European Journal of Business and Management
ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online)
Vol.8, No.13, 2016

Economic Implications of Electronic Banking on Selected Businesses in Nasarwa State Nigeria

OLUMA, Sabo Suleiman
C/O Department of Business Administration,Faculty of Administration,
Ahmadu Bello University, Zaria, Kaduna State, Nigeria

ABDULLAHI, Dauda
Faculty of Arts, Management and Social Sciences,Department of Business Administration,
Federal University, Gashua, Yobe State,Nigeria

MADU, Ikemefuna
Faculty of Arts, Management and Social Sciences,Department of Business Administration,
Federal University, Gashua, Yobe State, Nigeria

Abstract
The paper evaluated implications of electronic banking on selected businesses in Nasarawa state, Nigeria. Of recent, banking industry has witnessed a significant improvement in technological development especially in e-banking business services. It offers convenience to the customers and encourages cashless policy in the economy. The objective of this study is to examine the extent to which e-banking operations affect the service delivery of selected businesses in Nasarawa state. This study adopted chi-square statistical technique in the analysis of data. The test of hypothesis has shown that there was a significant relationship between electronic banking platform and the performance of businesses in the state. It was concluded that most of the respondents agreed that e-banking system adopted by the deposit money banks in Nigeria have improved tremendously the performance of their businesses in terms of efficiency in conducting business activities. We recommended that the deposit money banks should expand on the points of Automated Teller Machine (ATM) to improve the quality of services render to allow the customers offset their bills and enhance business transactions.

Introduction

The banking industry has witnessed significant advancement in technology just like any other sector. The adoption of e-banking service is one of that advancement that affects banking operations entirely. With the adoption of self-service technology by the banks, e-banking system has continued to service the populace well. E-banking offers convenience to costumers and provides Banking services well beyond the traditional service period. It therefore encourages a cashless society and every sector of the economy whether financial or non-financial organization is adopting computer based approaches to the service rendered.

Mobile banking which is a type of electronic banking is becoming more popular in modern banking and as such has been a subject of interest among researchers. Mobile banking means a financial transaction conducted by logging on to a bank's data base using a cell-phone; such as viewing account balances, making transfer between accounts, or paying bills. It is a term used for performing balance checks, account transactions, payments etc, via a mobile device such as a mobile phone. In recent times e-banking is most often performed via SMS or the mobile interest and can also use special program called client downloaded to the mobile.

Combining the convenience of mobility with the rich multi-media content of the interest and with the integration of the mobile telephone with palm-sized of computers, cameras and content related information make it almost inevitable that the ubiquitous access point to the electronic information is not the personal computer but rather some form of mobile appliance as observed by (Wojuade, 2000). The emergence of GSM has led to improvements in efficiency and productivity, reduction in transaction costs, increase service innovation and better quality of life for the rural dwellers.

Information communication technology (ITC) has moderated constrains of time; space and information access in world trade and commerce as a whole. Emerging trends in socio-economic growth shows a high premium being placed on information and communication technology (ICT) by homes, organizations, and nations, (Adewoye, 2013). The business of banking is basically about efficient service delivery. Consequently, the introduction of facilities that enhance the delivery of banking services such as mobile; internet, ATM in an effective manner is always a welcome development. E-banking has become an important issue not only to retain consumers but also gaining a competitive advantage while maintaining and growing overall effectiveness. In the present day banking system, excellent in customer service is the most important for sustainable business growth.

Consequently, the objective of this study is to examine the extent of the economic implication of e-banking system on service delivery of some selected businesses in Nasarawa State of North-central Nigeria. The following fundamental research question was asked for this study. To what extent does e-banking system being used influence the operation of the selected businesses in Nasarawa state? This study was premised on the following stated hypothesis in null form.

Ho: There is no significant relationship between e-banking and the service delivery of selected businesses in Nasarawa State.

The outcome of this study would have a number of policy implications to the banks, customers and academicians. The banks would benefit from this study by using the outcome to shape the direction of their various policies especially product policy on the use of electronic banking. Again, students and academicians could find this study useful as it would increase the body of knowledge of ensuring management and corporate governance.

This study covered a period of four years ranging from 2010 to 2013. This study was related only to selected businesses in Nasarwa State in North Central, Nigeria. Again out of the total banks in the state; five of the banks were selected from the local government areas of Keffi, Karu, Lafia, Nasarawa and Akwanga respectively as sample size for this study. The selected banks were made through filtering method. This study was not spared of some limitations. Since the study only covered one state out of the thirty six states of Nigeria, the outcome might not be generalized to the entire country.

Literature Review and Theoretical Framework

The definition **of** electronic banking (e-Banking) varies amongst researchers partially because electronic banking refers to several types of services through which a bank's customers can request information and carry out most retail banking services via computer, television or mobile phone (Daniel, 1999; Mols; 1998; Sathye, 1999). Different authors have defined it in different ways based on their understanding of the application of electronic banking. According to Daniel (1999), electronic banking is the connection between the bank and customers in order to prepare, manage and control financial transactions. Sathye (1990) asserted that electronic banking could be defined as a variety of the following platforms: (a) Internet Banking (or online Banking). (b) Telephone banking, (c) television-based banking, (d) mobile phone banking, and (e) PC banking (or online banking). Daniel (1999) observed that e-banking is online banking (Internet banking) which allows customers to conduct financial transactions on a secure website operated by the retail or virtual bank, credit union or building society. This implies that banking service that allows an account holder to obtain account information and manage certain bank transactions through a personal computer via the financial institution web site on the internet. For many consumers, electronic banking means 24-hour access to cash through an Automated Teller Machine (ATM) or Direct Deposit of pay checks into checking or savings accounts (FTC; 2006). But electronic banking now involves many different types of transactions.

Importance of E-banking

Electronic banking systems provide easy access to banking services. The interaction between user and bank has been substantially improved by deploying ATMs, Internet banking, and more recently, mobile banking (Wang, 2003). Electronic banking (e-banking) reduces the transaction costs of banking for both Small and Medium Enterprises (SMBs) and banks. SMEs need not visit banks for banking transactions, providing round the clock services (Cheng, *2006).*

Customers prefer e-banking for conveniences, speed, round the clock services and access to the account from any parts of the world (Cheng, 2006). E-banking offers benefits to banks as well. Banks can benefit from lower transaction costs as e-banking requires less paper work, less staff and physical branches (Cheng, 2006). E-banking leads to higher level of customers' satisfaction and retention (Poatoglu & Ekin, 2001). E-banking reduces loan processing time as borrowers loan application can be viewed by loan processing and loan approval authority simultaneously (Smith & Rupp, 2003).

Typically, loan applications received at branch level and sent to head office for approval. This documents transfer to and from branch to head office consume much time and delay loan transaction period (Riyadh, 2009). The benefits of e-banking identified from the current literature are classified in two main categories - tangible and intangible.

E- Banking Fraud in Nigeria

The issue of fraud is quite pervasive, and has permeated every aspect of the Nigerian economy, that almost everyone could be involved in one way or the other. However, the Nigerian e- banking scam emerged sometime around early 1980s constituting one of the largest industries that tapped into all avenues of communications. The earliest manifestation of e- banking in Nigeria began when banks used desktop computers to keep customers accounts and effect the double entry as the case may be.

Currently, e-banking has assumed a sophisticated dimension with internets, cell phone, Automated Teller Machine (ATM), being employed to facilitate expeditious cost effective service to the satisfactions of customers.

Many electronic scams begin with a letter to potential victim receiving via Spain, fax or e- mail, requesting for a small start up transfer amount of incredible sum, or to aid ill laundering money out of the country or other illegal job in return for substantial slim of money that continues until the recipient runs out of money or the scanners move on for a fresh bait of requesting for personal information, like bank account or credit card number to transfer nonexistent cash award that exposed the possibility of identity theft, insurance, credit card and internet fraud.

It is interesting to note that over 50% of the Chief executive officers of Nigerian DMBs in the past years were being forced out of their offices for fraudulent conduct that in many cases resulted in loss of revenue to their banks. In extreme cases, the banks were left hanging on the "distress" fringe (Jiwade, 2009).

Similarly, the recent decision by the CBN governor to remove seven (7) Chief Executive Officers with their executive directors of the 24 consolidated banks has certainly brought the issue of fraudulent financial conduct and mismanagement in the tune of N500 billion in accumulated margin loan that had gone bad and eroded shareholders funds into the headlines of many banks (Owodele, 2009). Although, federal laws have been unable to keep pace with the predicament in e- banking fraud and are therefore using different kinds of analogy and devices to punish criminals in one way or another .

Theory of Electronic Banking

Literature on organizational adoption of ICTs could be categorized under two groups. The first one focuses on rationalistic goal oriented behaviour of firms, such as Technology Adoption Model (Davis, 1985). Other approaches focus on institutional pressure on firms such as Institutional Theory. Rationalistic goal oriented behaviour is mostly grown from the theory of Planned Behaviour (TP13) (Ajzen, 1991), derived from the Theory of Reasoned Action (TRA) (Fishbein and Ajzen, 1975) and Technology Acceptance Model (TAM) (Davis, 1989). TRA can be described as one of the most influential theory to explain human behaviour's attitude towards adoption of' innovation (Venkatesh, 2003). T13P best suited with the situations where people do not have complete control over their behaviour. Taylor and Todd (1995) proposed a model, which is popularly known as Decomposed Theory of Planned Behaviours (DTPB), based on Innovation Diffusion Theory and TPI3. In DTPB, attitudinal beliefs are broken into three parts: perceived usefulness, perceived case of use and compatibility. A good number of studies have investigated the adoption of various IS using either TAM or extended version of TAM (Venkatesh and Davis, 2000; Wang, 2003). Most important extension of TAM was made by Venkatessh and Davis (2000) by adding subjective norm construct and this modified model is known as TAM2, TAM model is based on two main constructs: perceived usefulness and perceived case of use, This model explains how individual customers or organizations take decisions regarding adoption of technology.

On the other hand, the perspective of Innovation Diffusion-Theory (Rogers, 1983; Venkatesh and Davis, 2000) had been embraced by a group of researchers in which behavioural intention or behaviour and determinants of innovation diffusion are relative advantages, compatibility, complexity, observability, and Trial ability (Rogers, 1983).Rogers Innovation Theory had been extended by Chenge (2006) by adding two more construct: image and voluntaries of use. It is widely believed that the explanatory power of any model increases if researchers extend the existing models rather than looking at only one goal oriented model (Cheng *ct al. 2006).*

Smith and Rupp (2003) studied Internet banking adoption in Brazil by combining constructs from various models like innovation characteristics, subjective norm, perceived behavioural control, and individual characteristics and found that integrated model offers superior ability to explain adoption. Wang *et al. (2003)* studied adoption of Internet banking in Taiwan using TAM model and introduced new construct' perceived credibility that reflects the user's security and privacy concerns in the acceptance of Internet banking. They round the significant influence of perceived ease of use, perceived usefulness and perceived credibility on the intention to use Internet banking. Daniel (1999) extended TAM for studying factors that determine customers' acceptance of Internet banking. Potoaglu and Ekin (2001) in their Tcchnology-Organization-E'nvironment (T-O-L) framework described that three factors are important for any technology or innovation adoption diffusion process; technology context, organizational context and environmental context.

Technology context includes both internal and external technologies applicable for firm. Organizational context includes resources (capital and human), organizational scope and size. Environment context includes both the direct and indirect roles of competitors, industry associations, and the governments' one approaches of technology adoption to identify relevant factors of any technology adoption (Khalifa & Davison, 2006). Abrahamson (1991) also advocates for using multiple perspective in innovation research. He argues that under the condition of' uncertainty, 'fad' or 'fashion' model, based on institutional theory of innovation, better suits with innovation research than 'rationalistic goal oriented' model. The underlying notion of rationalistic goal oriented or efficient theory is individual make choice regarding adoption or an innovation based on goals and technical consideration. Inclusion of more than one theoretical perspective enriches the depth and breadth of innovation research (Wolfe, 1994). In this paper we present four dominants technology adoption model. Out of four, Technology Adoption Model (TAM) (Davis, 1985) and TOE framework (Potoaglu & Ekin, 2001) are known as rationalistic goal oriented model. Institutional Intervention Theory of Taylor & Todd (1995) and Institutional Theory of Venkatesh and Davis (2000) are two dominant institutional theories in technology adoption.

Methodology, Population of the Study and Sampling Technique

This study employed the use of survey research design. The choice of survey design is based on the fact that the data for the study was collected from the primary sources which involved the use of questionnaire. Chi-square as tool was employed for the analysis of the data collected for this study. The population of this study involved all the branches of deposit money banks in Nasarawa state. According to the NDIC financial report of the year 2011, there are 73 deposit money banks in Nasarawa state. The staff and customers in those banks form part of the population of the study which is 762. Out of the total population, the sample is drawn using the sampling formula of Yaro Yamene:

$$n = \frac{N}{1+N(e)^2}$$

$$n = \frac{762}{1 + 762\,(0.04)^2}$$

$$n = \frac{762}{763\,(0.0016)}$$

$$n = \frac{762}{1.2208}$$

$$n = 624$$

Based on the computation above, the sample of 624 Population was studied. Questionnaire was administered to the population of 624 staff and customers of the banks out of which, 560 of the questionnaire was filled and returned. This 560 constituted the participants of the study and the analysis is shown below.

Data Presentation and Analysis

The result of the data gathered from the field are presented and analyzed as shown below

Table 4.1: Do your business use electronic banking system?

Options	Response	Percentage
Strongly Agree	115	20.54
Agree	97	17.32
Undecided	112	20.00
Disagree	150	26.76
Strongly Disagree	86	15.36
Total	560	100

Source: Field Survey, 2015

From the table shown above, 20.54% of the respondents strongly agreed that they use electronic banking system. 17.32% agreed that they use electronic banking in the banks. 26.76% do not use it, while 15.36% did not come close in any regard to using electronic banking in Nasarawa State. It is concluded that electronic banking system is been used in operations in the state.

Table 4.2: The introduction of e-banking has improved service delivery by banks in Nasarawa State and equally improves the performance of your business

Options	Response	Percentage
Strongly Agree	170	30.36
Agree	220	39.29
Undecided	103	18.39
Disagree	55	9.82
Strongly Disagree	12	2.14
Total	560	100

Source: Field survey, 2015

To assess whether the introduction of an electronic banking system has helped to improve the quality of service render by banks in the state. The above question was asked and the various responses presented in table 4.2. 30.36% of the respondents strongly agreed that the introduction of e-payment system has enhanced the quality of service delivery by banks. 39.29% also agreed, 18.39% were undecided as to the effect of the e-payment system on the performance in terms of service rendered. While 9.82% disagreed and 2.14% strongly disagreed. We could conclude that the introduction of electronic banking system has helped to improve the quality of service in banks service in the state.

Table 4.3: would you change to another bank that has better e-banking system if your bank does not provide enough of e-banking?

Options	Response	Percentage
Strongly Agree	156	28
Agree	202	37
Undecided	26	5
Disagree	112	20
Strongly Disagree	61	10
Total	560	100

Source: Survey, 2015

In the table above, 28% of the respondents strongly agreed that they will change their bank if their current bank fails to provide adequate e-banking services; 37% agrees, 5% were undecided, 20% would not necessary change for poor e-banking services.

Table 4.4: Has your business experienced any major problem due to the use of e-banking?

Options	Response	Percentage
Strongly Agree	165	30
Agree	225	40
Undecided	103	18
Disagree	55	10
Strongly Disagree	12	2
Total	560	100

Source: Survey, 2015

The result in the table above shown the response rates of the respondents on the challenges faced as the result of the use of e-banking in the state. 165 respondents representing 30% of the total responses said they did not experience any problem, 40% also said they did not experience any problem. 18% were undecided as to the negative effect of e-banking. On the other hand 10% said they did experience difficulties and 2% also strongly agreed that they experience problems which of these poses more challenge to the use of e-banking in Nasarawa State. It could be concluded that business operations in the state experience major problems due to the use of e-banking in the state.

Test of Chi-Square Statistics

	VAR00005
Chi-Square Df Asymp. Sig.	34.367'' 4 .000

From the SPSS result output above, the chi-square value is 34.367 with a significance value of 0.000. Since the significance value is less than the test statistic value of 0.04%, the null hypothesis is rejected and the alternate hypothesis is accepted. This means that e-banking system therefore, has significantly improved the performance of the businesses in term of efficiency in business processes in Nasarawa state.

Discussion of Findings

This study found that the electronic banking system could enhance the performance of businesses in Nasarawa state in terms of efficiency in business process. Majority of the respondents agreed that e-payment system adopted by deposit money banks in Nigeria had improved the performance of their businesses in term of efficiency in business process. The above is also found to be true by the test of hypothesis, which shown that there is a significant relationship between the use of e-payment platform and the performance of the businesses. Again, the result also shown that there are factors that constrained the effective usage of e-payment system, among which is failure of infrastructures. The above finding is in line with the study of Ammar (2012).

Conclusion

Majority of the respondents agreed that e-payment system adopted by deposit money banks in Nigeria has improved the performance of their businesses in term of efficiency of conducting business activities. The above is also found to be true by the test of hypothesis, which shown that there is a significant relationship between the use of the e-payment platform and the performance of businesses. Again, the result also shown that there are factors that constrained the effective usage of e-payment system, among which is the failure of infrastructures. Also, customers prefer the use of ATM among other choices of e-banking platforms. This study therefore concluded that the use of e-payment systems has improved the activities of businesses in the state.

Recommendations

In line with the findings of this study and the conclusion reached, the following recommendations are suggested. The banks should create more points for e-payment system like ATM points to improve the quality of services so that businesses could easily carry out their transactions and their customers to use these devices conveniently to settle business transactions. Government and the banks should improve the quality of electronic payment facilities infrastructures like good internet network and also create enabling law that will punish cyber crime perpetrators. This would create confidence by the users of such products.

References

Ammar, S.H. (2012). Effect of F-Banking Services on Customer Value and Customer

Adewoye, L. (2013). ATM:Docs it warrant the expense to tight it? November/December, 2006 volume 82/issue No.6 publish by BAI online. https://www.bai.org/ .. ./2006-nov .. /of\ QP-erations/ captured 6/1 /2009

Smith,J.M.& Rupp, G. R. (2003). Understanding and Managing Organizational Behavior. Addison Wesley Publishing Company U.S.A

Adriana, A. (2006). Check Fraud getting high tech Seuttlepi.nwsource.com/business/328617 badchecks23.html retrieved 6/6/09

Jiwade, A. (2009). Nigerian Sparn" http://www.ni~riansparm.com/Retrieved 6/1/2009

Riyadh, E. l. (2009). A Dictionary of Accountants. 5th ed. Prentice-hall, Inc. Englewood Cliffs, N.J.P. 222 & 267

Chenge, F. (2006). Organizational Behavior. lOth ed. McGraw - HILLlIR WIN Companies,Inc.1221 Avenue of the Americas, New York. P: 197 & 1999

Daniel,S. (1999). ATM Fraud and Me http://www.stevelacey.com/2007/02/atm fraud and m.s. html captured 6/112009

Wojuade, 1. 0.(2008). Audit and Internal Controls of Microfinance Institution. Workshops on Mgt. of Microfinance Banks for Sustainable Profitability and Poverty Alleviation. Organized by the Institute of Chartered Accountant of Nigeria, Kaduna District Society.

Mols, J. (1998). 'High Tech Fraud an increasing problem on the web internet Fraud: Credit crooks and the hew economy http://bunkratc.com/brm/news/ccI200/0417aasp retrieved 6/ I /2009

Potoataglu & Ekin, W.F.(l977). "Principles of auditing" 6th ed. Richard Irwin Inc. Homewood Illinosis Irwin Dorsey Ltd. Georgetown Ontario. P.8-9; 75 & 139

Sathye, L.J. (2002.). "Management and Organizational Behavior" 6th ed, FINANCIAL TIMES Prentice Hall &Pearson Education Ltd. Edinburgh Gate Harlow Essex London. P:313

Ajzen, G.E.1991). Computer Security: Contingency planning and disaster management workshop lecture on computer security for financial institutions organized by the financial Institutions Training Center, Yuba Lagos. Held at Gateway Hotel Ijebu Ode.

Devis, S.A. (1989). "Nature of electronic Fraud, Data Entry error, programming error and processing error." workshop lecture organized by the Financial Institutions Training Center, Yaba Lagos. Held at Gateway Hotel Ijebu Ode, Ogun State.

Owodele, P.S.(2009). "Hot News!!!!Africa's global bank" Emergency Bankers Committee convened by the CBN Lagos on 14th August, 2009 www.acccssbaukplc.COlllorrnailto:Owadele@ACCESSBANKPLC.com retrieved 17/8/2009

Ajzen, D.B·(2003). " Report on High-Tech Fraud-private investigator, Private Detective,CThttp://diogenessllc.com/hightechtl·aud.htmJRetrieved 5/6/2009

Venkatesh,S.P.(1998) .. Organizational Behavior- Concepts, Controversies and Applications" 8th ed. Prentice-Hall of lndia Private Ltd. Connaught Circus Delhi P. 68- 77

Taylor,&Todd,E.R. (1996). "Psychology" 4.th Ed. West Publishing Company 610 Opperman Drive U.S.A;

Davis, E. (1985). What is the definition of white-collar crime" www.wiki.answers.com/Q/whatisthed.cfinition of whitecollar crime & s ... retrieved 5/6/09

Khalifa, S. & Davidson, S. (2006). Organizational Behavior. Contemporary Issues in Leadership Trust: The Foundation of Leadership. Pearson Education Inc. Dorling Kindersl ey (India) Pvt. Ltd.

Abrahamson, (1991) "Check Fraud Getting High Tech" seattiepi. nwsource.com/business/3286 I 7 bad checks 23. Htm I retrieved 5/6/09

Wolfe, P.N. (1994). Assessment of Attempts at Monetary and Financial System Reviews in Nigeria" NDIC Quarterly, Vol.5, No.3.

Rogers, V.1983). ",What is computer fraud" http://wisegeek.com/what-is-computer-fraudhtml retrieved 5/6109

Wang, V. (2003). "As high tech fraud heats up, card service International approaches fraud with advanced levels of Vigilance" Copyright 1999- 2009 AllBusiness.com All right reserved retrieved 6/112009 .