

# Nigeria's Cashless Economy: The Imperatives

<sup>1</sup>Akhalumeh Paul, B., <sup>2</sup>Ohiokha Friday

<sup>1,2</sup>Dept. of Accountancy, Auchi Polytechnic, Auchi, Edo State, Nigeria

## Abstract

This study examines the cashless economic system so as to assess its feasibility in Nigeria vis-à-vis: timelessness, preparedness and adequacy against the backdrop of our level of development both technologically and educationally. Nigeria has continued to evolve in different realms. The economy is being reformed, the institutions are being reshaped and legislations are being re-examined so as to reposition the nation to take its rightful position in the international community. As a way of fast-tracking the Nigerian economy so as to be among the first 20 world economies come 2020, Nigeria has proposed that come 2012 it will adopt the cashless economic system. The study used structured questionnaire as a means of data collection and the collected data were analyzed using simple percentage procedure. The results indicate that: majority of Nigerians are already aware of the policy and majority agree that the policy will help fight against corruption/money laundering and reduce the risk of carrying cash. Major problems envisaged to hamper the implementation of the policy are: cyber fraud and illiteracy. Based on the findings some recommendations made are: the government should adopt a different strategy to educate the non-literate Nigerians about the cashless economy; and a framework should be worked out to provide cyber security in Nigeria.

## Keywords

Cashless Economy, Cyber Fraud, E-Banking, Point of Sales Terminals, Cash Management

## I. Introduction

The Central Bank of Nigeria (CBN) has in recent times engaged in series of reformations aimed at both making the Nigerian financial system formidable and enhancing the overall economic performance of Nigeria so as to place it on the right path in tune with global trends. There was the capitalization (to the tune of minimum of N25 billion) agenda [1], there was also the aborted move at redenomination of the Naira. Recently the CBN came out with two purportedly laudable agenda – the Islamic banking (non-interest banking) and the cashless economy (e-payment system) [2].

Some of these policy measures came with tremendous success despite the initial skepticisms of Nigerians. For instance, when the CBN, in July 2004, set December 31, 2005 deadline for N25 billion minimum capitalization, it was greeted with considerable cry and criticism, when the programme was completed, the banking landscape was transformed out of a system dominated mainly by “fringe banks” to one made up of largely “mega banks” [3]. The product of the exercise was to “ensure a diversified, strong and reliable banking industry where there is safety of depositors’ money, and reposition the banks to play active developmental roles in the Nigerian economy” [4]. This remark sums up the assessment of analysts about the outcome of the reform agenda.

However, some other policy agenda did not enjoy as much acceptance as did the recapitalization agenda; for instance, the redenomination proposal was snubbed and judged to be counter-productive. In the same vein, the non-interest, Islamic banking concept has been greeted with a lot of skepticism, and the initiators are accused of masking under some hidden agenda.

The same may be said of the proposal on the introduction of “cashless economy”. The reaction of one Gibson sums up the skepticism in certain quarters about the “cashless economy,” he remarks that “I am foreseeing the ANTI-CHRIST stepping in and the fulfillment of Biblical prophecy that a time for cashless society will come and nobody will buy or sell except you have a number, be wise” [5]. This may mean that not enough has been done to address the genuine concerns of the citizenry about the cashless economy.

So much may have been said about the anticipated gains attendant to the adoption of e-payment and cashless economy (or cashless banking), but in concrete terms people have not been convinced that the agenda is for the good of all.

While we may point to such economies as the Japanese or U.S, we must be very ready to accept the fact that these are economies with functional institutional basis which cannot also be said about Nigeria with much conviction. Apart from the institutions, one fear that has been expressed is the state of Nigerian infrastructural decay. Have we assessed the impact of infrastructure on the implementation of ‘cashless economy’ or is it an assumption that the infrastructural platform needed for the cashless economy to perform will simply come with the cashless economy? From the foregoing problems, the objective of this study therefore is to examine the benefits of the cashless economy, the essential elements of the cashless economy and assess the preparedness for the implementation of the cashless economy by Nigeria. This is anticipated will help bridge the gap between current perceptions about the cashless economy and the actual operations of the system. To achieve this objective this study is divided into five sections. Following this introduction, Section II, examines existing literature on cashless economy, Section III, presents the methodology employed in collecting and analyzing data, Section IV, presents an analysis of the collected data; and Section V, deals with the conclusion and recommendations drawn up from the study.

## II. Review of Literature

### A. The Cashless System – An Overview

Contrary to what is suggestive of the term, cashless economy does not refer to an outright absence of cash transactions in the economic setting but one in which the amount of cash-based transactions are kept to the barest minimum. It is an economic system in which transactions are not done predominantly in exchange for actual cash. It is not also an economic system where goods and services are exchanged for goods and service (the barter system). It is an economic setting in which goods and services are bought and paid for through electronic media. It is defined as “one in which there are assumed to be no transactions frictions that can be reduced through the use of money balances, and that accordingly provide a reason for holding such balances even when they earn rate of return” [6].

In a cashless economy, how much cash in your wallet is practically irrelevant. You can pay for your purchases by any one of a plethora of credit cards or bank transfer [7]. Some aspects of the functioning of the cashless economy are enhanced by e-finance, e-money, e-brokering and e-exchanges. These all refer to how transactions

and payments are effected in a cashless economy [8].

In Nigeria, under the cashless economy concept, the goal is to discourage cash transactions as much as possible. The CBN had set daily cumulative withdrawal and deposit limits of N150,000 for individuals and N1,000,000 for corporate entities (now reviewed to N500,000 and N3million respectively). Penalty fees of N100 and N200 respectively (now reduced to 5% and 3% respectively) are to be charged per extra N1000 [9].

It should be said that as at now there are already some forms of cashless transactions that are taking place in Nigeria. It is noted that: Today there are up to seven different electronic payment channels in Nigeria, Automated Teller Machines (ATM), points of sales terminals, mobile voice, web, inter-bank branch and kiosks. E-payment initiatives in Nigeria have been undertaken by indigenous firms and have been stimulated by improvement in technology and infrastructure [2].

As noted above, the cashless economy does not imply an outright end to the circulation of cash (or money) in the economy but that of the operation of a banking system that keeps cash transactions to the barest minimum. The CBN had set daily limits of cumulative withdraws and lodgments of ₦150, 000 for individuals and ₦1,000,000 for corporate customers (now ₦500,000 and ₦3million respectively). The operation of the system does not mean the individual/corporations cannot hold cash in excess of ₦150,000/ N1million (now ₦500,000/N3million respectively) respectively at any single point in time but that their cumulative cash transactions with the bank must not exceed these limits over a period of one day. The system is targeted at encouraging electronic means of making payments, and not aimed at discouraging cash holdings. This policy on limits implies that an individual can actually have ₦5,000,000 (more than ₦150,000 now ₦500,000) under his pillow at home, buys goods and services with them but must not pay more than ₦500,000 into his bank in one day without attracting a fine of 5% per ₦1000 for the excess.

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

At the centre of such payment system are the Point of Sales (POS) terminals [10]. These are to be deployed across commercial points in the country. These POS terminals thus deployed will serve like the Automatic Teller Machines (ATM). In this case, upon completing a transaction and the value ascertained, the amount is entered into a POS terminal into which the electronic card has been slotted. The cash equivalent of the amount is transferred from the payer’s account into the account of the payee automatically [11].

Users are issued with a card (the electronic purse). The electronic purse is topped up using revaluation terminals. There are different types of terminals: coin & note, credit card and payroll deduction terminals. The cards are simply inserted into the revaluation terminal and certain programmed instructions are followed, and money is added onto the electronic purse. This can then be used to pay for goods/services by inserting them into the POS terminals. When the card is inserted into the POS, and the transaction amount entered, the reader reads the amount and is quickly deducted from the e-purse (the card) [12].

It has to be noted that the operation of the cashless economy (electronic payment) system is not entirely free. It is noted that: Curiously, using the POS comes with a hefty price tag of 1.25

percent of the cost of every purchase or transaction that is effected in addition to the ₦5 for every ₦1000 Commission on Turnover that our deposit money banks are allowed by CBN to charge every time money is taken from our account [13].

## B. Benefits of the Cashless Economy

Having seen how the system works, we would want to highlight the benefits of the system. So much criticism has been raised about the cashless system. The zenith of such criticism is that it has been labeled the “FORERUNNER OF THE MARK OF THE BEAST” [14-15]. However experts and government officials have continued to paint the system in very colourful tones.

For instance, the World Bank says that “operating a cashless society in Nigeria was strategy for fast-tracking growth in the nation’s financial sector”. [16]. If the World Bank says so, one expects that to be true.

Experts have pointed out specific areas in which the cashless economy will enhance the quality of life. These include:

1. Faster transactions – reducing queues at points of sales
2. Improving hygiene on site – eliminating the bacterial spread through handling notes and coins.
3. Increased sales
4. Cash collection made simple – time spent on collecting, counting and sorting cash eliminated
5. Managing staff entitlements [12].

It is also noted that:

It reduces transfer/processing fees, increases processing/transaction time, offers multiple payment options and gives immediate notification on all transactions on customers’ account. It is also beneficial to the banks and merchants; (there) are large customer coverage, international products and services, promotion and branding, increase in customer satisfaction and personalized relationship with customers, and easier documentation and transaction tracking [8].

As a policy instrument, CBN has heaped a lot of praises on the cashless system. CBN has hinged economic development on the cashless system; it sees it as a tool for tackling corruption and money laundering.

It has been pointed out that: “Among the reasons glibly advanced by the CBN for this policy include reducing the cost of cash management, making the Nigerian economy cashless, checking money laundering and the insecurity of cash in transit” [17]. Statistics show that cash management in 2009 cost N114.5 billion and this is projected to stand at N200 billion in 2020 [9]. In the same vein, the cashless system provides the opportunity of being able to “follow the money” and thus check money laundering across boarders.

Added to this is the perceived impact on the Naira. The system will reduce the pressure on the Naira. This can only happen if there is effective and standard cross-boarder electronic transmittal’s reporting system [9]. Following from the above therefore, it is anticipated that the cashless system will bring with it transparency in business transactions [18].

In the same token, the cashless economy will bring with it a leaning towards banking culture. It is seen that the effort is directed at “... ensuring ‘cashless economy’ and nurturing the culture of saving in the unbanked majority in the country” [19]. Most of Nigerians are still unbanked, and so we have large proportion of the citizenry not subject to such monetary policy instruments as are used in the banking system. This development will make CBN’s policy tools more effective for achieving economic development and stability goals.

It appears that the most serious appeal of the cashless system comes from the high cost of cash management in Nigeria [20]. Other identified reasons for the cashless economy policy are robbing, revenue leakages and inefficient treasury. The system will present some costs to the banking public, there will be some costs to be borne by government and there will be costs for the operators of the system.

### C. Costs of the Cashless Economy

When government officials and proponents talk of the gains of a cashless economy, they do so as if it is a heaven-packaged programme, tailor-made to solve the many problems of Nigeria, with no adverse consequences. Good as it may be made to look; the system will come at some costs.

As noted above, the use of POS terminals in the cashless system will attract special charges that do not go with cash transactions. A price tag of 1.25% of the cost of every transaction done through POS terminals will be charged by the operators of the terminals [13]. This may be considered over-burdensome on the banking public given that this will not obviate nor lessen the normal commission on turnover charged by banks on withdrawals. Apart from being an additional charge on bank customers, the charges appear to be too high. Normal bank commission on turnover is ₦5 for every ₦1000 representing 0.5% of the amount of such transactions, compared to the CBN approved charges of 1.25% which would mean ₦12.50 for every ₦1000.

Another area of problem is seen in it. That is, the problem of record keeping, some questions have been asked: if the cards are adaptable of keeping records of a customer's banking and buying patterns, could a situation arise where every transaction a person makes is recorded? Will the individual not be powerless in a dispute with a financial institution over money that exists only as a computer record? [21] Will the convenience and versatility of cash be lost as all transactions come to rely on terminals and passwords? The big issue is privacy. Fears have also been expressed by some that a cashless system might lead to loss of jobs as the banks will not have need for most of the tellers under a cashless economy. Since most transfers and settlements will be done electronically, there is fear that banks will lay off some of the staff who are normally involved in telling jobs. While this fear appears founded, we may need to wait and see the extent of the actual impact. The same fear had followed the introduction of computers when it was feared that computerization will lead to massive job losses resulting from laying off of secretariat and clerical staff.

### D. Essentials of a Cashless Economy

For the cashless economy to work certain factors must be present, not just present but in the right quantity and quality. It is for this reason that many analysts question the readiness of Nigeria for a cashless system, amongst other. Very vital among these factors is infrastructure. The whole skepticism about Nigeria's preparedness is summed up in the following:

The CBN's rhetoric of making the Nigerian economy cashless may be melodious. But that is placing the cart before the horse, an undue haste to run without first crawling. What foundations exist in Nigeria for the take-off of a cashless economy? What is the level of literacy and acquaintance with Information Communication Technology (ICT) among Nigerians? How many Nigerians can use electronic banking services?

What infrastructures are there to support electronic banking, assuming most Nigerians are educated and ICT-compliant is it enough to flood the nooks and crannies with ATMs, with their

vulnerability to fraud unresolved? [17].

Certain problems are reported to be associated with the operation of the cashless economy: "communication issues like power, ICT and uptime payment platform, interoperability of networks as well as cheque clearing period are important issues to be considered for the smooth operation of cashless economy" [22]. In other words, for an effective running of a cashless economy, the issue of infrastructure must be concertedly addressed. Another very important factor in the successful implementation of a cashless economy is the levels of awareness and literacy of the populace. It is noted that: "Those who have also frowned at the policy argue that the high level of illiteracy in the country, low level of banking population and porous banking system are factors that would work against the success of the scheme" [23]. People need to know how else one can pay illiterates who do not have bank accounts, it is pointed out that, "... the high level of illiteracy among Nigerians makes the use of cheques and electronic payments unsuitable in some cases" [17]. The problem with this situation of illiteracy is that a very huge proportion of the populace will come to depend on the literate few, and this will leave them at the mercy of the scruples of such "literate few." They will be vulnerable and may constitute a cog in the wheel of the cashless economy.

The issue of security has been mentioned in passing. The issue is very serious, with Nigeria having been described as the hub of internet scam; one can only wonder how the vulnerability of the cashless system to various forms of internet-related crimes will be addressed. It is reported that:

Information technology security experts in Nigeria have warned that, except the Central Bank of Nigeria and other regulatory agencies in the financial sector ensure that service providers adhere to minimum security standards on their web-based platform, the current move by the country towards a cashless economy may end up being a fruitless exercise [10].

Thus, security concerns on the web, the platform of cashless economy, are massive. Nigeria is replete with cases of internet scam and this will only increase as we enter into the e-payment era if the issue of security is not comprehensively addressed. Another facet to the cyber security concerns is the recent spate of cyber attacks worldwide. Can we guarantee a sufficiently sophisticated system as to scale the hurdle of cyber attacks which are capable of derailing the whole cashless system?

It is reported that:

But as it has been witnessed globally, the internet is the best thing (in a mundane sense) to happen to the world but offers the greatest risk and opportunities for criminals to unleash terror. Findings shows that even countries such as the United Kingdom, United States and other developed countries where high compliance to internationally acceptable security standards is maintained, cases of hacking have been continually reported [24].

If the case is so with the more organized economies, it can only be imagined what can take place in an unorganized and vastly lawless economy like ours. Like they say – "If gold rusts what will happen to iron?" If we must go cashless, cyber security must be guaranteed by government first. Speaking at an Information Security Society of Africa, Nigeria (ISSAN) organized forum, Laja Sorunke (the Association's Vice President) notes that, "I want to assure you that Nigeria at the cyber space is under threats. We have vulnerability. We have issues bothering on our payment networks" [24]. We cannot treat this issue with the same official levity and laxity as it had come to be with government programmes and projects. We must sit down together and address these security concerns if we will not rush out of the cashless economy just like

we are rushing in now. There is the need for proactive measures by companies in the country to put up a defensive mechanism against these attacks. Another security expert at that same forum notes that, "Truth is Nigeria cyber space is very insecure, vulnerable, we are open to attacks. For example we have no cyber security emergency programme in place so if we are attacked on cyber space today we have no way of knowing" [24].

Another essential is that adequate terminals and Automatic Teller Machines (ATMs) must be provided for the system to operate smoothly. As noted: "unless about 26000 additional points of sales (POS) terminals are deployed by various merchants across the country, a proper take off of cashless economy in Nigeria may be a mirage" [10]. Investigations reveal that "only about 14000 POS currently exist in the country" [10]. This is supported by the following observation:

Within this period (between now and the start of the cashless economy), the apex might not record much success because infrastructure such as POS, ATM, etc needed to migrate from a cash-aware Lagos to a cashless Lagos are not on ground. Unless the song coming from the CBN is not true, the road to a cashless Lagos is like the Ibadan Expressway, there are so many detours, so many pot holes and gullies [11].

Highlighting other aspects to POS terminals deployment problem, the question asked is:

When will they be deployed? How about the POS and ATM users, have they been educated? Are they aware enough about the cashless Lagos?

How about malls, supermarkets, and other merchant locations; are they ready for the take-off of the project? These are some of the issues that should be addressed before we contemplate taking a walk on the road that leads to a cashless Lagos [11].

On the need for there to be adequate POS terminals, it is noted that:

Nigeria's low Point of Sales (POS) density and poor last mile connectivity constitute significant drawbacks to the success of the Central Bank of Nigeria's (CBN) cashless Nigeria project. Businessday investigations reveal that there are only about 3000 functioning POS terminals in the country out of the existing 13,000. Spain, for instance, has 1.6 million active POS terminals with a population of 14 million people, while India which has deployed 500,000 POS terminals, conducts 360 million transactions per annum [25].

So then for a population of about 150 million people in Nigeria, 3000 active POS terminals are grossly inadequate for a take-off of the project.

### III. Data and Methodology

The research design used in this study is the descriptive survey method; it involves the use of a representative sample from the population. The population of this study is the entire nation. A sample size of 485 was selected using the convenience sampling procedure. Only literate Nigerians were included in the sample since they are the ones that can respond independently to the questionnaire.

The method used to collect data for this study is structured questionnaire. Face validity for the instrument was established through colleagues in the academia. A total of 500 copies of the questionnaire were personally administered out of which 485 copies were retrieved in usable form. This represents a response rate of 97%.

The responses from the respondents were collated and analyzed using the simple percentage procedure.

### IV. Analysis of Data

The responses to the questions in the questionnaire provided the basis for the following analysis. Table 1, below presents responses to such questions as the respondents' awareness and preference for the cashless economy and its introduction in Nigeria.

Table 1: Awareness and Preference for Cashless Economy  
Source: Field Survey

	Yes	No	Total
Have you heard of Nigeria's cashless Economy?	385(79.4%)	100(20.6%)	485
Do you know what cashless Economy means?	410(84.5%)	75(15.5%)	485
Do you like the cashless Economy?	215(44.3%)	270(55.7%)	485
Cashless Economy should be introduced now in Nigeria?	160(33.0%)	325(67.0%)	485

Table 1, above shows that there is a high degree of awareness among the populace about the cashless economy. 79.4% of the respondents are aware of Nigeria's intention to go cashless come 2012 and 84.5% of the respondents actually know the meaning of the cashless economy. The reason for this high rate of awareness may not be unconnected with the nature of the sample selected. The study used only literate people who by all probabilities are expected to be fairly aware of the happenings in the society.

The responses however show a strong dislike for the cashless economy. Only 44.3% of the respondents prefer the cashless economy. This must have accounted for the low enthusiasm about its introduction. Only 33% of the respondents want immediate introduction of the cashless economy in Nigeria. Reasons frequently cited included: the lack of preparedness for the system, the nation having other problems to solve now, freedom to use cash to any amount, the high level of illiteracy, inadequate technology, and that the flow of money will be hampered.

Table 2, below presents the perceptions of benefits of the cashless economy by the respondents.

Table 2: Perceived Benefits of the Cashless Economy  
Source: Field Survey

	Number	%
Reduces risk of carrying cash	200	41.2%
Prevents money laundering	45	9.3%
Limits corruption	120	26.8%
Stimulates Economic growth	40	8.2%
None	70	14.4%
Total	485	100%

Table 2, shows that the most anticipated benefit of the cashless economy to Nigerians is its ability to reduce the risk of carrying cash around. 41.2% of the respondents believe that the most significant benefit of the cashless economy is reducing the risk of carrying cash as that is easily amenable to armed robbery, theft and misplacement. 26.8% of the respondents believe that the

cashless economy has something to contribute towards reducing corruption. This is because as significant amount of cash cannot change hands any more people will be forced to do things the proper way. In the same spirit, 9.3% of the respondents believe that the cashless economy will help fight against money laundering as the money flowing through the system can easily be traced and followed. Another envisaged benefit of the cashless economy is that it will stimulate economic growth as monies hitherto hidden in other illegitimate areas will now be freed up. A critical aspect of this issue is that a whopping 14.4% of the respondents do not see any benefit in the cashless economy; this suggests that more is yet to be done in the area of public enlightenment. Table 3, below presents responses to the question on the envisaged problems with the cashless economy.

Table 3: Perceived Problems of the Cashless Economy

Source: Field Survey

	Number	Percentage
Internet fraud	165	34.0%
Limited POS/ATM	75	15.5%
Illiteracy	95	19.6%
None	150	30.9%
Total	485	100%

Table 3, above shows that there are some problems which the respondents are envisaging to come with the cashless economy which may be informing their apparent reluctance and lack of enthusiasm about the cashless economy. Exposure to fraudulent activities ranks first among such perceived problems, 34% of the respondents believe internet fraud is the major problem to be tackled in the cashless economy. 19.6% of the respondents see the problem of illiteracy to be a major menace for the cashless economy. This is very relevant because of the high level of illiteracy in our society. How can the illiterate rural dwellers cope with the demands of the cashless economy? Another problem has to do with logistics. The facilities, such as point of sales terminals and automatic teller machines may constitute a serious drawback – or the inadequacy of the machines.

## V. Conclusion and Recommendations

From the analysis above it appears that much has already been done in making the people aware of the cashless economy and that a sizeable proportion of the people are actually awaiting the introduction of the cashless economy. It also appears that many people actually agree with the government on the usefulness of the cashless economy. It is agreed that the cashless system will be helpful in the fight against corruption and money laundering. One most significant contribution of the cashless economy is that it is expected to reduce the risk associated with carrying cash. Since most transactions will now be settled electronically, people will have less need to move around with cash and therefore, loss of cash, theft and armed robbery will drastically reduce.

One major problem in the working of the cashless economy is internet related fraud. Nigeria is a major hub of electronic fraud and this can only be expected to increase as we march into the cashless economy. Illiteracy is also a major factor. The level of illiteracy in Nigeria is still very high. The cashless economy is effectively an e-economy and in any e-system there is almost no place for the non-literate.

To make for the smooth implementation of the cashless system in Nigeria, the following measures are recommended There is the need to intensify the public enlightenment programme about the cashless system so that every body will be acquainted with the system before its introduction since it will affect everybody. Since there is a high rate of illiteracy, and all people must be brought into the system, the government should design special enlightenment programmes for the non-literates, using probably signs and symbols to educate this segment on how to operate the cashless system.

Nigeria should make concerted efforts to design an internet security framework to check online fraud so that the public can be assured and protected against cyber attack and fraud. There should be a careful study of the system to determine the number of point of sales terminals that will ensure its smooth running in Nigeria so as to prevent unnecessary friction in the system.

There should be adequate legislation on all aspects of the operations of the cashless system so that both the operators of the system and the public can be adequately protected.

## References

- [1] Ajayi, M., "Banking Sector Reforms and Banking Consolidation: Conceptual Framework", *Bullion*, Vol. 29, No. 2., 2006.
- [2] Babalola, R., (2008), "E-payment: Towards a Cashless Economy", A Keynote Address of the Finance Minister of State at CardExpo Africa Conference. [Online] Available: <http://www.nigeriavillagesquare.com>.
- [3] Adeyemi K. S., "Banking Sector Consolidation: Issues and Challenges", A Paper Presented by an Executive Director, Union Bank of Nigeria PLC, 2006.
- [4] Adegba, A. A., Olokoyo, F. O., "Recapitalization and Banks Performance: A Case Study of Nigerian Banks", *African Economic and Business Review*, Vol. 6, No, 1, 2008.
- [5] "F.G. Approves Lagos for Test Run of Cashless Banking", (2011), [Online] Available: [http://www.234next.com/.../fg\\_approves\\_lagos\\_for](http://www.234next.com/.../fg_approves_lagos_for).
- [6] Woodford M., "Interest & Price: Foundation of a Theory of Monetary Policy", Princeton University Press, 2003.
- [7] Roth, B. L. (2010), "The Future of Money: The Cashless Economy – Part 1", [Online] Available: <https://www.x.com/.../future-money-cashless-economy—part-i>.
- [8] Moses-Ashike, H. (2011), "Cashless Economic can Reduce Risk of Carrying Huge Cash", [Online] Available: <http://www.businessdayonline.com/.../22217>.
- [9] Ezumba, S., "The Transition to a Cashless Nigeria", Reinventing Rebuilding LLC, 2011.
- [10] Azeez, K., "Fresh Hurdles for CBN Cashless Economy Plan", *National Mirror* October, 2011.
- [11] Olaegbe, R. (2011), "Road to Cashless Lagos", [Online] Available: <http://thenationline.net/.../16388>.
- [12] [Online] Available: <http://www.wmcltd.com.co.uk/cashless-system?2011>.
- [13] Omose, K. (2011), "Deconstructing CBN Cashless Policy", [Online] Available: <http://www.mobilemoneyafrica.com/>
- [14] Baxter, J. I. (1993), "666-The Mark of the Beast", [Online] Available: <http://www.endtime/666.html>.
- [15] Magill, S. (2010), "The Chief Economist: Anti-Christ", [Online] Available: <http://www.returnamerica.com/.../is19.htm>.

- [16] “Nigeria: World Bank Approves Cashless Policy”, (2011), [Online] Available: <http://www.cityflavourmegzine.com/?>
- [17] Ogu, I. A., “Faulting CBN’s Rationale for Daily Cash Withdrawal Limits”, 2011.
- [18] Jaiyeola, L. (2011), “Benefits of Cashless Economy by Experts”, [Online] Available: <http://www.iq4news.com/.../>.
- [19] Nonor, D. (2011), “Ghana: Airtel leads Drive towards ‘Cashless Economy’”. The Chronicle”, [Online] Available: <http://www.allAfrica.com>.
- [20] Eboh, M. (2011), “Cashless Economic Policy’ll save Nigeria N192 bn – CBN”, [Online] Available: <http://www.Nigerianewsday.com/.../>.
- [21] Fisher, J. (1996), “Australian Business Online”, [Online] Available: <http://www.arraydev.com/commerce/.../9603-.htm>.
- [22] Ifeakandu, A. (2011), “Analysts list Pitfalls of Cashless Economy”, [Online] Available: <http://www.blueprinting.com/.../>.
- [23] Dada, P., Oronsaye, S. (2011), “As Lagosians Gear up for Cashless Economy”, [Online] Available: [http://www.leadership.ng/.../lagosians\\_gear\\_cash](http://www.leadership.ng/.../lagosians_gear_cash)
- [24] Azeez, K. (2011), “Cyber Insecurity Threatens Nigeria Cashless Economy Drive”, [Online] Available: <http://www.nationalmirroronline.net/.../22594.htm>.
- [25] Uzor, B. (2011), “Plan for Cashless Economy Troubled”, [Online] Available: <http://www.businessdayonline.com/.../28210-plan-f..>