THE DEVELOPMENT OF ELECTRONIC BANKING IN NIGERIA

Mohammad Faisal Iya[1]& Sani Abdulkadir[2]
[1] Department of Sharia and Civil Law, Yobe State University, Damaturu, Yobe State
faisaliyaj@gmail.com
[2] Department of Common Law, Nuhu Bamalli Polytechnic, Zaria
Corresponding Email: Saniabdulk5@gmail.com

ABSTRACT
The introduction of electronic banking has improved banking efficiency in rendering services to customers. It also brought to fore a number of issues and problems of regulatory/supervisory concern, such as adequacy of legal and regulatory frame work for electronic banking, security of financial transactions, potential risk of electronic banking, customer protections, supervisory capacity, cross border issues such as money Laundering and Jurisdictional issues. The Central Bank of Nigerian recognizes this and knows that electronic banking and payment services are still at the early stage of development. For this reasons, and also arising from the three major role of The Central Bank of Nigeria in the areas of monetary policy, financial system stability and payment system oversight, The Central Bank issued a "Guideline on Electronic Banking in Nigeria" in August 2003; The guideline is expected to inform the future conduct of financial institutions in electronic banking in Nigeria. The purpose of this work is to examine the Legal and Regulatory Challenges, that have arisen as a result of the introduction of electronic banking in Nigeria, with a view to determining the adequacy or otherwise of the legal and regulatory framework, to cope with those challenges. In Nigeria, and many other countries, banks and financial institutions play an important role in the economy by gathering deposits, repackaging them into a variety of financial products and services for their customers and the public of important consideration here, is the use of Information and Communication Technology to provide the financial products and services for improved efficiency and effectiveness.

KEYWORDS: Banking, Electronic, Finance, Regulation, Transaction.

1 Introduction

Electronic banking is the method of transacting modern banking business through the use of automated processes and electronic devices such as computers, telex and fax machines, the internet, card payments, automated teller machines, telephones and other electronic media. Simply stated, electronic banking or electronic banking, as it is also referred to, is that method that employs electronic devices and procedures in the conduct of all forms of banking business (Goldface-Irokalibe, 2013).[3]From the meaning of electronic banking as proffered above banking is an old and long existing term which is now modernized with the advent of Information Technology (IT). Electronic banking has been in existence right from when land-line telephone, telex and fax machines among other electronic devices were used to facilitate banking business. It passed through stages of development up to the present day modern electronic banking.

[3]I.J Goldface-Irokalibe, (2013) Law of Banking in Nigeria Malthouse Press Ltd

The evolution of modern electronic banking in Nigeria is said to have started in 1980s and was popularised by the advent of banks that were christened 'new generation" banks. The founding of defunct Diamond Bank PLC now Access Bank PLC with online real-time interconnectivity facility popularised electronic payment nationwide. This awakened new dimension to competition among banks; and consequently, banks embraced electronic payment options to stem up competition. Likewise, the innovations brought by electronic banking enabled banks to display their products on their websites (Agbada, 2008).[4]

In 1986, Societe General Bank of Nigeria (SGBN) introduced online real-time banking in its five branches in Lagos. Many other banks followed this lead. It introduced integrated banking applications delivered through a Wide Area Network (WAN) in a real-time online mode(Woherem & Alamutu (2000).[5]

By early 1990s, Central Bank of Nigeria (CBN) made it mandatory for all banks to computerize their operations. Toward the end of the twentieth century, electronic banking was given a boost with the coming together of a consortium of nineteen (19) of the strongest banks in Nigeria to implement a smartcard electronic-purse(e-purse) scheme to be known as 'value card'. Unlike similar schemes elsewhere, a sale outlet would require only Point of Sale (POS) equipment to accept cards from all the banks (Adeyeri 2013).[6]

In 1991, First Bank of Nigeria took a stake into the future with its entry into the market for e-card products. It launched its 'First Cash', the brand name hot it: Automatic Teller Machine (ATM), in some of its branches (Ndekwu, 1994).[7]

The modern electronic banking has gained acceptance in Nigeria on a rather rapid rate. 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 (smart cards) was introduced by the Central Bank of Nigeria (CBN) in 1993; and in August 2003, CBN issued guidelines on electronic banking.[8]

2. Literature Review

Electronic banking system in Nigeria is a developing issue on which not many writers have been able to written under the Nigerian Law of Banking. Most literatures available on Law of Banking, foreign and local (Nigerian), have not discussed on electronic banking especially on the relationship between banker and customer. This work will fill this gap. There are several authors that wrote on law of banking generally, but not specifically on electronic banking.

For instance, **Proctor(2015)** in his book "*Law and Practice of international Banking*"[9] did not write extensively on the contractual obligations of banker and customer. He

[4]A. Agbada, (2008)"Electronic Banking in Nigeria: problems and Prospects from Consumers Perspective" CBN Bullion, Vol.32 No.4 October/ December, 2008. http://www.cenbank.org/out/20110/bullion/bullion%20mag%20-%20october december%202008%20original.pdf>, p.19.

[5] E. Woherem and R. Alamutu (2000) The Networked Bank LANs, WANs, the Internet, Intranet and Group ware Systems: in E.E. Woherem (ed), Information Technology in the Nigerian Banking Industry. Spectrum Books Ltd, Ibadan.Pp79-84.

[6]D. Adeyeri (2013) The Telephone and Computer in Banking Constraints and Challenges in Nigeria.

[7] C. Ndekwu, (1994) *First Bank of Nigeria: A Century of Banking, Spectrum Books Ltd, Ibadanp.3*

[8] Ibid

[9](2000) Ibadan University Press ltd. Pp34-40

merely defined who a banker and a customer is and also listed the duties and gave a faint explanation of the duties.[10] He also pointed out that the nature of the relationship between a banker and a customer is fundamentally that of a debtor and creditor, which originated from the particular requirement of the business of banking.[11] The author failed to discuss Electronic Banking System in Nigeria.

Nzegu(1994) in her book[12] expanded the concept of banker-customer relationship, bringing out the rights and duties of bankers and customers. She made reference to the computerized banking system by talking about the Automated Teller Machine (ATM), Electronic Funds Transfer (EFT) and the online processing method.[13]
The banking world has gone beyond what the author captured, electronic banking has gone beyond ATM, Electronic Funds Transfer and mere online transactions. Now we have a host of other methods such as, telephone banking, mobile banking and use of smart cards at points of sale etc.[14]

Palfreman also pointed out in his book[15] the rights and duties of bankers and customers. He talked about the special relationship between the banker and the customer that even though fiduciary relationship is not recognized in the banker-customer relationship, a very similar case will arise where a customer meets the bank for advice and the bank is aware.[16]He was able to capture the electronic payment system in his book. He discussed the types of electronic payment systems, such as Bankers Automated Clearing Services (BACS), Clearing House Automated Payments System (CHAPS), Society for Worldwide International Financial Telecommunications (SWIFT), Automatic Teller Machines (ATM) and Electronic Funds Transfer at Point of Sale (EFTPOS).[17]Even though Palfreman has tried in this aspect, but he failed to include mobile and telephone banking, including the legal framework.

Apollonius[18]made reference to electronic banking and electronic payment but he restricted himself to only international transfer of money through mail and telegraphic transfer, and also the use of smart cards in purchasing goods. one of the most current book on banking law is *"Nigerian Electronic Banking Law,"*[19] The book is one of the few books that have dedicated a whole part in discussing electronic banking.[20] The book is the most concise and up-to-date text in relation to banker-customer relationship and electronic banking. The book has dealt extensively with the relationship between bankers and customers, their contractual obligations and so on, without questions hanging on the mind of the reader (Goldface -Irokalibe, 2007)
As concise and up-to-date as this text by the learned writer is, they do not go without some lacuna in respect of electronic banking. This lacuna is in respect of inadmissibility

[10]Ibid
[11]Ibid
[12](2008) '*Principles of Electronic Banking'*University of Nsukka Press ltd. Nsukka pp29-40
[13] Ibid
[14] Ibid
[15](2002) '*Understanding banker and customer relationship'* Oxford University Press London.
[16]Ibid
[17]Ibid
[18](2014)*'Modern day electronic banking'* Retrieved 12th June 2014 from http://digital.library.upen.edu
[19] I. J, Goldface -Irokalibe "Law of Banking in Nigeria"(2007) Malthouse Press ltd.
[20]Ibid

of electronic signature under the old Evidence Act and that electronic banking transaction is not covered by the Evidence Act.[21]
Under the new Evidence Act, electronic signature has been captured, and it is admissible (in relation to electronic transactions with banks) when proved. Section 93(3) of the Evidence Act, provided thus:

> An electronic signature may be proved in any manner, including showing that a procedure existed by which it is necessary for a person, in order to proceed further with a transaction to have executed a symbol or security procedure for the purpose of verifying that an electronic record is that of the person.

As regards electronic banking transaction, Section 84 of the Evidence Act, provides that:

> In any proceeding, a statement contained in a document provided by a computer shall be admissible in evidence of any fact stated in it, of which direct evidence would be admissible. If it is shown that the conditions stated in Subsection 2 are satisfied in relation to the statement and the computer in question.

Also, in the case of *Ogboyone v Ogboyone*[22] the Court of Appeal held that computer print-out of banks statements and banking documents are admissible in evidence.
Ahmadu said the relationship between a client and a bank is basically governed by the general principles of the law of contract. He said it is possible for the principles of other specialized contracts to apply apart from the general contractual principles. The complexity of applicable rules in this area of the law quite often generates profound legal confusion in understanding the precise nature of the relationship between a client and a bank. He said in appropriate cases, the relationship between a customer and a bank may be termed as that of a bailor and bailee. Ordinarily, the relationship between a client and banker is regarded as one between a debtor and creditor. The bank may also act as an agent of its customer.[23] Ahmadu's work is relevant to this research even though it was based on the law of banking inFiji (Ahmadu,1998).

3. Methodology

The research methodology adopted in this study is mostly doctrinal. Both primary and secondary sources shall be the basis of this research work. The primary sources shall include the Central Bank of Nigeria (C.B.N) Electronic banking Guidelines, 2003, statutes, case law reports and gazettes etc. While the secondary sources shall also be collected from research reports, CBN Monthly reports, First Bank Annual Reports, banking journals, seminar papers, the internet, thesaurus, encyclopaedia and other published, unpublished and internet materials.

[21] Considering the present development (i.e. the repeal and replacement of old Evidence Act Cap E14 LFN 2004 with Evidence Act Cap E14 2011), these areas or lacunae have been covered.
[22] Unreported. Suit no.CA/34/2013
[23] *M. L. Ahmadu, The Law of Banking in Fiji (1998) -A Practical Guide, Avon books, London,*

4. Results and Discussion

4.1 The Meaning of Banking

To fully appreciate the meaning of "banking" one must first understand the meaning of a "bank". According to Oxford English Dictionary[24], a bank is an organisation that provides various financial services, such as keeping and lending money.
Concise Oxford English Dictionary[25], defines it as, a financial establishment that uses money deposited by customers for investment, pays it out when required makes loans at interest, and exchanges currency.
Black's Law Dictionary[26]defines a bank as a financial establishment for the deposit, loan, exchange or issue of money and for transaction of funds. To Hart,[27]a bank is a person or company on business of receiving monies and collecting drafts of customers subject to the obligation of honouring cheques drawn upon them from time to time by customers to the extent of the amount available on their current account.
Paget[28] sees bank as a corporation or person(s) who accepts money on current account and collect cheques for customers. Statutorily, section 21 of Bills of Exchange Act[29], sees a bank as including a body of persons whether incorporated or not to carry on the business of banking. This definition is not sound enough because it fails to identify what business of banking entails and no corporation is legally empowered to transact banking business unless it is duly incorporated and authorised.
Section 43 of the Act[30], defines banking business in the following wordings business of receiving monies from outside sources as deposit irrespective of payment of interest and the granting of money loans and acceptance of credit on the purchase and sale of securities for others for the incurring of the obligation to acquire claims in respect of loans.

The court in *Chief Abdul Yekini Ojikutu v Agbonmagbe Bank*,[31]sees bank as, the financial institution that carries on the business of granting loans and receiving monies which is not subject to the Money Lenders Act. The Privy Council in Bank of Chettinad Ltd v. Income Tax Commissioner (1948) A.C. 378 sees bank as, a company which carries on the business of accepting deposits of money on current account or otherwise subject to withdrawal by cheque or draft. Similarly it was held[32]that an institution carries on banking business when it accepts deposits withdraw able by cheque and act as agent in collecting cheques and other payment notes.
Having understood the meaning of a "bank", "banking" is defined as the business activity of banks (Oxford Advanced Learner's Dictionary)[33].While Concise Oxford English Dictionary[34]defines it as the business conducted or service offered by a bank. Black's

[24]Oxford English Dictionary, 6th edition
[25]Concise Oxford English Dictionary, 11th edition
[26]Black's Law Dictionary, 8th edition
[27]Dspace.unijos.edu.ng, accessed on 6-7-2011
[28]Resources.lawyersenjurist.com/course…,accessed on 6-7-2017
[29] Cap. B8 Laws of the Federation of Nigeria 2004
[30] See Section 2 and 66 of Band and other Financial Institution Act(BOFIA) Cap B 3 LFN 2004 for further definition of Bank in Nigeria
[31](1966) ALL NLR 277
[32]Dominion Trust V. Kirkwood (1966) 2 Q.B. 431
[33]Oxford Advanced Learners Dictionary 7th edition
[34]Ibid

Law Dictionary[35] defines it as business carried on by or with a bank. Evidence Act[36], defines bank and banker together as meaning any person, persons, partnership or company carrying on the business of bankers and also include any saving bank established under the Federal saving Bank Act, and also any banking company incorporated under any chapter heretofore or hereafter granted, or under any act heretofore or hereafter passed relating to such incorporation.
Therefore, it is safe to say that banking means the process of carrying on, or conducting banking activities.

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[38]Concise Oxford English Dictionary, 11th edition
[39]Black's Law Dictionary, 8th edition
[40]Dspace.unijos.edu.ng, accessed on 6-7-2011
[41]Resources.lawyersenjurist.com/course…,accessed on 6-7-2017
[42] Cap. B8 Laws of the Federation of Nigeria 2004
[43] See Section 2 and 66 of Band and other Financial Institution Act(BOFIA) Cap B 3 LFN 2004 for further definition of Bank in Nigeria
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4.2 Electronic Banking

In line with the global trends, electronic banking has been infused into the nation's financial system. Indeed, electronic banking in Nigeria is growing rapidly and the global acceptance has reinforced the speed of penetration. It has become increasingly important in Nigeria, because of the increasing competition from non-bank financial institution and the demand for more efficient and more convenient capabilities. In the competitive environment brought about by the deregulation, coupled with recent adoption of universal banking, technology seems now to be the single biggest strategic issue in banks.[50]

Banks has realised the immense benefit of Information Technology (IT) as a tool in bringing the products and services to the convenience and reach of their customers and also a way of increasing productivity. Outline, real time banking services has now become a sales feature of most banks as the customers demand the flexibility of operatingan account in any branch from any part of the vast country. Now, through internet banking, customers can easily log on their banks server and transact banking activities. Electronic banking is the driving force that is changing the landscape of the banking industry fundamentally, in particular, towards a more competitive industry. It has reduced boundaries between different financial institutions. Electronic banking involves different types of Electronic banking, such as online banking, internet banking, ATM etc which will be discussed hereunder.[51]
Many companies also allow you to pay over the phone with an "Electronic cheque." This means you give them the routing, checking account and cheque numbers on your cheque. The cheque goes through a process similar to a debit transaction as earlier defined, there several types of electronic banking. Some of them are classified as follows:

4.2.1 Computerised Banking

Computerised banking is the use of computer system in performing banking activities. In 1950's the bank of America (the largest bank in the world) asked Stanford Research

[46]Oxford Advanced Learners Dictionary 7th edition
[47]Ibid
[48] Ibid
[49]Section 2(1) of Evidence Act Cap. E14 Laws of the Federation 2004
[50]O. Olukole, (2009) Nigerian Electronic Banking Law, (Nonesuchhouse, Ibadan).
[51] Ibid

Institute (SRI) to access the possibility of developing electronic computer that could take over the labour-intensive banking tasks of handling cheques and balancing accounts. The creation of branch offices and the rapidly increasing number of cheques being used by a growing customers, threatened to overwhelm the existing manual processing and record keeping.[52]

During the 1950's, researchers at the Stanford Research Institute (SRI) invented Electronic Recording Method of Accounting (ERMA) computer processing system. ERMA began as a project for the Bank of America in an effort to computerize the banking industry. ERMA computerizes the manual processing of cheques and account management and automatically updated and posted checking accounts. SRI also invented Magnetic Ink Character Recognition (MICR) as part of ERMA. MICR allows computer to read special numbers at the bottom of cheques that allowed computerized tracking and accounting of cheque transactions.[53]

4.2.2 Online Banking

Online banking is no doubt the most important commitment to electronic banking that a banking institution can make. Online banking basically, allows a customer to transact business in any branch, irrespective of the branch his/her account is domiciled. Many people confuse on-line banking with the internet banking[54]. Although they are closely related, on-line banking began before the advent of internet. In 1980's the modern home online banking services were the distance banking services over electronic media. The term online became popular in the late '80s and referred to the use of terminal, keyboard and TV (monitor) to access the banking system using a phone line. It can also refer to the use of numeric keypads to send tones down a phone line with the instructions to the bank. Online services started in New York in 1981 when four of the city's major banks (Citibank, Chase Manhattan, Chemical and Manufacturers Hanover) offered home banking services using the videotext system. Because of the commercial failure of videotext these banking services never became popular except in France where the use of videotext (mantel) was subscribed by the telecom provider and UK, where the *Prestel* system was used in 1983. The UK used a computer connected to the telephone system and television set. The system "known as "home link") allowed on-line viewing of statements, bank transfer and bill payment. In order to make bank transfers and bill payments, a written instruction giving details of the intended recipient had to be sent to the NBS who set the details up on the Home link system. Details of payments to be made were imputed into the Nigerian Interbank settlement System (NIBSS) bank system by the account holder through *Prestel.* A cheque was then sent by NIBSS to the payee and an advice giving details of the payment was sent to the account holder. Bankers Authorised Clearing Services (BACS) was later used to transfer the payment directly. In many nations today, on-line banking is gradually assuming a greater dimension of sophistication with the internet which is gradually beginning to encroach on the banking terrain all over the world[55]

[52] http://www.tiresias.org/research/guideline/ebanking.htm#telephonebanking accessed on 4th February, 2016

[53] https://www.relyco.com, https://searchsecurity.tchtarget.com. Access on

4.3 Internet Banking

The internet refers to the worldwide network of computers; it is a shared public network in contradistinction to a private network that only allows access to authorised persons or authorities. Stanford Federal Credit Union located in Polo Alto, California United States, was the first financial institution to offer online internet banking services to all of its members in October 1994.

This enables banks and the customers of financial institutions to access accounts and general information on banks and financial products and services through a computer or some information communication network or other intelligent devices. The rule guiding the application of internet services by the financial business issues facing various industries.[56]

Worldwide, the internet is radically affecting how banks see their fundamental structures, not only in retail operations, but in many other areas including private banking. Internet banking is usually conducted through a personal computer (PC) that is connected to a banking website through the internet. For example, a customer at home accesses a banking institution website through a modem and phone line or other telecommunications connection, and an Internet Service Provider (ISP). It can also be conducted through wireless technology of cellular phones. Banking institutions internet offering, can be classified into three types(Alem, 2002):[57]

1. **Informational:** This is the basic level of electronic banking service. Typically, the bank has marketing (i.e. account related) information about its products and services on a stand-alone server. This type of electronic banking is employed by most of the new generation banks in Nigeria, like Zenith Bank and Access Bank.
2. **Communication:** This type of electronic banking allows some interactions between the systems of the bank and the customer. The interaction may be limited to e-mail, account enquires, loan applications, static file updates, name and address changes. This may take the form of what is also known as telephone banking, either through land lines, fixed-wireless or depending on the packaging of product by the banks.
3. **Transactional:** this type of electronic banking service allows customers to execute transactions. Customer transactions can include accessing accounts, paying bills, transferring funds etc.

4.4 Automated Teller Machine

Electronic banking is also conducted using Automated Teller Machine (ATM). According to Weiner[58], an ATM card allows a customer to withdraw cash from his or her bank account by allowing a Personal Identification Number (PIN) and having the amount of the withdrawal immediately debited to the account (Cranton et al. 1997). The ATM was introduced with the objective of reducing personal cost associated with traditional “teller window” customer services transactions. Transactions on ATM rely on the extensive communications system that includes regional networks that can interact with one another. The machines to a large extent release banks from the constraints of time and geographical location. They presented banks with a more economical substitute for “Bricks and Mortal” branches.

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The rule currently guiding the use of ATMs in Nigeria is set out in Guidelines on Electronic Banking in Nigeria issued by the central Bank of Nigeria in 2003. ATM was first set up in the country during the early80's by Society General Bank of Nigeria (SGBN)[59]. Some other banks followed the experiences of SGBN but the product was not well received by the banking community as a result, its spread was curtailed in those days. In the recent years, their uses have been adopted by many banks and it has so far, being of immense benefit to both banks and customers. The Automated Teller Machine (ATM) was installed at designated points across the country to further reduce customer traffic in banks for cash withdrawals. The use of debit and credit cards was also being popularised by some banks to reduce the risk of carrying cash for transactions.[60]

The apex bank also hinted that, the Nigerian payment underwent substantial modernisation of the process for handling payment with the implementation of Magnetic Ink Character Recognition (MICR), which involves the phased adoption of MICR technology for processing of inter-bank transfer and in-house cheques.[61]

To further improve the efficiency by the payment system the Central Bank of Nigeria (CBN) in 2003, issued the guideline on electronic banking. Automation of payment system has reduced delay in the clearing of payment instrument, reduce cash transactions, and enhance the transaction mechanism of monetary policy.
While reviewing the impact of electronic banking in Nigeria Adeyemi noted that, Nigeria's slow adoption of electronic banking practices is rapidly changing for the better, adding that awareness of electronic payment in Nigeria is increasing and it accounts for N360 billion worth of transaction in 2008.[62] According to him, it seems the practise of carrying bags of bank notes around is changing, with the automated teller machine industry association, identifying Nigeria as the fastest growing ATM market in Africa.[63] Around 6000/8000 ATM have been installed in the country thus far.

Adeyemi(2008)[64]also said that 7500 points of sale terminals have been installed across Nigeria, a figure that is set to double yearly. Mobile banking and electronic funds transfer (EFT) are also gaining popularity.[65]It can be said that, so far so good, a lot of improvement has been recorded in the Nigerian banking industry, through the instrumentality of electronic payment system such as:

i. Card System (Smart Card)

Payments cards primarily accommodate low-value retail transactions, bill payments, cash withdrawals and inter account transfer[66]. These payment cards fall into several categories. A card providing an assurance of payment of a cheque is a cheque guaranteed card(Benjamin-Geva, 1993).[67]A card providing an assurance of payment to a merchant accepting the card under an agreement with issuers or the merchant's bank is a credit

card.[68]A card facilitating access to funds in the card holder's account is a debit card. A card initiating payment that is facilitating access to funds in the card holder's account is a debit card. A card initiating payment that is facilitating access to funds in the card holder's account solely on the basis of information communication electronically is an EFT debit card.[69] A credit-card-sized device containing one or more integrated circuit chips, which is of multiple applications, including facilitating access to funds in the card holder's account on the basis of information communicated electronically is a smart card or an electronic purse.

Smart card is a focus as far as study of card system is concerned. It is a small sized piece of plastic device[70] with embedded integrated circuit and used as payment instruments for numerous financial schemes. The power of smart cards lies in the ability to store and manipulate data, to handle multiple applications on one card and to perform secure transactions. Smart cards are now part of the emerging world of network-based computerization, with the ability to authorise access, by either the user or a third party, to personal files on the web. In addition, users will be able to encrypt the entire message going over a network from an internet terminal with the cryptography chip being placed on the card. The same card can hold several accounts, have debit and credit capabilities, and can be used for personal identification, among other functions. [71]

In Nigeria, smart cards were first introduced by All States Trust Bank, In recent time, a group of banks numbering 26, came together and pooled resources together to incorporate Smart Card Nigeria PLC to manage the value card projects.[72]
Cards can only be issued by deposit taking institutions duly licensed by the Central Bank of Nigeria (CBN). However, where cards are used in closed environment, such as telephone cards, issued by a telephone company, its own customers or a fuel station issuing cards to its customers, this is permissible. Any such card issued in a closed environment should not be used for exchange of value outside the closed group (CBN, 2007).[73]

ii. Society For World Wide Inter Bank Financial Telecommunication (SWIFT)

Swift is the acronym for Society World Wide Interbank Financial Telecommunication.[74] SWIFT which some Nigerian banks have acquired membership, has no doubt facilitated inter-bank transaction across the globe, with the availability of SWIFT technology, Nigerian banks could offer among others:

a. Fund transfer (foreign currency),
b. Documentary credit and Collections of Money and
c. Security market services

The benefits of SWIFT include**:**

1. Direct accessibility to the whole banking world,

2. International payment becomes cheap, efficient and more secured and;
3. Reconciliation problems of international transactions will be eliminated.

iii. Email banking

The e-mail services enable account holder to obtain information on account balance and transaction statement. The request is initiated by the customer by sending an e-mail to *infomail@imbank.co.ke* from his/her registered e-mail address and the response is sent from the bank with the request information immediately to registered e-mail. It had been acknowledged that internet transmission lines are not encrypted and the e-mail is not a secure means of transmission. It involves a security risk because there is possibility of a third party interception or possible unauthorised alteration of data. Most banks usually prefer an agreement between the customers to exempt the bank in case of such loss.

Electronic banking systems primarily expose banks to transaction, strategic, reputation, and compliance risks, but may expose a bank to other risks as well. For example, Electronic-banking systems may present credit risk if a bank offers lending services over the Internet. Requirements such as "Know your customer" may require the use of different identification, authentication, and transaction verification methods than those used with traditional delivery channels. Liquidity, interest rate, market, price, and foreign exchange risks may also result from poor data integrity or unreliable systems. The regulatory/supervisory authorities expect banks to carefully consider the full range of these and other issues and the potential risks that they may pose in deciding whether to adopt an electronic banking product or to renovate an existingone.[75]

Electronic banking risks should be managed as part of a bank's overall risk management process. Banks should use a rigorous analytic process to identify, measure, monitor, and control risks. The quantity of risk assumed should be consistent with the bank's overall risk tolerance and must not exceed the bank's ability to manage and control its risks. Management and bank staff are expected to have the knowledge and skills necessary to understand and effectively manage their electronic banking-related risks. Examiners will evaluate electronic-banking risks by reviewing technology plans, policies, controls, monitoring techniques, and relevant compliance issues. In addition, the Regulator may evaluate system performance and the effectiveness of specificcontrols.[76]

Regardless of how a system is developed or operated, the regulator's expectation is for banks to effectively manage their Electronic banking risks. Controls should take into account the level of risk posed to the institution and should be adopted by the party in the best position to control the risks. In some instances, that party may be an outside vendor or service provider. In practice, the controls necessary to effectively manage risk will differ depending on the degree of risk posed and how the Electronic banking system is designed and operated.[77]

4.5 Nature and Types of Risks Associated with Electronic Banking

The risks associated with electronic banking and electronic money activities as per Basle Committee's categorization of risks include: Strategic Risk, Operational Risk, Security Risk, Reputational Risk, Legal Risk, Money Laundering Risk, Cross Border Risks and Other Risks.[78] These risks are briefly discussed below:

4.5.1 Strategic Risk

Strategic risks are those risks associated with board and management decisions. This risk could arise as a result of weak, shallow, corrupt or not well thought out projects planning, timing and implementation. However, the degree of this risk depends upon how well the institution has addressed the various issues related to development of a business plan, availability of sufficient resources to support this plan, credibility of the vendor (if outsourced) and level of the technology used in comparison to the available technology etc.

4.5.2 Operational Risk

Operational risks take the form of inaccurate processing of transactions, non-enforceability of contracts, compromises in data integrity, data privacy and confidentiality. Also, inadequacies in technology, human factors such as negligence by customers and employees, fraudulent activity of employees and crackers/hackers can become potential source of operational risk.

4.5.3 Security Risk

Security risk refers to the unauthorized access or intrusion to a bank's information systems and transactions. Attackers could be hackers, unscrupulous vendors, disgruntled employees or even pure thrill seekers. Also, in a networked environment the security intrusion is often limited to the weakest link.

4.5.4 Reputational Risk

Reputational risk is the risk of getting significant negative public opinion, which may result in a critical loss of funding or customers. These are risks arising from banks' or third parties actions resulting to a major loss of the public confidence in the banks' ability to perform critical functions or impair bank-customer relationship.

These actions vary from system or product not working to the expectations of the customers, significant system deficiencies, significant security breach, inadequate information to customers about product use and problem resolution procedures, significant problems with communication networks that impair customers' access to their funds or account information especially if there are no easy alternative means of account access.

4.5.5 Legal Risk

Legal risk results from violation of, or non-conformity or non-compliance with laws, rules, regulations, or prescribed practices, or when the legal rights and obligations of parties to a transaction are not well established in the course of delivery of banking services and products through electronic channels. Like; Evidential, Jurisdictional and Contractual perspectives.

4.5.6 Money Laundering and Cross-Border Risks

This is a risk that financial institutions are exposed to when their systems are used in moving criminal funds. Cross border risks are risks that banks are exposed to in the course of their international transactions arising from differences in legal/regulatory and jurisdictional ambiguities with respect to the responsibilities of different national authorities. These risks are associated with non-compliance of different national laws and

regulations, including consumer protection laws, record-keeping and reporting requirements, privacy rules and money laundering laws (CBN, 2003).[79]

Money Laundering and Crimes operate across international boundaries and can easily be facilitated by electronic banking particularly using the internet. Cheap cash can be used in the same way postal orders, cashiers cheques and wire transfers have been used successfully in the part to launderer drug money. The problem this will pose for the combat against Money Laundering Law[80] (which provides for the special surveillance of certain transactions), these depends on the ability of financial institutions to keep records of transactions on suspicious accounts. The truth of the matter is the electronic cash possibly will reduce the cost, time and effort associated with current money laundering method (Hutton, 1995).[81] Although sometimes one need not be a bank customer to obtain a renewable smart card,[82] to address the problem of money laundering, the Nigerian national smart card scheme requires that cards to be issued only to persons that are known in accordance with Know Your Customer (KYC) rule and Money Laundering Laws.

By the nature of cross border risk apart from the legal risk, a bank could also be exposed to other risks like the operational, credit risk and market risk as a result of geographical and market expansion beyond the national borders which make monitoring more difficult.

Another facility of electronic banking is electronic money. Electronic money is an electronic store of monetary value on a technical device (smart cards) that may be widely used for making payments to undertakings other than the issuer without necessarily involving bank accounts in the transaction, but acting as a prepaid instrument. Risks that are also associated with electronic money are broadly divided into two Diamond Bank, 1998).[83]

1. **Quantifiable Risks** comprising of credit, liquidity, interest rate, foreign exchange and equity prices.
2. **Non-Quantifiable Risks** comprising of strategic, operational, compliance, reputational and legal risks, which have already been explained under electronic banking.

5. Conclusion and recommendations

The business of banking is very vital to the nation's economy and as such, requires legislation to regulate the ways the business is being conducted. Most of the vaulting laws and those laws related thereto in the country are extant and need to be reviewed and amended to be in tune with the current global craving for electronic banking. Electronic-banking customers are mostly motivated by accuracy of records and timely provision of services. These save cost and help to offer services regardless of time and geographical location; and increase customer base. Several devices are emerging to enhance the speed and quality of products and service delivery in e banking. They range from the payment systems, clearing systems and delivery channels.

Considering the nature of electronic banking and its being prone to challenges of security and crime both internally and externally, the country needs adequate regulatory framework to sustain effective and efficient electronic banking practice. In this regard, there are. Many roles played by regulatory bodies such as Central Bank of Nigeria

[82] Diamond Bank journal 1998, Pay card without holding account.
[83] ibid

(CBN), Nigerian Deposit Insurance Corporation (NDIC), etc, in examining the affairs of banks as well as controlling and supervising them. The regulatory bodies also secure the banks from the infiltration of money launderers and cyber offenders.

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