized.

Information technology plays an important role in bringing about sustainable development in every nation. Without an optimal use of information technology, no country can attain a speedy socio – economic growth and development. According to Ademola (2012) The future of all business, particularly those in the service industry lies in information technology. In fact, information technology has been changing the way companies compete. Banks are companies engaged in banking business and their future is, therefore, linked to the pervasive influence of information technology.

Information technology is more than computers. It encompasses the data that a business creates and uses as well as a wide spectrum of increasing convergent and linked technologies that process such data. Information technology thus relates to the application of technical processes in the communication of data. It is beyond doubt that information technology can help reduce transaction costs for banks, which will translate to lower prices for services to customers. Dotun, (2007) Information technology for banks takes different forms, the forms as can be seen today include:

- a. Computerization of customer’s accounts and account information, storage and retrieval;
- b. Deposit and withdrawal through Automated Teller Machines (ATMs); and
- c. Networking to facilitate access to accounts from any branch of the bank.

Other forms include bio – metrics used in finger – printing and identification which should dispense with the use of passwords or Personal Identification Numbers (PINs) in the initiation of transaction by customers. The use of the internet and websites to handle a host of services that go beyond traditional financial services which is increasing among banks is also a product of information technology. All these come with their tons of challenges especially in a developing nation like ours.

According to Ikenna (2015), it was therefore hardly surprising that the Federal government Central Bank of Nigeria (CBN) introduced the cashless policy in Nigeria in order to ensure that banking services get to everybody and offers all

platforms for empowerment that will change the way people transact businesses and living generally in Nigeria.

The introduction of the policy in Nigeria therefore throws up questions that bother on the impacts of the cashless policy on issues such as security of public fund and investments and ultimately the general problem of safely moving money from one terminal to the other. Another worry is those of inadequacy and undeveloped nature of basic infrastructures such as the ATM terminals, POS terminals, unreliable internet, consistent power failure, underdeveloped mobile money system and the inept attitude of employing cheap and untrained labour, all of which can lead to loss of money and huge investment crash. Cases abound of how businesses and individuals have either lost money or huge investment opportunities due to problems associated with failures of gadgets used in the cashless system to respond appropriately or timely. Are there adequate and developed social and basic infrastructures in place to sufficiently and effectively support and secure money and investment?

### **Objectives of the Study**

- i. Assess whether the implementation of the federal cashless policy has promoted the security of money and investment in the Nigeria economy.
- ii. Find out the security challenges of the cashless policy of the federal government on the people of Nigeria.
- iii. Identify the measures taken by the CBN to ensure the security of money and investment in a cashless-based economy like Nigeria

### **Hypotheses tested**

The researcher formulated the following hypothesis.

- Hi:** The federal government of Nigeria cashless policy has significant effect on the security of money and investment in Nigeria.
- Ho:** The federal government of Nigeria cashless policy has no significant effect on the security of money and investment in Nigeria.

This study focused on the beneficiaries of the CBN cashless policy in Suleja Niger State. The study attempts to evaluate the overall impact of the cashless policy on the security of money and investment with a view to identifying and proffering remedial guides to the threats posed to security of money and investment under the cashless policy of the Central Bank of Nigeria. Hence, the

study looks at the general safety of money and investment within the cashless system in Nigeria. This study is estimated to span within one month on the field due to the intricacies involved in collecting reliable data.

### **Literature Review**

A cashless society has been defined by many scholars and many explanations have also been given in defense of the cashless society by government and international monetary organizations. According to Raymond (2012). Cashless society is a culture where no one uses cash, all purchases being made are by credit cards, charge cards, cheques, or direct transfers from one account to another through mobile banking. The cashless society here refers to the widespread application of computer technology in the financial system in the banking system

Ademola (2014), argued that electronic cash is a system which allows individuals to purchase goods or services in today's society without the exchange of tangible cash. The term money still exists, but it is more in an electronic form than previously. Electronic cash is a term becoming more acceptable as the world makes a shift towards a cashless society. Since the 1960's, governments and financial institutions globally have made slow, but steady steps towards the goal of a society without cash. The cashless system is a more convenient method of payment, and a method of preventing crimes all the way from the robbery of cash from an individual to the extent of money laundering by crime syndicates and cash stockpiling at home by corrupt government officials.

The cashless policy was implemented through automated information technology .The case may conveniently be made that the future of all businesses, particularly those in the service industry lies in information technology. In fact, information technology has been changing the way companies compete. Banks are companies engaged in banking business and Their future is therefore linked to the pervasive influence of information technology (Kosoko 2013). The term ICT can be defined as “the integration of computing, networking, and information processing technologies and their applications” Thus, ICT means a combination of computer applications’ and communication technology for gathering, processing, storing and disseminating of Information.

Etomi (2015) notes that information technology is more than computers. It encompasses the data that a business creates and uses as well as a wide spectrum

of increasingly convergent and linked technologies that process such data. Information technology thus relates to the application of technical processes in the communication of data. Etomi (2015), also maintained that, information technology can help reduce transaction costs for banks, which will translate to lower prices for services to customers. Information technology for banks takes different forms. The forms include:

- a. Computerization of customers' accounts and accounts information storage and retrieval;
- b. Deposit and withdrawal through Automated Teller Machines (ATMs); and
- c. Networking to facilitate access to accounts from any branch of the bank.

Furthermore, Michael (2016), noted that information technology forms include bio – metrics used in finger – printing and handwritten identification which should dispense with the use of passwords or Personal Identification Numbers (PIN) in the initiation of transaction by customers. The use of the internet and websites to bundle a host of services that go beyond traditional financial services which is increasing among banks, is also a product of information technology in banking.

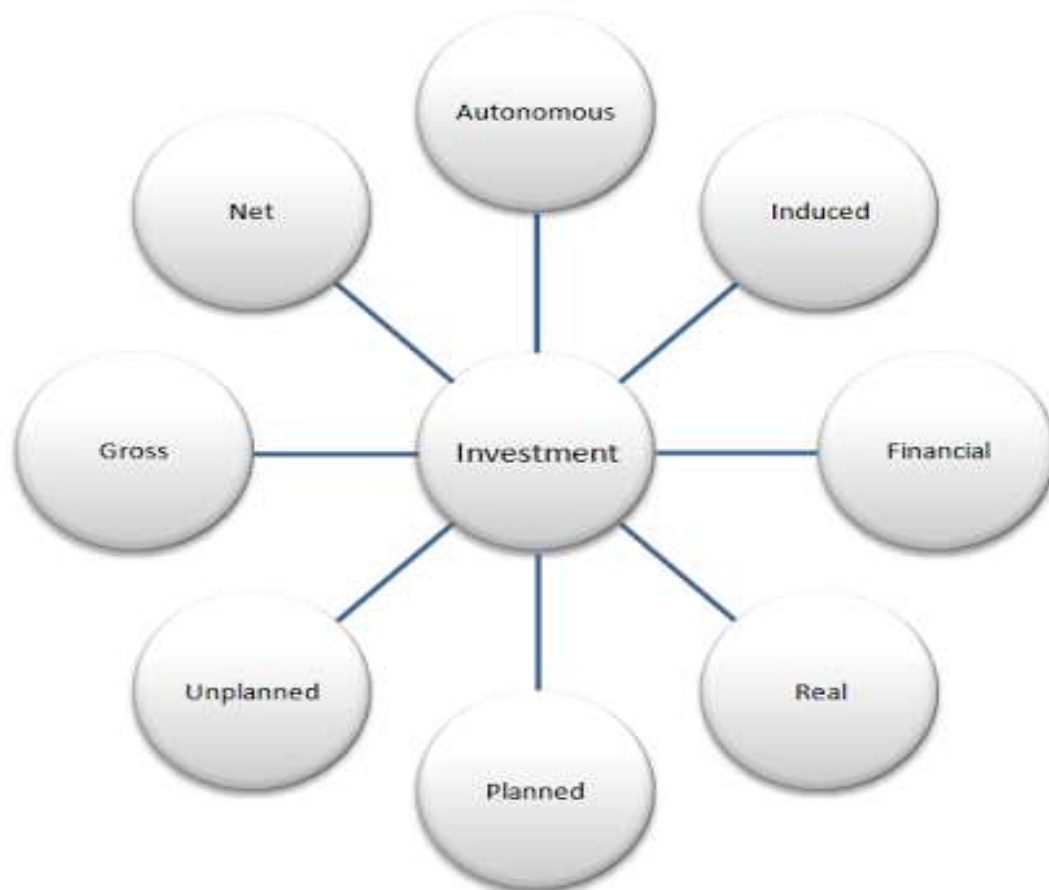
Raymond (2012), stressed that among other things, the cashless policy will save the banking system the cost of printing, distributing and handling large volume of cash. It is estimated that over 70 percent of cash in circulation in the Nigerian economy exists outside the formal banking system. It has been argued that cashless policy has cost implications for the economy. Physical cash has life span; it gets destroyed easily. This means government spends a lot of money replacing cash with new ones. If cash is not in the formal system, it can't be used for lending, but if an aggregate is known, that is, how much money is available to kick – start the economy, it makes lending and production easier.

The cost of funding is also said to be high because the amount in circulation is not captured in a synthesized manner. Part of the reason the CBN is introducing the policy is to reduce the cost of funds by making sure that a significant amount of the capital around is captured in the formal system. With this, when the law of demand and supply sets in, there will be enough cash to lend to individuals, corporate bodies as well as small and medium scale enterprises. If the apex bank gets the cashless policy right, therefore, it will be a major driving for business in the years to come in Nigeria. This should be of interest to business owners.

The cashless policy is also believed to be a step towards curbing money laundering in the financial system Cisar, (2003).

The term investment is alien to many today. Many also wonder what happens to the security of their money and investment in the face of the CBN cashless policy. What investment options are available in a cashless economy? According to Ikenna (2014) investment implies the production of new capital goods, plants and equipments. John Keynes (2012), refers investment as real investment and not financial investment. Investment is a conscious act of an individual or any entity that involves deployment of money (cash) in securities or assets issued by any financial institution with a view to obtain the target returns over a specified period of time.

Target returns on an investment include: Increase in the value of the securities or asset, and/or regular income must be available from the securities or asset. David (2013) looked at different types of investment which are shown in the diagram in figure 1.



**Figure1:Conceptual and analytical view on investment**

**Sources:** David, I. E (2013). Investment opportunities and the global economy, theories and practical experiences in the African continent (p 104)

The types of investment are explained thus:

### **Autonomous Investment**

Investment which does not change with the changes in income level, is called as Autonomous or Government Investment. Autonomous Investment remains constant irrespective of income level. Which means even if the income is low, the autonomous, Investment remains the same. It refers to the investment made on houses, roads, public buildings and other parts of Infrastructure. The Government normally makes such a type of investment.

### **Induced Investment**

Investment which changes with the changes in the income level, is called as Induced Investment. Induced Investment is positively related to the income level. That is, at high levels of income entrepreneurs are induced to invest more and vice-versa. At a high level of income, Consumption expenditure increases. This leads to an increase in investment of capital goods, in order to produce more consumer goods.

### **Financial Investment**

Investment made in buying financial instruments such as new shares, bonds, securities, etc. is considered as a Financial Investment. However, the money used for purchasing existing financial instruments such as old bonds, old shares, etc., cannot be considered as financial investment. It is a mere transfer of a financial asset from one individual to another. In financial investment, money invested for buying of new shares and bonds as well as debentures have a positive impact on employment level, production and economic growth.

### **Real Investment**

Investment made in new plant and equipment, construction of public utilities like schools, roads and railways, etc., is considered as Real Investment. Real investment in new machine tools, plant and equipment purchased factory buildings, etc. increases employment, production and economic growth of the nation. Thus real investment has a direct impact on employment generation, economic growth, etc.

### **Planned Investment**



Investment made with a plan in several sectors of the economy with specific objectives is called Planned or Intended Investment. Planned Investment can also be called as Intended Investment because an investor while making investment make a concrete plan of his investment. This simply means that before investing in any project or market the investor has defined what his investment is intended to achieve and what space of time the investment is expected to mature. The investor has a clear direction as to why he/she is embarking on such investment. In this type of investment, the investor understudies and understands the risks of such investment.

### **Unplanned Investment**

Investment done without any planning is called as an Unplanned or Unintended Investment. In unplanned type of investment, investors make investment randomly without making any concrete plans. Hence it can also be called as Unintended Investment. Under this type of investment, the investor may not consider the specific objectives while making an investment decision. The investor does not border to state in clear terms the goals of the investment neither does he take time to state what the investment is intended to achieve. It also means that unplanned investor does not take out time to consider how the cashless policy will impact on his investment. All security factors affecting the cashless policy are not considered before investing or putting money into a project.

### **Gross Investment**

Gross Investment means the total amount of money spent for creation of new capital assets like Plant and Machinery, Factory Building, etc. It is the total expenditure made on new capital assets in a period. Thus, gross investment is the total amount spent on goods in order to produce other goods and services. This simply implies that people consider the entire amount of money or investment they can afford to put into a business or project in a cashless economy for the sake of generating more money or asserts. The degree of safety and certainty will go a long way in determining how much money or investment (gross investment) they will be willing to put in.

### **Net Investment**

Net Investment is Gross Investment less (minus) Capital Consumption (Depreciation) during a period of time, usually a year.

It should be noted that a part of the investment is meant for depreciation of the capital asset or for replacing a worn-out capital asset. Hence it must be deducted to arrive at net investment. Net investment is the increase in productive stock. Net investment considers depreciations and is calculated by subtracting depreciation from gross investment. Investment refers to the amount invested in purchasing financial assets. This means that the investor looks at what will come to him as an addition for putting his money or resources into a particular business or transaction considering also the risk or benefit that may crop up due to the CBN cashless policy. Hence, upper most in the hearts of investors is, “how will the cashless policy enhance or hamper, increase or decrease, deplete or multiply my money and investment”. Therefore, net investment in this context for any customer or business person is, “increases in the value of assets or securities”. Hence, it is about the conviction that given the cashless system, there will be guaranteed increase in investment (net investment).

Security when it relates to investment or money, simply refer to the satisfaction and anticipation based on prediction that there will be good returns on investment or to the threats one may expose his/her money and investment to due to the activities of fraudsters (Yahoo.Yahoo boys) or mismanagement by banks. This is the primary motivator to every investor. Hence, the guaranteed safety of money when put into a business is what that investor looks out for before investing time and resources in any venture (Louis, 2012). Also

Abdul M. (2009) describes security of money as the speculative evidence that one will not likely lose money in a particular business proposal. It is sometimes anchored on some economics factors as well as government policies and market factors. Michael (2016) further stressed that security is the degree of resistance to, or protection from, harm. It applies to any vulnerable and/or valuable asset, such as a person, money, investment, dwelling, community, item, nation, or organization. Hence, the security of money in the context discussed here is the instinct that money and investment can be directed toward a project or transaction for immediate or future benefits. It is the quality or state of money or investment being secured. Hence, the issue of security of money and investment is paramount when it comes to doing any business especially in a newly birth cashless economy. Investors want to be sure that they are not exposed to colossal risk. They want minimal risk so as not to crash out of business.

According to Afy (2013) in finance and investment when people talk of the security of money and investment what comes to mind is the system upon which an existing business or an economic activity is built. It is the guiding factor for many investors. Hence, the assurance that they will not lose their money is in most case the trigger for investment. Many people believe that one should not put their money in a leaking pause, same goes for investors who also believe that one should not invest an amount they cannot afford to lose.

Gabor (2008) puts it simply, security of money is safety, protection, and guarantee that an asset put into use will generate more assets for the betterment of economic lifestyle of the investor. He argued that no real investor will put their money in any business that has no reliable and sustainable system for security reasons. Thus, the expanded theory on the security of money and investment.

It is important to examine the impact of the cashless policy on security of money and investment. The first issue in the cashless economy is the issue of electronic purse. Fears have been expressed that the cashless policy will lead to loss of money and crashed investment. On the other hand, there is the argument that the cashless policy will ensure the safety of money and guarantee returns on investment. Looking at the two sides to this, one cannot but attempt to assess the impacts of the cashless policy on the security of money and investment.

David (2013) opines that 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, like the CBN's cashless policy is positively correlated with economic development, and is a key enabler for economic growth through the provision of a safer business environment for all investors.

Ikenna (2013) argues that system would also reduce the cost of banking services as well as the high cost of cash along the value chain, thereby driving financial Inclusion by providing more efficient transaction options and greater reach. Furthermore, Ikenna (2013) pointed that the Apex Bank's analysis shows that only 10 per cent of daily banking transactions are above N150, 000, but the 10 per cent accounts for the majority of the high value transaction. This suggests that the entire banking population subsidizes the costs that the tiny minority 10 per cent incurs in terms of high cash usage. In addition, the policy would curb the risks associated with using cash. Since, cash encourages robberies and other cash- related crimes. It would also reduce the loss incurred in the case of fire and flooding incidents.

Femi (2014) notes that the cash-less policy would reduce inefficiency, corruption, leakages, money laundering; amongst other cash related fraudulent activities. For the government, it would aid increased tax collection, greater financial inclusion and increased economic development. According to the Inter-Switch Executive Director of Payment and Solutions, Charles Ifedi, “I see this as a very good initiative and hope that at the end of the programme we all will be able to adopt electronic payment in Nigeria and in government, and added Why the Delay? Charles Ifedi further asserts that, despite its huge benefits, it still beats the imagination of Nigerians why this initiative of the Apex bank is yet to be consummated by the public. This is attributed to numerous reasons.

Raymond (2012) also notes that the advent of ATM and other electronic means of transaction saw a rise in the activities of hackers and Advanced Fee Fraudsters (419). Most of them have dispossessed many bank customers and the public of their hard earned money.

Stakeholders still ponder on the security of this system, which should be top among the scale of preference of the CBN in ensuring that this policy thrives. The Apex Bank should not be oblivious of the infrastructural decay in our society, where epileptic energy challenges remain unsolved in spite of our lip service. Furthermore, the problematic Point of Sales (POS) terminals and incessant network down-time has also cost businesses and investments lots of fortune and hindered the execution of this initiative. Nigerians, also wonder whether the policy is a burden or relief as long queues are still noticed at banking halls and at some offsite ATM locations and they speculate what the situation would be when the policy is fully imbibed in the country. Though, daunting as the challenges may seem, the recent grant of N79.5 million (\$510,000) by the United States Trade and Development Agency (USTDA) to banks for the establishment of a Data Recovery Centre (DRC) to fortify and protect e-payment transaction in the country is timely and commendable.

The issue of data security, lack of public trust, low rate of public awareness, unreliable IT infrastructure etc are few of the many worries people share about the cashless policy. How to win the trust of users becomes the paramount issue for the promoters of the cashless policy hence, the need to look at ways of guaranteeing security of money and investment of the beneficiaries of the cashless policy.

César (2013) outlined the measures necessary for guaranteeing the security of money and investment in a cashless economy as discussed below.

**i. Network connectivity and Communications**

Due to vast number of people using the cell – phones, Telcoms (Telecommunications Companies) pay more attention to voice clarity series rather than network connectivity. Thus, network availability is inconsistent. This makes for slow access to the internet through all mediums other than cell phones. This is because Telcoms make more money on voice than data. People make use of their phone in making calls than in browsing, hence the Telcoms put more effort in creating an adequate platform for clarity of voices services contrary to data usage and connectivity. Thus, to achieve an overall security of money and investment there should be deliberate effort towards quality of services delivery and customer satisfaction.

**ii. Infrastructure Development**

The financial infrastructure in Nigeria should be adequate installed and maintained effectively. These include ATMs, Point of Sales system, kiosks, mobile; web and other mediums have to dramatically expand to touch at least 40% of the whole economy before any meaningful effect can be achieved.

**iii. Security Issues**

Challenges as theft, armed robbery and irregular habits by Bankers, data base vulnerability, internet fraud and e–crime can be checked by the use of modern technological gadgets in monitoring both online and offline transactions. Superior internet security soft wares are also highly recommendable

**iv. POS Machine and Other Technical Issues**

The big question of technical problems and know-how should be checked in other to avoid the loss of money due to machine malfunction. Many at times, POS malfunctions leading to loss of money or delay in transactions. This diminishes customers trust in the system thereby making many bank users to be skeptical in accepting the technology.

**v. Installation of High Quality IT Gadgets**

Customer may be debited twice in course of transaction while using the ATM's machine. This could be caused due to poor communication or signals in the ATM's machine or likely the POS software malfunctions.

Hence, high quality AT machines should be bought and installed for transaction purposes in order to ensure the security of investors' resources.

**vi. Development of Biometric Data Capturing Machine**

There is much to do in terms of deliberate effort toward the deployment of biometric data capturing machines as this will help to check theft and other financial crimes. Security in online banking is typically provided through the use of an ID and password, these and other security measures must be effective to prevent not only the breach of privacy, but other security concerns like the alteration of data. For e-banking to be effective, an area that must be addressed is security, for any IT based service associated with e-banking increases the need for security. A key concern is privacy.

According to Gabriel (2010) with Nigeria gradually transiting from cash to an electronic based economy, by virtue of the implementation of the Central Bank of Nigeria's (CBN) cashless policy, cyber criminals and hackers in the country who hitherto attacked businesses and individuals across the Atlantic, are re-directing their energies towards exploiting possible loopholes in the electronic payment system in order to perpetuate fraud.

Analysts have warned financial institutions and other stakeholders in the electronic payment industry to step up investments in security of electronic transactions, or risk being overwhelmed by the spate of sophisticated cyber attacks that would soon arise as a result of the sheer volume of financial transactions online (Kant, 2013). He further notes that a report from Symantec's latest Internet Security Threat, supports analysts' fears, indicating that Nigeria has moved six positions up the ladder, to occupy the 59th position globally, amongst countries with greatest Internet Security threat.

Industry analysts have expressed concerns about Nigeria's rising cybercrime profile. There is however little effort from the Federal Government to pass into law, pending cybercrime bills aimed at criminalizing the acts.

Jones (2008) argues that analysts have identified this worrying situation as a major drawback to the development of electronic payments in Nigeria. The CBN had envisaged this security challenge when it began implementing the cashless policy. Accordingly, the apex bank had directed all players in the banking and electronic payment sector to speedily attain Payment Card Industry Data Security Standard (PCIDSS) compliance.

This, according to the apex bank, is to ensure that card users in the country would continue to experience enhanced payment data security. But up till now, out of the 21 banks currently operating in the country, only Access Bank Plc has achieved compliance, Business Day Newspaper report, it was gathered that only Interswitch, Value Card and E-Transact Plc among switching services providers, have achieved compliance.

Security experts told Business Day that PCIDSS (Payment Card Industry Data Security Standard) certification represents a common set of security best practices that if strictly adhered to, would ensure the safe and secure handling of payment card data and transactions. Market watchers have warned that many Nigerians would lose confidence in the e-payment system if security concerns become a reality.

According to Ikenna (2015) the lack of confidence in Nigeria's e-payment system could hinder foreign investments. It could send negative signals to the global business community that Nigeria is not a secure entity to do business with, as regards international trade. Peter Boglo of Oracle Corporation told Business Day that Nigeria's cashless initiative would bring with it an explosion of data running on electronic platforms, further urging banks to take advantage of latest security solutions to protect their networks.

"With the new shift in the economy, where emphasis is being placed on electronic transactions, banks would be highly susceptible to cyber attacks and threats." He noted that financial institutions are not speeding up PCIDSS compliance because they think implementing these security policies could disrupt business operations.

Adeniyi (2015) notes that Mitchell Elegbe, chief executive officer and managing director of Interswitch Nigeria Limited asserts that financial institutions, (NIBSS) National Interbank Settlement System and other stakeholders in the industry are all making investments in PCIDSS certification. But market watchers have expressed reservations about the pace at which they are making this investment. PCIDSS is so important because it ensures data security. In switching, data security is a critical part. Millions of transactions take place daily. What guarantees the success to those transactions is the security put in place to protect the data (password, cardholder KYC (Know Your Customer), etc) of users. Besides this importance, PCIDSS is a global best practice adopted by Visa, MasterCard, China UnionPay etc to protect information entrusted to the system by card users.

However, Rasaq (2014) an expert in electronic payments argues that criminal-minded individuals are coming up with advanced means of defrauding card users and card holders. He also pointed out that stakeholders in the industry are coming up with indigenous ways to beat the fraudsters and ensure the security of users' money and investment. "Now, the PCIDSS is compelling. Why? CBN has launched the cashless policy, which means we are seeing the end of overt dependence on cash transactions and more of cards. So, to encourage millions of local card users and foreigners European, Asians, and Africans (EAAA) who have come to rely on the safety of the system in their home countries, we must follow this global practice. However, Akinyemi (2016) argues that, "If we do not apply the PCIDSS certification, PCISSC (that is the organization behind data security, education and awareness of the PCIDSS involving American Express, Discover Financial Services, JCB International, MasterCard Worldwide and Visa Inc) would not consider Nigeria as a serious organization to do business with in international trade." He noted that PCIDSS is a rigorous process but that it is all to ensure compliance to global data security procedure. "At this stage we are now, Nigeria cannot afford not to invest in PCIDSS. Granted no system is foolproof, but not doing it means you are opening the doors for thieves and hindering both local and foreign investors due the fear of losing both money and investment to an unsecured system. He further asserts that; "You know, because you have embedded security measure in your saloon car does not mean you should leave your car engine running or leave the key in the glove compartment. PCIDSS is a safety measure. It protects cardholders and builds confidence in the system", he concluded.

The requirements for PCIDSS, according to security experts, ensure that the entities that process, store or transmit cardholders' data meet and adhere to the following standards: maintain a secure network for processing transactions; protection of cardholders and transaction data while in transit, or at rest on the network; regular monitoring and testing of Information Technology (IT) networks and infrastructure among others.

### **Theoretical Framework**

Based on the empirical literature, the theoretical framework of this study is Technology Acceptance Model (TAM) (Moris, 2003) This 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 decisions



about how and when they will use it, notable: Perceived usefulness (PU) – This was defined by Davis (1989) as the “degree to which a person believes that using a particular system would enhance his or her job performance”. And Perceived Ease – of – use (PEOU) – Davis (1989), defined this as “the degree to which a person believes that using a particular system would be free from effort. This model was developed by Davis (1989) and used by Pikkarainen, (2004). The implication of this theory is that people due to fear of insecurity of money and investment remain skeptical in accepting the new technology. Acceptance level, go a long way to affect economic activities in the economy. This theory explains why people will invest and vice versa.

Thus, this study is anchored based on Technology Acceptance Model theory. Technology Acceptance Model (TAM) is an information system theory that explains how users come to accept and use new 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.

This theory therefore, is to be applied so as to ascertain the acceptance level gained by the cashless policy from the beneficiaries of the policy. It will also go to show whether the cashless policy has impacted more positively or otherwise. Thus, the theory will guide the researcher in focusing on the set objectives as a framework for drawing conclusions. Though the theory has its defects since it does not provide in precise terms measurable conditions for ascertaining the degree to which a new technology is accepted or rejected. It also has been criticized, as external factors such as awareness, level of development, education, culture among others can influence its reliability in certain geographical locations.

### **Methodology**

The study employs the survey research design. It involves the use of questionnaires in eliciting information from a representative sample from the population of the study. Survey research method is suitable for this study since it allows flexibility in data collection and analysis. It involves the use of questionnaires in eliciting information from a representative sample from the population of the study which make it impossible for the researcher to be biased or influenced by sentiments. This method also makes tabulation of data simple, clear and easy to analyze and interpret without deep statistical knowledge.

This is to say that the researcher is designed and administered questionnaires by direct or personal contact with the respondents who answered questions accordingly and returned the answered questionnaires to the researcher for analysis and presentation of findings.

The elements of the population of this study are 1090 beneficiaries of the cashless policy in Suleja, local government of Niger state, 109 respondents were selected as the sample size, which is approximately 10% of the total population of the study.

Hence, the simple random sampling technique was employed which ensured that every element in the population was given equal opportunity of been selected. This technique was more convenient and unbiased. Taro Yamane (1967) formula for determining sample size is shown as:

$$n = \frac{N}{1+N(e)^2}$$

Where:

N: is the sample size

N: is the population

1: is constant

E: is the level of significance

The method adopted for gathering reliable information was structured questionnaires. It contained fifteen (15) question items which are divided to cover the research questions/objectives of the study. The methods of data analysis adopted for this study are the mean, frequency and the Chi-Square formula for test of hypotheses. The mean and frequency method is used by the researcher in determining the degree of agreement and disagreement of the respondents to each item of the research questions.

A cut-off point was determined by finding the mean of the nominal values assigned to the options using formula:

$$\bar{x} = \frac{\sum fx}{N}$$

where,

x= mean

$\sum$ =summation

F=frequency

x=nominal value

N=number of items.

Also, chi – square was used to test the hypotheses earlier stated. The hypotheses test provided a conclusion based on the data collected and the observed values from the questionnaire administered to the respondents.

The Chi square formula is given as:

$$\chi^2 = \frac{\sum (Obs - Exp)^2}{Exp}$$

Where:

- Obs = the observed or actual frequencies
- Exp = the expected frequencies
- $\Sigma$  = Summation
- $X^2$  = the computed value of Chi –square

### Data Analysis and Results

To answer the research questions, items 1, 2, 3, 4 and 5 in the questionnaire (first heading) were applied. The data is presented in table 4.1

#### Research question 1

**How the FG cashless policy has promoted the security of money and investment in the Nigeria economy?**

**Table 4.1 Response on how cashless policy has promoted the security of money and in investment in the Nigeria economy**

S/No.	Items	Strongly Agreed	Agreed	Disagreed	Strongly Disagreed	(x) Mean	Decision
1.	The cashless policy has encouraged reduction in money laundering and corrupt practices.	70	20	04	15	3.19	Agreed
2.	The cashless policy eliminates the risk involved in carrying cash.	40	60	09		3.28	Agreed
3.	The introduction of the cashless policy by the CBN has rekindled the interest of foreign investors in the Nigerian market.	65	35	09		3.51	Strongly Agreed
4.	The CBN cashless policy has done more good than harm.	78	30	01	00	3.71	Strongly Agreed
5.	Cashless economy is more secured than the cash-based economy.	80	29	00	00	3.73	Strongly Agreed

**Source:** Field Survey 2020

Table 4.1 show that items 1, 2 and 3 having a mean range of 2.50 – 3.49 were agreed with by respondents while, item 4 and 5 having a mean range of 3.50 – 4.0 were strongly agreed with by the respondents. This indicates a general agreement that the FG cashless policy has promoted the security of money and investment in the Nigeria economy.

**Research Question 2**

**What is the security issues facing the cashless policy of the FG in Nigeria?**

Answers were provided to this question by applying items 1, 2, 3, 4 and 5 in the questionnaire

**Table 4.2 Security issues facing the cashless policy of the FG in Nigeria**

S/No.	Items	Strongly Agreed	Agreed	Disagreed	Strongly Disagreed	Mean (x)	Decision
1.	Activities of internet fraudsters/hackers constitute a big security concern to the FG cashless policy.	59	50	00	00	3.54	Strongly Agreed
2.	Lack of machines and other infrastructures for prompt capturing of biometric data of the users is major security challenge facing the FG cashless policy.	52	50	07	00	3.41	Agreed
3.	Lack of a central biometric data base of beneficiaries of the FG cashless policy poses a big challenge to the security of money and investment.	32	72	05	00	3.25	Agreed
4.	Inadequate trained manpower to effectively man the IT gadgets in the banking industry is a major security concern.	55	42	07	05	3.25	Agreed
5.	Poor general knowledge and skills on the basic credit cards/password handling and cloning ethics is one of the issue facing the cashless policy in Nigeria.	33	55	21	00	3.11	agreed

**Source:** Field Survey, 2020

The data presented in the table above shows that item 1 has a mean rating of 3.54 which indicates that the item was strongly agreed with, while items 2, 3, 4, and 5 having mean rating between 2.50 – 3.49 were agreed with by the respondents. This implies that all respondents have a positive disposition to all the five items indicating their agreement with these items.

**Research Question 3**

**What are the measures adopted to ensure the security of money and investment in a cashless-based economy like Nigeria?**

Items 1, 2, 3, 4 and t in the questionnaire (third heading) were used to answer this question. **Table 4.3: Measures adopted to ensure the security of money and investment in a cashless-based economy like Nigeria**

S/No.	Items	Strongly Agreed	Agreed	Disagreed	Strongly Disagreed	(x) Mean	Decision
1.	Regular enlightenment/education is a way forward in ensuring that all beneficiaries of the FG cashless policy are aware of the security lapses they may fall prey to.	69	40			3.63	Strongly Agreed
2.	Banks should only employ well trained staff to man their IT infrastructures.	79	30	00	00	3.72	Strongly Agreed
3.	Use of biometric data capturing machines will reduce the incidence of laundering and fraudulent activities.	59	50	00	00	3.54	Strongly Agreed
4.	Installation of CCTV cameras at POS, ATM and other critical IT gadgets terminal should be a major priority.	38	65	06	00	3.29	Agreed
5.	Use of superior data security softwares should never be compromised at anytime.	80	29	00	00	3.73	Strongly Agreed

**Source:** Field Survey, 2020

From table 4.3 above, the data presented shows that items 1, 2, 3, and 5 have a mean range rating between 3.50-4.0. This means that all the 4 items were strongly agreed with by the respondents. While item 4 has a mean rating of 3.29 to show that the respondents agreed with this item. Hence, all respondents have the believe that if well articulated and with the right infrastructures and personnel, theFG cashless policy will enhance the security of money and investment in a cashless-based economy like Nigeria.

**Test of Hypotheses**

**The hypotheses tested were;**

Ho: The FG cashless policy has positive effect on the security of money and investment in Nigeria.

Hi: The FG cashless policy has no positive effect on the security of money and investment in Nigeria.

**Table 4.4: Test on whether there is any positive correlation between FG cashless policy and the security of money and investment.**

S/No.	Items	Strongly Agreed	Agreed	Disagreed	Strongly Disagreed	Mean (x)	Decision
1.	The FG cashless policy has positive effect on the security of money and investment in Nigeria.	59	50	00	00	3.54	Strongly Agreed
2.	The FG cashless policy has no positive effect on the security of money and investment in Nigeria.	64	32	13	00	1.53	Disagreed

**Source:** Field Survey, 2020

From the table 4.4 , item 1 has a mean range between 2.50-3.49, which implies an acceptance of hypotheses Ho. Item 2 has a mean range between 1.50-2.49. This indicates a non acceptance of hypotheses Hi. Hence, the null hypotheses is rejected and we conclude that the FG cashless policy has positive effect on the security of money and investment in Nigeria.

**Using Chi-Square**

$$X^2 = \frac{\sum(Obs - Exp)^2}{Exp}$$

**Results**

Responses	Observed Frequency (O)	Expected Frequency (E)	O-E	(O-E) <sup>2</sup>	$\frac{\sum(Obs - Exp)^2}{Exp}$
Strongly Agreed	39	29.25	9.75	95.06	3.25
Agreed	41	29.25	11.75	138.06	4.72
Disagreed	20	29.25	9.25	85.56	2.93
Strongly Disagreed	17	29.25	12.25	150.06	5.13

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**Disagreed**

$\chi^2$

16.03

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**Source:** Computed data

The degree of freedom (df) = 12

Hence, with the significance level of 0.01 (10%), and degree of freedom(df) of 12 the critical value = 26.22 while  $X^2= 16.03$ . therefore, since the P-value ( $X^2$ ) is 16.03 which is less than the critical value of 26.22 we therefore accept the null hypothesis and reject the alternate hypothesis. This indicates that the CBN cashless policy has positive effect on the security of money and investment in Nigeria.

**Findings**

1. The cashless policy has impacted positively on security of money and investment.
2. The cashless policy has reduced the risk of carrying cash.
3. There is more foreign investment due to the introduction of the cashless policy.
4. The activities of internet fraudster are a threat to money and investment.
5. Many people still do not believe their money and investment is secure in a cashless economy.
6. There are IT infrastructure deficit to adequately support and carry out cashless transactions.
7. More enlightenment is required on how investors can take advantage of the cashless policy.
8. Reliable biometric data capturing gadgets and efficient IT infrastructures are needed to ensure that people's money and investment are safe within the cashless system.

**Discussion of Findings**

The discussion of the major findings of this study is as important as it is to note that the study was not exhaustive and generally conclusive. The findings are as discussed below.

The discussions here are based on the three research questions in this study which are:

1. Has the FG cashless policy promoted the security of money and investment in the Nigeria economy?
2. What are the security issues facing the cashless policy of the FG in Nigeria?
3. What are the measures adopted to ensure the security of money and investment in a cashless-based economy like Nigeria?

Hence, the main findings of the study are:

The FG cashless policy has a positive impact on the security of money and investment. It has encouraged reduction in money laundering and corrupt practices. The policy also eliminated the risk involved in cash transactions. The study reveals that the cashless economy has helped to stabilize direct foreign investment and the interest of investors in the Nigerian market has been strengthened through establishment of basic IT gadgets. Also, the findings show that the CBN cashless policy has done more good than harm to the Nigeria to the Nigeria economy and hence, ensured a more secured economy.

This study also found the activities of internet fraudsters/hackers, Lack of machines and other infrastructures for prompt capturing of biometric data of the users, Lack of a central biometric data base of beneficiaries of the FG cashless, Inadequate trained manpower to effectively man the IT gadgets in the banking industry, Poor general knowledge and skills on the basic credit cards/password handling and cloning ethics as major security issues facing the cashless policy of the FG in Nigeria.

The study identified regular enlightenment/education, deployment of well trained staff to man their IT infrastructures of banks, use of biometric data capturing machines, installation of CCTV cameras at POS, ATM and other critical IT gadgets and the use of superior data security software as the measures that should be adopted to ensure the security of money and investment in a cashless-based economy like Nigeria.

### **Conclusion**

From the above findings, the study concluded that for the period under review there were evidences of inadequate deployment of infrastructural facilities like: ATM, POS terminals, internet, power, personnel, know – how, mobile money devices and facilities, IT gadgets, structures and systems for education/enlightenments which could be attributed to inadequate funding on the part of the government hence, a percentage of investors still doubt the safe and security of their money and investment given the FGs cashless police.

There is much to do in terms of deliberate effort toward the deployment of biometric data capturing machines and the use of superior internet security software for ensuring that hackers and fraudsters are easily identified as this will win the trust of citizens and boost the economy and at the same time guarantee security (safety) of money and investments thereby enhancing the economic lifestyle of the people.

### **Recommendations**

The following recommendations are made for this study.



1. Government should make adequate fund available for the provision of relevant infrastructure across the nation to support the full implementation of the cashless policy.
2. There should be deliberate effort to deploy the use of biometric data capturing machines and superior internet security softwares.
3. To prevent theft, yahoo, yahoo boys and other security issues associated with the cashless policy bankers and CBN should work with the legislatures to formulate law the will protect money and investment.
4. Experienced professionals should be engaged adequately in the planning, implementation and maintenance of mobile money gadgets in other to forestall cases of loss of money and investment.
5. Government should engage the public in regular education/enlightenment on the cashless policy to enable the beneficiaries of the policy understand how it effects their money and investments.

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