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# Electronic Banking In Nigeria: Problems And Prospects From The Consumer's Perspective



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## Abstract:

*This paper explores the adoption of electronic banking [e-banking] in Nigeria. It examines the problems and prospects of e-banking in Nigeria from the consumer's perspective. The research findings show that a number of problems ranging from human, operational and technical constraints hinder the maximum utilization of services provided through e-banking channels in Nigeria. However, the results from the study have also revealed that despite these problems, the rate of adoption of e-banking services in Nigeria is phenomenal as banks have recorded outstanding successes in some areas. Nigeria is a consuming nation and based on the experience from other sectors of the economy that over depend on foreign technologies, [e.g energy sector], sustainability of the successes recorded is threatened considering the huge cost of acquisition and of replacing ageing infrastructures such as the ATM machines and the poor maintenance culture prevalent in all organizations in the country.*

*Keywords: Electronic-banking, Problem, Prospects, Nigeria.*

## [1.0] Introduction:

Electronic-banking, (e-banking) refers to services provided by banks using Information and Communication

Technologies [ICT]. Thus, e-banking involves computer-based systems used to perform financial transactions electronically. It allows bank customers to pay money from one account to another, pay bills, and transfer funds using recognised electronic channels, among others. E-banking represents a variety of financial services performed through electronic devices, including withdrawals and deposits using Automated Teller Machines [ATMs], Automated Bill Payment [ABP], Electronic Fund Transfer [EFT] and Personal Computer [PC] banking [Kolodinsky, Hogarth and Hilgert,2004]. Other types of e-banking include telephone banking and On-line-real-time banking services which is being operated now by almost all the banks in Nigeria. On-line-real-time technology gives individual bank "a one branch status" since customers can operate their accounts from any branch of the bank irrespective of where the account was opened and domiciled.

A number of transaction types may be performed using e-banking channels. These include withdrawal and deposit as with the ATM, inter-account transfer which involves the transfer of funds between linked accounts belonging to the same account holder; inter-bank e-payment in which money can be paid from one account in one bank to another account in another bank. Examples include NIBSS Electronic Funds Transfer [NEFT], inquiry or request for recent transaction statement, placing order for cheque book requisition and administrative issues involving non-financial transactions such as changing a Personal Identification Number [PIN].

The objective of this paper is to explore the adoption of e-banking in Nigeria with respect to the associated problems and prospects. The paper is divided into six sections. Following this introduction is section 2 which reviewed related literature on e-banking. Section 3 is an overview of e-banking in Nigeria while section 4 analyses the problems militating against e-banking adoption in Nigeria. Section 5 x-rays the prospects of e-banking in Nigeria, while section 6 gives the summary, conclusion and

recommendation.

## [2.0] Review of Related Literatures.

As earlier stated, electronic-banking is systems that enable the customers of banks transact banking businesses electronically using the Internet, ATM, mobile phones and point of sale [POS] devices. From theoretical and empirical literatures, e-banking are essentially about banks using the infrastructures of the digital age to create opportunities, transfer funds and also make payments locally and internationally. By way of definition Gbede,[2003:43] posits that e-banking is the use of computers and automated machines for carrying out banking services. Umoren,[2006:314] argued that "in its beginning, in the second half of the 20<sup>th</sup> century, e-banking was basically about funds transfers and inquiry. It has grown, especially in the last two decades to become the deployment of some or all operations of a Banking Service Provider {BSP} electronically".

One of the e-banking products common to most consumers is the Electronic Fund Transfer [EFT]. According to Macdonald and Koch [2006:272], EFT is an electronic movement of financial data designed to eliminate the paper instruments normally associated with such funds movement'. EFT transactions are carried out by various methods and channels, including Automated Teller Machines [ATMs], Automated Clearing House [ACH], Point of Sales [POS] devices, Short Message Services [SMS], Mobile phone, among others.

Obviously, the adoption of e-banking services in Nigeria is still evolving. Efforts are being made by banks to improve on services and many have recorded huge successes in e-banking development. The Nigeria Deposit Insurance Corporation [NDIC] 2004 annual report stated as follows: "To further improve the efficiency of the payment system, the Central Bank of Nigeria [CBN] had issued the broad guidelines on electronic-banking. The guidelines indicated that e-banking practice would continue to be promoted

in line with international practice”.

E-banking products and operations are customer focussed. Basically, it is aimed at satisfying the banking needs and desire of the consumer, such as cashing paltry sums of money for domestic purposes, to conclude business transactions efficiently at the shortest possible time, and to make quick money transfers. Accordingly, analysts and bankers are unanimous in their views that a lot more attention need to be focussed on customers, the consumers of the various e-banking operations to know what they need and how they want these needs delivered. Thus, despite the wide spread acceptance of e-banking in Nigeria, there are numerous

challenges that restrain consumers from maximum utilization and thus satisfaction. These are challenges encountered in their adoption ranging from human impairment, operational faults to technical hitches. The American Banker [2000] reported that “one-third of consumers who signed up for e-banking had stopped using it due to unsatisfactory customer service or the complexity of using the services. While consumers may be willing to adopt e-banking technologies, they also want assurance that problems will be resolved”. We enumerate below some of the challenges that militate against e-banking adoption in Nigeria.

**[3.0] Electronic-banking in Nigeria: An Overview.**

The adoption of electronic-banking in Nigeria started in the 1980s and was popularised by the advent of banks that were christened “new generation” banks. The founding of Diamond bank Plc with On-line-real-time “interconnectivity” facility popularised e-payment nationwide. This awakened new dimensions to competition among banks and consequently banks embraced e-payment options to stem up competition. Besides, the innovation e-banking

brought enabled banks to display their products on their websites.

Electronic banking has gained acceptance in Nigeria on a rather rapid rate. According to Akpan, [2008] ‘the adoption of e-payment processes actually started with the introduction of Magnetic Ink Recognition Character [MICR] cheques’. This was followed by the introduction of Automated Teller Machines [ATMs] for cash dispensing, account balance inquiry and payment of utilities in the early 1990s. The use of payment cards [smartcard] was introduced by the Central Bank of Nigeria [CBN] in 1993 and in August 2003, the Bank issued a broad guideline on e-banking in Nigeria. According to Umoren

Report for the first half of 2008 [CBN 2008] summed the adoption of e-banking in Nigeria this way: ‘the rise in the use of electronic payments was sustained in the first half of 2008, reflecting the aggressive marketing strategy of the banks and increased public awareness. Available data on various e-payment channels indicated that the Automated Teller Machine [ATM] remained the most patronised, accounting for 87.00 percent of the total e-banking operations, while Point of Sales [POS] terminals was the least with 2.50 percent”.

Table 1 below summarises in percentage the value and volume of electronic payment for the first half of 2008 in Nigeria.

**Table 1: Percentage value and volume of e-payments**

	Channel of Transactions	Percent[%]
Volume Terms	ATM	87.00
	Mobile	7.30
	Web [Internet]	3.20
	POS	2.50
Value Terms	ATM	90.80
	Web [Internet]	4.80
	POS	4.30
	Mobile	0.10

Source: CBN Economic Report for the first half of 2008; P26.

The Real Time Gross Settlement [RTGS] system of e-banking allows the handling of large value payment for inter-bank operations. This system eliminates the risks involved in large value payments. The CBN had deployed the RTGS since 2006 for its operations.

**[4.0] Analysis of Problems militating against e-banking**

**adoption in Nigeria**

The problems militating against e-banking in Nigeria may be classified as Human, Operational and Technical constraints.

**[A] HUMAN CONSTRAINTS**

Human constraints vary with different consumers. While a good proportion of Nigerian bank customers may be illiterate, i.e have learning impairment, others may be physically disabled and another group may be impaired as a result of age. E-banking delivery channels such as the Mobile phone, Website [Internet] and the ATM are operated by the consumers themselves. Consumers with *hearing impairment* may require visual representation of auditory information that a website may provide in order to understand such information, particularly now that the use of multimedia such as video streaming on

[2006:316], the CBN guideline identified the recognised e-banking operators, agents, products and channels. Specifically, banks and other financial institutions were identified as operators; Internet Service Providers [ISPs], Switch and Electronic Fund Transfer [EFT] messages companies were identified as e-banking agents, while card products, electronic funds transfers [EFT], E-bill presentation and Digital cash were identified as e-banking products and mobile phones, ATMs, website [Internet] and Point of Sales [POS] devices were identified as e-banking channels. For effective inter bank operations, the launching of Inter-switch by a consortium of banks in 2004 was a delight to consumers. Thus, the Nigerian Inter-Bank Settlement System [NIBSS] introduced the NIBSS Electronic Fund Transfers [NEFT] in 2004 as a boost to e-banking operations in Nigeria.

Central Bank of Nigeria Economic

websites have increased. Besides, consumers with hearing impairments cannot locate or identify command or control that requiring listening to menu items before pressing the button as we have in voice-based interactive mobile phones.

Also, partial blindness is a common problem in less developed countries such as Nigeria. Using e-banking delivery channels such as ATM, Mobile phones and the Internet by *partially sighted* consumers poses serious problems. Selecting the right card from the purse and inserting it correctly into the ATM machine constitutes a problem. Websites using graphics accessed by text-based browser may not be meaningful to the partially sighted consumers. Similarly, modern handsets are of miniature sizes and so are their keypads and the visual display screens. Using telephone for e-banking can provide problems for consumers with visual impairment who may find the tiny handset inaccessible.

Consumers with *physical disabilities* operating on-line through the Internet may find it hard or have difficulties controlling their hands and arms. Holding and manipulating a mouse effectively to use banking website or to hold and activate mobile phone buttons may pose problems for such consumers.

Besides, wide-spread functional illiteracy is a chronic problem for the adoption of e-banking in Nigeria. Complex banking websites with numerous steps and messages, reading text messages on the mobile phones, among others, are obvious threats to consumers with cognitive or learning impairments. Complex page layouts, tables or navigation structures and blinking text messages may be distracting and misunderstood by illiterate consumers. Besides, illiterate consumers have problems remembering too many PINs, particularly when not put in use frequently. Reading and understanding displayed ATM messages also constitute a major hindrance for consumers with cognitive or learning impairment.

Further more, as a human phenomenon, elderly people experience changes in hearing, mental dexterity, agility and vision, although as these changes occur gradually with age, they

may not consider themselves to have disabilities or impairments. These diminishing abilities reduce their capabilities in accessing the website effectively or using other e-banking channels such as the ATM or Mobile phone. Mobility difficulties is also associated with age, thus it could be a problem for the elderly consumers to effectively use the mouse or visit and operate the ATM. Age related hearing impairments, or reading small screens or key boards of miniature mobile phones may also constitute a range of difficulties for the elderly consumers using mobile phone channel.

### **[B] OPERATIONAL CONSTRAINTS**

These relate to problems emanating from e-banking operations and they include security, frauds and standardization of channels.

The issue of security with respect to e-banking operations is of utmost importance particularly now that financial crimes are at their peak. Hackers locally referred to as "Yahoo boys" are at their best such that local e-banking consumers and even consumers in foreign countries are falling prey to their antics. Mobile phone banking which involves transmission of financial information over the air offers the most complicated challenges that need to be addressed jointly by mobile application developers and banks information technology department. Consequently, the need for the encryption of the data being transmitted over the air and other security measures such as instituting ID/Password or the authentication of the e-banking device being used with the service provider cannot be over-emphasized.

Security issues are major source of concern for e-banking Consumers and Banking Service Providers [BSP] alike because e-banking increases security risks, potentially exposing isolated systems to open and risky environments.

In addition, consumers of e-banking have perceived Internet banking, Mobile banking and the ATM as too vulnerable and prone to fraud. It is believed that the security measures taken by most banks are not adequate and safe particularly for consumers that are careless, gullible or lack computer operational knowledge. For instance,

occasion abound where an account holder was craftily persuaded and cajoled by hackers to hand over his account number and while attempting to draw money to claim a fraudulent 'promo' using the ATM, the balance in his account was automatically transferred to an unknown account else where. For some consumers, their biggest risk or problem with respect to e-banking is information overload and not understanding who they are dealing with and on what terms. This certainly makes a consumer vulnerable to scams and frauds.

Moreover, either as a result of underdeveloped Information and Communication Technologies [ICT], poor infrastructures or poor management of personnel, the inability of e-banking channels to function properly constitutes a major problem to consumers. There are instances where consistent network failures have made inquiry or transactions impossible. Also, there are instances where ATM machines have refused to dispense fund, cease or destroy the card. The situation is worst when the personnel on hand manning the machine lack the skills to resolve or explain the problem immediately. Where ATM could not dispense funds and the customer's account is debited, getting refund, particularly for an inter-bank transaction takes at least two weeks which is unacceptable to most consumers who desire urgent use of their funds. Tiresias.org [online], highlights some of the problems encountered on the websites as follows:

- Ø Inconsistent navigation and page layouts.
- Ø Bank orientated language that is not explained.
- Ø Poor feedback when using interactive tools and forms.
- Ø Inability to save an application and complete it at a later date.

Proven high quality software and software professionals are thus necessary for effective e-banking operations and this the Nigerian system lacks.

### **[C] TECHNICAL CONSTRAINTS**

A major problem confronting the adoption of e-banking in Nigeria is lack of necessary supporting infrastructures, notably electricity and effective telecommunication. The erratic nature of

power supply is a major source of problem for both Banking Service Providers [BSPs] and consumers.

Interoperability constitutes a problem for e-banking operations. Mobile banking protocols, for instance XML, HTML, WAP et cetera, are being used. A common and widely acceptable set of protocol could be developed for mobile banking applications that connect to many banks for the enhancement of data exchange.

Another area of concern that often prompts problems is the lack of encryption of the data being transmitted over the air on mobile phones services. Thus, banks that use it have limited the scope of the SMS banking services rendered via the mobile telephone. Other major problems militating against the adoption of e-banking are the high cost of acquiring the various forms of foreign technologies involved and the high cost of maintenance or replacement of aging or obsolete infrastructure.

#### **[5.0] Prospects of e-banking in Nigeria**

Despite the numerous problems enumerated above that threaten the adoption of e-banking in Nigeria, indicators from the banking sector have shown that prospects of advancement of the process remain viable. From research findings, e-banking has received widespread acceptance, particularly among the younger generation who find it very convenient visiting an ATM for quick cash rather than queuing up for same as it was in the old dispensation. Research findings have also shown that the growth of e-banking has been astronomical and that the prospects for further growth in the near future are bright. Analysts predict it will grow by roughly 150.0 per cent annually over the next four years'. This assertion was supported by Akpan, [2008], who argued that "in the last one year, the number of cards issued industry-wide

increased by 200.0 per cent from four million to twelve million cards, the number of ATMs increased by 133.3 per cent from 1500 units to 3500 units, while over 4000 additional POS terminals were deployed across the country in 2007 alone.

Central Bank of Nigeria Economic report for the first half of 2008, [CBN, 2008], was positive with respect to the growth of e-banking operations in Nigeria. Analysis from the apex bank economic report revealed that there was a substantial growth in volume and value for some of the e-banking channels already in operation. The rapid growth of e-banking in Nigeria are attributable to the convenience, compatibility, risk tolerance, safety of funds and the simplicity in the usage of e-banking channels.

#### **[6.0] Summary, Conclusions and Recommendations**

Electronic banking is a computer-based innovation adopted by the banking industry to enhance service delivery. It involves the use of ICT and refers to payments; fund transfers and other banking services carried out electronically via the Internet, ATM, mobile phones and point of sale devices.

Fundamentally, this paper has explored the adoption of e-banking in Nigeria with respect to the associated problems and prospects from the consumer's point of view. The research findings suggest that the problems confronting e-banking in Nigeria can be classified into three basic categories, namely, human, operational and technical constraints. Under human constraints, we discussed the problems confronting consumers such as physical disabilities, poor sight, illiteracy, and problems associated with ageing. In operational constraints we discussed problems such as security of funds transferred, frauds and standardization

of channels, while technical constraint was centred on the lack of supporting infrastructures such as electricity, interoperability and lack of encryption on SMS messages.

The paper also shows that the adoption of e-banking in Nigeria has witnessed a tremendous success particularly in the past one year. The growth of e-banking has been phenomenal. Most banks have embraced the internet banking option which enable them display their products and services on the website. E-banking has proved to be a welcome innovation in the Nigerian banking industry for a number of reasons namely convenience, compatibility, simplicity of channels which are user friendly, risk tolerance and safety. The advent of e-banking in Nigeria has been seen by some analysts as the pathway to economic viability of the nation and growth of the banking industry in particular. It is a move towards the attainment of international banking standard, particularly with the recapitalization of the banks. From the consumer point of view, the overwhelming problems of poor supporting infrastructures such as electricity, operational deficiencies, huge cost of acquisition and maintenance, poor maintenance habit, total dependence on diverse foreign technologies and human disabilities, threaten continuous viability of e-banking operations and devices already put in place.

From the foregoing we conclude that e-banking services in Nigeria have started well with a phenomenal growth rate and efficiency level and have growth prospects in the economy. However, it is recommended that the numerous problems confronting e-banking operations cannot be jettisoned or ignored as the present success can only be improved upon to ensure continuous consumer's satisfaction.

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