

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/266739522>

Customers' Adoption and Usage of Internet Banking and other Web Related Services in Banking

Article · October 2010

CITATION

1

READS

122

3 authors, including:



Solomon A. Adepoju

Federal University of Technology Minna

30 PUBLICATIONS 187 CITATIONS

SEE PROFILE

Some of the authors of this publication are also working on these related projects:



A Decision Tree Approach for Predicting Students Academic Performance [View project](#)



Keeping with the Global Trends: An Evaluation of Accessibility and Usability of Nigerian Banks Websites [View project](#)

Customers' Adoption and Usage of the Internet Banking and Other Web Services in Banking

¹S.A. Adepoju, ²G.A. Babalola, ³G.A. Onyeabor

¹Dept. of Computer Science, Federal University of Technology Minna, Nigeria

^{2,3}Dept. of Library and IT Federal University of Technology, Minna, Nigeria

Abstract

The study examines the extent of adoption and usage of internet banking and other web related services by customers of Oceanic Bank plc in Minna Nigeria. A survey was conducted and sampled copies of 200 questionnaires were distributed to the banks customers which were purposively selected. Out of these 160 were returned. Internet bank though still relatively young in Nigeria is growing rapidly and is widely accepted among the customers. Findings shows that apart from the Automatic Teller machine (ATM) which is commonly accessed and used predominantly by customers, other web services are not really been utilized by many customers.

Keywords

Internet, Banking, ATM, customers, Nigeria.

I. Introduction

The basis for the emergence of the modern electronic distribution channel is as the result in the evolution of the concept of money. Nowadays, money can be defined as information, which can be electronically transmitted to facilitate economic transactions; it is this new definition of money that has led to the electronic revolution of financial institution, the direct result being the advent of the internet bank. Furst et al [2] asserted that banking over the Internet has attracted increasing attention from bankers and other financial services, industry participants, the business press, regulators, and law makers. Financial institutions are now allowing their customers to do their banking transactions via the internet. Most of the services that one would normally perform in the bank can be carried out with in the privacy of one's home. Stamulaus [12] stated that all the transactions are encrypted to the highest possible level before being sent across the internet. The internet in banking has not only helped in the development of multiple services in the banks but has also helped to bridge time and space which is necessary in today's business environment. With the use of internet in banking one can do most of things he would have ordinarily gone to the physical bank to do. A customer can now have direct access to whatever department he might need their services through the internet. Banks in Nigeria offers online banking facilities, which may differ from one bank to the next. In order to use the online banking facilities offered by one's bank, one needs to apply for this services to be activated. For one to access the online bank, an authentication process would be required which is used to identify ones identity. The online banking has really enhanced the way banking transactions are done. The Central Bank of Nigeria in its Annual Report [4] reports that online banking has improved on the areas of opening of account, bank to bank transfer, electronic payment, checking of account balance and cash deposit withdrawal through the ATM (automated teller machine). However, despite all these available services on the internet from banks it is necessary to investigate the extent of their adoption and usage by customers. This is what this study has come to address

II. Objectives of the Study

The objectives of this study are as follows:

1. To assess the level of satisfaction derived by customers as a result of using the internet in banking operations
2. To investigate the extent of acceptability of the internet in banking among customers.
3. To determine what product offered by the bank through the internet is mostly used by the customers.

III. Literature Review

The internet bank is also known as the online bank. The most important feature of the internet bank is that it allows customers to conduct financial transactions on a secure website operated by their retail or virtual bank. The main features of the internet bank can be categorized into two namely transactional and non transactional. Transactional includes; Electronic Bill Presentment and Payment (EBPP), fund transfer between a customer's current and savings account, or to another customer's account, Investment purchase and sale, Loan applications and transactions, such as repayment, online withdrawal of cash. Non transactional include: Online statement, Check links, Co browsing and chat, Financial institution administration and ASP/Hosting Administration, Peterson [10] traced the history of internet banking from 1980, and affirmed that it has come a long way since then. The last decade has seen a profuse growth in internet banking transactions. Several pieces of legislation have also been introduced in this area. Though it began in the 1980s, it was only in the mid nineties that internet banking really caught on. What attracts customers to internet banking is the round the clock availability and ease of transactions. Maria [9] confirmed that the internet in banking has been around for quite a few years now, but has really only become prominent over the past couple years or so in particular. Its fast development would be attributed to the ability to do different transaction online like account balances and history including year to date information, transfer of money from one account to the another, payment for bills, check history, reorder, and stop payments, check credit card balances and statements, complete loan applications, secure interactive messaging with staff, and much more. In short [2] concluded that internet banking basically allows a customer to do everything from the comfort of one's home.

A. Web Services Available on the Internet Bank

1. Point Of Sales (P.O.S)

Point of sale or point of service (POS) can mean a retail shop, a checkout counter in a shop, or the location where a transaction occurs. More specifically, the point of sale often refers to the hardware and software used for checkouts – the equivalent of an electronic cash register. Point of sale systems are used in supermarkets, restaurants, hotels, stadiums, and casinos, as well as almost any type of retail establishment.

2. Automated teller machine (ATM)

This is a device used by bank customers to process account transactions. Typically, a user inserts into the ATM a special plastic card that is encoded with information on a magnetic strip. The strip contains an identification code that is transmitted to the bank's central computer by modem. To prevent unauthorized transactions, a personal identification number (PIN) must also be entered by the user using a keypad. The computer then permits the ATM to complete the transaction; most machines can dispense cash, accept deposits, transfer funds, and provide information on account balances. Banks have formed cooperative, nationwide networks so that a customer of one bank can use an ATM of another for cash access. A customer using a coded card was dispensed a package containing a set sum of money.

3. Mobile Banking

Mobile banking (also known as M-Banking, m-banking, SMS Banking etc.) is a term used for performing balance checks, account transactions, payments etc. via a mobile device such as a mobile phone. Mobile banking today is most often performed via SMS or the Mobile Internet but can also use special programs called clients downloaded to the mobile device [12].

B. Internet Banking In Nigeria

According to Ezeoha [7] the emerging trend in internet banking in Nigeria is a global concern because the Nigeria economy is a strong force in Africa. On the home front, bank frauds, forgeries, money laundry, insider abuse and erosion of public confidence constitute a set of disturbing issues in the present-day Nigerian banking system. This explains why regulation has become of paramount importance in the entire Internet banking development process. His paper examined the current regulatory efforts of the Central Bank of Nigeria to ensure successful practice of Internet banking in Nigeria. It identified certain lapses in the existing regulations on Internet banking, and argues that without a comprehensive regulation and improved access to information infrastructure; it might be difficult for meaningful advances to be made in this field of banking.

Ezeoha [7] further identified two major issues with the internet bank in Nigeria as: Threats of Cyber-Crimes on the Nigerian Banking Premises and regulatory challenges. Chiemeke et al. [6] conducted an empirical investigation on adoption of e-banking in Nigeria while Agboola [2] investigated electronic payment systems and tele-banking services in Nigeria. Both studies identified inhibiting factors to internet banking and also reported that internet banking was capable of broadening the customers' relationship and retain their loyalty if the attendant problems identified were taken care of. From the studies by Ojo, Ayo, and Ovia (cited by Ayo & Ukpere [5] they are of the opinion that the cash based nature of payments in the country is responsible for the abysmally low level of participation in e-Commerce where the acceptable medium of settling transactions is e-Payment. Ayo & Ukpere [5] in their paper proposed a better and secured e-payment system for Nigeria. This is as a result of the observation made in their research that the ATM was the most widely used e-payment system in Nigeria. It was also observed that ATM users believe that it is convenient and simple but doubt its reliability, safety and privacy. Also, Adepajo & Alhassan [1] carried out analysis on the challenges of ATM usage and fraud occurrences in Nigeria and

proffered the ways in which fraud issues could be tackled. The study shows that the widespread usage of ATM among users and also found out that cases of ATM fraud caught across sex and occupation. Hence, the challenge was posed to the bank to provide better security for this service. Auta [3] in his own study on e-banking in developing economy concluded that that the Nigerian customers have security, access, and no enough knowledge regarding e-banking services rendering by banking sector in Nigeria. The study therefore suggest that critical infrastructure like power and telecommunication should be provided and with high level of stability to ensure the application of e-banking in Nigeria. He further stated that customers have started perceiving the services of bank through internet as a prime attractive feature than any other prime product features of the bank. Customers have started evaluating the banks based on the convenience and comforts it provides to them (Auta, 2010).

IV. Research Methodology

The population of this study comprises the customers of Oceanic Bank Minna branch who operate both current and savings account. However, selection of the respondent customers was done through purposive sampling so that only educated and enlightened customers who understand what internet banking involves was selected. The researcher made use of questionnaires as the instrument for data collection in this work. The questionnaire has two sections. Section A was to collect the demographic data of the respondents. Section B asks questions relating to the usage and customers satisfaction with internet and other web related services on banking operation. The respondents are required to choose the scale that best expresses their opinion and views from the scale. The analysis was done based on descriptive statistics using statistical package for social sciences (SPSS). The results are presented in tables 1-4.

Table 1: Demographic Data of the Respondents

Gender of Respondents	Frequency	Percent
Male	91	56.9
Female	69	43.1
Total	160	100

Age of Respondents	Frequency	Percent
< 25	127	79.4
25-34	29	18.1
35 and above	4	2.5
Total	160	100

Internet Bank Experience of respondents

Yrs	Frequency	Percent
1-4	104	65
5 and above	17	10.6
None	39	24.4
Total	160	100

Profession of Respondents

Profession	Frequency	Percent
Traders	19	11.9
Civil Servants	12	7.5
Diplomat	4	2.5
Student	123	76.9
Others	2	1.25
Total	160	100

V. Results and Discussion

A total of 200 questionnaires were distributed to the respondents out of which 160 were returned and used for the analysis. This represents 80% of the total respondents. Table 1 shows that 91 (56.9%) are male while 69 (43.1%) are female. From the age distribution about 79% are about 25 years old. This also indicates that the majority of those involved in the study are students (76.9%). This is justifiable considering the fact that students have more access to the internet and hence make can perform banking transaction online. Most of the respondents (65%) have been using internet for as minimum of 1 to 5 years while 10.6% have been using it for more than 5 years with 29% stating that they have not used at all up till one year. Table 2 indicates the frequency of usage of various internet banking services by the customers. From the table 70% of the customers always use ATM while 25% used it occasionally. The remaining 5% indicated they never use it. More than 65% of the respondents indicated that they never use any of the remaining web services. This clearly indicates that many are still not utilizing them. This study corroborates Central Bank of Nigeria (CBN) claim that the most prominent form of e-Payment system in Nigeria is the ATM card. Ayo & Ukpere [5] also observed that the other media such as the Internet payment, POS and Mobile payments are still at their infancies in Nigeria. Hence, the level of involvement of these instruments of payment presents a clearer picture of the low level of involvement of Nigerians in e-Commerce, knowing fully well that ATM cards are not suitable for international settlement of transactions [5].

Table 2: Frequency of Usage of Internet and Web Related Services

Banking services	Always	Rarely	Never
ATM	112(70)	40(25)	8(5)
Online account balance	58(36.25)	26(16.3)	76(47.5)
Point of sales	20(12.5)	6(3.8)	134(83.8)
Online payment of utility bills	21(13.1)	18(11.3)	123(75.8)
Online opening of account	11(7.2)	28(17.5)	121(75.6)
Online money transfer	30(18.75)	25(16.6)	105(65.6)

Table 3 : Level of Customers' Satisfaction with Internet Banking

Variable	Frequency	Percent
Very satisfactory	46	28.8
Satisfactory	91	56.9
Not Satisfactory	23	14.3
Total	160	100

Table 4 : Level of Stability of Internet Banking

Variable	Frequency	Percent
Very stable	19	11.9
Stable	92	57.5
Not Stable	49	30.6
Total	160	100

Table 3 shows the respondent satisfaction with the internet bank in use. Clearly about 80% are satisfied with it while only 23% are not satisfied at all. This implies that the level of satisfaction is high especially with ATM though they may experience occasional dissatisfaction.

Finally from table 4 which shows the how stable interbank are, 30% are still of the opinion that the services are not stable. This

may be as a result of network failure, epileptic power supply or any other reasons.

VI. Conclusions

Internet banking might take a reasonably long time to fully become an every body's thing in the country's banking practice. The banking industry in the country does not also at present enjoy that level of high patronage of all internet banking services that may allow for full benefits of Internet banking system. Even at present the level of customers confidence in the banks is not such that can guarantee effective customer patronage of Internet Banking services. Hence in addition to the cases of poor access to the requisite facilities, very few customers actually transact businesses through the Internet. This explains why the development of banks' web sites has not gone beyond few internet banking purposes. A situation where banks would have to invest much on acquiring information technology software without attracting enough customer patronage necessary to justify the huge expenditure does not make for a progressive chance for rapid growth in Internet banking in Nigeria.

VII. Recommendations

Based on this study, I therefore make the following recommendations. First, the issue of security on the internet bank should be improved through the use of appropriate technology like strong fire walls and filters just like the way it is done in developed countries. This will allow customers to have confidence in its usage and hence increase its adoption. Second, banks in Nigeria should keep abreast of development in Information Technology and make use of appropriate and latest IT techniques relevant to the internet bank. Example of such available techniques include personal identification devices, biometric security and monitoring auditing facilities within operating database and application software to help with detection and investigation of internet bank fraud.

Lastly, more businesses should be encouraged to accept cashless transactions and there should be a massive enlightenment campaign so as to enumerate to the public the benefit of the internet banking services. This is because from this research most people think that the internet bank is all about the ATM. Therefore, the banks should encourage customers to use other internet banking services and not just the ATM.

References

- [1] Adepoju A.S., Alhassan M.E. "Challenges of ATM Usage and Fraud Occurrences in Nigeria". Journal of Internet Banking and Commerce. Vol. 15, No 2, 2010. [Online] Available : www.arrayde.com/commerce/jibc.
- [2] Agboola, A. A. "Electronic Payment Systems and Tele-banking Services in Nigeria". Journal of Internet Banking and Commerce, Vol. 11, No. 3, December 2006, [Online] Available : <http://www.arraydev.com/commerce/jibc/>
- [3] Auta M.E. "E-banking in developing economy: empirical Evidence from Nigeria". Journal of Applied quantitative methods Vol. 5 No. 2.
- [4] CBN Annual Report. "Central Bank of Nigeria., [Online] Available : <http://www.cenbank.org>, 2002.
- [5] Charles K. A, Ukpere W.I. "Design of a secure unified e-payment system in Nigeria: A case study". African Journal of Business Management Vol. 4 No 9, pp. 1753-1760, [Online] Available : <http://www.academicjournals.org/AJBM>

- [6] Chiemeke, S.C. Ewwiekpaefe, A., Chete, F. "The Adoption of Internet Banking in Nigeria: An Empirical Investigation". Journal of Internet Banking and Commerce, vol. 11, No.3, December 2006
- [7] Ezeoha A. E. "Regulating Internet Banking in Nigeria: Problems and Challenges" Journal of Internet Banking and Commerce . Vol. 11, No.1
- [8] Karen F, William W. L., Daniel E. "Internet Banking: Developments and Prospects, Economic and Policy Analysis" Working Paper 2000-9. [Online] Available : <http://www.occ.treas.gov/ftp/workpaper/wp2000-9.pdf>
- [9] Maria, S.M. 2007 "History of Internet Banking". [Online] Available : <http://www.ezinearticles.com>
- [10] Peterson, M., A Brief History of Internet in Banking. [Online] Available : <http://www.ezinearticles.com>, 2006
- [11] Stamuolis.D.S., "How Banks Fit in an Internet Commerce Activities Model". Journal of Internet Bank and Commerce. Vol. 5 No.1, 2000
- [12] Wikipedia encyclopedia, "Mobile banking". [Online] Available : <http://www.wikipidia.com>, 2011



Solomon A. Adepoju holds B.Tech. Maths/ Computer Science & M.Sc. Computer Science from the Federal University of Technology Minna and University of Ibadan Nigeria respectively. He is presently a PhD student at the African University of Science and Technology, Abuja. His research interest include Information Technology & Society, Usability Evaluation and of recent Decision Supports System.



Gideon Babalola holds B.Sc.Ed. & M.Sc. from Obafemi Awolowo University and University of Ibadan respectively. He is a pioneer lecturer in the Department of Library & Information Technology, School of Information and Communication Technology, Federal University of Technology, Minna, Nigeria. He is presently a PhD student at University of Ibadan Nigeria. His area of research is Optimising the Research Productivity (output) of the Academia through Adequate Job Motivation. He is also interested in Information Technology & Library. He has a good number of academic and professional articles to his credit.



Grace A. Onyeabor holds B.Tech, Physics /Computer Science & M.Sc Information Science from the Federal University of Technology Minna and University of Ibadan Nigeria respectively. She is currently a lecturer in the department of Media & Information Technology, Federal University of Technology, Minna, Nigeria. Her research interests are Information Technology & Society, Information Science and Database Management Systems.