

ELECTRONIC BANKING: ANALYSIS OF SERVICES AND CONSUMER REACTIONS IN NIGERIA

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ABSTRACT

Electronic banking has become an important practice among commercial banks in Nigeria. The introduction of Information and Communication Technology has improved banking efficiency in rendering services to customer. Business organizations, especially the banking industry is operating in a complex and competitive environment characterized by these changing conditions and highly unpredictable economic climate with Information and Communication Technology is at the centre of the change curve. The purpose of this study is to analyse the service and consumer reactions on Electronic banking in the Nigerian Banking industry, analyze the various electronic delivery channels utilized by commercial banks and to assess the consumers' reactions to these delivery channels. The study reveals that, electronic banking has resulted in new delivery channels for banks in Nigeria such as the automated teller machines (ATM's), mobile banking and Online banking. Among these, the study shows that ATM's are the most widely accepted and highly utilized delivery channel.

Keyword: Banking Services, Online Banking, Mobile Banking, ATM, Nigerian Banks.

1.0 INTRODUCTION

Electronic Banking has in particular brought about a paradigm shift in the banking operations in Nigeria. In a bid to catch up with global development, improve the quality of customer service delivery, and reduce transaction cost, Nigerian banks have invested heavily in ICT, and have widely adopted ICT networks for delivering a wide range of value-added products and services.

Over the last few decades ICT has affected the banking industry highly and has provided a way for the banks to differentiate their products and services. For more than 200 years, banks were using branch based operations but the advent of ICT changed the nature of financial services delivered to customers. For instance, Online Banking, Mobile banking and automated teller machine (ATM) displaced cashier tellers, credit cards and electronic cash replaced bank transactions. The reason was the numerous key advantages that banks could gain by providing electronic banking services. Today banks are faced with a competitive environment. In order to succeed in such marketplace, they must offer a wide array of products with the latest technology. At present many banks and financial institutions are actively developing a new electronic banking products for their customers throughout the world. ICT helps banks to increase speed, shorten processing periods, improve the flexibility of business transactions and reduce costs associated with having personnel serve customers physically. In Nigeria, ICT usage especially in the banking sector, has considerably improved, even though it may not been as high as those observed for advanced countries.

Also, Nigerian banks' investment in ICT infrastructure has been corroborated by users' acceptance of the systems despite their concern about network security and security of the system. With the adoption of Electronic banking, customers have been encouraged to use banking services more effectively.

2.0 THE ELECTRONIC BANKING REVOLUTION IN NIGERIAN

Electronic banking is the automated delivery of new and traditional banking products and services directly to customer through electronic interactive communication channels. Electronic banking includes the systems that enable financial institution customers, individual or

businesses, to access accounts, transact business, or obtain information on financial products and services through a public or private network, including the internet, it should be noted that electronic banking is a bigger platform than just banking via the internet. Electronic banking can also be defined as a variety of platforms whereby customers access these services using an intelligent electronic device, like a Personal Computer (PC), Personal Digital Assistant (PDA), Automated Teller Machine, Point of Sale (POS), Kiosk, or Touch Tone Telephone and Mobile banking.

Nigerian banks have made huge investments in telecommunication and electronic systems, users have also been validated to accept Electronic banking system as useful and easy to use. Report on Electronic banking in Nigeria reveals that electronic payment machinery, especially the card technology, is presently enjoying the highest popularity in Nigeria banking market. According to INTER SWITCH statistics, Nigeria has over 30 million ATM card holders who conduct over 30 Billion worth of transactions on the machines every month. Nigeria's banks operate over 9,000 ATM machines across the country's 36 states and Federal Capital Territory.

However, the study will not be complete without a proper analysis of the types of electronic delivery channels utilized by the commercial banks in Nigeria. To this extent, the focus will be on the three main delivery channels namely ATM's, mobile banking and online banking. This information was basically gleaned from the commercial banks' web-sites, other brochures, pamphlets and other related literature. Ovia (2005), Adeoti (2005), Adeyemi (2006), Calisir et al (2008), Kerem (2002), Parker (2008), Adesina and Ayo (2010), Krishna *et al.* (2008), Uppal and Rimpi (2007), Adesina and Ayo (2010).

3.0 AUTOMATED TELLER MACHINE (ATM)

The traditional and ancient society was devoid of any monetary instruments and the entire exchange of goods and merchandise was managed by the "barter system". The use of monetary instruments as a unit of exchange replaced the barter system and money in various denominations was used as the sole purchasing power. The modern contemporary era has replaced these traditional monetary instruments from a paper and metal based currency to "plastic money" in the form of credit cards, debit cards, etc. This has resulted in the increasing demand of Automated Teller Machine (ATM) all over the world.

Apparently, Automated Teller Machine (ATM) is a computerized telecommunications device that provides the customers of a financial institution with access to financial transactions in a public space without the need for a human clerk or bank teller. On most modern ATMs, the customer is identified by inserting a plastic ATM card with a magnetic stripe or a plastic smartcard with a chip that contains a unique card number and some security information, such as an expiration date. Security is provided by the customer entering a personal identification number (PIN). Today, ATMs are placed not only near or inside the premises of banks, but also in locations such as shopping malls, airports, grocery stores, petrol/gas stations, restaurants, Cinemas, club, Hotels, Churches, Mosque, bus station, train station or any place large numbers of people may gather. These represent two types of ATM installations: on and off premise.

- On premise ATMs are typically more advanced, multi-function machines that complement an actual bank branch’s capabilities and thus more expensive.
- Off premise machines are deployed by financial institutions and also Independent Sales Organizations (ISOs) where there is usually just a straight need for cash.

Although ATMs were originally developed as just cash dispensers, they have evolved to include many other bank related functions, which are not directly related to the management of one’s own bank account as it could be seen in the Figure 1:

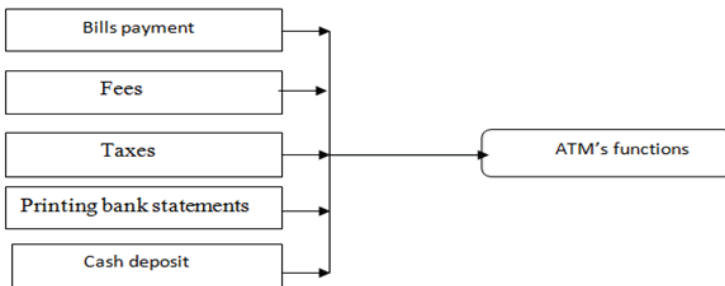


Figure 1: Fully Integrated Cross-Bank ATM Network
Source: Shoewu and Edeko (2011)

ATM services are highly profitable for banks, and banks aggressively market the use of ATM cards. ATMs that are off bank premises are usually more profitable for banks because they attract a higher volume

of non-bank customers, who must pay service fees. Unfortunately, customers using off premise ATMs are more vulnerable to robbery.

The use of ATM is not only safe but is also convenient. This safety and convenience, unfortunately, has an evil side as well that do not originate from the use of plastic money but rather by the misuse of the same. This evil side is reflected in the form of "ATM frauds" that is a global problem. The convenience and safety that credit cards carry with its use has been instrumental in increasing both credit card volumes and usage. The world at large is struggling to increase the convenience and safety on the one hand and to reduce its misuse on the other.

However, the future prospect of ATM's sees evolving into virtual branches providing a broader range of remote transactions where customers could interact with bank personnel through video conferencing. Philip (1996), Shoewu and Edeko (2011), Ojo, (2007),

4.0 MOBILE BANKING

Mobile banking can be considered as a form of remote or virtual banking which is essentially the delivery of branch financial services via telecommunication devices where the bank customers can perform retail banking transactions by sending a text message (SMS), which is connected to an automated system of the bank. Mobile banking has been in Nigeria since late 1990's. The mobile banking service provides yet another alternative to almost all the functions available on the Automated Teller Machines except withdrawal and deposit of cash.

Mobile banking has numerous benefits for both customers and banks. As far as the customers are concerned, it provides increased convenience, expanded access and significant time saving. While, on the other hand, from the banks' perspective, the costs of delivering mobile bank services are substantially lower than those of branch based services. Today, there are about Nineteen million users of mobile phone services as at 2009 in Nigeria, which would certainly guarantee the critical mass criteria for Mobile banking services. Despite all these advantages, according to an article in the Nigerian Central Bank, annual report only few commercial banks offered mobile banking services as at end of 2010. This indicates that mobile banking is currently not a major delivery channel for Nigerian's commercial banks' products and services.

Essentially, the poor customer response to mobile banking in Nigerian might be due to the fact that:

- Cash withdrawal is not possible via mobile.
- Poor marketing of this product on the part of the commercial banks.
- It may also be due to the lack of customer confidence on Mobile transactions.

This may however be contrary to the developments in Europe where it has been reported that 95% of European banks are considering mobile banking services to be offered by the turn of the century. Leow (1999), Shoewu, et al (2011)

Online Banking

The banking industry in Nigeria has witnessed tremendous changes linked with the developments in Information and Communication Technology over the years. Online banking adoption will improve three critical domains which are efficiency, quality, and transparency in any organisation. Since 1980s Banks in Nigeria have performed better in their investment profile and use Information and Communication Technology, than the rest of industrial sector of the economy. Today, Banks in Nigeria has increasingly depended on the deployment of Information Technology and that the Information and Communication Technology budget for banks is by far larger than that of any other industry in Nigeria. Brücher, Scherngell *et al.* (2003), Ovia (2001), Woherem (2000) Ovia (2005)

6.0 BENEFITS OF ELECTRONIC BANKING

Electronic banking services have provided numerous benefits for both banks and customers. Alagheband (2006), Sohail *et al.* (2003),

- Better banking and better responsiveness to the market.
- Perceived as leaders in technology implementation.
- Better brand image.
- Maximize profits
- Timesaving
- Reduced cost
- Comfort
- Convenience.

7.0 RESEARCH METHODOLOGY

The data for the pilot study was collected by administering, the personal questionnaire method. Though the questionnaire covered various issues only some of the relevant findings are reported here. First, it presents a discussion of the progressive developments of electronic banking in Nigeria. Second, an analysis is made of the types of electronic delivery channels utilized by commercial banks. In this context, the Nigerian commercial banks' use of the World Wide Web (WWW) is also assessed. Third, some pertinent issues for the successful implementation of electronic banking are discussed. Fourth, the paper presents the findings of a questionnaire survey carried out to evaluate the Nigerian customers' perception of electronic banking services. Finally, the paper is concluded with a summary of the findings and a discussion of the limitations of the study.

The findings in Table 1 indicate that ATM's are undoubtedly the most popular electronic delivery channel for banking services in Nigeria, in regards to mobile banking and Online banking. Although, the Nigerian's banks are clearly making the necessary efforts to provide these services, they have not penetrated the Nigerian market in a big way as yet.

8.0 LIMITATION OF THE RESEARCH

The data for this study was primarily obtained from a pilot study on consumer perceptions of Electronic banking products and services in Lagos metropolitan of Southern Nigeria. Thus, the sample suffers from two limitations.

- The sample size of only One Hundred and Eighty respondents.
- The sample respondents who were mainly civil servant of state and federal government employees in Lagos metropolitan.

Despite these shortcomings the results compared quite well with that of a larger sample study carried out by Guaranty Truest Bank. Thus, the findings of this study are not seriously flawed by this limitation.

Table 1: Electronic Delivery Channels Utilised by Nigerian Commercial Banks

Commercial Banks	ATM's	Mobile banking	Online banking
Guaranty trust Bank Plc.	a	a	a
Zenith Bank Plc.	a	a	a
FCMB Bank Plc.	a	r	r
Diamond Bank Plc.	a	a	a
Unity Bank Plc.	a	r	r
First Bank Plc.	a	r	a
Wema Bank Plc.	a	a	a
Fidelity Bank Plc.	a	r	r
UBA	a	r	r
Union Bank Plc.	a	a	r
Sky Bank Plc.	a	a	r
Stanbic IBTC Bank Plc.	a	r	r
Standard chartered Bank Plc.	a	r	r
Access Bank Plc.	a	a	a
Starling Bank Plc.	a	r	a
City Bank Plc.	r	r	a
EcoBank Plc.	a	r	r
Enterprise bank	a	r	r
Mainstreet bank ltd	a	a	a
Keystone Bank Plc.	a	a	a

a: means it does provide service

r: means does not provide service

9.0 SURVEY FINDINGS

The findings reported in this section are based on data collected for a pilot study on civil servant of state and federal government employees in Lagos metropolitan, which is one of the largest commercial cities in Nigeria. The pilot study only involved One Hundred and Eighty respondents but the final survey will be based on a sample of 600 bank customers. The data for the pilot study was collected by administering, the personal questionnaire method. Though the questionnaire covered various issues only some of the relevant findings are reported here.

One of the implications of electronic banking is that it should reduce the need to visit bank branches. In fact, the electronic banking delivery channels are often considered as potential substitutes for brick and mortar bank branches. However, contrary to expectations, the survey results indicated that 46.7% of the respondents visit their bank branch at least once every month.

Table 2: Frequency of Visits to Bank Branch

Number of Visits to Bank Branch Every Month	Frequency	Percentage (%)
Never	12	10
Once	56	46.7
Twice	24	20
Three or more	28	23.3
Total	120	100

The **Table 2** above indicated that customers still find it useful to visit their bank branches regularly every month to perform some banking transactions such as mortgage and loan repayments for which the automated payment systems are not very common.

However, **Table 3** below also indicated that customers frequently used the ATM's for other banking transactions such as cash withdrawals, checking balance and funds transfer. To this extent, 63.3% of the bank customers indicated four or more visits to the ATM's every month. And this implied convenience by the customer, while good return to the Bank.

Table 3: Frequency of ATM Usage

Number of Usage per Month	Frequency	Percentage (%)
Once	4	3.3
Twice	24	20
Thrice	16	13.3
Four or more	76	63.3
Total	120	100

Furthermore, **Table 4** below indicated that 90% of the sample respondents also find human tellers important. This would indicate that bank customers in Nigeria do quite highly value the importance of the personal touch in banking services.

Table 4: Importance of Human tellers to Bank Customers

Importance of Human Tellers	Frequency	Percentage (%)
Very Important	24	20
Important	84	70
Not Important	12	10
Total	120	100

Table 5, In relation to the usage of the three main electronic delivery channels for banking services which have already been in existence in Nigeria, namely Automated Teller Machines, mobile banking and Online banking, the survey results indicated that ATM's are the most widely used electronic banking facility.

Table 5: Familiarity and Usage of Electronic Banking Channels

Delivery Channel	ATM's		Mobile banking		Online banking	
	Frequency	%	Frequency	%	Frequency	%
Currently In Use	120	100	24	40	4	6.6
Not In Use	0	0	96	80	116	96.7
Total	120	100	120	100	120	100

However, only 40% in **Table 5** of the customers were using mobile banking services and only 4 respondent accounting for 6.6 % of the respondents was familiar with Online. This means that Online banking has not widely accepted and highly utilized as delivery channel because of lack of awareness from the bank and security concern from the customer.

Table 6: Electronic Banking Availability at Home

Electronic Banking access	Number of Respondents	Percentage (%)
Available	76	63.3
Not Available	44	36.7
Total	120	100

Furthermore, 63.3% of the customers surveyed indicated that they had Electronic banking access at home. This figure may represent an exaggeration of the national situation since the survey respondents are from one of the largest city in Nigeria. However, the attitudes of this group might be indicative of future trends in the Nigerian population. Nevertheless, the findings also indicate positive potentials for the introduction of online banking in Nigeria.

10.0 CONCLUSION

Advances in information technology and telecommunications have certainly introduced new delivery channels for Nigeria commercial banks. Thus, These new delivery channels include automated teller machines (ATM's), mobile banking via the telecommunication channel, and Online banking based on proprietary software. Among these, the study show's that ATM's are the most widely accepted and highly utilized delivery channel. While on the same note, online banking has not been very successful in Nigeria, but has been successful to some extent among civil servant. Meanwhile, this indicates that the online banking has not realized its full potential in Nigeria.

The general survey findings are that, most Nigerian customers still patronize the bank branches and find interaction with human tellers as important. However, over 60% of the respondents have Electronic banking access at home and these represents a positive indication for Electronic banking in the future.

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