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The impact of e-banking on bank profits in the Nigerian banking industry

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Abstract
This study explored the impact of e-banking on bank profits in the Nigerian banking industry. The ex-post facto and correlational research designs were adopted. A sample of 21 banks took part in the study. Data were obtained from a variety of secondary sources which includes: Publications of the Nigerian Stock Exchange (NSE) Fact Books, Central Bank of Nigeria (CBN) statistical bulletin, the World Bank Development and growth Indicators (WDI) and the selected bank annual reports. The study was guided by one research question and one null hypothesis. The linear regression analysis was used for data analysis. The findings established a significant but inverse relationship between e-banking and bank profit. It was recommended among others that Nigerian banks should increase their investment in e-banking infrastructure and training the practitioners to reverse the existing trend.

Keywords: E-banking, bank, profit, ATM

Introduction

Robust and vibrant banking industry is imperative to any country and is capable of having a significant influence in promoting economic growth through efficient financial services. A strong and efficient financial institution driven by e-banking will be a panacea to economic growth and banks corporate performance. The need to promote industrial efficiency in the utilization of scarce resources as well as healthy competition is invaluable to countries, and Nigeria cannot be an exception (Ohaka, 2010) [15]. Nations of the world today have been in the quest of adopting policy thrust that will enhance economic growth through the bank as the engine room of every economy. In Nigeria, considerable efforts have been made towards this direction with e-banking process and procedures being a major variant.

One way to measure the growth of the economy of any nation is in the profit declared by the banking sector of the nation's economy. According to the investopedia.com, a profit is a financial gain that is generated when the amount of revenue gained from a business transaction surpasses the expenses, costs, and taxes needed to keep up such venture. It is determined as total revenue less total expenses and it could be either gross profit, operating profit or net profit. A profit that is not in the deficit depicts steady economic growth and overall positive growth of the banking sector. Like all businesses, the bank profit by earning more money than what they pay in expenses. The major portion of bank profits comes from the fees that it charges from its services (especially the e-banking services) and the interest that it earns on its assets. The profit of a bank can be enhanced through several banking activities and policies and one of such policies is the policy of integration of electronic banking system otherwise known as e-banking.

The proliferation of e-banking measures in many nations today depicts the pursuance of economic and bank growth, though Nigeria has been bedeviled with inconsistent and conflicting monetary and fiscal policies that hinder the growth of her economy. The crucial role of banks in the economic and industrial growth of any nation has led every government to apply various measures, mostly monetary policies that are aimed at enhancing banking sector performance. Bondolino and Greenbaum (2007) [6] stated that the increasing mobility of international firms and the elimination of barriers of global capital flows have stimulated competition among governments to attract foreign direct investment seamlessly. This thus justifies e-banking that meets the challenges of the orthodox banking process and products, leading to growth, efficiency and effective performance of banks in profit making.

E-banking, therefore, is a platform or process through which a bank's products and services are delivered to her client, powered by Information and Communication Technology (ICT), hence the reasons for banks huge investments in ICT infrastructure. E-banking undoubtedly is a means through which banks efficiency and performance can be improved, meet customer needs, post a good profit and contribute to the economic growth of the nation. The application of e-banking expectedly has given rise to issues of misapplication, misuse, and outright criminality. There is need therefore for regulation, sufficient legal and technological adequacy, monitoring and control, with good policies and political climate that will support e-banking activities by relevant agencies to mitigate the erosion of confidence on the system. It is believed that e-banking is viewed as a gate and path way to a strong financial system that will increase productivity, employment, and standard of living, and reduce cost in an emerging economy like Nigeria.

Electronic banking existence in Nigeria pre-dates the early development of banking institution in the form of telegraphic machines, radio reading transactions, and others. The development of e-banking in nations follows its level of technological advancement, though queued more in Nigeria in the late 90s. Recently, e-banking has been transformed by the use of the Internet, a new delivery channel for banking services benefiting customers, banks and the economy. E-banking and customers satisfaction studied by some scholars (Ayo, 2006, Shittu, 2010) [3, 19] indicated that e-banking enables banks and customers to provide services that are more efficient, fast, convenient and substantially at lower costs, as against the brick-mortar traditional banking process (Ayo, 2006) [3]. Studies also have it that electronic banking enables customers to compare bank services and products while increasing competition and penetrating new markets. There is an indication that electronic banking generates an avenue for countries with weak monetary or financial system to leapfrog developmental stages in another dimension. Bank customers in those countries can access services with less stress from banks overseas through wireless internet systems that are advancing more speedily than it uses to be.

The banking sub-economic sector today functions in a multifaceted and competitive atmosphere characterized by dynamic conditions and highly erratic economic climate. Information and Communication Technology (ICT) is therefore at the heart of this universal change of e-banking system in Nigeria to propel bank performance as measured in profit. Ezirim (2012) [9] also propounds that banks have in the recent past, been employing electronic and telecommunication means for delivering a variety of value-added products and services, and managers in the banking industry in Nigeria cannot ignore e-banking and information systems as they play a vital role, pointing out that the cash flow of most fortune banks are hinged on e-banking driven by ICT. He went further to posit that a robust banking industry has become important in many nations and may influence economic growth through efficient financial services.

Banks have in recent past employed electronic means to communicate and transact businesses with both local and international clients that have had a direct contribution to the economy. With the emergence of the Internet in the late 1990s, the banking sub-sector have increasingly used electronic processes for information dissemination concerning their products and services to their clients. This internet enhanced form of banking is termed e-banking or Internet banking, although the array of products and services rendered may differ broadly in content. There is no consensus definition of e-banking hence, e-banking is seen as the term for the description of modern or new age banking systems and is often referred to as online banking. The Technical Committee on e-banking (CBN, 2003)[7], defined e-banking as a means through which banking services and transactions are carried out using computerized processes and electronic devices which may include personal computers, telephones, Internet, card payments and other electronic means or devices. E-banking employs the internet as the communication means for banking activities which includes all forms of banking transaction. Researchers (Mohammed, *et al*, 2009 [14], Salehi and Zhila, (2008) [17], posits that e-banking is an electronic link between bank and customers in view of preparing, managing and controlling financial transactions while enhancing the service delivery of banks and economic growth.

Salehi &Alipour (2010) [18] defined e-banking as the computerized delivery of contemporary and conventional banking products and services directly to clients through electronic and interactive communication means. Mohammed *et al*, (2009) [14] stated that some banks practiced e-banking for information purpose, others apply it for transaction purposes such as checking of account, transmission of information, facilitating funds transfer and other financial transactions. E-banking is, therefore, a banking process that involves an electronic form of money and information transmission through the wireless device or the internet infrastructure. E-banking thus is an automated service and process that enables the conclusion of transactions within a moment of command. It could also be stated that e-banking involves the use of a computer network in dispensing cash and transferring of funds and asserts that it has led to better bank performance.

Onay *et al* (2008) [16] summarized that e-banking has a positive contribution to the profit and performance of banks. In their study "internet changed the dimension or ways of competition in the banking sectors. It provided emerging opportunities for developing countries like Nigeria to build on. Siam (2006) [20] explored the impact of e-banking on bank profit performance and customer's satisfaction in Jordan banks. The study showed that there is more attention in achieving e-banking as satisfying and fulfilling customers' needs. It was concluded that there is a need for a well-articulated strategy to achieve success and profit. This study tends to agree with the finding that efficient and effective e-banking transcends to efficient customers satisfaction, and bank profit performance.

DeYoung *et al* (2007)[8] as cited in Sumra, Manzoor, Sumra and Abbas (2011) [21] analysing the effect of e-banking on the performance of banks in US (United States of American) community banks. Their findings revealed that the profitability of banks improved e-banking thereby increasing their income. Kariuki (2005) [12] studied the impact of e-banking on bank performance, evidenced using market share, product range and service quality as a measuring tool and asserted an enhanced bank profit. This study was not in deviance with the present study view, though with a different measuring and regressing tool on bank performance and economic growth.

Abefe-Balogun and Nwankpa (2012) [1] concentrated on the application of e-banking parameter product on bank performance and concluded that e-banking has a positive impact on bank performance. Friedman (1999) [10] in his empirical study of e-banking and moderating factor (government/monetary policy) impact on the economy asserted that e-banking resulted to the possibility of the entire payment system not being under the control of the central bank of Nigeria though created economic improvement. This study is viewed in the positive angle of the current study that e-banking has made CBN not to be in total control of payment system as most transactions are made at the comfort of the clients' home but result to growth in the banking industry performance and economic growth. The present study may assert beyond, by stating that e-banking with less monetary policy and control by CBN will accelerate economic growth with the removal of problems associated with transfers in the orthodox process. Lack of control also will lead to money laundering which is an economic saboteur to a growing economy like Nigeria. Hence to be on guided regulations for good e-banking and bank performance is a welcome development.

Tan and Teo (2000) [22] noted in a study of the challenge and market share position of commercial banks and internet applications in the US, and reached that acceptance of internet applications by banks results to expansion and maintenance of banking market share. Conclusively that bank should imbibe internet application to remain afloat in the market. He further stated that the commercial banking system has always been highly information sensitive in delivering activities which depend hugely on information technology

(IT) to acquire, process, and deliver to all relevant users for enhancing productivity. The study further has it that banks that fail to adopt the changes brought about by the emergence of e-banking had a dismal performance result.
Similarly, Agboola (2006) [2] studied electronic payment systems and telebanking services in Nigeria. The findings of the study revealed that there has been a very assuming move away from a cash transaction. Payments are being made via online or internet banking means and high volumes of cash transactions have declined drastically. This is a result of the upsurge of e-banking activities in the current view. The result of the study revealed that telebanking has the potential of improving the customer relationship, maintain customer's loyalty and make it possible for banks to attain unassailable height of market share if the attendant problems, lack of facilities necessary for their operation were taken care of.
Mahdi and Mehrdad (2010) [13] explored the related e-banking, bank performance and customer perception in Iran and the findings from revealed that e-banking had a higher advantage to Iranians. In another study, Jayawardhena and Foley (2000) [11] conducted a study on e-banking as a new delivery channel. They argued in the study that mobile banking may have helped to trounce the inherent demerits of conventional or traditional banks. Birch and Young, (1997) [5] also in their study of e-banking process and product in Iran concluded that the activity of e-banking and its products in the banking sub-sectors will lead to a decrease in cash circulation and an increase in the efficiency of banking sector will increase with a decrease in client's cost of processing cash by the central authority, service provider's costs may decrease, and bank cost decrease.
E-banking imperatively conveys strong and reliable banking industry in the twenty-first century and highly significant for supporting economic growth and bank profit. In Nigeria, the role of the banking industry is changing to be up to date with the global environment. The change in e-banking, bank profit, and economic growth include moving from the traditional distribution channel of banking to an electronic-distribution channel. Given the total embracing of e-banking in advanced nations, the reasons and the impact of such acceptance on the performance of banks and the economy in developing countries such as Nigeria is vital to research that ought to be addressed.
The hallmark of this study is to determine the impact electronic banking is capable of having on the performance of banks in terms of bank profit. The cash-based economy as against e-banking is characterized by the psychology to hold cash physically, a way of life that is deemed to have been occasioned by ignorance and lack of security consciousness and positive reception of the merit of automated payment. Loss of interpersonal contact between bankers and customers is one of the features of electronic banking which has its effect on banking services but there will be no total loss of customer-banker touch as envisaged by most people.

Problem Specification
E-banking is saddled with so many advantages like an increase in bank profits and disadvantages which may include security challenges, technological inadequacy, and ineffective monetary control and has been implicated for market failures in banking and other financial sectors, which may lead to dwindling economic growth in Nigeria.
The extent to which e-banking and corporate performance of banks have contributed to economic growth in Nigeria is therefore questionable. There have been relatively few studies on e-banking and bank profit in Africa and Nigeria in particular.
Policy incentives and studies on e-banking though have been made to accelerate bank profit and economic growth, but the extent e-banking has enhanced bank profit has not been empirically established. There are questions on why should a country that is seeking for developmental and economic growth not encourage the implementation of e-banking processes that will improve the performance of banks in terms of returns in profit, to create attractive and investor-friendly nation. In developed economies, it is believed that e-banking enhances corporate performance and economic growth, but the extent to which this happens in Nigeria is unknown. Based on these observed cavities, the present study is geared towards ascertaining the impacts of e-banking on bank profit.

Aims and Objectives of the study
The aim of the study is to investigate the impact of e-banking on bank profits in the Nigerian banking industry from 1998 to 2012. Specifically, the objective of the study is:
1. To determine the relationship between e-banking and bank profit in the Nigerian banking industry

Research questions
What is the extent of the relationship between e-banking and bank profit in Nigeria?

Hypotheses
H_{01}: There is no significant relationship between e-banking and bank profit in Nigeria

Materials and methods
Design: The ex-post facto and correlational research designs were used in this study. The study adopted the ex-post facto and correlational designs because the study collected data of some variables which are already in place without manipulating any of them and used such data to establish the relationship between e-banking and bank profits among banks in Nigeria. The research used the econometric methodology in modeling the formulated hypothesis. The design for the study was empirical and analytical in nature using the secondary data to investigate the relationship between the variables.

Population, sample and sampling technique
The population of this study involves all the 21 banks in Nigeria as of 2012 for easy accessibility and reliability of information. A sample size of 21 banks was used in the present study. The purposive sampling technique was used to select 21 banks in Nigeria. This represented about 100% of the banks in Nigeria.

Instrumentation
This research data was obtained from a variety of secondary sources which includes: Publications of the Nigerian Stock Exchange (NSE) Fact Books, Central Bank of Nigeria (CBN) statistical bulletin, the World Bank Development and growth Indicators (WDI) and the selected bank annual reports.

Method of data collection

The researcher downloaded the publications of the Nigeria Stock Exchange (NSE) Fact Books of various years, browsed the internet and visited the website of the Central Bank of Nigeria (CBN) to obtain the statistical bulletin of various years. The World Bank Development and growth Indicators (WDI) were also consulted. The selected bank annual reports were also reached via the internet.

Data analysis: The Statistical Package for Social Science (SPSS) was used to analyse the data collected for the study. The simple linear regression analysis was used to answer the research questions and test the hypothesis at 0.05 alpha level.

Results

Table 1: Showing the Distribution of the research data obtained via secondary sources.

Year	Profit(=N=M)	e-banking(=N=M)
1998	42694000	694615
1999	85635000	1070020
2000	146056000	1568839
2001	119797000	2247040
2002	120022000	2766880
2003	265482000	3047866
2004	297077000	3753278
2005	401196	4515118
2006	611762	7172932
2007	772938	10981694
2008	1425761	15919560
2009	191755	17522858
2010	11477469	17331559
2011	11332187	19396634
2012	22287408	19887268

***Sources*:** NSE, WDI, CBN bulletin, Bank Annual reports (2013).

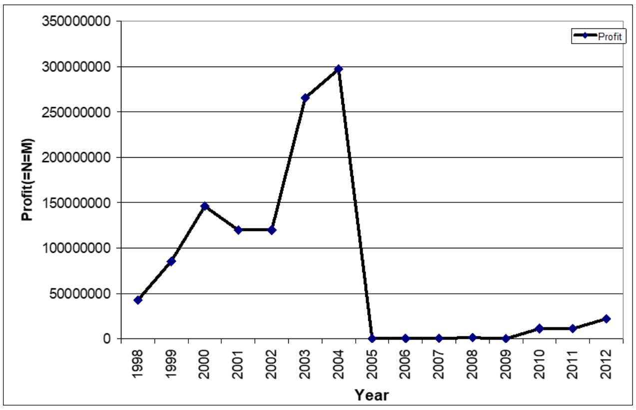

Fig 1: distribution of bank profit based on year of banking

Figure 1: shows that bank profit fluctuated between the years 1998-2004. From 2005 there was a sharp decline up to 2009 at zero levels showing that there was no visible profit made. Then an observable increase in profit started from 2010-2012. This increase may be due to an increase in e-banking transactions.

Table 2: Model Summary of the regression analysis of the relationship between e-banking and bank profit in Nigeria

Part A: The model

Model	R	R Square	Adjusted R Square	Std.Error of the Estimate
1	.570	.325	.273	83531146.917
a. Predictors: (Constant), E-banking				

Part B: Regression coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std.Error	Beta		
1	(Constant)	1.390E8	33458096.273		4.154	.001
	E-banking	-7.502	3.000	-.570	-2.500	.027
a. Dependent Variable: Profit						

Bank Profit =139000000-7.502e-banking

Part C: Summary of ANOVA on the relationship between e-banking and bank profit in Nigeria

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	4.362E16	1	4.362E16	6.251	.027[a]
Residual	9.071E16	13	6.977E15		
Total	1.343E17	14			

The result in Part B of Table 2 shows that Beta value of -.570 indicated a strong (inverse) impact of e-banking on bank profit in Nigeria. The regression equation showed that any increase in e-banking activities may not yield a resultant increase in the bank profit. Part A of Table 2 shows that the r^2-value of .325 indicates roughly a 32.5% contribution of e-banking to bank profit. The Part C of Table 2 indicated that there is a significant relationship between e-banking and bank profit in Nigeria (F1, 13=6.251, p<.05). This led to the rejection of the null hypothesis.

The relationship between e-banking and profitability in Nigerian

The result in Part B of Table 2 showed that e-banking has a strong (inverse) impact on bank profit in Nigeria (Beta=-.570). Any increase in e-banking activities may not yield a corresponding increase in the bank profit as indicated by the regression equation. The independent variable, e-banking contributed about 32.5% to bank profit. The result indicated that there is a significant relationship between e-banking and bank profit in Nigeria. The null hypothesis was rejected at. 05 level of significance. The inverse relationship between e-banking and bank profit is likely to be associated with the fact that the banks invested much in e-banking but the usage or knowledge of its application that is capable of translating to profit was not much as at the time of the study. When much is invested in technology without an upgrade in knowledge and application it might not translate automatically into profit, hence adequate training in line with the technological investment has to be carried out to deliver expected result. Investment in e-banking is expected to result to bank profit, but due to lack of technical training and low e-banking knowledge of the practitioners, we might not expect high profit. Figure 1 also showed that bank profit fluctuated between the years 1998-2004. From 2005 there was a sharp decline up to 2009 at zero levels showing that there was no visible profit made. Then an observable increase in profit started from 2010-2012. This is consistent with the findings of Ayo, *et al* (2010) [4] who established that perceived ease of use of e-banking and its usefulness are antecedents to e-banking acceptance as well as factors for customer retention to the use of e-banking system, viz: trust, perceived risk and organizational reputation. De Young *et al* (2007)[8] as cited in Sumra, Manzoor, Sumra, and Abbas (2011) [21] analyzed the effect of e-banking on the performance of banks in the United States of America (USA) community banks. Their findings concluded that e-banking improved the profitability of banks hence increasing their revenues. This aspect of their finding on e-banking and bank profit is inconsistent with the present study, which found an inverse but significant relationship between e-banking and bank profit. There might have been a change in the investment in e-banking and its impact on bank profitability in Nigeria over time.

Conclusion

E-banking had a significant relationship with bank profitability. A strong but inverse relationship exists between e-banking and bank profit, thus indicating that an increase in the level of e-banking might not necessarily lead to an increase in bank profit. The reported finding was based on the existing data obtained from various secondary sources from 1998-2012 when the banks were mainly investing heavily in e-banking because of its mass adoption. We might not expect a direct relationship between the e-banking and bank profit at the time of the study. The implication of the study is that when the huge investments in e-banking start are efficiently managed there is likely to be a concomitant increase in bank profit as reported by other studies outside Nigeria.

Recommendations

The following recommendations are made based on the findings of the study

- Nigerian banks should increase their investment in e-banking infrastructure and training practitioners on its application for a positive result.
- E-banking adoption and implementation should be a key agenda in every sphere of monetary policy for effective economic growth.

References

1. Abefe-Balogun B, Nwankpa NN. National development: the significance of e-banking. Advances in Arts, Social Sciences and Education Research. 2012; 2(3):103-110
2. Agboola AA. Electronic payment systems and telebanking services in Nigeria, Journal of Internet Banking and Commerce. 2006; 11:3. (http://www. arraydev. com/commerce/jibc/).
3. Ayo Charles K. The Prospects of e-Commerce implementation in Nigeria, Journal of Internet Banking and Commerce. 2006; 11:3 (http:// www. arraydev.com/commerce/jibc/)
4. Ayo CK, Adewoye JO, Oni Aderonke A. The State of e-Banking implementation in Nigeria: A Post-Consolidation Review.Journal of Emerging Trends in Economics and Management Sciences. 2010; 1(1):37-45
5. Birch D, Young M. Financial services and the internet-what does the cyberspace mean for the financial services industry? Internet Research: Electronic Networking Applications and Policy. 1997; 7(2):120-128.
6. Bondolino D, Greenbaum RT. Do Local tax Incentives affect economic growth-What mean impacts in the analysis of Enterprise Zone policies-Regional Science and Urban economics, 2007, 37.
7. Central Bank of Nigeria. Guideline on electronic banking, Abuja; CBN, 2002-2003.
8. DeYoung, R., Lang, W.W. & Nolle, D. L. How the internet affects output andperformance at community banks. Journal of Banking & Finance.2007; 31, 1033-1060
9. Ezirim BC. Cashless Banking in Nigeria: Problem, Prospects and Challenges. Seminar presented at the CIBN annual Dinner. Presidential Hotel, Port Harcourt. 2012.
10. Friedman B. The Future of Monetary Policy*:* The Central Bank as an Army with Only a Signal Corps? International Finance. 1999; 2(3):321-38.
11. Jayawardhena C, Foley P. Changes in the banking sector-the case of internet banking in the UK, Internet Research: Electronic Networking Applications and Policy. 2000; 10(1):19-30.
12. Kariuki N. Six Puzzles in Electronic Money and Banking, IMF Working Paper, IMF Institute, 2005.
13. Mahdi S, Mehrdad A. E-Banking in emerging economy:empirical evidence of Iran, International Journal of Economics and Finance. 2010; 2(1):201-209
14. Mohammed, S. K.; Siba, S. M. & Sree .K. Service Quality Evaluation in Internet Banking: An Empirical Study in India, International Journal of Indian Culture and Business Management.2009, 2(1): 11 – 36.
15. Ohaka J. Influence of tax incentives on corporate performance of quoted manufacturing companies in Nigeria, 2010.
16. Onay, Ceylan. Ozsoz, Emrr. Helvacioglu, Ash Debiz. The impact of internet banking on banks profitability-The case of turkey. Oxford Business and Economics Program, 2008, 22-24.
17. Salehi M, Ali M, Zhila A. Islamic banking practice and satisfaction: empirical evidence from Iran, ACRM Journal of Business and Management Research. 2008; 3(2):35-41.
18. Salehi M, Alipour M. E-banking in emerging economy: empirical evidence of Iran, International Journal of Economic and Finance. 2010; 2(1):201-209 (AMICUS Indexed).
19. Shittu O. The impact of electronic banking in Nigeria banking system (critical appraisal of unity bank plc). An MBA Thesis. Ladoke Akintola University of Technology, Ogbomoso, Oyo State Nigeria, 2010.
20. Siam AZ. Role of the electronic banking services on the profits of Jordanian Banks. American Journal of Applied Sciences. 2006; 3(9):1999-2004.
21. Sumra SH, Manzoor MK, Sumra HH, Abbas M. Impact of E-Banking on the Profitability of Banks: A Study of Pakistani Banks. Journal of Public Administration and Governance. 2011; 1(1)"31-38. [Online] Available at: http://www.macrothink. org/ journal/index.php/jpag/article/view/692[Accessed on 14ThJanuary 2012
22. Tan M, Teo T. Factors influencing the adoption of internet banking. Journal of the Association for Information Systems. 2000; 1(5):1-42.