

CASH-LESS BANKING MODEL: THE NIGERIAN EXPERIENCE

¹BERTRAM, O. A; ²NWANKWO, S.N.P; & ³ONWUKA, I. O

¹Department of Banking & Finance, Enugu State University of Science & Technology, Enugu State, Nigeria

²Department of Accounting & Finance, Godfrey Okoye University, Enugu State, Nigeria

³Department of Accounting & Finance, Godfrey Okoye University, Enugu State, Nigeria

ABSTRACT

The study evaluated the level of adoption and challenges of cash-less banking model in Nigeria based on selected Deposit Money Banks (DMBs) in Ebonyi State, Nigeria. The survey research method was adopted while data for the study were generated through primary and secondary sources. Data collected were presented using statistical distribution table of frequency and percentages. The population size of the study was 200 while 180 served as sample. The sample size was obtained using convenient sampling which targeted some staff and customers of selected DMBs in Ebonyi State, Nigeria. Analysis of the data showed that the level of adoption of cash-less banking in Nigeria was significant. The study also showed that there are challenges in the adoption of cash-less banking in Nigeria. These include: incessant power outage, frequent network failure, high cost of maintaining stand-by electric generators, high cost of diesel and high level of diesel consumption, long queues at ATM terminals during pick periods due to absence of ATM gallery in most banks, etc. Based on these findings, the study recommends that bank management should put in place functional standby automatic switchover power generators and deploy more ATM terminals in their various branches. Government on their part should ensure adequate provision and maintenance of public network system such as telephony, internet backbone and electricity. The availability of these basic infrastructures is essential to the adoption and efficient utilization of cash-less banking model in Nigeria.

Keywords: Cash-less, Cash-lite banking, ATM, POS, Internet/online banking

INTRODUCTION

The Nigerian cash-less banking policy was kick started in Lagos early in 2012. The Central Bank of Nigeria (CBN) thereafter licensed Six Payment Terminal Service Providers (PTSP) to support and maintain the Point of Sale (POS) terminals. This step was a bold demonstration that the apex bank was determined to see the policy work. The licensed PTSPs are ITE, Value Card,

ETOP, Paymaster, CitiService and Easy Fuel, which are focused on the downstream sector. The Central Bank of Nigeria (CBN) also moved a step further by assuring Lagos residents that there would be no need for separate POS terminals for each types of Card Scheme, as all terminals will be equipped to accept payment of any type of card. The cards in the scheme are Verve, MasterCard, Genesis, Visa Card etc (CBN, 2012:6).

Services offered by the banks using the internet include: Mobile banking, Video banking, Funds transfer, E-payment and ATM card services. Of all the entire e-banking services offered by banks, ATM is by far the most popular in Nigeria.

Cash-less system of payment is a situation where transactions are functionally operated or performed without using coins or bank notes for money transactions but instead using credit cards or electronic transfer of funds. From a general perspective, cash-less banking system is said to offer an endless convenience of transaction possibilities, and at the same time reduce transfer/ processing fees, increase processing/ transaction time, offer multiple payment option and gives immediate notification of all transactions on customer's account. The cash-less policy in Nigeria is however, bedeviled with lots of challenges which range from inadequate financial infrastructure to carry the loads of cash-less banking, the crippling impact of epileptic electricity supply, high cost of maintaining electrical generators, high level of diesel consumption, long queues at pick period among others.

According to the Central Bank of Nigeria (2010), the cash-less banking policy was introduced for a number of reasons which include:

- To drive development and modernization of our payment system in line with Nigerian's vision 2020 goal of being amongst the top 20 economies of the world by the year 2020
- To reduce cost of banking services (including cost of credit) and drive financial inclusion by providing more efficient transaction options and greater reach.
- To reduce high cost associated with high volume of cash handling
- To reduce cash-related fraudulent activities such as money laundering, corruption among others.

This study therefore, assesses the level of adoption and the associated challenges of cash-less model of banking in Nigeria and Ebonyi State in particular.

STATEMENT OF PROBLEM

The banking industry of the 21st century operates in a complex and competitive environment characterized by the changing conditions and highly unpredictable economic climate with Information and Communication Technology at the centre of this global change. As Nigeria was ranking low on ICT platform, the introduction of cash-less policy was understandably met with public skepticism. There were fears that the policy would not work due to obvious challenges like:

- a) Infrastructure deficit: The financial infrastructure in Nigeria is said not to be adequate to carry the load of electronic banking. Some channels of e-banking such as ATMs, Point of sales terminals, Mobile banking and other mediums need to be expanded to be accessible to at least 40 percent of the economy before any meaningful impact could be achieved.
- b) The crippling impact of epileptic electricity supply remains an albatross in the country's quest for development.
- c) The Automated Teller Machines (ATMs), the Point of sales (POS) machine, Computers and Mobile phones all require electricity as source of energy. All these electronic gadgets will not work when constant electricity supply to charge them was lacking.
- d) The high cost of maintaining electrical generators and diesel consumption
- e) Long queue in banks have shifted from the inside banking hall to the outside environment especially during the pick periods such as Christmas and New Year due to limited number of ATMs at various bank branches across Nigeria.
- f) Customers are exposed to hash weather and unknown enemy while waiting to withdraw money from ATM terminals.

To this end, the study sought to assess the extent of adoption of cash-less banking, challenges and its prospects using data generated from selected Deposit Money Banks (DMBs) in Ebonyi State, Nigeria.

OBJECTIVES OF THE STUDY

The broad objective of the study was to assess the extent of adoption, challenges and the prospects of cash-less banking in Nigeria.

Specifically, the study sought to;

- a) Ascertain the level of adoption of cash-less banking in Ebonyi State, Nigeria
- b) Determine the effects of power outage and network failures on performance of cash-less banking in Ebonyi State, Nigeria.

- c) Ex-ray the effects of long queue at ATM terminals in Ebonyi State, Nigeria
- d) Make recommendations aimed at addressing the identified challenges.

THEORETICAL FRAMEWORK

The theoretical framework of this study is built around the models of branchless banking. The model allows financial institution and other commercial actors to offer financial services outside the traditional bank premises. The model is classified into three broad categories, namely; Bank-focused Model, Bank-Led Model, and Non –Bank-Led Model (Encyclopedia, 2010:2)

The Bank-Focused model emerges when a traditional bank uses non traditional low-cost information technology delivery channels to provide banking services to its existing customers. The Bank-Led model uses retail agents to offer a distinct alternative to conventional branch-based banking where customers conduct financial transactions through mobile phones, ATM, POS and internets instead of at bank branches through employees. Non-bank-Led Model is where a bank has limited roles in the day-to-day account management. Typically, its role in the model is limited to safe keeping of funds. Bank transactions can be completed through the internet, mobile phones and automated teller machine (ATM)

CONCEPTUAL FRAMEWORK

Cash-less Economy:

A cash-less/cash-lite economy is a situation where there is little or very low cash transaction in a given society, thus every purchases and transactions are made through electronic channels such as direct debit electronic fund transfer (EFT) mobile payments, multi-functional ATMs, internet/online banking.

Cash-less economy is the reduction as against total elimination of the amount of physical cash (notes and coins), circulating in the economy whilst encouraging more electronic based transaction (payment for goods, services and transfer), etc. In other words, it is a combination of e-banking and cash-based system (Odior & Bansu, 2012: 30).

Benefits of cashless Banking

- Electronic transactions offer convenience as it works 24 hours a day, seven days a week.
- It also reduces transfer/processing fees and increases processing/transaction time

- It saves costs, for example, one can make purchases for 7.50K (5 cents USD) without the seller needing to round it up to N10 (7 cent USD), and still have the balance left in your accounts. All these little savings would eventual add up to something.
- It will also benefit the government in the following ways;
 - ✚ It leads to easier documentation and transaction tracking
 - ✚ Adequate budgeting and taxation, improved regulatory services, improved administrative processes, and reduce cost of currency administration and management.
- It is aimed at discouraging the circulation of excess cash (CBN, 2012: 2).

Challenges of Cash-less Banking

There are several challenges confronting cash-less banking policy. Odior, et al (2012: 12) articulated these challenges to include:

- a) **Infrastructure deficit:** The financial infrastructure in Nigeria is not adequate to carry the loads of electronic banking. Some channels of e-banking such as ATMs, POS terminals, mobile banking other mediums have to dramatically expand to be accessible to at least 40 percent of the economy before any meaningful impact can be felt.
- b) **Power Supply:** The crippling impact of epileptic electricity supply remains a big problem in the country's struggle for development. The ATM, POS, Mobile phones and Computers, all require electricity as source of energy.
- c) **Efficiency:** The ATMs and POS are yet to attain the desired efficiency level necessary to drive e-banking. The needed technology backbone to maintain a working network and constant connectivity have not been adequately addressed.
- d) **Low Computer Literacy Level:** The policy must take cognizance of the low computer literacy level of the banking public, especially the rural dwellers, most of whom remain largely unbanked, but nevertheless, contribute substantially to the country's Gross Domestic Product (GDP). How would market women and other small business owners who are long accustomed to cash transaction suddenly and smoothly make a transition to the new technology so soon?

Electronic /Cashless Banking

Cash-less banking is Electronic Banking in action. Al-Abed (2003: 1) defined electronic banking as an umbrella term for the process by which a customer may perform banking transaction electronically without visiting a brick and mortar institution.

Awe (2013: 2) described electronic banking as using the infrastructure of digital age to create opportunities both local and global. It enables the dramatic lowering of transaction costs, and the creation of new types of banking opportunities that address the barriers of time and distance.

On the other hand, Ezeamama (2010: 285) defined electronic banking as the provision of banking products and services through electronic delivery channels and other system of banking which render their services to their numerous customers through electronic means irrespective of place, time and distance. It is a means by which a customer may perform banking transactions electronically without visiting brick and mortar institutions.

Benefits of electronic banking

E-banking helps in overcoming the drawbacks of manual system, as computers are capable of storing, analyzing, consolidating, searching and presenting the data as per the user requirements with lots of speed and accuracy. From the banker's view point, the first benefits for the banks offering e-banking services is better branding and better responsiveness to the market. Those banks that would offer such services would be perceived as leaders in technology implementation. Therefore, they would enjoy a better brand image. The other benefits are possible to measure in monetary terms. The main goal of every company is to maximize profits for its owner and banks are not exception. Automated e-banking services offer a perfect opportunity for maximizing profits.

Benefits from the customer point of view

Aladwani (2001: 78) observed that the main benefit from the bank customer's point of view is significant saving of time by the automation of banking services, processing and introduction of an easy maintenance tools for managing customer's money. The main advantages of e-banking for corporate customers are as follows:

- a) It reduces cost in accessing and using the banking services.
- b) Increased comfort and timesaving: Transaction can be made 24 hours a day, without requiring the physical interaction with the bank.
- c) Quick and continuous access to information: Corporations will have easier access to information as, the check on multiple accounts at the click of a button
- d) Better cash management: E-banking facilities speed up cash cycle and increase efficiency of business processes as large variety of cash management instruments are available on internet sites of banks

- e) Private customers seek slightly different kinds of benefits from e-banking. E-banking provides faster, easier and more reliable services to private customers.
- f) Reduce cost: This is in terms of availability and using the various banking products and services
- g) Convenience: All the banking transaction can be performed from the comfort of the home or office or from the place a customer wants to.
- h) Speed: The response of the medium is very fast; therefore customers can actually wait till the last minute before concluding a fund transfer.
- i) Funds management: Customers can download the history of different accounts and do what if analysis on their own PC before effecting any transaction on web. This will lead to better funds management.

ELECTRONIC/CASH-LESS BANKING CHANNELS: A REVIEW

Automated Teller Machine (ATM)

This is a computerized device that provides customers of a financial institution with the ability to perform financial transactions without the need for a human clerk/bank teller. Most modern ATM identifies the customer by the plastic card that the customer inserts into the ATM. The plastic card contains a magnetic stripe or chips that contain a unique card number and some security information, such as an expiration date and card validation code. Authentication of the user is provided by the customer entering a personal identification number (PIN). ATMs are known by various other names including automated transaction machine, automated banking machine, money machine, bank machine, cash machine hole-in- the wall, cash point, any time money etc (Linda, 2009: 6).

The most effective service delivery systems in use today appears to be multichannel – combining full – service branches and electronic limited-service facilities within the same financial firm. Douglas (2008: 23) states that Automated Teller Machine (ATMs) also called 24-hours tellers are electronic terminals which give consumers the opportunity to bank at almost any time. To withdraw cash, make deposits or transfer funds between accounts, a consumer needs an ATM card and a personal identification number. Some ATMs charge a usage fee for this service, with a high fee for consumers who do not have an account at their institution. If a fee is charged, it must be revealed on the terminal screen or a sign next to the screen.

Point of Sale (POS) Terminal:

This is a computer facility in merchant stores that permits a customer to instantly pay for goods and services electronically by deducting the cost of each purchase directly from a customer's account. The customer presents an encoded debit card to the store clerk who inserts it into a computer terminal connected to the financial firm's computer system. The customer's account is charged for the purchase and funds are automatically transferred to the store's deposit account.

Current point of sale network are divided between online and offline POS systems. The latter (offline system) accumulate all of the customer transaction until day's end and then totaled transaction are subtracted from the customer's account. In contrast, online system deducts each purchase from the customer's account as that purchase is made. Cost wise, financial firms would generally prefer offline POS system, but online systems appear to reduce the frequency of customer overdrafts and thus may be less costly in the long run (Nwaolisa, 2012: 12).

Mobile Banking (M-Banking)

Mobile Banking refers to the provision and availing of banking and financial services with the help of mobile telecommunication devices. The scope of offered services may include facilities to conduct bank and stock market transaction to administer accounts and access customized information. Many banks around the world have offered mobile banking and financial services for years. European and Asian countries have been offering mobile banking services for years that vary for banking related services to the mobile "proximity" payments. Japan and South Korea are the world leaders in adopting mobile banking technology (Assefa, 2012: 20).

Short Messages Services Banking (SMS Banking)

SMS banking is a technology enabled service offering from banks to its customers, permitting them to operate selected banking services over their mobile phones using SMS messaging. SMS banking services, according to Barnes and Corbitt (2003: 2) are operated using both push and pull messages.

Push messages are those that the bank chooses to send out customer's mobile phones, without the customer initiating a request for the information. Typically push messages could be either mobile marketing messages or message alerting an event which happens in the customer's bank account, such as a large withdrawal of funds from the ATM or a large payment using the customer's credit card etc.

Key and Martin (2004: 6), describes pull messaging as those that are initiated by the customer, using a mobile phones for obtaining information or performing a transaction on his bank accounts. Examples of pull messages for information include an account balance enquiry, or

request for current information like currency exchange rates and deposit interest rates, as published and updated by the banks.

Online /Internet Banking

Nwankwo (2013:12) defined online banking as an electronic payment system that enables customers of a financial institution to conduct financial transactions on a website operated by the institution, such as a retail bank, virtual bank, credit union or building society. Online banking is also referred to as internet banking, e-banking, virtual banking and by other terms. To access a financial institution's online banking facility, a customer with internet access would need to register with the institution for the service, and set up some password (under various names) for customer verification.

The password for online banking is normally not the same as for telephone banking. Financial institutions now routinely allocate customers numbers (under various names) whether or not customers have indicated an intention to access their online banking facility. Customer's numbers are normally not the same as account numbers, because a number of customer accounts can be linked to one customer number. The bank can link to the customer any account which the customer controls, which may be cheque, savings, loan, credit card and other accounts. Customer numbers will also not be the same as any debit or credit card issued by financial institution to the customer.

Electronic Fund Transfer (EFT)

Electronic Fund Transfer (EFT) is the electronic exchange or transfer of money from one account to another, either within a single financial institution or across multiple institutions through computer-based system. Electronic banking uses computer and electronic technology as a substitute for cheques and other paper transactions. EFT is initiated through devices like cards and codes that let you, or those you authorized, access to your account. Many financial institutions use ATM or debit cards and personal identification number (PIN) for this purpose

Smart Card

A smart card, chip card, or integrated circuit card (ICC) is any pocket-sized card with embedded Integrated Circuits. Smart cards are made of plastics, generally Polyvinyl chloride, but sometimes Polyethylene Terephthalate based polyesters, acrylonitrile Butadiene styrene or Polycarbonate.

Smart cards can provide identification, authentication, data storage and application processing. Smart card may provide strong security authentication for Single-Sign-on (SSO) with large organizations (Rank & Effing, 1997: 501).

Smart cards, sometimes called store-value card, have a specific amount of credit embedded electronically in the card.

METHODOLOGY

Sources of Data

Primary data were collected through descriptive survey method which involves the use of questionnaire designed to capture data on demographic characteristics such as age, sex, and educational qualification, length of patronage, account types held by customers and major objectives of the study.

Area of study, population of the study and sampling size

The area of study covers five (5) selected Deposit Money Banks (DMBs) in Ebonyi State, Nigeria. The population of the study was 200. The sample size was obtained using convenient sampling which targeted some staff and customers of the studied banks. Ten (10) staff and thirty (30) customers came from each selected banks namely; Access Bank Plc, Zenith Bank Plc, First Bank Plc, United Bank for Africa Plc and Sterling Bank Plc. Out of 200 respondents, 180 responses were recorded given a response rate of 90% and this number was used for our analysis.

DATA PRESENTATION AND ANALYSIS

Demographic Characteristic

Table 1 - Distribution of Respondents according to Sex

Bank	Male	%	Female	%	Total	%
Access Bank Plc	18	10	16	8.89	34	18.89
Zenith Bank Plc	19	10.56	14	7.78	33	18.33
First Bank Plc	20	11.11	17	9.44	37	20.56
UBA Plc	22	12.22	18	10	40	22.22
Sterling Bank Plc	21	11.67	15	8.33	36	20
Total	100	55.56	80	44.44	180	100

Source: Field Survey, 2016

Table 1 showed that out of 180 questionnaires distributed, 18 or 10% respondents from Access Bank Plc were males, while 16 or 8.89% were females. Zenith Bank Plc had 19 or 10.56% respondents as males and 14 or 7.78% respondents as females. First Bank Plc had 20 or 11.11% respondents as males and 17 or 9.44% respondents as females. UBA Plc had 22 or 12.22% as males and 18 or 10% respondents as females. Sterling Bank Plc had 21 or 11.67% respondents as males and 15 or 8.33% as females. The sex distribution therefore has about 55.56% respondents as males and the remaining 44.44% as females.

Table: 2 - Distribution of Respondents according to Age

Bank	26-35	%	36-45	%	46-above	%	Total	%
Access Bank Plc	20	11.11	8	4.44	8	4.44	36	20
Zenith Bank Plc	18	10	9	5	9	5	36	20
First Bank Plc	16	8.89	7	3.89	7	3.89	30	16.66
UBA Plc	22	12.22	9	5	8	4.44	39	21.67
Sterling Bank Plc	21	11.67	9	5	9	4.44	39	21.67
Total	97	53.89	42	23.33	41	22.78	180	100

Source: Field Survey, 2016

In table 2 above, it could be observed that the highest proportion of the respondents i.e. 97(53.89%) were in the 26-35 years age bracket, followed by 36-45 age group with (23.33%) respondents across the bank, while those at 46 and above were 41(22.78%) of the distribution. We observed that more than 77.22% of the bank customers and staff were young people ie age bracket of 26-45 years, thus creating age balance between the bank customers and staff.

Table: 3 - Distribution of Respondents according to Educational Qualification

Bank	OND/NCE	%	B.Sc/HND	%	M.Sc/Ph.D	%	Total	%
Access Bank Plc	8	4.44	20	11.11	8	4.44	36	20
Zenith Bank Plc	9	5	5	10	9	5	36	20
First Bank Plc	7	3.89	16	8.89	7	3.89	30	16.66
UBA Plc	9	5	22	12.22	8	4.44	39	21.67
Sterling Bank Plc	9	5	21	11.67	9	5	39	21.67
Total	42	23.33	97	53.89	41	22.78	180	100

Source: Field Survey, 2016

Table 3 shows the educational qualification of the respondents. It could be seen that most of the respondents had first degree i.e B.Sc/HND and OND/NCE which represents 77.22% of the total respondents. Further studies revealed that banks under study usually engage degree holders that are between ages of 26-46 years old. The reason was to engage crop of workers that can easily adapt to the ever changing technological environment and also put in considerable years of service for the bank to recoup their investment in terms of training. Therefore the educational background respondents reveal that the population for the study was well educated.

Table 4 - Distribution of Customers according to Length of Patronage

Bank	0-2yrs	%	3-5Yrs	%	6-8yrs	%	9-above	%	Total	%
Access Bank Plc	5	2.78	19	10.56	7	3.89	7	3.38	38	21.11
Zenith Bank Plc	6	3.33	16	8.89	8	4.44	7	3.89	37	20.56
First Bank Plc	3	1.67	14	7.78	6	3.33	5	2.78	28	15.55
UBA Bank Plc	5	2.78	20	11.11	8	4.44	6	3.33	39	21.67
Sterling Bank Plc	4	2.22	19	10.56	7	3.89	8	4.44	38	2.11
Total	23	12.78	88	48.90	36	20.00	33	18.33	180	100

Source: Field Survey, 2016

Table 4 showed that the highest proportion of the respondents i.e. 88 or 48.90% have operated accounts with their respective banks for more than 3 years, 36 or 20% have ran their accounts for 6-8years. This means that about 68.90% of the customers have operated their accounts for a minimum of 5 years and this could be attributed to the new wave of ICT driven service currently employed by banks to help improve their customer service delivery.

Table 5 - Distribution of Customers according to Account Type

Bank	Current Account	%	Savings Account	%	Other Accounts	%	Total	%
Access Bank Plc	10	5.56	19	10.56	8	4.44	37	20.56
Zenith Bank Plc	11	6.11	14	7.78	9	5	34	18.89
First Bank Plc	11	6.11	14	7.78	7	3.89	32	17.78
UBA Plc	11	6.11	20	11.11	8	4.44	39	21.67
Sterling Bank	11	6.11	18	10	9	5	38	21.11
Total	54	30	85	47.22	41	22.78	180	100

Source: Field Survey, 2016

Table 5 showed that 54 or 30% of the respondent maintained current accounts, 85 or 47.22% maintained savings accounts, while 41 or 22.78% maintained other account in the banks studied.

Table 6 - Distribution of Respondents according to Level of Adoption of Cash-less Banking

Bank	LE	%	ME	%	GE	%	VGE	%	Total	%
Access Bank Plc	4	2.94	10	5.56	16	8.89	7	3.89	37	20.56
Zenith Bank Plc	3	1.67	9	5	15	8.33	7	3.89	34	18.89
First Bank Plc	6	3.33	8	4.44	12	6.67	5	2.78	31	17.22
UBA Plc	5	2.78	13	7.22	15	8.33	6	3.33	39	21.67
Sterling Bank Plc	5	2.78	10	5.56	16	8.89	8	4.44	39	21.67
Total	23	12.78	50	27.78	74	41.11	33	18.33	180	100

Source: Field Survey, 2016

NOTE= LE= Low Extent, ME= Moderate Extent, GE= Great Extent, VGE= Very Great Extent.

Table 6 sought to find out from the respondents the extent of adoption of Cash-less in Ebonyi State. 74 or 41.4% of the respondents indicated that they have adopted cash-less banking in Ebonyi State to a great extent. 50 or 27.78% agreed that cashless banking have been adopted to a moderate extent, while 33 or 18.33% indicated that cashless banking have been adopted to a very great extent in Ebonyi State.

Table: 7- Respondents Perception on the effect of power outage and network failure on performance of cashless banking model in Ebonyi State

Option	Frequency	%
Network failure and power outage delay prompt service delivery of bank performance	55	30.56
Network downtime usually makes banks to come to a halt	50	27.78
Incessant network failure frustrates bank customers	75	41.61
Total	180	100

Source: Field Survey, 2016

Table 7 showed respondents' perception on the effects of network failure on the performance of cash-less banking. It was revealing that the effect of network failure and power outage ranges from delay on prompt service delivery, halt to bank services and frustration of bank customers. Of the 180 response, all agreed that the above were the major effects of network failure to cashless banking model in Ebonyi States.

Table: 8 - Respondents Perception on the Effect of Long Queues at ATM Terminals

Option	Frequency	%
Exposure to harsh weather and unknown enemy	55	30.56
Customers are not comfortable with queuing	75	41.67
Waiting time may account or become a cost to customers	50	27.77
Total	180	100

Source: Field Survey, 2016

Table 8 showed the perception of respondents on the effects of long queue on cashless banking. 55 or 30.56% indicated that long queue exposes bank customers to harsh weather and unknown enemy. 75 or 41.67% agreed that customers are not comfortable with queuing, while 50 or 27.77% agreed that waiting time may account or become a cost to customers. The response above indicates that all the above reasons affects cash-less banking model in Ebonyi State.

DISCUSSION OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

Discussion of findings:

This study was aimed at assessing the level of adoption, challenges and prospects of cashless banking in Ebonyi State. Tables 1-5 sought to determine the demographic information of the respondents. Table one was used to determine the sex distribution of the respondents. The result shows that out of 180 respondents, 100 or 55.56% were males and 80 or 44.44% were female. Table two was used to determine the age distribution of the respondents. It was discovered that more than 77.22% of the respondents were of productive age bracket, i.e 26-46 years, thus creating age balance in the Deposit Money Banks (DMBs). Table three was used to determine the educational qualifications of respondents across the DMBs. It was found out that most of the respondents hold first degree which represents 97 or 53.89%. They are crop of people that can easily adapt to the ever changing technological environment. Table four was used to determine the length of patronage of the studied commercial banks. 88 or 48.90% which are the highest proportion of the respondents have operated accounts with their respective banks for more than three years. Table five was used to determine the account type held by customers. 54 or 30% of the respondents maintain current account, 85 or 47.20% have savings account while 41 or 22.78% respondents maintain other accounts. Table six was used to determine the level of adoption of cash-less banking model in Ebonyi State. 74 or 41.44% who are in the majority

indicated that they have adopted cash-less banking in Ebonyi State to a great extent. 50 or 27.78% agreed that cashless banking have been adapted to a very great extent. Table seven was used to determine the effect of network failure and power outage on the operations of cashless banking model. The effect ranges from delay of prompt bank services coming to a halt and frustration on the part of bank customers. Of the 180 respondents, all agreed that the above reasons were the major effects of network failure on cashless banking model in Ebonyi State. Table 8 was used to find out the effect long queue on cashless banking. 55 or 30.56% indicated that long queue exposes customers to harsh weather and unknown enemy. 75 or 41.56% agreed that customers are not comfortable with queuing. 50 or 27.77% agreed that waiting time may account or become a cost to customers

CONCLUSION

The study was on the assessment of the level of adoption, challenges and prospects of cash-less banking in Nigeria. In other to achieve the objectives of this study, the descriptive research method of sampling analysis was performed. Cash-less banking has become a necessary survival weapon on cash based economy and its associated problems. Today the click of a mouse offers bank customers services at a much lower cost and also empowers them with unprecedented freedom in choosing vendors for their financial service needs.

Cash-less banking has come to stay in Nigeria. Its adoption should be systematic and needs massive awareness campaign to educate the masses on the gains of cashless banking.

RECOMMENDATIONS

To make the cashless banking policy develop in a sustainable fashion, there is need for the Nigerian government to find solution to epileptic electric power supply throughout the country. The country's Power Generating and Distribution Companies should be empowered to live up to their expectations. Banks Management should form a synergy with network providers for steady network availability. Again, they should put in place a functional standby automatic switch over electric power generators and ensure constant availability of diesel to minimize embarrassments caused to customers by epileptic power supply.

Automated Teller Machine (ATM) should be re-structured in such a way that constant breakdown will be minimized. Furthermore, Bank Management should provide more ATM gallery outside the banking hall with adequate cover to customers transacting business and reduce long queues that expose customers to harsh weather and unknown enemy. The customer cashing money should not be seen by outsiders and bye-standers.

Regulatory authorities like Central Bank of Nigeria CBN should stipulate standard for the banks to follow to avoid making Nigerian banking sector a dumping ground for the outdated technological infrastructures.

As new services and products are introduced, banks should endeavour to always inform and educate the general public about their new services and carry the customers along.

REFERENCE

Al-Abed, S. A. (2003). Electronic Banking, Retrieved from <http://www.Bankersonline.com/technology/Gurus-tech081803d.htm>.

Assefa, A. (2012). Branchless Banking Ensures Financial Inclusion. Addis Fortune-Commentary. Retrieved from [http://addisfortune-com/vol.12\(625\)Archive/economic.com](http://addisfortune-com/vol.12(625)Archive/economic.com).

Barnes, S.J. & Corbitt, B. (2003). Mobile Banking Concepts and Potentials, *International of Mobile Communication*, 1(3):20-34.

Central Bank of Nigeria (2010). Standard Guidelines on Automated Teller Machine (ATM) Operation in Nigeria, Retrieved from *CBN website*.

Central Bank of Nigeria (2012). National Financial Inclusion Strategy, Summary Report, Abuja: *CBN Publications*.

Douglass, R. (2008). ATM Crime/ATM Fraud overview. DFR, Risk Management ATM. *Msecurity.com*

Linda, M (2009). ATM Fraud: Seven Growing Threats to Financial Institution. London: *Randon Press*

Nwankwo, O. & Eze, O. (2013). Electronic Payment in Cashless economy of Nigeria Problems and Prospects, *Journal of Payment Research*, 2(3):1-23

Nwolisa, F.E. & Ezu, G.K. (2012). Electronic Retail Payment System: User Acceptability and Payment Problem in Nigeria, *Arabian Journal of Business and Management Review (OMAN)*, 1(9):45-62

Odior, E. S. & Banusa, F. B. (2012). Cashless Banking in Nigeria: Challenges, Benefits and Policy Implications. *European Scientific*. Retrieved from <http://www.eujournal.org/index.php/esj/article/view/192>.

Key, P. & Martine, S. (2004). Assessment of Today's Mobile Banking Applications from the view of Customer requirement. *Proceedings of the 37th Annual Hawaii. International Conference on system service (HICCSS'04)*.