

Banking Sector Technology Discrepancies: The Cost and Effect on Service Delivery

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Abstract

Today, the banking system is witnessing a lot of transformation via the aid of technology; this technological transformation is coming at cost to both the banks and the customers of the banks. The cost of technology based services of the banks to the customers is coming in various ways and format, sometime; it is of value to net the cost of the new technology against the benefits to the customers. The cost and effect of the new technology in the banks otherwise known as the electronic banking system is the core of this study. The study is an application of a survey design using structured questionnaire to capture variables of import to the study. The binomial test was adopted for the study. The study revealed that the whole of the E-banking system is coming at a higher cost to the customers than the manual banking of the past. The major cost is still being borne by the banks. It was also revealed that the E-banking promote better customers' relationship in the banking sectors. The net benefit over cost of the E-banking system is of value. The study recommended that the central bank of Nigeria (CBN) should institute various customer-protection service and customers complaint centre to promote fairness and equity in service delivery in the banking sectors. The need to also institute due process compliances system is equally germane for effective service provision at reduced charges.

Keywords: electronic banking, information technology

INTRODUCTION

The Electronic banking system has brought a new phase to the banking system. Today internet and Telecommunication enhanced banking service has brought a new age and a glorious one to the banking system. The E-banking system has equally brought the banking services to the door- step of the banks' customers. Shittu(2010) noted that Electronic banking both as a medium of delivery of banking services and as a strategic tool for business development, has gained wide acceptance internationally and is fast catching up in Nigeria with more and more banks entering the fray. This he noted will provoke a major banking revolution in Nigeria.

Thus, it is pertinent to note that the banking services today are of more quality and better spread than ever before. The banking services also reach all members of the society providing varieties of services. The banking sector is projecting itself today as the engine of growth to the economy; it is making financial transactions in the nation come at a higher value and precisions.

The interpersonal relation and the improved service delivery are germane. According to Osabuohien (2008) the Banking sector has become highly Information communication technology (ICT) based and due to its inter-sectoral link. It is reaping the benefits of technological revolution as evidenced by its application in most of its operations and service delivery. It is thus not to be overemphasized that the banking system and the banking products is making the financial service better and vibrant. The history of the E-banking is dated to the introduction of the desk-top computer system to the banking activities in the early 1980s and 1990s in Nigeria by the second generation banks (Akinuli, 1999).

The eventuality of the high-tech telecommunication system and the mobile telecommunication system has interwoven to transform the banking sector. The internet banking and other various E-banking services have brought absolute transformation to the banking sector. Osabuohien(2008) called this the Nigerian banking revolution. The banking services and products are more cognate and benefiting. The banking system is now more proactive and enhanced to handle complex-fiscal system imposed by the globalization emergency.

However, this transaction is not coming free or at a reduced cost to both the banks and her customers. The cost is huge and could sometimes be prohibitive. Though, the net benefit of the system cannot be denied. Increased availability and accessibility of more self service distribution channels help bank administration in reducing the expensive branch network and associated staff overheads (Birch and Young, 1997).

Therefore, this study will evaluate the cost-benefit of the E-banking to the banks as well as to the banks customers.

OBJECTIVES OF STUDY

The objective of this study is to evaluate the cost-benefit of the E-banking to the banks' customers as well as the banking sector. It is also the objective of the study to examine the customer's relation promotion content of the E-banking in relation to the cost to the customers.

The study also has an objective the examination of the employment content of the E-banking system.

Literature review

Osabuohien(2008) stated that technology can be referred to as the application of knowledge for the execution of a given task. It entails skills and processes necessary for carrying out activities (works) in a given context, While ICT encompasses computer systems, telecommunication, networks, and multimedia applications to work (Frenzel, 1996). It came into use in the late 1980's replacing earlier terms like Electronic Data Processing (EDP), Management Information System (MIS), although the latter terms are still in use as noted by (Frenzel, 1996).

The adoption of Information and Communication Technology in banking sector is generally referred to as electronic banking (E-banking) and application of its concepts, techniques, policies, and implementation strategies to banking services has become a subject of fundamental importance and concerns to all banks and indeed a pre-requisite for local and global competitiveness as noted by Adewuyi (2011). Jeevan (2000) observed that the internet banking enables banks to offer low cost and high value added financial services. This resulted in banks diverting their focus towards extensive computerization and electronic operations (Masocha et al, 2011).

Information and communication technology (ICT) strategic application in concepts, techniques and policies to banking services has become a subject of fundamental importance and concerns to all banks and indeed a prerequisite for local and global competitiveness in the banking industry. The advancement in Technology has played an important role in improving the standard of activities in the Banking industry. Woherem in Adewuyi (2011) noted that only the banks have their whole activity networked electronically and have fully implemented the ICT that can withstand the competition and survive in the new millennium. In its simplest form, the Automated Teller Machines (ATMs) and deposit machines now allow consumers to carry out banking transactions beyond banking hours either at the banking arena or remotely at any other place (Agboola, 2002).

Akpan(2012) study the effectiveness of the electronic banking (e-banking) system and the customer service and noted that the current banking operation in Nigeria is significantly adequate. It was also noted that majority of bank customers are not aware of other electronic services than the existence of automatic Teller Machine (ATM). Other electronic services like internet banking, telephone banking and Point-of-Sale (POS) are not known. The study recommended that banks should create enough awareness on other electronic services available in the country. It was also recommended that banks should use more efficient telecommunication equipment like fibre-optic cable in data transmission to make the system operation faster and secured given the associated problems of insecurity in electronic cards and frequent network failures in banking services.

Adudu and Kingoo(2012) in a related study of the relationship between electronic banking and financial performance among commercial banks in Kenya opined that the banking industry has been in a process of significant transformation. He noted that the force behind this transformation of the banking industry is innovation in Information Technologies. Information and communication technology is at the centre of this global change curve of electronic banking system in Kenya today. He noted that in general e-banking has strong and significance effects on returns on asset in the Kenyan banking industry and hence there exists positive relationship between e-banking and bank performance. Adudu and Kingoo(2012) like Akpan(2012) in general concluded that electronic banking has made banking transaction to be easier by bringing banking services closer and improving banking industry performance.

Ovia(2001) argue that Electronic banking is a product of e-commerce in the field of banking and financial services. In what can be describe as Business-to-consumer (B2C) domain for balance enquiry, request for cheque books, recording stop payment instruction, balance transfer instruction, account opening and other forms of traditional banking services. Banks are also offering payment services on behalf of their customer who shop in different e-shops. (Adudu and Kingoo, 2012)

The introduction of electronic banking has improved banking efficiency in rendering services to customer. Information and Communication Technology (ICT) is at the centre of electronic banking system in Kenya today (Steven, 2002). Christopher, et. al., (2006), opined that E-banking has become an important channel to sell the products and services and is perceived to be necessity in order to stay profitable in the industry. Jayawardhena and Foley (2000) were of the view that each ATM has the capacity to carry out the same, essentially routine, transactions as do human tellers in branch offices but at half the cost and with a four to one advantage in productivity.

It was Adudu and kingoo(2012) who noted that the Banking industry in Kenya cannot ignore information systems because it play a critical role in the current banking system growth, they pointed out that the entire cash flow of most banks are linked to information system. A study conducted by Dandapani et al., (2008) about the e-banking over 1999–2006 shows that the application of e-banking can improve banks' performance in terms of the growth in assets, reduction in operating expenses and portfolio enhancement.

Agboola(2003) also study the impact of banking on customer services and noted that electronic products have been increasing in varieties and gaining popularity in Lagos state. In the current time the study stated that 98% of customers agreed that computer facilitates accurate records of banking activities. It was equally noted that quality of service delivery has greatly improved since the introduction of electronic services in

term of time of service, convenience prompt and fair attention faster service and possibility of home and office services.

The existence of the Automated Teller Machines (ATM), Cards, Telephone Banking, Personal Computer Banking and Internet Banking were reported by CBN(2003) to be in operation now in Nigeria and this obviously going to bring improvement to banking services and increase competition in the sector Thus, Nigerian banks today are seriously into new electronic delivery channels for banking products and services with a view to delivering better services and satisfying customers the more.

According to Sergeant (2000), the benefits of E-banking are in manifolds and are to be seen from the point of view of the banks themselves, customers and even the regulators. According to him, E-banking brings different and arguably lower barriers to entry; opportunities for significant cost reduction; the capacity to rapidly re-engineer business processes; and greater opportunities to sell cross border. For customers, the potential benefits are: more choice; greater competition and better value for money; more information; better tools to manage and compare information; and faster service.

In the past few years, Nigerian banks and generally the financial services industry embraced electronic banking, which has been made possible by the advancements in Information Technology (IT).

According to Sanusi (2002), the introduction of such e-payment products in Nigeria commenced in 1996 when the CBN granted All States Trust Bank approval to introduce a closed system electronic purse called ESCA. This was followed in February 1997, with the introduction of a similar product called "Paycard", by Diamond Bank. The card based e-money products assumed an open platform with the authorization in February 1998, of Smartcard Nigeria Plc, a company floated by a consortium of 19 banks to produce and manage cards called Value Card and issued by the member banks.

Many banks therefore launched their websites between 1998 and 2000 with a view to starting Internet banking. A consortium of more than 20 banks under the auspices of Gemcard Nigeria Limited obtained CBN approval in November 1999 to introduce the "Smartpay" scheme. The CBN has additionally granted approval to a number of banks to introduce international money transfer products, telephone banking and on-line banking via the Internet, though on a limited scale (Abdulhakeem, 2002).

Many more sophisticated electronic banking products were thereafter, introduced to improve service delivery and customer satisfaction. CBN (2003) reports that Automated Teller Machines (ATM), Cards, Telephone Banking, Personal Computer Banking and Internet Banking are now available in the banking system.

Thus, Nigerian banks today are seriously into new electronic delivery channels for banking products and services with a view to delivering better services and satisfying customers the more. Banks that cannot offer these services are increasingly losing their customers. Berentsen (1998) considers the impact that the substitution of smart cards for currency will have on monetary policy, arguing that although electronic substitutes for currency will become widespread, monetary policy will continue to work as before because this currency substitution will leave the demand for central Bank reserves largely intact. Ongkasuwan and Tantichattanon (2002) indicate that internet banking helps banks in cost saving, increase customer base, enable mass customization for e-Business services, extend marketing and communication channel, search for new innovation services, and explore and development of non-core business.

Dogarawa(2010) was of the view that one of the benefits banks derive from electronic banking products and services delivery is improved efficiency and effectiveness of their operations so that more transactions can be processed faster and most conveniently. This will undoubtedly impact significantly on the overall performance of the banks. He also noted that the customers on the other hand, stand to enjoy the benefit of quick service delivery, reduced frequency of going to banks physically and reduced cash handling, which will give rise to higher volume of turnover. However, he summed that in Nigeria, these seem not to have been achieved in the banking sector. Queues are still seen in the banking halls, bank customers still handle too much cash and hardly do people talk about the electronic banking products that are available in Nigeria.

This problem was studied by Him and the study find out that many banks' customers in Nigeria are fully aware of the positive developments in information technology and telecommunications which led to the introduction of new delivery channels for Nigerian commercial banks' products and services. Most customers however, still patronize the bank branches and find interaction with human tellers as very important. It also finds that customers enjoying electronic banking services are still not satisfied with the quality and efficiency of the services. He noted also that the problem responsible for this lies on poor quality of service and efficiency. Therefore, this study stemming from the findings of Dogarawa(2010) will want to establish the causes of the poor service delivery and that of inefficiency confronting the banking sector application of technology (e-banking) and how it could be resolved.

RESEARCH PROBLEM

The Electronic banking (E-banking) system has permeated the whole of the money market especially the banking system today. The whole activities in the banking sector are carried out with the aid of technology.

However, this is not coming to the customers cheap but at a pertinent cost of continuous varieties. These costs to the customers are sometimes daunting and very prohibiting. The service though of faster quality, the pre-E-banking system is not seem to be better to justify the punitive cost to the customers.

There are also the employment transformation challenges of the E-banking which obviously might be a net-loss in employment generation in the banking sectors. This poses a germane problem to the natural employment drive of the nation. The above are the problems this study will tend to examine with the hope of solving them.

RESEARCH METHOD

The research was conducted using the top 10 commercial banking operators in Nigeria as rated by the Nigerian stock market, 10 most capitalized commercial banks Nigeria as the total population for the study. However, since it was impossible to cover the total sampling frame, our sample for the study consist of 120 customers and staff of the banks, which were carefully selected to cover both the customers and the staff of the banks using the convenient sampling technique. Of the total 120 questionnaires distributed only 104 were usable despite the fact that the enlighten customers were the only ones selected. A total of 82 questionnaires were retrieved from the customers out of a total of 92 given to them and only 80 were usable. And a total of 28 questionnaires were given to selected top managers of the banks, only 24 were retrieved and usable.

The data collected was analyzed using the binomial test. The test was selected as it will yield a better result from our questionnaire with scale of 2 and 1, that is, a Yes /No option as the boundary of the work. Secondly, the binomial test was used because it gives a better convergent and divergent structure of the distribution.

HYPOTHESES TESTING

1. The transaction cost removal does not reduce interconnectivity service provision by competitive banks on the usage of ATM.
2. The E-banking system is not coming at a higher cost to the customers than the banking operators.
3. The E-banking system does not promote better customers relation in the banking sector.
4. The E-banking system has not resulted in reduction of employment in the banking sector.

BINOMIAL TEST

	TEST PROP	SIGNIFICANT
The transaction cost removal does not reduce interconnectivity service provision by competitive banks on the usage of ATM	0.50	X
The E-banking system is not coming at a higher cost to the customers than the banking operators	0.50	X
It educate the customers and the public generally on the use of information technology especially in regard to the e-banking high tech. system	0.50	X
The e-banking system has resulted in reduction of employment in the banking sector	0.50	X

Note: xxx = Not significant at 5% or 10%

X=significant at 5%

XX=significant at 10%

For the purpose of the study, four hypotheses were tested. The first and second hypotheses were neither significant at 5% or at 10% while the third and the fourth hypotheses were significant at 5% significant level.

SUMMARY OF FINDINGS

The study the revealed the following:

1. The removal of transaction cost from customers to the banks has brought about reduced inter-connectivity service provision by competitive banks on the usage of ATM service and other electronic services . This means that the transfer of cost of intra-bank transaction from the customer to the bank has reduced the effectiveness of the banks especially on the ATM system.
2. The E-banking system including the ATM and other electronic card transactions are coming at a higher cost to the banks than the customers. It can be stated that the installation cost of most of the E-banking services is borne by the banks and other E-banking service providers (e.g. inter switch Ltd in Nigeria), while the customers pay the service cost or transaction cost. It is of note that the cost is meant to reduce at a continuous benefit to the banks to off-set the installation cost or the capital cost of the system.
3. The E-banking system is of value in provision of better services and promoting better customers' services.

- Thus, with the E-banking system better customers' services are fostered, this support CBN (2003) assertion that the e-banking is going to bring improvement to banking services and increase competition in the sector.
4. The introduction and continuous adoption of new and better system technology in the banking system have culminated in staff reduction in the banking system. It is worthy to note that technology always reduce human activity in the system, manual service delivery would make use of more of human services than technology application. The adoption of technology always come as a one-time-cost event with periodic maintains cost where as human service at a continuous but minimum cost. The marginal advantage of technology-cost over human-service-cost is a subject of for further enquiry.
 5. The adoption of the E-banking system has brought the banking services to the door-step of customers, it also foster better and increased fiscal services in the nation.

CONCLUSIONS

The Electronic banking system is of value in the provision of adequate, fast and reliable banking services. However, the one-time-cost event nature of the Electronic banking system put pressure on the banks. The high transaction cost and various multiple transaction cost to the customers is another issue of value. Today the cost of the banking service has been on the increase aside the account maintenance cost (C.O.T). There is the SMS-cost, cost on inter-bank services and several other costs on intra-bank services, International banking service (e.g. money gram) and other services, sometimes these charges are double charged.

Moreover, internet banking services are all coming at a heavy cost on the customers. The banks give out loans to the customers at interest rate of 20% and above where as they pay interest income to the account holders on (saving and fixed deposit) at an average rate of 2% (for saving) and fixed deposit of 30 days, 60 days etc. are made negotiate depending on number of days.

Conclusively, the effect of the E-banking in term of return and access to increase and better financial service is worth of note, but the cost to the customers is also huge and pertinent.

RECOMMENDATIONS

The Central Bank of Nigeria should increase their surveillance on the banking operators to ensure that due process is followed and only fair charges are allowed by the banks.

The Central Bank of Nigeria should also set up commercial bank-customers-complaint centers in various places. This service could also be done via the internet system as this will reduce the incidence of wrong and unscrupulous charges by the banks.

The central banks should also impose penalty on erring banks that is, those who do not follow due process in service delivery and those imposing unscrupulous charges on the customers.

The central banks should also provide customer protection service to enhance efficiency in service delivery and fairness of charges on customers. A public private partnership schemes should be put in place to address effectively the issue of unscrupulous charges by the commercial banks.

References

- Adewuyi, I. D. (2011). Electronic banking in Nigeria: challenges of the regulatory authorities and the way forward International Journal of Economic Development Research and Investment, 2(1) 215-222
- Adudu and Kingoo(2012) Model for e-banking and performance
- Agboola, A. A. (2003). Information Technology, Bank Automation, and Attitude of Workers in Lagos state. *Journal of economics and finance 5(1)*
- Akinuli, O.M. (1999). Information Technology in Nigeria's Banking Industry: Operational Applications, Problems and Future Challenges. *CBN Bullion*, 23 (3). 71-75.
- Akpan, Ambrose Ekong(2012). The effect of electronic banking on customer service delivery in Nigeria
- Berentsen, A. (1998). Monetary Policy Implications of Digital Money. *Kyklos*, 51, (1) 89-118.
- Birch, D., Young, M.A. (1997). Financial services and the Internet: what does cyberspace mean for the financial services industry? *Internet Research: Electronic Networking Applications and Policy*, Vol. 7 No.2, pp.120-6
- CBN (2003): Guidelines on Electronic-Banking in Nigeria, available at <http://www.cenbank.org>
- Christopher, G. C., Mike, L. Visit and Amy, W.(2006). A Logit Analysis of Electronic Banking in New Zealand, *International Journal of Bank Market*, 24, pp. 360- 383
- Dandapani, K., Karels, G.V. and Lawrence, E.R. (2008) 'Internet banking services and credit union
- Frenzel, C.W. (1996), *Information Technology Management*, Cambridge: Thomson Publishing Company
- Jayawardhena, C. and Foley, P. (2000) Changes in the Banking Sector – the Case of Internet Banking in the UK, *Internet Research: Electronic Networking Applications and Policy*, Vol. 10, No. 1, pp.19-30.
- Jeevan M.T. (2000). "Only Banks-No Bricks, Voice and Data",

- <http://www.voicendata.com/content/convergence/trends/100111102.asp>. (20 Sept, 2010)
- Masocha, R ; N Chiliya and S Zindiye (2011). E Banking adoption by customers in the rural milleus of South Africa: A Case of Alice, Eastern Cape, South Africa. *African Journal of Business Management*, 5(5), 1857 – 1863. Natalie Anderson, pp. 11-36. Nigerian Banks. *Journal of Social Sciences*, 7(3) 215-222
- Oluwagbemi, O., Abah J. and Achimugu P. (2011). The Impact of Information Technology in Nigeria’s Banking Industry. *Journal of computer science and engineering* 7(2) 63-67
- Ongkasuwan M, Tantichattanon W (2002). A Comparative Study of Internet Banking in Thailand. Retrieved on [May, 2010] from World Wide Web: http://www.ecommerce.or.th/nceb2002/paper/55-A_Comparative_Study.pdf.
- Onuba, Ifeanyi(2013 July 13) CBN recovers N8.6bn excess bank charges.
- Osabuohien, Evans S.C. (2008) ICT and Nigerian banks reforms: analysis of anticipated impacts in selected banks *Global Journal of Business Research*, 2(2) 67-76
- Osabuohien, Evans S.C.,(2008), ICT and Nigerian banks reforms: analysis of anticipated impacts in selected banks *Global Journal of Business Research*, 2(2) 67-76 performance’, *Managerial Finance*, Vol. 34, No. 6, pp.437–447.
- Sergeant, C (2000): E Banking: Risks And Responses, B & B Societies Financial Services, USA, at <http://www.fsa.gov.uk/pubs/speeches/sp46.html> *Ahma*
- Shittu, Olorunsegun(2010). The impact of electronic banking in Nigeria banking system (critical appraisal of unity bank plc) unpublished MBA project
- Steven, A. (2002) *Information System: The Information of E-Business*, New Jersey, The Punch retrieved from www.punch.com

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