BENEFITS AND CHALLENGES OF NIGERIA'S CASH-LESS POLICY

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ABSTRACT

Financial sector reform is an essential ingredient in the economic growth and development process. This is clearly underscored in the literatures linking financial sector growth with economic growth. In recognition of this fact, managers of the Nigerian economy have targeted the banking sector as a channel for implementing economic policy reforms and policy shift. The recent of such economic reforms in the financial sector is the formal introduction of cash-less financial policy in January, 2012. What are the benefits and challenges of this policy vis-à-vis the cash based policy? Specifically, will other Point of Sales card acceptance services stakeholders attract a significant part of banks' income in cash-less economy? This is the central thrust of this paper. To address this, secondary data were collected and content analysis applied in data analysis. After factoring in other POS stakeholders share of income, the study found banks' income higher in cash-less setting than in cash based arrangement. Thus, the cash-less policy offers immense benefits to the banking sector. It is recommended that appropriate infrastructures and legal support be provided to facilitate the religious implementation of the policy.

Keywords: Economic reforms, Banking sector, Payment channels, ATM, Payment terminal

1. INTRODUCTION

The financial system of any economy is responsible for mobilizing savings for productive investments and ensuring efficient resource allocation. Banks have traditionally played an active role in this regard. A large volume of literatures such as those of Ajayi (2006), Adegbaju and Olokoyo (2008), and Babalola (2008) have documented the contribution of banks to socio-economic development of nations. In recognition of this, various financial policy reforms targeting the banking sector have been pursued in Nigeria. The recent of such policies within the last decade are: the recapitalization of banks initiated by the Central Bank of Nigeria (CBN) in July, 2004 and concluded in December 31, 2005, formalisation of adoption of electronic banking, and transition from cash based to cash-less financial arrangement.

A cash based economy is a setting where retail and commercial payments are primarily made in cash. The statistical evidence provided by Central Bank of Nigeria (2012) revealed that, cash related transactions accounted for 99% of customers' activities in Nigeria banks as at December, 2011. It estimated the total cash transaction volume through the conventional five payment channels to be 215,015,005 (two hundred and fifteen million, and fifteen thousand and five). Of this figure, ATM withdrawal accounted for 50.9%, over-the-counter (OTC) withdrawal, 33.72% and cheques 13.56%. Point of sales (POS) and web channels accounted respectively for 0.49% and 1.26%. Obviously, the combination of ATM and OTC withdrawals amounting to 84.96% justifies the claim of the CBN that the Nigerian economy is heavily cash-based and the imperative for cash-less economy.

Furthermore, a cash based economy also imposes some costs on the banking system, individuals, and the government. The higher the velocity of cash usage, the higher the processing cost borne by those in the value chain. There is, for instance, the cost of printing new notes to replace the ones that are torn or worn out due to frequent handling. Central Bank of Nigeria (2011) states that this cost is high and also on the increase hence the attempted redenomination of the currency. It puts the direct cost of cash to the Nigerian financial system as at 2009 at a colossal amount of ₦114.5 billion. The figure is based on actual data from the CBN and 17 banks in the FSI. It excludes bank cash infrastructure cost and employee costs attributable to cash logistics. This amount is broken down into: cash in transit cost ₦27.3 billion (24%), cash processing cost ₦89.1billion (67%), and vault management cost ₦18.1 billion (9%). The estimated cost of cash by the end of 2012 was put at ₦192billion. Clearly, this evidence provides a platform for migration to cash-less economy.

The objective of this paper is to fill the perceived knowledge gap existing in the extant literatures on the benefits and challenges of cash-less economy. Prior empirical studies like those of Akhalumeh and Ohiokha (2012), analyzed primary data using simple percentages to address the perceived benefits and problems of the cash-less policy. Also, odior and Banuso (2012), Okey (2012) and Yaqub et al (2013), used a theoretical approach without quantitative data to address the subject. So far, the empirical work of Osazevbaru et al (2014) is one of the attempts that have focused on the analysis of secondary data to ascertain the impact of cash-less economy on banks' income in general. The research avenue opened by that study requires analysis of secondary data specifically on the impact of other POS stakeholders' income on the overall income of the banks. This kind of analysis is necessary to help determine whether banks, which are the key players in any financial sector reforms, will still be profitable in the cash-less setting the way they were in the cash based economy.

To this end, the paper seeks to test the hypothetical proposition that other POS card acceptance services stakeholders will attract a significant part of banks' income in cash-less economy thereby diminishing the benefits of the policy. It is hoped that as this study fills this perceived niche in the empirical literatures, it will contribute to building a body of knowledge on the subject from the perspective of the Nigerian economy. To ease understanding, the paper is divided into five sections. Section one is the introduction while section two focuses on review of literature. Materials and methods are addressed in section three and analysis of data to test the hypothesis is in section four. Section five concludes the paper with some recommendations.

2. REVIEW OF LITERATURE

2.1 A Panoramic View of the Cash-less Policy

Cash-less banking is that banking system which aims at reducing, but not eliminating, the volume of physical cash circulating in the economy whilst encouraging more electronic based transactions. In other words, it is a combination of e-banking and cash-based system. It is essentially a mobile payment system which allows users to make payment through GSM phones with or without internet facilities (Odior and Banuso, 2012; Akhalumeh and Ohiokha, 2012). In 2011, it was estimated that 99% of over 215 million customer transactions in Nigeria banks were through ATM and over-the-counter, and this was valued at about ₦2.1 trillion. It is estimated that an average Nigerian transacts about ₦65 in cash out of ₦100 income earned (Princewell and Anuforo, 2013)

The operation of the cash based system has been at a significant cost to the Nigerian economy. The estimate shows that cash distribution cost accounts for 60% overheads in the banking industry while cash management operations require up to 80% of the industry's infrastructure base and staff strength (CBN, 2012). Furthermore, the direct cost of transporting, processing and storing (vault) huge volume of cash borne by the financial system was valued at ₦114.5 billion in 2009 and it was estimated to rise to ₦192 billion by the end of 2012. Again, heavy cash users (i.e. those with transaction value above ₦150, 000) account for only 10% of transaction volume but 71% of the transaction value. It appears therefore, that implicit cash holding costs for the minority class of cash users are being subsidized by the majority (Nweke, 2012).

In response to this trend, the Central Bank of Nigeria by its legal mandate initiated the policy shift from cash-based system to cash-less one. In 2005, the CBN initiated the National Payment Systems (NPS) specifically to achieve the objectives of promoting efficiency and effectiveness of payment system, promoting safe and sound banking practices and protection against systemic risks. It also set the objective of migrating to cash-less mode of payment, such as electronic debit/credit instruments, credit/debit cards, ATM – sharing Electronic Fund Transfer at Point of Sales and Real Time Gross Settlement System (RTGS). Other objectives of NPS include; to ensure payment system audit transparency and full transaction reporting and to achieve acceptance and confidence through information dissemination, customer convenience and total quality delivery (Princewell and Anuforo, 2013). Eventually, the NPS initiative metamorphosed into the cash-less policy in April 20, 2011.

According to CBN, the cash-less policy aims at reducing the amount of physical cash in circulation and to encourage more electronic based transactions. The policy came into effect in January 1, 2012 with partial implementation in Lagos State and later moved into full execution in that State in April 1, 2012. Thereafter, the policy was extended to five states (Kano, Ogun, Rivers, Anambra, and Abia) and Abuja on October 1, 2013 and to the entire country in July 1, 2014. The cardinal objectives of the policy are: (i) to drive development and modernization of Nigeria payment system in line with vision 2020 goal of Nigeria becoming one of the top twenty economies of the world by year 2020, (ii) to reduce the cost of banking services (including the cost of credit) and drive financial inclusion by providing more efficient transaction options and greater reach, (iii) to limit high cash usage outside the formal sector and thereby improve the effectiveness of monetary policy in managing inflation and encouraging economic growth, and (iv) to curb some of the negative consequences associated with high physical cash usage, including high cost of cash: robberies, corruption and leakages through money laundering, fraud and cash-related crimes (Central Bank of Nigeria, 2011; Odior and Banuso, 2012; Shonubi, 2012).

However, the following are vital issues of the cash-less policy. First, there is a threshold of daily cumulative cash of ₦500, 000 and ₦3 million on cash withdrawals and lodgments by individual and corporate bodies respectively free of processing fees. At the conception of the policy in 2011, these were pegged at ₦150, 000 and ₦1 million but were later reviewed. This limit applies to all account so far as it involves cash, irrespective of the channel used. Second, there are processing fees for withdrawals above the limit, and it is 3% for individual and 5% for corporate bodies. Lodgment above the limit attracts 2% and 3% processing fee for individual and corporate bodies respectively. These processing fees are subject to review every six months. Thirdly, these fees do not apply to accounts operated by Ministries, Departments and Agencies of the Federal and State Governments, solely meant for the purpose of revenue collections. Exemptions are also extended to Embassies, Diplomatic Missions and Multi-lateral and Aid-donor Agencies, as well as Micro Finance Banks and Primary Mortgage Institutions (CBN, 2012)

Reducing the huge population of Nigerians who do not have access to financial services is one of the major targets of the CBN. A survey on enhancing financial innovation and access in 2010, revealed a marginal increase of those served by formal financial market from 35% in 2005 to 36.3% in 2010; five years after the launch of Micro finance policy which was thought could massively mobilize rural Nigerians into formal financial services (Onyinye, 2012). The survey attributed the reasons why most Nigerians do not have or maintain a bank account to unsteady income, unemployment and distance to bank branches. Accordingly, the CBN targeted to increase the number of Nigerians in the formal sector from its figure of 36.3% in 2010 to above 70% by 2020 (The Nigerian Voice, 2013; The Nation, 2013).

In pursuant of the foregoing, the CBN has undertaken a number of strategic initiatives, including a commitment at the 2011 Alliance for Financial Inclusion Global Forum held in Mexico to reduce Nigeria's financial exclusion from 46.3% to 20% by 2020. One way to realizing this is to facilitate access to the otherwise disadvantaged groups like the farmers, aged citizens, self-employed, jobless school leavers and SMEs considered by banks a costly, risky and unviable bankable population (Onyinye, 2012). Also, the introduction of mobile money services by the CBN is seen as a veritable tool to create payment access to those unbanked Nigerians in the rural areas, and also help drive financial inclusion in the country. Financial analysts are of the view that the high level of mobile telecommunications usage in the country is expected to translate into increase in bankable Nigerians if perfectly harnessed (Amaka, 2012)

2.2. Benefits of the Cash-less Policy

Undoubtedly, an efficient payment system (that which depends less on cash) is a sine-qua-non for national development and a significant national infrastructure for growth. All things being equal, it has been shown that 10% increase in the efficiency of the national payment system can cause the Gross Domestic Product to increase by 1% (Odior and Banuso, 2012). With the advent of cash-less policy in Nigeria, what are the likely benefits? Opinions on this differ. On one side, we have those who are apprehensive about the policy. The assertion by Tunde (2012) sums up this:

"Transaction charges are seen to make significant contribution to the profits of the banks. The cash-less Nigeria programme has even brightened the horizon for the banks to make even higher income from transaction fees. Isn't this likely to result in "armchair banking" whereby banks will do little to mobilize deposits and build credit asset while also scaling back retail distribution outlet as has been reported? Are we likely to see some of the multiple fees consolidated to some point?"

On the other hand there are those who are optimistic about the policy. For instance, Obina (2012) believes that if the reported two-third of the total cash in the economy which are outside the banking system is brought in (as it will be in cash-less economy), the banks will have enough resources to do their businesses. Still expressing optimism, this study agrees with the submissions of Laoye (2011), Akhalumeh and Ohiokha (2012), and Okey (2012) that if the cash-less policy is successfully implemented, the following benefits will be attained.

i. A shift towards cash-less policy will reduce the high operational cost incurred in a cash based economy. Such costs emanate from cash management and movement, currency sorting and printing.

ii. Cash-less policy will help minimize the risks associated with the use of physical cash that do arise from burglaries and thefts as well as financial losses in fire outbreaks.

iii. Cash-less economy will make every segment of the banking population to pay for its usage of cash. The situation in the cash based system where the majority small cash users pay for the minority high cash users will stop. There will be no more subsidies on cash transaction costs. To recapitulate, a survey conducted by the CBN in 2009 revealed that 90% of bank customers' daily withdrawals are amounts below ₦150, 000, whereas, only 10% of the bank customers who withdraw over ₦150, 000 are responsible for the rise in cost of cash management incurred by all the customers. Implicitly, the entire banking population supports financially the costs that the minority (10%) incurs. A cashless economy will reduce this subsidy and makes the minority of the bank population account for the cost of cash movement they incur rather than the entire banking population.

iv. Cash-less economy will arrest a situation where a lot of cash are outside the formal banking system. By encouraging formal financial arrangement, it will facilitate the effectiveness of monetary policy in checking inflation and pushing economic growth.

v. Furthermore, cash-less economy is capable of reducing corrupt practices like money laundering which is common-place in cash based economy. To the extent that cash is not easily pulled out of the system, it will discourage launders.

vi. The cash-less economy will bring about increased convenience, more service option, reduced risk of cash related crimes, cheaper access to banking services, and credit to customers.

vii. Corporate organizations will benefit by way of faster access to capital, reduce revenue leakages and reduce cash handling cost.

viii. On the part of the government, it will bring about increased tax collection, greater financial inclusion, reduced revenue leakages and increase economic development.

ix. Other stakeholders: The cash-less system brings along with it different banking instruments such as POS systems, mobile payments, direct debits, internet banking, electronic fund transfer etc. Implicitly, companies that are connected with the production of these products will benefit. Such companies include: Nigeria Inter-Bank Settlement System Plc (a shared infrastructure company of the bankers committee with a mandate to continuously enhance the Nigeria payments system owned by all licensed deposit money banks in Nigeria and the CBN), POS manufacturers, telecom providers, and switch operators.

2.3 Challenges of the Cash-less Economy

Notwithstanding the fact that the cash-less policy comes with enormous benefits, there are also some envisaged challenges that could confront the policy. These challenges identified by this study, and elsewhere by Okechukwu (2011), Ejiofor and Rasaki (2012) include, but not limited to:

i. The policy is challenged by financial infrastructure deficit. The cash-less payment channels that are currently available are not adequate to cope with the demand of the policy if it is to be implemented religiously. This means that the policy will require further investment of funds by operators and regulators.

ii. Given that the system is driven largely by ICT, the policy is exposed to dangers of fraudulent practices as any security lapses can be exploited by the astute fraudster to perpetuate fraud. Internet related crimes like hacking is likely to threaten the cash-less policy in Nigeria.

iii. Electricity is a critical infrastructure for an efficient e-payment system. Sadly, Nigeria cannot boast of steady power supply across its urban and rural areas. This will without doubt affect the success of cash-less policy if not addressed.

iv. The high charges and fees on some of the electronic channels are capable of generating resistance by the banking public. For example, the recent re-introduction of charges for ATM withdrawals didn't go down well with the users.

v. To operate successfully in cash-less economy, some level of literacy is required in view of the technology involved. Therefore, Nigeria with high rate of illiteracy will certainly have some challenges. Illiterate population would prefer to keep their money in cash.

3. MATERIALS AND METHODS

To accomplish the objective of this paper, it is necessary to analyse secondary data. The data were collected from CBN database of various issues relating to cash-less policy. Because the data exist in varied forms, the authors have to painstakingly gather them employing content analysis. To ease analysis of the data, the following assumptions (some of which have been made by CBN Research Department and other financial analysts in their studies) are made.

i. Value of transaction per time is ₦1,000

ii. All accounts are current accounts

iii. Charges on deposits and withdrawals (including payments) are the only sources of banks' income.

iv. COT is ₦5 per mile for every withdrawal

v. Internet banking charge is ₦70 per transaction

vi. Banks only receive 55% (30% as card issuer and 25% as POS terminal owners) of the POS charge for each transaction value.

vii. POS charge is 1.25%

The decision rule in testing the hypothesis is that, if the income of banks in cash-less economy is higher than in cash based economy, the null hypothesis is rejected.

4. PRESENTATION OF RESULTS

Recall that the null hypothesis of the study is: other POS card acceptance services stakeholders will attract a significant part of banks' income in cash-less economy. To test this hypothesis the basic data are presented.

Table 1: Banks cash transactions and payment channels as at December, 2011.

Payment Channels	Transaction Volume
ATM Withdrawals	109,592,648
OTC cash withdrawal	72,499,812
Cheques	29,159,960
POS	1,059,069
Web	2,703,516

Source: Extracted from Central Bank of Nigeria (2012). *Towards a Cashless Nigeria: Tools and Strategies*

In addition to table 1, the following data is extracted from Central Bank of Nigeria (2011), Guidelines on Point of Sales (POS) Card Acceptance Services:

Charges in a cash-based economy:

i. COT is ₦5 per mile for all withdrawals.

ii. POS charge is 1.25% of transaction value.

Fees charged on POS terminal transactions are shared as follows:

a. Issuer 30%
b. Acquirer 32.5%
c. Payment Terminal Owners 25%
d. Local Switch 5%
e. Payment Terminal Service Aggregator 7.5%

iii. Internet banking is ₦70 per transaction.

Using the information in table 1 in conjunction with the different charges, estimated banks' income before the introduction of the cash-less policy is computed in table 2.

Table 2: Estimated banks' income from charges before the introduction of cash-less economy

Payment Channels	Transaction Volume	Total Value of Transaction (N)	Bank Charges	Income to Banks(₦)
ATM Withdrawals	109,592,648	109, 592, 648, 000	₦5/mile	547, 963, 240
OTC cash withdrawal	72,499,812	72, 499, 812, 000	₦5/mile	362, 499, 060
Cheques	29,159,960	29, 159, 960, 000	₦5/mile	145, 799, 800
POS	1,059,069	1, 059, 069, 000	1.25% of transaction value	7,281,099.38
Web	2,703,516	2, 703, 516, 000	₦70/ transaction	189, 246, 120
TOTAL				**1,252,789,319.38**

Source: Authors' Computation

Note the following workings:

ATM WITHDRAWALS: 109,592,648 X ₦5 = ₦547, 963, 240

OVER THE COUNTER (OTC) WITHDRAWALS: 72, 499, 812 X ₦5 = ₦362, 499, 060

CHEQUES: 29, 159, 960 X ₦5 = ₦145, 799, 800

POS: 1, 059, 069, 000 X 1.25% = ₦13, 238,362 .5. This amount is shared as follows:

a. Issuer (Banks): 30% X ₦13, 238, 362 .5 = ₦3, 971, 508.75
b. Payment Terminal Owners (Banks): 25% X ₦13, 238, 362.5 = ₦3,309,590.63

c. Acquirer: 32.5% X ₦13, 238, 362 .5 = ₦4, 302, 467.81

d. Local Switch: 5% X ₦13, 238, 362 .5 = ₦661, 918.13

e. Payment Terminal Service Aggregator: 7.5% X ₦13, 238, 362 .5 = ₦992, 877.19

Thus, the amount due to banks from POS charges is:

₦3, 971, 508.75 + ₦3, 309,590.63 = ₦7, 281, 099.38

WEB: 2, 703, 516 X ₦70 = ₦189, 246, 120

From table 2, the estimated total income accruable to banks from their operations is ₦1, 252,789, 319.38.

The next step is to compute banks' estimated income in the cash-less economy framework. In the cash-less setting, OTC withdrawal will be dispensed with. It is also expected that ATM withdrawals will be substantially reduced. Accordingly, OTC and ATM will move into POS. It is estimated that POS transaction volume will average 182,092,460 within the first three years of full implementation of the cash-less policy. There will be no COT (meaning that there will be no charges from ATM, OTC, and Cheque payment channels); but the POS charges and Web (internet banking) charges will still be applicable. Therefore, charges as sources of income to banks will majorly come from POS and Web channels. The expected income from these two channels is analysed in table 3.

Table 3: Banks' Expected Income in Cash-less Economy Framework

Payment Channels	Transaction Volume	Total Value of Transaction	Bank Charges	Income to Banks (₦)
ATM Withdrawals	Nil	Nil	Nil	Nil
OTC cash withdrawal	Nil	Nil	Nil	Nil
Cheques	Nil	Nil	Nil	Nil
POS	182, 092, 460	182, 092, 460, 000	1.25% of transaction value	1,251,885, 6621.5
Web	2,703,516	2, 703, 516, 000	₦70	189, 246, 120
TOTAL				**1, 441, 131, 782.5**

Source: Authors' computation

Workings

POS: 182, 092, 460, 000 X 1.25% = ₦2, 276, 155, 750. This amount is shared as follows:

a. Issuer (Banks): 30% X ₦2, 276, 155, 750 = ₦682, 846, 725

b. Payment Terminal Owners (Banks): 25% X ₦2, 276, 155, 750 = ₦569, 038, 937.5

c. Acquirer: 32.5% X ₦2, 276, 155, 750 = ₦739, 750, 618.75

d. Local Switch: 5% X ₦2, 276, 155, 750 = ₦113, 807, 787.5

e. Payment Terminal Service Aggregator: 7.5% X ₦2, 276, 155, 750 = ₦170, 711, 681.25

Amount due to banks is: ₦682, 846, 725 + ₦569, 038, 937.5 = ₦1, 251, 885, 662.5

WEB: 2, 703, 516 X ₦70 = ₦189, 246, 120

From table 3, the estimated total income due to banks, on the conservative assumption that charges on deposits and withdrawals are the only sources of income in cash-less regime, is ₦1, 441, 131, 782.5. When compared with the result in table 2, it is clear that the estimated income of banks in a cash based economy is lower than the income of banks in cash-less economy. Specifically, the percentage increase in income is 15.03%. This is even so when other stakeholders' share of the income is factored into the analysis. Therefore, the null hypothesis that, other POS card acceptance services stakeholders will attract significant part of banks' income in cash-less economy, thereby eroding significantly the benefits of the policy is rejected. Thus, given that banks are not entitled to 100 percent of POS charges (the POS charges is share among different stakeholders), they will be more profitable in a cash-less setting than a cash base economy. In sum, the cash-less policy will bring immense benefits to the banks which will translate to improved services for customers and impacts positively on other stakeholders in the financial services sector. On the long-run, the entire economy will also benefit.

5. CONCLUSION AND RECOMMENDATIONS

The introduction of electronic banking in Nigeria has impacted positively on the development of payment system in particular and the banking system in general. Electronic banking is the platform on which cash-less policy sails. This paper has shown that cash-less policy will impact positively on the fortunes of banks even though some of the charges are not wholly their revenue. It was also discovered that some charges like COT, over-the- counter charges etc. which are associated with a cash-based economy will be a thing of the past. The unbanked will become banked, thereby increasing the customer base of banks. With reduction in the volume of cash in circulation, this will avail banks more deposits to do their businesses which will impact positively on their profits. Also, the cost of banks' operations will considerably reduce.

The cash-less policy should however not been seen as having no consequences. For instance, the use of POS in cash-less setting will attract special charges that do not go with cash transactions as shown in the data analysis section. To mitigate the challenges of the cash-less policy it is recommended that power and electricity infrastructures should be put in place to provide support for electronic banking equipment. Situations where banks have to provide own power supply practically every working day (like the banks in Abraka environs) will increase overhead costs and diminish the gains accruable to them. Legal and regulatory framework that will check electronic fraud should be put in place by the government. The mandate of anti-graft agencies like the Economic and Financial Crimes Commission (EFCC) should be expanded to cover fraudulent practices that are associated with operations of cash-less economy. In addition, the policy should have local content by ensuring that it is in tune with fundamental economic policy of Nigeria founded on socio-cultural ideals of Nigerians. A situation where foreign banking culture is imported and imposed should not be associated with the cash-less policy. Finally, the CBN should embark on public enlightenment to educate the populace on the nitty-gritty of the cash-less system. This will raise the level of awareness and reduce possible resistance by the banking public.

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