
Innovative Banking and Marketing of Financial Services: The Nigerian Deposit Money Banks Experience.

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Abstract

This study seeks to examine the interplay between banking Innovations and the marketing of financial services of deposit money banks in Nigeria. Electronic Mobiles were used as proxy for banking innovations while the numbers of deposit money banks were used as proxy for marketing of financial services in Nigeria which is the dependent variable. Findings reveal that banking Innovations has positively impacted on the marketing of financial services in deposit money banks in Nigeria though in a weak form. Its insignificant contributions to marketing of financial services could be attributed to lack of sensitization and customers' orientation. Most bank customers are analogy in nature and lacks understanding about the latest technology. Hence, study recommended that to promote the marketing of financial services in the Nigerian deposit money banks, bank customers should be sensitized about the importance of banking innovations and how to make adequate use of them as reports has made it clear that most bank customers are analogy and not digital. Since banking Innovations require digital ideas, more sensitization will go a long way in promoting bank services and thus promote bank performance accordingly.

Keywords: *Innovative banking, financial services, globalization, information technology and deposit money banks.*

Introduction

Over the years, many innovations have taken place in the world. The most striking and most celebrated is the aspect of information technology through globalization. Information technology has been acknowledged as the life wire of banks in the financial sector as it promotes and facilitates the performance of banks in the country. Meanwhile, banking Innovations is a process of interaction among the people, companies, and governments of different nations, a process driven by international trade, investment and aided by information technology. Organisations today are confronted with rapidly changing market conditions indicated by high merger rate and strong competitors. The role of technology in the “information age” is well recognised by banks, businesses, industries, governments as it appear to be a major key into marketing of financial services and as such have completely woven in to their organisational structure and strategic planning process. Previous research works show that information technology has become the nervous system of banks today and as such Nigerian banks which do not have the means to deliver banking service online and real-time across all branches within the country and abroad will be termed uncompetitive. The financial sector of an economy comprise of institutions, markets and regulators that deal in financial instruments under the large framework within which the activities of the various participants are regulated. Put separately, the Nigerian financial system apart from the central bank of Nigeria comprises of the bank financial intermediaries, non-bank financial intermediaries and the financial market. The non-bank financial intermediaries are insurance companies, pension and providence funds. The basic difference between this group is that the banking financial institutions like commercial banks borrow and lend, non-banking financial intermediaries like insurance companies borrow and invest , while the financial market operate as conduits for mobilization of funds from surplus economic unit to deficit economic unit (Obamuyi, 2002 cited in Monogbe 2015).

Globalization and information technology has however, brought marketing strategy in the financial world to a lamp light of quick and easy accessibility. Scholars opined that the financial sector mostly populated by the banking institutions and insurance firms plays a crucial role in an economy and were designed to promote the viability, soundness, and stability of the system to enable it adequately meet the aspiration of the economy and proactively put an economy on the path of global competitiveness and to enable it effectively respond to the challenges of banking Innovations and also guarantee that the economy do not remain fringe players in the context of the globalizing world (Soludo, 2008). Internet revolution has been a global phenomenon, and going by the current growth statistics, Nigeria has experienced a spurt in the Internet penetration in recent years particularly in the electronic commerce. It is an obvious notion that information technology (electronic /Internet) banking and payments is advancing more or less in tandem with e-commerce. Researches indicate that Internet banking has a significant influence on the business models of banks, securities trading firms, brokerage houses, insurance companies etc. Internet banking has also attracted the attention of regulators and lawmakers in the developing nations since the late 1990s and its poses a major way of creating awareness (marketing of bank services) about the banking activities and thus makes banking services and operations more easier even at the comfort of the customers home (Gupta, 2013). Globalization, information technology such as Internet banking is a cause of concern to the Nigerian financial system as majority of the previous offline banks are actively ready for an unprecedented competition from the non-traditional banking institutions that offer banking and financial services over the Internet (Rajgopalan, 2010). Banking Innovations and information technology has promoted the marketing strategy of financial sector in the Nigerian context. One of the innovations alongside banking Innovations and information technology is electronic banking which has been one of the major marketing strategy in the global banking industry.

According to Okoro (2014), Electronic banking is the use of computers and telecommunications to enable banking transactions to be done by computer or telephone instead of human interaction. It features include: Automated Teller Machines (ATM), electronic fund transfers for retail purchases, automatic payroll deposits and bill payments or direct deposit of pay cheques into or saving accounts. Some banks offer home banking, whereby a person with a personal computer can make transactions either via direct connection or by accessing a website and this has promoted marketing of financial services in the financial world. Banking Innovations has however orchestrated the introduction of various electronic devices through information technology into the global banking industry and Nigeria financial institution also key into this recent discovery which has develop and give a new shape to the banking industry in Nigeria and the rest of the world. The recent development in the globalized world through information technology has created a room for high level of competition among the competitive banks in the industry. As such, all participating banks in the system key into this development to enable them maintain their customers and operating trend.

Statement of problem

Banking has come of age and as such, competition has alerted banks to look for innovations that will keep their customers and even win more. As a result of the need for efficiency and effectiveness in the banking sector, the web is introduced through banking Innovations and used mostly for commercial purpose through internet banking and information technology. The adoption of information technology and banking Innovations in banking sector is owing to the fact that, linguistic barriers needed to be put to an end to enable easy and cheaper communication during transaction, to foster customer-bank relationship, increase customer satisfaction, improve operational efficiency, reduce the running cost, reduce transaction time, give banks competitive edge, provide security to investors fund and promotion of other financial services. Despite the adoption of information technology and banking Innovations in advancing the marketing strategies of financial services in banking sectors today with its numerous objectives, observation has however shown that, not all the objectives have been realised and felt by users. It is highly disheartening to observe that, some among many undertaken are not working to standard thereby causing more harm than good to shareholders, potential investors among other users. Banks today seems to be mainly interested in the dividend declared and profit to be made, thereby losing sight of the critical and more important areas like making transaction equipment work to standard, providing security to investors' funds so as to win more investors to the company and intern make huge profit. Banks today are unable to comply strictly with the mission statement/corporate mission with information technology and globalization.

The major difficulties users face in carrying out electronic payments are network (communication links between banks and e-payment infrastructure) issues, literacy, concerns on risk and unreliable machines are one of the major impediments (Agbaje and Ayanbadejo, 2013). The adoption of information technology and banking Innovations has brought major challenges to the banking industry in terms of risk exposure. The volume of deposits has increased as well as fraudulent practices experienced by Nigerian banks since its adoption in the economy (Chibueze, Maxwell and Osondu, 2013). This is the reason why Ovia, (2001) posits that Nigeria's banking scene has witnessed phenomenal changes especially in the enormous volume and complexity in the products or service delivery, financial liberalization and business process re-engineering. Despite this innovation 'information technology', banks still find it difficult to properly sort out transactions thereby leading to loss of trust by customers. . Irrespective of the fact that banks are making much profit, they still suffer from liquidity problems which is said to be as a result of insolvency.

Critically evaluating the introduction of information technology and banking Innovations owing to its objectives, it is crystal clear that of a truth, banking Innovations and information technology has promoted marketing of financial services of the deposit money banks in Nigeria but, a lot of sharp practices have also been discovered through banking Innovations and information technology. This sharp practices includes internet fraud, illegal debiting of customers account, excessive maintenance charges on customers account and so on (Monogbe, 2017). Despite the hype of the development, banking Innovations and information technology has brought into the Nigerian banking industry; series of problems has been recorded since the inception of this development. Hence, it became imperative to examine the interplay between globalization, information technology and marketing of financial services in the Nigerian deposit money banks between the periods 1989 to 2019 using time series data and a more sophisticated econometrics tools to ascertain decision. The question is, either negative or positive, how is globalization, information technology impacting on the marketing of bank services? Following this antecedent, it is necessary to investigate the effect of banking Innovations and information technology on marketing of financial services in deposit money banks in Nigeria.

Objectives of the study

The overall purpose of this study is to investigate the effect and contributions of globalization, Information technology on marketing of financial services of deposit money banks in Nigeria. Specifically, the objectives are as follows.

- i. To examine the influence of banking Innovations index on numbers of deposit money banks in Nigeria
- ii. To investigate the effect of electronic mobile on numbers of deposit money banks in Nigeria.

Research questions

In line with the outlined objectives above, the following research questions were addressed accordingly.

- i. To what extent does banking Innovations index promote numbers of deposit money banks in Nigeria?
- ii. To what extent does electronic mobile influence the numbers of deposit money banks in Nigeria.

Research hypotheses

Our hypotheses are stated in their null form as thus;

H_{0i}: There is no significant relationship between banking Innovations index and numbers of deposit money banks in Nigeria.

H_{0ii}: There is no significant relationship between electronic mobile and numbers of deposit money banks in Nigeria.

Scope of the study

The scope of this study stretches through 1989 to 2019. It is restricted to Nigeria, although literature may be drawn from other countries. The economy is a large component with lot of diverse and sometimes complex parts. Geographically, this research work is targeted at the banking sector of the Nigerian economy. This work did not cover all the variables and facts in the banking sector, but focuses on impact of globalization, information technology and marketing of financial services of Deposit Money Banks in Nigeria.

Significance of the study

This study would in no small measure serve as a guide towards improved knowledge about the impact of globalization, information technology and marketing of financial services of Deposit Money Banks in Nigeria, and would be of benefit in following ways to practitioners, government and scholars in this field of study.

Review of related literatureconceptual review**Globalization and information technology and the activities of the banking industry**

Egware (2009) traced the history of banking Innovations back to the post-World War II phenomenon. Banking Innovations may in many ways be viewed as a resumption of a trend observed in the world economy in the 19th century. The process observed before 1914 could hardly be called “globalization” however, since most regions of the world did not participate and because the speed of transmission and communication was much less feasible than it is today, to organize markets, or to operate firms at the global level. Furthermore, international financial markets today are characterized by much larger gross flows, with a much larger variety of financial instruments being traded across borders. The banking sectors all over the world have been old-time beneficiaries of the advantages of information technology. Grainger-Smith and Openheim, (1994:323-333) observed that information technology has played a central role in the development of the banking industry for the reasons as follows:

1. Contrary to the popular image, banks are not primarily in the money business. They are in the information business. Their primary activities involved capturing, distributing analyzing, and processing financial information.
2. Information technology ranks high in banks fixed cost.
3. Information technology has enabled banks to widen the range of customer services and transform their operating systems.
4. Information technology has enabled banks increase the volume of their services, operating at a higher level of efficiency and realizes economies of scale.

According to Ehikhamonor, (2003:14-15), in the early 1960’s, the use of mainframes by banks facilitated the replacement of paper by book entries. In the 1970’s banks created databases with the automation of simple and repetitive clerical tasks, there were considerable gains in efficiency. The 1980s were a period of new slogans in information system development. The transformation of the banking sector by information technology in the Western World and East Asia has become the normative course along which the banking sector in the development countries, such as Nigeria, are expected to move. The developing countries has been continuously advised to take advantage of the revolutionary advances in information technology to reinforce economic and social changes if they are to have a place in global social-economic relations that are increasingly dominated by growing information economy. Tatero and Gaudetty (2003) observed that a new society is emerging with pervasive information capacities that is more competitive, more democratic, less centralized, less stable better able to address individual need, and friendlier to the environment. These changes dictate for all countries, a major adjustment to harness information for economic and social development.

The roles of information technology in Nigeria banking industry

Information technology has been noted for contributing to Nigerian banking industry in three major areas such as coordination costs, operations risk, and opportunism risk.

1. Information technology reduces coordination costs

The use of information technology reduces the unit cost of communicating and reacting to information. It significantly reduces the cost of explicit coordination. Galbraith (1973) observes that firms can substitute information flows for excess capacity or slack in other resource.

He noted that within, the context of a single firm, safety stock inventory can be reduced by improving forecasting and reducing order cycles, and, that slack manufacturing capacity can be reduced if planning and scheduling are improved through the use of information technology. Hewlet-Packard was noted to have found that communication was the chief culprit on-time delivery failures and that by installing electronic purchase orders that flow directly from HP's Computers to the suppliers open-order management system, they made significant improvements in their performance. The growing success of Electronic Data Interchange (EDI), which allows the transmission of information, such as invoices, may be viewed as investment in information technology that reduces coordination costs (Frost and Sullivan 1998:198) Stern and Kaufman (1985:56) in their study on the actual and potential benefits of electronic data interchange, the manufacturers and distributors survey listed the benefits to be:

10. Reduce order lead-time
11. Higher service levels
12. Fewer out-of-Stock situations
13. Improved communication about deals, promotions, price changes, and product availability
14. Lower inventory cost
15. Better accuracy in ordering shipping, and receiving and
16. A reduction in labour costs.

From these observations, one can conclude that greater use of information technology will reduce coordination costs.

2. Information technology lowers operation risk in the increased availability of information and enables operation risk to be reduced through improved monitoring of incentives for instance

The customers can use computers to maintain record of the services delivery performance or information of regarding complaints. System may be linked to the production process and schedules or supplier to monitor the quality of manufactured products. Increasing information and information processing also reduces operation risk by enabling more efficient incentive structures. For example, in the consumer packaged goods industry, promotions such as temporary price reductions, coupons, and special displays, are used as an important competitive tactic. Manufacturers often implement these promotional programmes through their offering of the promotion of the final consumer. However, the manufacturer has historically had to know ways of monitoring the retailers' promotional performance. Information technology increasingly enables manufacturers to monitor product flow.

3. Information technology reduces opportunism risk

Investment as an explicit coordination has generally been viewed as idiosyncratic, involving specially physical and human resources, hence such investment were considered to increase the opportunism risk to which is possible making the investment to be exposed. This Risk of opportunism leads to under investment or to vertical integration (Williamson, 1975:196). Under investment causes the firm to forgo the benefits of coordination, vertical integration avoids the risk of optimism and thus preserves the benefits of coordination, but generally causes the firm to forget the benefits of procuring from an outside supplier with significant cost advantages due to economics of scale or specialization. The argument here is that investment in coordination are not necessary idiosyncratic, and has recently been less so (Clemons and Row, 1992: -28 Malone, et al, 1987:484-497) Deloitte and Touche (1990) observes that an information technology investment in capital good is not necessarily relationship specific and not to be considered as sunk or idiosyncratic.

The hardware is typically standard and rarely needs to be customized for transactions. Significant improvements in communication technologies have now made possible the use of ordinary

telephone lines for exchanging information, especially now that communication site are seldom necessary.

Theoretical review

Globalization theory

Globalization overtime has been repositioning in the social and cultural sphere of the world (Appelbaum and Robinson, 2005). Based on the emergence of the globalized economy due to refined production system, finance and consumption and worldwide economic integration, the transnational global cultural pattern, practices and flows, the rise of new multinational institutions, sticks hierarchies and also entails the unprecedented multidirectional movement by people's around the world. One major banking Innovations theory underlying this study is the Network Society Theory (Robins, 2007).

Diffusion of innovation (DOI) theory

The first theory taken in consideration is the Innovation Diffusion Theory (IDT) that explains individuals' intention to adopt a technology as a modality to perform a traditional activity. The theory is developed by Roger's (1983). The critical factors that determine the adoption of an innovation at the general level are the following: relative advantage, compatibility, complexity, trial ability and observability Rogers (1995). Researchers as and Tan and Teo (2000), Gerrard and Cunningham (2003) and Md Nor and Pearson (2008) had tested the theory on the e-banking adoption. The nominalised factors are complexity, trainability and observability (Moga, 2008).

The decomposed theory of planned behaviour

The Second reviewed theory is the Decomposed Theory of Planned Behaviour (DTPB). The theory was developed by Taylor and Todd (1995). The theory postulates that the intention to use a certain technology is influenced by attitude, subjective norm and perceived behavioural control. Starting from the research conducted by Md Nor and Pearson (2008), Karahanna, Straub, and Chervany (1999), certain influencing factors were selected: the attitude towards behaviour and the Perceived Behavioural Control in 1990s. The performance of banks operating in countries outside the U.S. has also been studied extensively. For example, Berg et al. (1992) and Berger et al.

Empirical review

Umaru, Hamidu and Musa (2013) analysed the impact of Banking Innovations on the Nigerian Economy between 1962 to 2009. Using a simple Annual Average Growth Rate Technique (AAGR), their study revealed that banking Innovations had positive impact on some sectors of the economy and negative impact on others. Goyal (2006) carried out a study on the impact of banking Innovations on developing countries with special reference to India, he discovered that banking Innovations in India had a favourable impact on the overall growth rate of the economy. The growth rate was as low as 3% in 1970, but almost doubled to 5.9% in the eighties as a result of globalization. Studies have proven that banking Innovations has impacted different economy in different ways. The efficiency and performance of commercial banks have been studied extensively over the last several decades. For instance, Ferrier and Lovell (1990), Elyasiani and Mehdi (1992), Grabowski et al. (1993) and Alam (2001), among others, use the Data Envelope Analysis (DEA) approach to assess the production performance of U.S. commercial banks relative to several best practiced frontiers.

The empirical findings of these studies suggest that the overall efficiency of the U.S. banking industry ranged from 65% to 90% in the 1980s and 1990s. The performance of banks operating in countries outside the U.S. has also been studied extensively. For example, Berg et al. (1992) and Berger et al. (1993) evaluate the efficiency and productivity growth of banking industries in

Nordic countries, and conclude that Swedish banks are the most efficient, followed by Norwegian banks and then Finnish banks. Pastor et al. (1997) analysed and compared the efficiency of the banking industries in Europe and the U.S. These authors report that banks operating in France, Spain and Belgium are the most efficient banks in their samples, whereas banks operating in the U.K., Austria and Germany illustrate the lowest efficiency levels. Yusufi et al., (2015) evaluated the influence of internal marketing (IM) on customer orientation (CO) of Nigerian banks' employees. The study adopted a survey and this was conducted among the existing 21 Nigerian banks that operate in Lagos State, South Western part of Nigeria. The population of this paper comprised 687 management staff and 2,326 frontline employees drawn from the four branches so selected. Using simple random sampling technique, the paper selected 253 management staff and 341 frontline employees as sample size. The relevant data were collected from primary source, using structured questionnaire. Findings showed that IM has a significant relationship with CO while personality trait factors and Job-Satisfaction (JS) constructs were found to mediate significantly the influence of IM practices on CO behaviour of banking employees in Nigeria. Agboola (2001) studied the impact of computer automation on the banking services in Lagos and discovered that electronic banking has tremendously improved the services of some banks to their customers in Lagos. The study was however restricted to the commercial nerve centre of Nigeria and concentrated on only six banks. He made a comparative analysis between the old and new generation banks and discovered variation in the rate of adoption of the automated devices. Aragba-Akpore (1998) investigated on the application of information technology in Nigerian banks and pointed out that IT is becoming the backbone of banks' services regeneration in Nigeria. He cited the Diamond Integrated Banking Services (DIBS) of the Diamond Bank Limited and electronic smart card accounts (ESCA) of All States Bank Limited as efforts geared towards creating sophistication in the banking sector. Ovia (2000) discovered that banking in Nigeria has increasingly depended on the deployment of information technology and that the IT budget for banking is by far larger than that of any other industry in Nigeria. He contended that the on-line system has facilitated internet banking in Nigeria as evidenced in some of them launching websites. He found also that banks now offer customers the flexibility of operating an account in any branch irrespective of which branch the account is domiciled. Malhotra and Singh (2009) examined the implications of internet banking on the Indian banking industry using information drawn from a survey of 85 scheduled commercial banks' websites, during the period June 2007, by applying multiple linear regression models. Results revealed however, that profitability in the banking industry while offering internet banking does not have any significant association with their overall performance.

Research methodology

Research design

Basically, there are two types of research design, the experimental and quasi –experimental designs (Baridam, 2001). The paper adopted the Ex-post facto research design, this study selected the 23 universal banks in Nigeria Stock Exchange Market. In line with Maingot and Zeghal (2008), this study constructed a checklist for evaluating the content of corporate annual reports of the listed banks to determine the influence of globalization, information technology on marketing of financial services of deposit money banks in Nigeria.

Population/sample of the study

The population for this study consists of all the 23 universal banks in Nigeria. The time frame considered for this study is 1989 to 2019. This 30 year period, although longer than most studies of this nature, allows for a significant average amongst banks overtime. According to Asika (1991), the population is a census of all the elements or subject of interest and may be finite or infinite.

The full set of cases from which the sample is taken is called the population (Saunders, 1997). All banks classified as the Deposit money bank were used as the study sample.

Types and sources of data

The data used for this study were secondary data derived from the Statistical bulletin of the Central Bank of Nigeria over the study period of 1989 to 2019. This study also made use of books and other related materials especially the Central Bank of Nigeria bullions and the Nigerian Stock Exchange Fact Book (2014) and Annual Financial Statement of Banks.

Operational measure of variables

For a meaningful research work to be carried out, it is necessary to indicate the meaning of the variables and its relevancy to the operational use. Thus, the following are the operational measures of the variables utilized on this study.

Dependent variable

Number of Deposit Money Banks in Nigeria: According to the central bank of Nigeria statistical bulletin, this comprises of the total number of deposit money banks in Nigeria across the state and abroad. This is used as a proxy for marketing of financial institution since increase in marketing of deposit money banks through banking Innovations would lead to rise in the number of customers and thus boost the firm size.

Independent variables

Electronic Mobile: These are the amounts expended by financial institutions towards online banking facilities and operations. This is used as proxy for information technology as reported in the statistical bulletin. We expect a positive relationship between electronic mobile and number of deposit money banks in Nigeria.

Globalization index

This is an overall index of banking Innovations and sub-indices referring to actual economic flows, economic restrictions, data on information flows and data on personal contact, it is important to this study as it also focuses on three main dimensions such as economic, social and political. This has a positive theoretical bearing to the number of deposit money banks in Nigeria

Methods of data analysis technique

Our model is estimated using the Ordinary Least Square (OLS) techniques. The following statistic would be analysed in solving the problem under study.

The model mode specification

We specify the regression model to show the Impact of Banking Innovations and information technology on marketing of financial services of deposit money banks in Nigeria. Thus, the functional equation models can be stated as follows:

$NDMB = f(GLBI, EMOB)$ ------(1) Where: $NDMB$ = Number of Deposit Money Banks in Nigeria
 $GLBI$ = Globalization Index
 $EMOB$ = Electronic Mobile
 Introducing the error terms we have as follows;

$NDMB = \beta_0 + \beta_1 GLBI_t + \beta_2 EMOB_t + \mu_i$ ------(2)

Priori expectation

$\beta_1 > 0, \beta_2 > 0$ Where: β_0 = Constant

Decision rule

Find a p-value and compare it to your significance level. If p-value $< \alpha$, reject H_0 . If p-value $> \alpha$, do not reject H_0 .

Test of hypothesis

The data analysis in this section involves the test of hypotheses formulated using the Ordinary Least Square. The study formulated two hypotheses in section one to test the relationship between employed variables, that is, electronic Mobiles, Globalization index as related to Number of Deposit Money Banks in Nigeria.

Data analysis and interpretation

The secondary data was used for the purpose of this study. The Table below presents the results obtained from our estimated linear model, based on the ordinary least squares (OLS) procedure as follows:

Multiple linear regression result (short-run estimated model)

Dependent Variable: DLOG(NDMB)				
Method: Least Squares				
Date: 01/13/22 Time: 14:02				
Sample (adjusted): 1989 2019				
Included observations: 30 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.048754	0.015985	3.050030	0.0051
DLOG(GLBI)	0.143377	0.115057	1.246139	0.2234
DLOG(EMOB)	0.045732	0.029281	1.561837	0.1300
R-squared	0.622929	Mean dependent var		0.045864
Adjusted R-squared	0.597960	S.D. dependent var		0.088812
S.E. of regression	0.086200	Akaike info criterion		-1.969662
Sum squared resid	0.200620	Schwarz criterion		-1.829543
Log likelihood	32.54493	Hannan-Quinn criter.		-1.924837
F-statistic	1.892134	Durbin-Watson stat		1.775121
Prob(F-statistic)	0.040205			

Source: Extraction from e-view output

The results of the multiple regression of the ordinary least square seek to analyses the short run relationship among the employed variables in this study. The report above shows that all employed variables i.e (Globalizations index and electronic mobile seems to be positive in promoting marketing of financial services which was proxies by number of deposit money banks in Nigeria.

GLBI exhibit a positive coefficient of 0.143377 and a corresponding positive P-value of 0.2234, thereby suggesting that all things been equal, banking Innovations is capable of promoting

marketing of financial services in Nigeria to the tune of 0.14337 unit. Secondly, electronic mobile also possess a positive coefficient of 0.045732 and a corresponding positive P-value of 0.1300 suggesting that the contribution of electronic mobile to marketing of financial services in the Nigeria deposit money bank is small (0.04573) compared to banking Innovations which exhibits a high coefficient value of (0.143377) as the case may be.

ADF Statistical Results

Variables	Critical values at 1%	Critical values at 5%	Critical values at 10%	Order of integration
D(LOG(NDMB))	-3.689194	-2.971853	-2.625121	I(1)
D(LOG(GLBI))	-3.699871	-2.976263	-2.627420	I(1)
D(LOG(EMOB))	-3.699871	-2.976263	-2.627420	I(1)

Source: Extraction from e-view output

The results above explain the stationarity status of the time series used in the process of research using Augmented Dickey Fuller Unit Root Test. The result shows that all-time series under investigation exhibit stationarity at all level and thus maintain a significant probability accordingly. Hence, we conclude that all-time series in this study are stationary in the order of 1(1) integration after first differencing.

Co-integration test results

The report presented from the test conducted shows the long run association among the employed variable in this study. Thus, we found that there exists one co-integrating equation as the trace statistics appear to be greater than the critical level at 5% level of alpha and the probability coefficient appear to be significant as the case may be. Based on this justification, we conclude that there exist long run relationships among the employed variable under investigation.

Granger causality test output

Pairwise Granger Causality Tests			
Date: 01/13/21 Time: 14:41			
Sample: 1989 2019			
Lags: 2			
Null Hypothesis:	Obs	F-Statistic	Prob.
LOG(GLBI) does not Granger Cause LOG(NDMB)	29	0.20977	0.8122
LOG(NDMB) does not Granger Cause LOG(GLBI)		10.3192	0.0006
LOG(EMOB) does not Granger Cause LOG(NDMB)	29	2.00405	0.1567
LOG(NDMB) does not Granger Cause LOG(EMOB)		0.39392	0.6787
LOG(EMOB) does not Granger Cause LOG(GLBI)	29	0.86624	0.4333
LOG(GLBI) does not Granger Cause LOG(EMOB)		0.22654	0.7990

Source: Extraction from E-view output

The result above describes the interplay between the employed variables in the long run and how each of the variables promotes each other. From the presentation above, we observed that there exists one causal relationship between Globalization index and number of deposit money bank in Nigeria with causality flowing from NDMB to GLBI which suggest that increase in the number of deposit money banks in Nigeria was what brought above banking Innovations and not the other way round.

Test of hypothesis

Hypothesis One

H01: There is no significant relationship between globalization index and numbers of deposit money banks in Nigeria

Following the report of the multiple regression of the ordinary least square, banking Innovations index exhibit a positive coefficient of 0.143377 with a corresponding P-value of 0.2234, though insignificant. However, the result of the granger causality test suggests that the financial services of the deposit money banks was the cause of banking innovations as causality flows from NDMB to GLBI accordingly. Based on this fact, we conclude that there exist a positive and insignificant relationship between banking Innovations index and number of deposit money banks in Nigeria all things being equal.

Hypothesis two

H02: There is no Significant Relationship between Electronic Mobile and Numbers of DepositMoneyBanksinNigeria.

Judging by the result of the multiple regressions, electronic mobile exhibits a positive coefficient of 0.045732 and a corresponding insignificant P-value of 0.1300. Meanwhile, the result of the causality test also validates that of the multiple regressions as there exist no causality relationship between the two variables under investigation. Hence, we accept the null hypothesis and thus conclude that there is no significant relationship between electronic mobile being proxy for information technology and number of deposit money banks in Nigeria being a proxy for marketing of financial services.

Discussion of results/findings

Based on the results of the analysis it could be concluded that the adoption of information technology in all Money Deposit Banks (MDB) has enhanced its efficiency by making it more productive and effective. Information technology also has a strong impact on the overall banking performance including the marketing of banks services by making workers performance more effective and efficient. Information technology adoption has enhanced the fortune of MDBs, this is achieved through bank charges, and cheques withdraw slip and charges. It has also improved the bank customer relationship by rendering effective services throughout the week; customers can now have access to their accounts outside working hours to make withdrawal to attend to their needs. The information technology guidelines introduced by CBN strongly helped in effective electronic banking system; withdrawal can be made anywhere at any time and using any bank's ATM machines and electronic Mobiles, customers can not withdraw more than some certain amount to allow other customers gain access to cash, and money can be transferred from one place to another through electronic means. Though, most electronic machines today are not secured thereby making it easier for fraudulent personnel carry out their fraudulent activities without being caught. Due to security, banks cannot prevent, stop or dictate any fraudulent activity as bankers also use the system in stealing data or information and technology (ICT) facilities such as computer and the internet in the perpetration of criminal activities like, credit card frauds, ATM frauds, flushing, identity theft, denial-of-service, and a host of others. In general, the information technology has made a tremendous impact on the corporate performance and development of Nigeria financial system at large and the marketing of banks services in particular.

Conclusion and recommendations

Conclusion

This study has made its call within the context of the scope that banking Innovations and information technology has positively affected the marketing of financial services in deposit money banks in Nigeria though in a weak form. Its insignificant contributions to marketing of financial services could be attributed to lack of sensitization and customers' orientation. Most bank customers are analogy in nature and lacks understanding about the latest technology. Hence, they prefer keeping their money at the Conner of their rooms and this is jeopardizing the introduction of banking Innovations and information technology which further render futile the marketing of financial services in the Nigerian deposit money bank.

Recommendations

Based on the findings discussed above, the following recommendations are made:

1. To promote the marketing of financial services in the Nigerian deposit money banks, bank customers should be sensitized about the importance of information technology and how to make adequate use of them as report has made it clear that most bank customers are analogy and not digital. Since banking Innovations and information technology required digital ideas, more sensitization would go a long way in promoting bank services and thus promote bank performance accordingly.
2. That the banks management should from time to time train customers with regard to internet banking, its benefits, risk exposure, physical and internet security to avoid financial loss in the hands of hackers. Also, trainings should be held for bank staff in short periods to acquaint them with modern developments of the sophisticated technology in changing times.

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