

ELECTRONIC BANKING IN NIGERIA: CONCEPT, CHALLENGES AND PROSPECTS

ACHA, IKECHUKWU A.
Department of banking and finance
University of uyo, uyo

Akwa ibom state
08036057080

Abstract

This study reviewed the concept of electronic banking (e banking), examined its prospects for Nigerian banks and discussed associated risks. It discovered that the increased application of e banking worldwide is a function of improvement in information and communications technology (ICT). E banking, it also observed, holds enormous potentials for the banking industry in Nigeria. To achieve these potentials, the paper advocated engendering confidence in the e banking mechanism by addressing security concerns and providing necessary infrastructure like steady electric power supply.

Key words: *Electronic banking, Concepts, Challenges, Prospects*

Introduction

The business environment is always changing and therefore requires a dynamic strategized adaptation to these changes by businesses that wish to survive. These changes could be social, economic, legal, technological, etc (Acha, 2006: 109; Akpan, 2005: 23).

In recent time, quantum improvements and innovations have been recorded in information and communications technology (ICT) which has had tremendous impact on the way businesses are conducted. ICT has, among other things, changed the nature of businesses, reshaped their competitive environment, reframed market structures, enlarged the size of markets and opened new vistas of risks hitherto unknown to these businesses.

As usual, the banking system has been in the forefront in adopting and incorporating these advances in ICT into its operations. This could be attributed to some perceived advantages which ICT offers users such as increased transaction efficiency, convenience and cost reduction (Ayandele and Adeoye, 2006: 2).

Banks in Nigeria had recognised the potentials of ICT since early 1980s when some of them began adopting electronic banking. Since these early days, electronic banking products have, though slowly but steadily, been on the increase in the system. Banks in Nigeria now offer automated teller machine (ATM) services, internet banking services, telephone banking services, on-line banking services, intranet banking services, credit card services, etc.

The obvious tendency of the Nigerian banking is to become more and more electronically driven, making the understanding of this concept and its practice imperative. In the light of the above, the objective of this study is to, among other things, examine the concept of electronic banking with a view to helping both professionals and non-professionals understand them. This paper will also discover the challenges of electronic banking in Nigeria in order to help practitioners and regulators navigate our banks away from

them. Finally, this study assesses the future prospects of electronic banking in Nigeria.

To do this, the paper is divided into five sections starting with this introductory note. The second section addresses the concept of electronic banking and reviews global experience in its practice. In the third section, the hiccups in the use of electronic devices in financial transactions are examined. This examination will consider the implications of electronic banking for the banks and the regulatory/supervisory authorities. The fourth section prospects into the future to discover the way forward for electronic banking in Nigeria. Finally, recommendations are made and conclusion drawn in the fifth section.

The Concept of Electronic Banking

The infusion of information technology advances into commercial activities has given rise to what is known as electronic commerce or e-commerce. E-commerce on the other hand is made up of several sub-systems one of which is electronic banking (e banking).

In the words of Oluyemi (2001: 38) e banking is “the totality of the deployment of modern information technology and communication systems to record financial transactions as well as deliver financial services to the customers”. It is therefore the provision of bank services by financial institutions to their customers through electronic devices. In providing services via electronic devices, banks usually dispense of paper work, which is reputed for the inconvenience of requiring the physical presence of customers. Apart from this, electronic transactions are known to be quicker and more efficient, some, of which attributes may explain the growing popularity of electronic banking services.

To tap the advantages aforementioned, banks adopt electronic method in their internal operations, interactions with other branches and relationships with other banks, reporting to supervisory/regulatory authorities and most importantly service offering to customers.

Oluyemi (2001: 39) listed some electronic banking services to include automated teller machine (ATM), card systems, Internet banking and on-line banking. Other electronic banking services are; virtual banking, telephone banking, intranet banking, etc. We shall try to throw more light on the operational modalities of some of these services.

Electronic Banking Products/Services

Automated Teller Machines (ATMs)

Automated teller machines, as their name implies, are electronic cashiers. These machines are installed by banks to dispense cash to needy customers without the aid of the human cashier. The machine operates by recognising the personal identification number (PIN) of a customer and automatically deducting the requested amount from the customers' bank account. It is convenient to customers as they can access their accounts at anytime of the day and everyday of the week. For the banks, it reduces personnel costs.

On Line Banking

By integrating the operations of its branches to a central computer network, a bank can offer on-line banking services. Such a bank's customer is relieved of the restrictions of traditional banking that confine customers to branches where their accounts are domiciled. With on-line services, customers are free to carryout banking transactions in any of the banks branches with little consideration as to the branch their accounts are domiciled. This makes banking transaction convenient especially for itinerant bank customers like traders that hitherto needed to carry huge sums of money around in their business expeditions. They now only need to pay such monies into their bank account in one location and conveniently withdraw in another. On-line banking also makes fund transfer less cumbersome as payment into a customer account in a branch other than that where his account is domiciled is acceptable.

Internet Banking

Internet is public network of millions of computers world-wide which enables people in different parts of the globe to exchange information. The Internet has the ability to transmit text and graphics, voice and video message globally at little cost (Anyandele & Adeoye, 2006: 3). It is this advantage that the banking sector tries to harness by using this technology to do business Internet banking. Internet banking operates by giving customers access to their banks' websites through their personal computer, telephones, etc.

There are three broad categories of Internet service offerings by banks; informational, communicative and transactional. An informational Internet banking service allows customers' access to the bank's marketing information. Here the Internet is used specifically for advertising.

When the Internet service is communicative, it allows for interaction between the bank's system and the customer. Such interaction allows customers to obtain account updates, make enquires, receive replies etc. On transactional websites, customers can obtain account balances, transfer funds, apply for loans, pay and receive bills, subscribe to other products of the banks, purchase and sale securities, etc. The public nature of the Internet as it does not exclude any users heightens the risk of unauthorised access for banks delivering this service (De Young, 2001: Vartanian, 2000).

Smart Cards

This electronic banking system operates by providing customers with plastic cards, which have microprocessors capable of being loaded with monetary value. It is because of this attribute that smart cards are also known as "electronic or digital purse" (Hilili, 2005: 71). During transaction the value loaded on the card reduces. Apart from convenience, this electronic system also removes the risk of carrying cash for the customer, for the monetary authorities it reduces cash in the informal sector (financial dualism) and makes monetary polices more effective (Akpan, 2004: 265; Acha, 2006: 188).

Telephone Banking

Banks adopting this form of electronic banking allow their customer to access their accounts through the telephone. This could be achieved either by voice or text messages. A wide range of transactions can be carried out using telephones These include; money transfers, confirmation of account balances, enquires, etc. Telephone banking is closely related to internet banking as the telephone is one of the ways of accessing the internet.

Virtual Banking

This is another Internet based electronic banking system. In virtual banking, traditional banking where banks have physical presence in the form of office buildings is dispensed with. The bank therefore, exists only on the Internet. All transactions of the bank are done online. In places where banks like this exist, like the United States of America (USA), they are expected to be incorporated and licensed like their "brick and mortar" counterparts.

Electronic Banking: Global Experience

As advances in information and communications technology threatens political and social boundaries of the world, so also has it whittled down the economic barrier between countries. Banking products and services are now available to customers across the political boundaries of countries. This makes our understanding of how electronic banking is practised in other countries imperative.

The USA, for instance, having recognised the potentials of electronic banking and the risks it portends requires that all banks, even the internet only (virtual) ones apply and obtain a charter according to existing guidelines. She has taken a step further to make laws governing commercial electronic transactions such as the Uniform Commercial Code (UCC) and the Uniform Electronic Transaction Act (UETA). The UETA, among other things, provides that electronic documents and contracts are acceptable as legitimate. Banks are also expected to report their websites to regulatory authorities.

In the United Kingdom (UK) no special law exists on electronic banking. What monetary authorities adopted instead is a draft electronic banking guide for supervisors. Australia, on the other

hand, promulgated the electronic transactions Act in 1999 to guide the practice of e banking in the country. This law also confers legal status on electronic transactions.

The authorities in Singapore have reviewed their banking laws in conformity with present realities. Banks in this new dispensation are allowed to incorporate Internet banking into their services, establish a subsidiary to carryout Internet banking or are licensed as internet only banks (IOBs). Foreign IOBs are also admitted under the existing framework of admission of foreign banks. Japan has reviewed its banking laws to accommodate development in electronic banking, especially pertaining to licensing of virtual banks, risk management and supervision and regulation of electronic financial services (Zarma, 2001: 63).

Electronic Banking in Nigeria

The first electronic banking services in Nigeria were ATMs, which were introduced by some banks in the early 1980's. In the 1990's they went a step further to introduce tele-banking mostly among their corporate customers. These corporate customers were to also enjoy Intranet bank services. In this case, banks customers could transact business with their banks through their personal computers using a dial up Intranet software. Smart cards were later to join the electronic banking offerings of Nigerian banks (Zarma, 2001:72; Hilili, 2005: 70).

Most Nigerian banks now offer a wide range of electronic banking services including: Internet banking, on-line banking, telephone banking, etc. Internet banking in Nigeria is still in its rudimentary stages as most banks that offer them have only informational websites. This situation has been attributed to security concerns, dearth of expertise and low-level Internet access. Apart from this, presently, no virtual bank has been licensed in Nigeria.

Virtually, there exists no laws to regulate electronic banking, as existing legal framework does not address these issues. It is expected that when the National Assembly passes the Internet Freedom Bill and the Electronic Data Bill, these concerns would have been addressed. It is also noteworthy that Central Bank of Nigeria (CBN) established a "Joint Monitoring Committee for Multibank Smartcard Scheme" in 2001 to fashion out modalities for the regulation of smartcard operations in Nigeria. Another committee, the "Electronic Banking Committee", to look into the various applications being used by banks wishing to operate electronic banking was also constituted in 2001(Ogunleye, 2001: 48).

The slow growth of electronic banking in Nigeria is attributable to reasons like absence of legal framework, low access to the Internet, lack of enabling infrastructure, absence of qualified manpower among others (Zarma, 2001: 89; Ogunleye, 2001: 43). These challenges and other risks attendant to electronic banking are addressed in the next section.

Challenges of Electronic Banking

As seen in the previous section, electronic banking has brought with it several benefits including convenience, flexibility, speed, efficiency and cost reduction. The saying that faith rarely comes with both hands full is true with electronic banking. Despite all the advantages outlined, it still has associated risks, weaknesses and shortcomings. These risks, some of which are present in traditional banking, have assumed a new dimension with electronic banking because of the speed and magnitude of transactions involved. For a country like ours where this technology is still at its developmental stages additional concerns of infrastructure, legal framework and security of electronic transactions emerge. To address these issues, the challenges they pose to the banks and regulatory authorities will be examined.

Implication of E Banking for Banks

The advent of e banking has fundamentally altered the competitive environment in the banking system. Apart from the local competition within our banking system, new competitors are accessing the same market via the Internet. Even local competition has been exacerbated, as banks do not necessarily need physical presence to offer services to customers. Banks' management should envision these changes and proactively strategize to meet these new challenges.

The introduction of e banking has also given rise to new security concerns with respect to confidentiality and integrity of information, non-repudiation of transactions, authentication of users and access control (Zarma, 2001: 78). Since the internet, for instance, is a public network, banks

offering internet services run the risk of unauthorised persons accessing their data base, information so obtained could be used for fraudulent purposes. Accessing such information by unauthorised third parties also impinges on the legal requirement of confidentiality of customer information by banks and could give rise to debilitating legal battles. The ability of unauthorised persons to access banks' websites also raises question regarding the authenticity and integrity of available data. This is because such persons could alter and transmit wrong balances or create non-existent liabilities or counterfeit electronic money (Vartanian, 2000).

Internal control is usually facilitated by the ability to trace transactions through the accounting system. The development of electronic banking gives rise to accounting procedures that do not lead to the creation of documents, this is known as "loss of audit trail" (Oluyemi, 2001: 54). This makes the appraisal of such systems difficult, making them vulnerable to frauds.

Infrastructure inadequacies in electricity and telecommunication are another fundamental challenge to electronic banking in Nigeria. Power outages and poor telephone services impinge negatively on banks' ability to deliver electronic services. The availability of personal computers and Internet access to customers and potential customers have been low, leading to low patronage of electronic products. This makes these services unprofitable and discourages banks from offering them.

Additional credit administration challenges are faced by banks, which offer these services via the Internet. This is because their advantage of personal knowledge of customers and the operating environment is lost, as they may have to deal with far-flung customers. Issues like authentication of customers' identity, perfecting of securities, verification of collateral, etc, will take a new and difficult dimension.

The ease with which information is transmitted by electronic means, though a plus to the banking system, could also turn around to become its Achilles' heel. This is because negative information will travel with the same ease with the possible consequence of triggering a run on a bank or the banking system. The ability of customers to withdraw funds from their accounts from any location at any time of the day further compounds this situation making the liquidity of electronic banks more volatile and the possibility of 'virtual bank run' imminent.

Implications for Regulators/Supervisors

The introduction of electronic banking brings new array of regulatory challenges, to the Central Bank of Nigeria (CBN) and Nigerian Deposit Insurance Corporation (NDIC), to the fore as the goal of regulators is to foster economic development by maintaining monetary stability and the integrity of the payment system (Acha and Udofot, 2006: 21; Umoh, 2000: 43). It is therefore not surprising that issues that border on the security of transactions and volatility of liquidity should be raised here.

Electronic banking makes bank supervision additionally difficult because as already mentioned earlier, in the case of internal control, most electronic transactions do not create documents leading to "loss of audit trail". If this causes problem for internal bank inspectors, it will pose more drawback to external supervisors.

The management of liquidity under electronic banking regime, considering its volatile potential, constitutes a challenge that requires adequate supervisory response. Proper check on the banking system to forestall the introduction of counterfeit electronic money and over bloat liquidity in the system is within supervisory domain.

The disintegration of political borders by electronic banking poses serious challenges on monetary authorities. This is because electronic banking by its nature allows for cross border transactions, such transactions could cause jurisdiction and legal problems. Issues like what laws and monetary guidelines will be applied in cross border transactions will arise. Also it is still unsettled which monetary authority superintends electronic banking transactions in cross border deals (Hilili, 2005: 75). The existence of no international laws and conventions to address these issues hamper progress in this area.

Control of criminals who would wish to use e banking systems to transfer ill gotten money from one monetary jurisdiction to another as legitimate (money laundering) is another challenge facing monetary supervisors. Without collaboration between different countries regulators these criminals are bound to exploit loopholes and gaps in these countries to continually perpetrate their criminal activities.

Prospects of E Banking in Nigeria

Several recent developments in Nigeria indicate a bright future for e banking. Starting with the

advent of GSM phones that have improved telecommunications reach in the country to the concerted efforts of the government to stabilise power supply. The advent of GSM technology is being effectively used by some banks like First City Monument Bank (FCMB) in alerting customers of transactions and account balances.

The introduction of GSM technology and its rapid expansion has also increased the electronic banking market especially telephone banking and has the potentials of expanding into the rural areas. When this happens, the rural areas, which presently are under banked will have access to the banking system through electronic means. The stabilisation of electric power will also improve electronic banking and the integrity and quality of such services. This will improve customer confidence in electronic banking services and increase the patronage of such products.

Increased acceptance of ATMs is another pointer to the future of e banking in Nigeria. ATMs in more than two decades of existence in Nigeria only recently began to gain tremendous acceptance. This might not be unconnected with the success recorded in on-line banking by some banks. It is expected that this trend will continue and probably reach out to rural areas in the near future. The advantages of this are that the banks will not have to run the personnel and other costs associated with maintaining rural branches. Monetary management will also improve with the bringing of the informal rural finance into the formal sector.

As electronic banking advances in the country, electronic card systems (smart cards) will continually gain prominence turning our economy away from its present status of a cash economy. More and more transactions will be carried out with cards and cash de-emphasised.

Improvement is anticipated in the laws guiding electronic banking in Nigeria. It is expected that in line with global trend, Nigerian commercial laws will be made to recognise electronic documents and signatures as legitimate and elevate electronic agreements to legally enforceable contracts. This will further engender confidence in electronic banking transactions.

With increase in personal computer ownership, cyber cafes and computer literacy, Internet banking which presently is in its rudimentary stage in Nigeria will improve. From the present level of offering informational services over the Internet it is expected that banks will advance to having full transactional websites. At that stage the emergence of Internet only (virtual) banks can not be ruled out.

The exposure of bank customers to Internet banking will bring new vistas of competition and opportunities into the banking fora. Internet offerings of foreign banks will be accessible to Nigerians and Nigerian banks will be capable of reaching bank customers in other economies.

Recommendations and Conclusion

Recommendations

The global trend in electronic banking, which is gradually being imbibed by the Nigeria banking system, is irreversible. Therefore, to harness this growth and achieve the full potentials of e banking, it is necessary to control factors militating against its proper development. Some of the factors identified in this paper include security lapses, absence of legal framework, cross border issues, etc. To address these impediments the following recommendations are made.

Security concerns in e banking should be addressed right from the outset of engagement in these services. The bank's Board of Directors and top management should streamline the e banking services their banks will provide; this will help them identify specific risks involved in delivering such services with a view to adopting proper corporate governance checks to control them. Considering the delicate nature of e banking infrastructure, banks should engage the right calibre of experts and trustworthy vendors when procuring them. The softwares to be procured should be those with adequate security checks, "firewalls", to prevent unauthorised inside or outside intrusion.

Since Internet facilities are public and accessible from any part of the globe, banks should put in place contingency plans to assure continuity and uninterrupted services even in the event of attacks by Hackers. It will also be of much help if they acquire softwares that will create transactional documents and leave an audit trail for easy internal control and external supervision.

The cross border legal and jurisdictional implications of e banking can be addressed by collaboration and concerted effort on the part of all countries. Agreements should be reached on where jurisdiction lies in cases of conflict and which country's law should apply. Also regulators and supervisors should streamline e banking guidelines such that it wears a global outlook. In Nigeria in particular, there is need to amend our banking and commercial laws to recognise electronic signatures

and contracts, streamline electronic transactions and stipulate e banking standards in line with global best practices.

Regulators/supervisors should improve their supervisory capacity to accommodate the present realities of e banking in Nigeria. They should also control the issue of electronic money, put in place adequate measures to forestall their counterfeiting and ensure the efficiency of banks offering these services.

If Nigeria is to catch up with the rest of the world in e banking, the government should play an active role by delivering on its promise of uninterrupted power supply. It should also impress on the National Communication Council (NCC) to properly regulate the telecommunications industry with a view to improving the services offered by GSM companies.

Conclusion

The enormous potential of electronic banking for the Nigerian banking sector and the economy at large is not in doubt. This study in addition to highlighting these beneficial attributes of e banking has also called to mind its associated risks. It concludes that, though e banking is still at its rudimentary stages in Nigeria, with appropriate risk control measures and supervisory oversight the future of e banking and the banking industry in Nigeria is bright.

References

- Acha, I. A. (2006) Bank Consolidation is not a Panacea *Journal of Business Management*. Vol. 1 No. 2, pp. 108- 121.
- Acha, I. A. and Elumaro, J. A (2006) Rural Development: The Informal Finance Option *Contributions to Business Economy*. Vol. 1, No. 1, December, pp. 187- 200.
- Acha, I. A. and P. O. Udofot (2006) Appraisal of Bank Deposit Insurance Management in Nigeria *Journal of Business Management*. Vol. 1 No. 1, pp. 19- 36.
- Akpan, I. (2004) *Fundamentals of Finance*, Uyo: Nelgrafik Ltd.
- Akpan, I. (2005) *Introducing Business: The Nigerian Perspective*, Uyo: Modern Business Press Ltd.
- Anyandele, I.A. and O.S. Adeoye (2006) The Problems and Prospects of Information Processing and Utilization Via the Internet: The Nigerian Perspective *Contributions to Business Economy*. Vol.1, No.1, December, pp. 1- 11.
- De-Young, R. (2001) The Financial Performance of Pure Play Internet Banks *Economic Perspectives* Vol. XXV, No.1 Federal Reserve Bank Of Chicago.
- Hilili, M.J. (2005) Overview of Electronic Payment Systems in Nigeria: Strategic and Technical Issues *Central Bank of Nigeria Bullion*, Vol. 29, No.2 pp. 67-79

Oluyemi, S. A. (2001) Development of Electronic Banking in Nigeria: The Associated Regulatory/Supervisory Challenges. *Nigerian Deposit Insurance Corporation Quarterly*. Vol. 11, Nos. 3&4 pp. 36-60.

Umoh, P.N. (2000) Self-Regulation: Concept and Practice. *Nigerian Deposit Insurance Corporation Quarterly*. Vol. 10, No.1 pp. 43-55.

Vartanian, I. P. (2000) The Future of Electronic Payments: Roadblocks and Emerging Practices
<http://www.friedfrank.comm/bancmail/bankpage.htm>

Zarma, A. B. (2001) Electronic Banking: Practices from other Countries, Associated Risks and Implications. *Nigerian Deposit Insurance Corporation Quarterly*. Vol. 11, Nos. 3&4 pp. 61-102.