

The impact of e-banking on bank deposits in the Nigerian banking system

Okankwu Moses Welime¹, Omejefe Godfrey²

^{1,2} Department of Finance and Banking, Faculty of Management Sciences, University of Port Harcourt, Rivers State, Nigeria

Abstract

This study was an exploration of the impact of e-banking on bank deposits in the Nigerian banking industry. The ex-post facto and correlational research designs were adopted. A sample of 21 banks participated in the study. The collection of data was from several secondary sources which include: 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 research question and the hypothesis were answered and tested using the linear regression analysis at .05 level of significance. The findings of this study indicated a strong positive correlation between e-banking and bank deposits. There was a significant relationship between e-banking and bank deposits. One of the recommendations of the study was that banks should improve their e-banking operations since it has an unswerving impact on the bank deposits.

Keywords: E-banking, bank, deposits, ATM, performance, banking system

Introduction

Attaining and maintaining a strong and lively banking industry is vital to any country since there is a high chance of considerable influence in supporting economic growth via efficient financial services. A strong and efficient financial institution driven by e-banking is likely to be a solution to bank deposit and economic growth. According to Ohaka (2010) [18], the need to promote industrial efficiency in the utilization of scarce resources as well as healthy competition is important to countries, especially developing nations such as Nigeria. Countries world over today have been in the quest of adopting policy thrust that will improve economic growth through the bank as the focal point of every economy. In Nigeria, considerable efforts have been made towards this direction with e-banking process and procedures being a key alternative.

In the banking industry, the deposit can be used as a performance indicator. It is the total sum of fund generated by a bank over a period of time. An increase in deposit liability of a firm like a bank whose main asset or stock in trade is money indicates that such a firm is striving well as much as the cost of fund is low. Despite the apparent economic situation in Nigeria and the globe, deposits still constitute a significant percent of the banking sector performance indicator. A high deposit volume of a bank indicates good performance as it creates a pull contribution margin that enables the bank drive loan disbursement to the economy or investment unit. Performance indicator has been defined as a list of metrics that are used by a company to analyse the extent at which the employed parameters have impacted on the upward or downward returns of the firm.

According to the investopedia.com, bank deposits are monies placed into banking institutions for its security, protection, and safety. These deposits are made to deposit accounts such as savings accounts, checking accounts and money market accounts. The holder of the account usually has the sole right to take out deposited assets or money, as constituted in the

terms and conditions guiding the account. Kagen, (2018) [15] posited that the deposit itself is a liability owed by the bank to the depositor. Bank deposit refers to this liability rather than to the actual funds that were deposited. When a bank customer opens an account and makes a cash deposit, the said customer surrenders legal title to the cash and it becomes an asset of the bank. The performance of banks in terms of the deposits made by customers could be enhanced by embracing the reforms brought about by the introduction of electronic banking (e-banking) into the Nigerian banking industry. E-banking has the potential of encouraging customers willingness to make deposits into their bank accounts as it tends to eliminate several barriers to effective deposition.

The Nigerian economy has the potentials of becoming one of the most leading world economies with her abundant human, material, natural, political, legal and investment friendly resources in an e-banking based financial growth pursuit. Nigerian economy has been faced with a lot of poor economic and social indices such as, high rate of inflation, low income per capita, high rate of corruption, high level of restiveness, political banditry, and underdevelopment, mismanagement of abundant natural, human and material resources that triggered low emphasis on e-banking and economic growth. The hand of the social vices as a low power outage, inflated contract, industrial, infrastructural decay, hostile investment climate, and inconsistent policy both at fiscal and monetary appraisals have been key issues to Nigeria economic growth. It is therefore stated that a well and consistent policy application mostly the monetary, supporting e-banking and the bank deposits performance will enhance industrial and economic growth.

Banks have in recent past employed electronic channel to convey and transact businesses with both within and outside customers that have had a direct impact on the economy. With the advent of the Internet in the late 1990s, banks have increasingly used electronic processes in the receipt of directives or information and delivering their products and

services to their customers. This form of banking is widely referred to as e-banking or Internet banking. Although there is no consensus definition of e-banking, e-banking is seen as the phrase used for contemporary banking systems and is often referred to as online banking. According to CBN, (2003) ^[7], e-banking is a means through which banking services and transactions are carried out using computerized means and electronic devices. E-banking employs the internet as the means for delivering banking activities which includes but not limited to transferring of money, paying of utility bills, inquiring for account balances, etc. E-banking could be defined in this context as the digital delivery of modern and conventional banking products and services directly to clients through electronic and interactive communication means. Furthermore, electronic banking could be defined as a variety of platforms comprising, Internet banking (online banking), Telephone banking (Salehi & Alipour 2010) ^[23]. According to Mohammed, (2009)^[16], 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 engrosses electronic kind of funds 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. A study also stated that e-banking involves the use of computer network in dispensing cash and transferring of funds and asserts that it has led to better bank performance. In other spheres, it was stated that the insecurity aspect of e-banking in Nigeria has been a hindrance to the total acceptance of same by the users following lack of adequate legal framework.

E-banking imperatively conveys strong and reliable banking industry in the twenty-first century and highly significant for supporting economic growth. In Nigeria, the functions of the banking industry are changing to measure up with the global environment, at the practical and information level. The change in e-banking, bank performance, and economic growth include moving from the traditional distribution channel of banking to an electronic-distribution channel. Given the wholesome acceptance of e-banking in advanced countries, the reasons and the impact of such acceptance on the performance of banks deposits and the economy in advancing nations such as Nigeria is an important investigation that is what is addressed.

Policymakers and economic practitioners have acknowledged the leading position of information and communication technology (ICT) for development, most especially the e-banking process. (Dutta & Mia, 2009) ^[12]. The Millennium Development Goal (MDG) in Nigeria is directed at ensuring the availability of potential benefits of new technologies (ICTs) to the less privileged regions of the world (Africa). Ovia (2001) ^[21] opined that Nigeria is largely a cash-based economy with a large percentage of funds residing in the informal sector as against the developed world where the money in circulation is about 4 percent in the US and 9 percent in U.K.

It is held in most views that the advent of e-commerce has prompted the invention of several e-banking payment tools to facilitate the completion of business transactions and other dealings leading to economic growth. Accordingly, Wade

and Johnson (2004) ^[28]; Irechukwu, (2000) ^[14] and Alabar (2012) ^[3] indicated that current consolidation activities in Nigerian banking sector have alerted the many banking institutions to the utilization of various technological devices in advancing better customer service delivery that guarantees customer satisfaction, increase in profitability, higher return on investment and growth of the economy. There is supposed, a result of the near absence of a strong monetary policy supported by relevant laws on e-banking mostly in developing nations resulting to the fall in performance of the economy which the bank and indeed e-banking have to change and promote as evidenced from the Nigerian Stock Exchange Facts Books between 2004 – 2008. Ezirim (2012) ^[13] posited that it is, therefore, a prevalence of local and global competitiveness in banking that makes it an important source for economic growth, especially in an almost cashless economy. The Banking industry today function in a composite and competitive atmosphere with a feature of changing conditions and exceedingly impulsive economic climate. Information and Communication Technology (ICT) is therefore at the hub of this global dynamic curve of e-banking structure in Nigeria to propel bank deposit and economic growth. Ezirim (2012) ^[13] was also of the view that banks have in recent time past, been making use of electronic and telecommunication networks in conveying a broad range 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 critical role, pointing out that the cash flow of most of the fortune banks are linked to e-banking driven by information technology. He went further to posit that a strong banking industry has become important in many countries and may influence bank deposits and economic growth through efficient financial services.

Diebold (2002) ^[11] in analyzing e-banking problems and the high-tech crime sophistication, stated its negative influence on the performance of banks in relation to deposits, and economic growth thereby positing that good key intervention measures by the government towards e-banking will lead to economic growth. There is a gradual creation of a cash-lite/cashless society in which bank clients no longer have to pay for all their transactions with hard currency due to the advent of e-banking. E-banking and internet businesses are modifying sales techniques and perceptions of leading brands, creating competition amongst banks and other businesses adding value to their customers, earn more profit, while opening the financial service industries to historic transformation, referred to as e-developments, e-banking, e-finance, e-money, e-brokering, e-insurance, e-exchanges, and e-supervision. Okereke (2010) ^[19] noted that there is an increasing worry that e-banking is not producing the probable results, creating a breach between the actual returns and the projected objectives which in turn breeds loses, a huge amount of investment. He further stated that the spotlight on the challenges of changing from one specific delivery means to another may have fundamental consequences on a bank operating structure. It is, however, to be noted that the evaluation of the impact of e-banking on bank deposits in Nigeria has been few in literature. Most studies are centered on e-banking and bank performance, bank performance and economic growth, bank performance and the manufacturing sector (Azziah, 2001) ^[6]. Other empirical studies (DeYoung, 2011, Odedokun, 1998) ^[10, 17] concentrated on the application of e-banking on banks performance, (Ovia, 2003) ^[22].

Tzelepis and Skuras (2004) ^[27] examined the impact of e-banking on the financial performance of banks with a result depicting a significant effect on deposits. Omojefe (1997) ^[20] in the study of the impact of information technology on the banking industry revealed a significant result of IT capability to the growth of bank deposit in Nigeria. Many countries both developed and developing have adopted electronic banking process (Aduda & Kingoo, 2012) ^[1]. The liberalization of the economy will enable the institution to perform its growth function using e-banking as a driving force (Soludo, 2004) ^[24]. The assertion collaborates with the financial repression school of thought holding that a tight regulation constrains the ability of the financial institutions to optimally contribute to economic growth.

DeYoung, Lang and Nolle (2007)^[9], and Sumra and Abbas (2011) ^[25] on evaluating the effect of e-banking on the performance of banks, summarized that e-banking enhanced the deposits made in banks, thereby increasing their revenues. In like manner, Agboola (2006) ^[2] investigated electronic payment systems and telebanking services in Nigeria and revealed that there has been a very unassuming departure from physical cash transactions. Payments are mostly made via online transfers using the POS, ATM and the bank's application software. This is because of the upsurge of e-banking activities in the current view. The study went further to reveal that telebanking is capable of expanding the customer-bank relationship, as well as retain customer's dependability and enable banks to gain strong market share if the foreseeable challenges of e-banking operation were taken care of. Ayo (2006) ^[4] conducted a study on the prospects of e-commerce based on Ability, Motivation, and Opportunities (AMO) model in Nigeria and observed from the findings that nearly all firms have to exist online. He stated that motivation and opportunities for e-commerce are low as a result of lack of e-payment facilities and access to ICT devices. This is one of the standing reasons for soliciting for the encouragement of internet and e-banking adoption in a competitive economy like Nigeria. Tan and Teo (2000) ^[26] 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 that depend hugely on Information Technology (IT) to acquire, process, and deliver to all relevant users for enhancing productivity. The study further has it that embracing the emergence of e-banking had a dismal performance result. The point of departure in this present study, therefore, bearing in mind the various studies, is to identify and empirically determine the contributions of e-banking to bank deposits in Nigerian banks. The hallmark of this study is to determine the impact electronic banking has on the performance of banks in the aspect of bank deposits.

Problem Specification

Series of studies in the past have attested to the important role the advent of e-banking have been able to play in the overall economic growth and performance of the banking sector in the most developed and developing country. Policy incentives and studies on e-banking though have been made to accelerate banks deposit performance and economic

growth, but the extent e-banking has enhanced bank deposit has not been empirically established in Nigeria. E-banking has not been widely embraced by a good number of bank customers as it is in the advanced nations. This seeming unwillingness to embrace e-banking is tied to the fact that e-banking is sometimes saddled with 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 has contributed to bank deposit in Nigeria is therefore questionable. There have been relatively few studies on e-banking and economic growth in Africa and Nigeria in particular. There are questions on why should a country that is seeking for developmental and economic growth not encourage the adoption of e-banking processes that will improve the corporate performance of banks and economic growth, to create an attractive and investor-friendly nation. In developed economies, it is believed that e-banking enhances corporate performance, but the extent to which this happens in Nigeria is unknown. Based on these aforementioned shortfalls, the present study investigated the impacts of e-banking on bank deposit (performance) in Nigeria for economic growth.

Aims and objectives of the study

The aim of the study is to investigate the impact of e-banking on bank deposits in the Nigeria banking industry from 1998 to 2012. The precise objectives of the study include:

To ascertain the impact of e-banking on bank deposits in Nigeria.

Research question

What is the impact of e-banking on bank deposits in Nigeria?

Research hypothesis

H₀₁: There is no significant relationship between e-banking and bank deposits in Nigeria

Methods and materials

Research Design

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

Population, sample and sampling technique

The population of the present study involves all the 21 banks in Nigeria as at 2012 for easy accessibility and reliability of information. 21 banks. The purposive sampling technique was used to draw 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

In view of the scientific nature and aims of this study, data were obtained through a variety of techniques secondary sources. The study herein adopted secondary sources of data for effective result. The researcher downloaded Nigeria Stock Exchange (NSE) publication 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.

Data analysis

Statistical Packages for Social Science (SPSS) was used to analyze the data collected for the study. The simple linear regression was used for data analysis.

Results

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

Year	Deposit(=N=M)	e-banking(=N=M)
1998	314304	694615
1999	4763509	1070020
2000	702105	1568839
2001	47198	2247040
2002	1209747	2766880
2003	1417060	3047866
2004	1778713	3753278
2005	1098486	4515118
2006	1747253	7172932
2007	2693554	10981694
2008	4309523	15919560
2009	5763511	17522858
2010	5954261	17331559
2011	6531913	19396634
2012	7048711	19887268

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

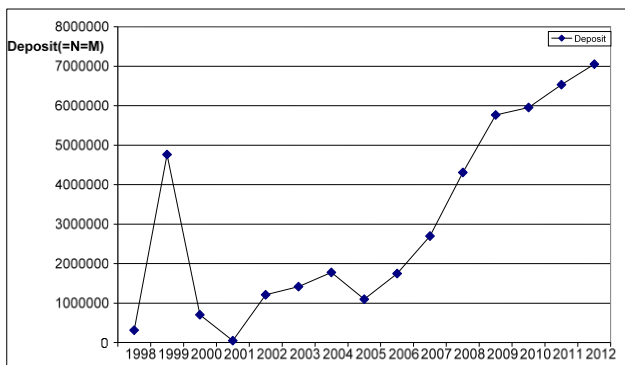


Fig 1: Distribution of bank deposit-based year of banking

Figure 1 shows that the deposit was unstable between the years 1998 and 2005 gradually increased “between”2006 to 2012. This may be due to e-banking practice by banks.

Table 2A: Model Summary Regression analysis on the relationship between e-banking and bank deposit in Nigeria

Model	R	R Square	Adjusted R Square	Std.Error of the Estimate
1	.866	.751	.732	1267027.795

a. Predictors: (Constant), Ebanking

Table 2B: Regression coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	597280.943	507503.363		1.177	.260
1 E-banking	.285	.046	.866	6.258	.000

a. Dependent Variable: Deposit

Bank Deposit =597280.943+ .285E-banking

Table 2C: Summary of ANOVA on the relationship between e-banking and bank deposit in Nigeria

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	6.287E13	1	6.287E13	39.163	.000 ^a
Residual	2.087E13	13	1.605E12		
Total	8.374E13	14			

The result in Part B of Table 2 shows that Beta-value of .866 indicated a strong (positive) impact of e-banking on bank deposit in Nigeria. The regression equation shows that any increase in e-banking activities may yield an increase in the bank deposit. Table Part A of 2 shows that r²-value of .751 indicates roughly the contribution of 75.1% to bank deposit of independent variable, e-banking. Part C of Table 2 indicated that there is a significant relationship between e-banking and bank deposit in Nigeria (F1, 13=39.163, p<.05). The null hypothesis was rejected.

The relationship between e-banking and deposits in Nigerian banks

The result in Table 2 indicated that e-banking has a positive (strong) impact on bank deposit in Nigeria (R=.866). The result showed that e-banking had roughly a contribution of 75.1% to bank deposit. The result further indicated that there was a significant relationship between e-banking and bank deposit in Nigeria. The null hypothesis was rejected at .05 alpha level. Figure 1 established that the deposit was however unstable between the years 1998 and 2005. There was steady increase in deposit from 2006 to 2012. This may be due to e-banking practice by banks. In line with the foregoing, Ayo *et al.* (2007) [5] carried out a study of electronic banking product and service in Nigeria. The study established that all the

banks have at least one form of electronic service including e-banking service, Internet banking service, and m-banking. He further opined that nevertheless, various e-banking systems have been implemented and accepted by the customer, e-payment remains the most generally employed of the e-banking solutions. It is quite possible that the biggest impact of technology upon the banking system may have been the adoption of the electronic payment system (DeYoung, Hunter, and Udell, 2004) ^[8].

Conclusion

There is a positive and significant relationship between e-banking and bank deposits in Nigerian. An increase in the use of e-banking facilities is likely to trigger an increase in the bank deposits of customers among Nigerian banks. The implication of the present finding is that effective implementation of e-banking in Nigeria is bound to yield higher deposits in Nigeria and hence a growth in the economy.

Recommendations

The following recommendations were made, based on the findings of the study:

1. Banks should improve their e-banking operations since it has a direct impact on the deposits base and overall performance.
2. The application of electronic banking should be encouraged across the Nigerian economic sector.

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