The Impact of Financial Technology on Banking Service Delivery in Nigeria

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Abstract
The study investigated the impact of financial technology on banking service delivery in Nigeria for the period 2005-2022. The specific objectives of the study were to determine the impact of point of sale technology on banking service delivery in Nigeria, to evaluate the effect of online web payments technology on banking service delivery in Nigeria, to find out the impact of ATM technology on banking service delivery in Nigeria, and to investigate the impact of mobile banking technology transactions on banking service delivery in Nigeria. The study adopted ex post facto method, and employed the autoregressive distributed lag (ARDL) to estimate the model. The major findings of the study Automated Teller Machine (ATM) transaction at 5% level of significance has positive impact on bank performance in Nigeria; Point of Sale (POS) terminal at 5% level of significance has significant impact on bank performance in Nigeria; and online internet banking (ONLIT) transaction at 5% level of significance has significant impact on bank performance in Nigeria. While at 90% level of confidence we conclude that the effect is negative and significant. The policy recommendations based on the findings are: the policy maker should design a strategy toward enhancing the automated teller machines in term of its availability not only the cities also in the rural areas, improve on its networking and its ability to dispense different Naira denomination. Point of Sale instrument have been found to be significant on its positive effect to Banks in Nigeria, the Central Bank of Nigeria should make it more accessible to all businesses in Nigeria; and the Internet banking over the period of the study has no significant effect on performance of Nigerian banks. Effort should be made by the government through the network provider to improve in its networking for effective uses of internet banking. There should be a campaign by the banks to their customers to educate them on how to use the services

Keywords: *Internet banking, Point of Sale, Automated Machine, Web payment, Mobile Banking*

INTRODUCTION

Financial technology has to do with the introduction of technology to the way money changes hands alongside banking products and services. It enables its users to do all financial transaction electronically. The service offers customers the opportunity to make payments services including online shopping, Insurance premium, restaurants services (with delivery), ticket purchases and payment for general goods and services, Internet banking, Debit and credit Card banking etc. In various economies across the world, the financial system has played crucial roles in ensuring sound, comprehensive and sustained growth and development within such economies. Nlanga (2019) avers that considering the rapid change in technology that is evident in the ever changing world, the financial system has not been left unaffected as it has been characterized with various changes with more focus on digital channels. According to Barasa and Mwirigi (2013) this digitalization that has led to disruption (disruptive innovation) within the sphere of the financial system and can be referred to as financial technology or "Fintech". As a result of Fintech, various gaps within the sphere of the financial system have been filled as several solutions have been proffered to problems with the introduction of channels such as PayPal, Jumia Pay, O'pay etc.

Fintech is just finding its foot in a nation like Nigeria with the recent establishment of the Fintech Association of Nigeria. Looking forward to the prevalence of Fintech in the financial system of Nigeria according to PwC (2017), only 40% of clients of businesses in Nigeria make use of mobile applications and only 20% of those clients use it once per month. According to the World Fintech report (2018), Fintech has a synergetic relationship with the traditional financial system in terms of improving customer loyalty, customer trust, incorporating infrastructure and aiding in regulation. However, Fintech has leveraged on the gaps left unattended to within the financial structure such as increased access to customers via online and mobile channels as this spurs financial inclusion, flexibility of introducing innovative products and services and as such breaking the status quo.

The Nigerian financial sector is, no doubt, the most technologically driven sector in the country. Over the years, the sector has witnessed tremendous changes owing to ever dynamic financial technological innovations. Generally, Nigerian banks are adopting new solutions to improve and simplify operations which foster a move away from physical channels and towards digital/mobile delivery (PWC Nigeria, 2017). According to Onuoha, Peregrino and Isiavwe (2019), these financial technological innovations can boost aggregate expenditure and by extension improve GDP levels. This it does by providing access to a diverse range of financial product and services for individuals and businesses.

Financial technological innovation has been established to improve banks performance and service delivery in the financial sector. Azizah and Choirin (2018) and Motsatsi (2016) established a relationship between financial innovations and economic growth in their respective countries. Financial innovation has transformed and restructured banking services globally, and its impact on economies is becoming increasingly noteworthy (Bara and Mudzingiri, 2016). Research studies on financial technology and banking service delivery in developing countries such as Nigeria have mainly been on a micro level with particular reference to its impact on financial inclusion (Alliance

for Financial Inclusion 2013). Hence, this study investigates the impact of financial technology on banking service delivery in Nigeria.

Statement of the problem

Technology has evolved to take centre stage in the everyday affairs of man and the financial system is not excluded. As a result, the rise of technology in the financial system popularly referred to as financial technology has aroused several issues in literature. There exists mixed response to the rise of financial technology as some scholars believe that it has a negative effect while some believe otherwise (Abaenewe, Ogbuluand & Ndugbu, 2013; Akhisar, Tunay a& Tunay, 2015), hence, the need to conduct a study into the subject matter to ascertain real time situation backed with empirical evidence.

Also, financial technology has operated in various countries across the world but Nigeria and Africa as a whole has been found to be back benchers and in effect has shown no significant effect in improving service delivery and performance of the banking system. Could it be because the rate of technology in Africa is still developing or because the challenges of financial technology are perceived to outweigh its benefits derived by banks? The foregoing makes it imperative to conduct an inquiry into the implications of financial technology on banking service delivery in Nigeria.

Nlanga (2022) has stated that financial technology has not been well established in Nigeria, poor internet network connection usually render the banking tech platforms ineffective and therefore hinders service delivery and performance. Consequently, non- fin tech subscribers pay high service charge, undergo more stress or are sometimes regular banking hall services are not available at all, this is made worse by increased expectations of customers on the banks to the ever evolving pace of technological change.

There exist serious threats to the service performance of banks within the financial system including its channel of service. Contrary to the traditional method adopted within the system, the existence of financial technology platforms has increased risk of losses due to fraudulent attacks on the banking technology platforms (Emmanuel & Adebayo, 2021). This raises the question of whether financial technology impacts on banking service delivery, and therefore a study to investigate the subject becomes necessary.

Objectives of the Study

The broad objective of this study is to determine the impact of financial technology on banking service delivery in Nigeria; the specific objectives are:

1. To determine the impact of point of sale technology on banking service delivery in Nigeria.
2. To evaluate the effect of online web payments technology on banking service delivery in Nigeria
3. To find out the impact of ATM technology on banking service delivery in Nigeria.

4. To investigate the impact of mobile banking technology transactions on banking service delivery in Nigeria

Research Questions

The following questions will guide the achievement of the research objectives:

1. To what extent did point of sale technology impact on banking service delivery in Nigeria?
2. To what extent did online web payment technology impact on banking service delivery in Nigeria?
3. To what extent did ATM technology impact on banking service delivery in Nigeria?
4. What size of impact did mobile banking technology have on banking service delivery in Nigeria?

Research Hypothesis

The following hypotheses were formulated in null form as tentative answers provided to the research questions:

H_{01}: Point of sale technology has no significant impact on banking service delivery in Nigeria

H_{02}: Online web payment technology has no significant impact on banking service delivery in Nigeria

H_{03}: ATM technology has no significant impact on banking service delivery in Nigeria

H_{02}: Mobile banking technology has no significant impact on banking service delivery in Nigeria

Significance of the study

This study on the impact of financial technology on banking service delivery in Nigeria will have a multi-faceted significance on various economic units and key players in the financial sector including: domestic and foreign investors, manufacturers, the federal government in particular and the economy in general, as well as academics and the researcher.

Scope of the Study

This study has both time and geographical scope. The geographical scope is the banking sector in Nigeria while the time scope is 2005-2022. The study concentrates only on the impact of the application of financial technology on the performance of the Nigerian financial sector.

REVIEW OF RELATED LITERATURE

Conceptual Framework

This section of the study takes a critical look at the nature and concept of financial technology including its variants (point of sale terminal transactions, online web payments, Automated teller machine transactions); and how they have contributed to the performance of the Nigerian financial sector. This review of related literature is a search for the discovery of existing information on the research problem.

Financial technology

Enang (2012) and Chishti and Barberis (2016) defines financial technology as the use of new technology and innovation with other available businesses in order to compete in the marketplace of traditional financial institutions and intermediaries in the delivery of financial services. In addition to this, Iriobe and Akinyede (2019) posit that technology services are professional services designed to facilitate the use of technology by businesses their and customers thereby providing specialized technology-oriented solutions by combining the processes and functions of software, hardware, networks, telecommunications and electronics. The rapid advancement in technologies has made technology is an important ICT tool for development due to its ability to easily leapfrog the infrastructure barriers in remote and rural areas in Africa (Enoma and Isedu2011). Financial technology companies consist of both startups and established financial and technology companies trying to replace or enhance the usage of financial services of individuals, firms and the government.

Financial services are the economic services provided by the finance industry, which encompasses a broad range of businesses that transfer, save, manage and spend monies as a medium of exchange. Financial technology refers to firms that premise their financial services on a sound technology platform in a bid to invent new financial products and services which can reach a wider variety of entities, corporate and individual customers alike(Gibson Pasini and Buckley 2014). Financial technology has gained ground by the reason of its use by startup firms gaining entry into the market as they try to change the traditional method of doing things by leveraging on cutting edge technological channels in areas of asset management and money transfer (Truong, 2016). One remarkable feature of financial technology is its ability to ensure efficiency within the market and at same time keep transaction costs very low. Kim, Park, Choi and Yeon (2015) in Erman (2017) described financial technology as a platform which provides for the intersection of technology and finance.

Categories of Operational Financial Technology in Nigeria

Internet Banking: Given the overwhelming success of on-line banking, banks in Nigeria are gradually embracing Internet banking and radical changes are beginning to take place in the Nigerian financial landscape. Customers are increasingly raising the stakes of expectations for quality customer services.

GSM/Mobile Banking (M-Payments): M-payments could be deployed either through the short messages service (sms) or phone calls. With the roll-out of GSM in Nigeria in August 2001, customers are beginning to savour this service delivery channel.

ATM Smart Card/Value cards: Smartcard is already operational in Nigeria under the brand name of Valucard. The company (Smartcard Nigeria Plc) acts as settlement agent as well as Coordinate hardware and software supply, while participating banks serve as card issuers. Its transactions are however not yet online. Nigeria could easily replicate the South African success story where tremendous progress has been made in the use of Smart Cards. This is very impressive and worthy of emulation. In South Africa, smart cards are being put to use in various areas: salaries, pensions, car parks, post offices, cinemas and stadia.

The revolving credit on the card allows repayment installmentally. The credit that is granted is either settled in full by the end of a specified period or settled in part, with the remaining balance extended as credit. International credit cards such as Visa and Master cards are known to customers and accepted by merchants. Credit cards are also easy to use on the internet, as only the credit card details need to be sent to the beneficiary in order to effect payment. This is directly linked to savings or current accounts. The use of debit cards for purchases on the Internet is still limited.

Automated Teller Machine (ATM): A complex self service station for cash withdrawal, account information, credit transfers and cash deposits. ATM and credit card networks are linked in such a way to enable credit card holders of any bank that operates with similar protocol to use it in any machine. One of the ways to grow and encourage the use of Automated Teller Machine (ATM) cards is for banks to form partnerships and jointly own a switch network which will electronically link all the banks' various ATMs. This has seriously influenced the recent establishment of inter-switch network by some Nigerian banks in collaboration with Accenture and Telnet. The benefits of e-payment systems can only be realized if sufficient measures are put in place to ensure that the Nigerian public has confidence in the system.

Web payment services

Web Payments is an emerging web standard developed to simplify online payments and enable a broader set of players to participate easily in the payments ecosystem on the web. The standards are flexible; work with various types of payment systems and are intended to work on any browser on any device, payment method, or payment service provider. This flexibility enables development simplicity, deployment consistency, and future compatibility with emerging payment technologies (Okoroafor, Adeniji, & Awe, 2018). In terms of benefits of web payments: for consumers, they simplify checkout flow, by making it a few taps instead of typing small characters many times on a virtual keyboard; for merchants, they make it easier to implement with a variety of payment options already filtered for the customer; For payment handlers like banks, they allow bringing any type of payment methods to the web with relatively easy integration; for payment service providers, they bring new payment methods and enhance the ability of businesses to serve more customers with a better developer experience and more secure solutions.

Application of financial technology to the Advancement of Financial Services Delivery

Financial technology which is simply the incorporation of technology into the financial system definitely has a lot to do with the services rendered within the financial system. The advent of financial technology will ensure the expansion of competition and choice of services as financial technology firms have fewer regulations to comply with. In a bid to make financial services available to as many people as possible, financial technology comes in to improve and make financial inclusion a reality by reaching places physical distribution cannot reach as low cost as far as mobile network can reach such places (Hasan, Renzis & Schmiedel, 2013). More so, financial technology takes the focus of services completely away from the source of supply to the customer, his comfort, convenience and access. As a result of this customer oriented approach, the provision of financial services will definitely receive a quantum leap.

Empirical review

Carbo, Paso and Rodriguez (2022) estimated the impacts of financial innovation on banking system performance covering the period between 1990 and 2022 in 17 different regions in Spain using the Generalized Methods of Moments (GMM). They used three different measures of financial technology (web payments, ATM channel and point of sale technology) which were estimated simultaneously with respect to banking service delivery (financial performance of the banking system). Their results showed that financial innovation has a positive influence on banking service delivery performance.

Okoye, Nwisienyi and Obi (2019) estimated the relationship between financial technological innovations and banking sector performance using quarterly time series data for the period 2009 - 2019. The study used the Autoregressive Distributed Lag (ARDL) approach to identify the long-run and short-run dynamics between selected variables. The estimation of both the long-run and short-run models is based on the ARDL error correction methodology. The results show that mobile phone transfers are positively related to economic growth in the long-run and at lag 0 in the short run. The sum of ATM and POS transfers are negatively related to economic growth in the long-run but positive at lag 1 in the short run. In other words, the study established positive relationship (though not strong) between economic growth and some aspects of financial technological innovation. The study recommends, amongst others, that policies aimed at promoting and enhancing the availability and penetration of financial technological innovations should be implemented andmade effective as this will also boost financial inclusion.

Bara and Mudzingiri, (2016) researched on the effect of financial technology on banking service delivery using the Autoregressive Distributed Lag (ARDL) method. The study finds that financial innovation has positive significant relationship banking sector performance. A long-run, growth-driven financial innovation is confirmed, with causality running from financial innovation variables to the banking sector output.

Hasan, Renzi and Schmiedel (2013) estimated the relationship between retail payment (technological innovation) and the real economy using Generalized Methods of Moments (GMM) covering the period between 1995 and 2009 for 27 EU countries. The study concluded that there is a positive relationship economic growth and technological innovation.

Theoretical Framework

Schumpeters Theory on Innovation

This study is anchored on the technological innovation theory propounded by Joseph Schumpeter in 1934. It states that innovation or technological progress is the only determinant of economic progress and so, once the technology becomes constant, the process of growth stops. Financial technology would ultimately mean technological innovation that seeks to improve and automate the delivery and use of financial services.

According to Motsatsi (2016), financial technological innovation has a positive impact on financial development which is used to improve the performance of the financial sector and subsequently the growth of the whole economy. Generally speaking, the level of technology is an important determinant of economic growth. With the emergence of new technology-driven applications and processes, new digital applications that facilitate easier payments, alternative processing networks and increased use of electronic devices to transfer money, the banking and payment sub-sectorshas experienced a high level of disruption (PWC Nigeria, 2017). This gives credence to Schumpeter's creative destruction theory of 1942. The creative destruction or what is known as the disruptive force applies to the fact that the introduction of new products displaces the old ones. It results in the obsolescence or failure of these old products.

Research has shown that a shift from cash payments/traditional methods of banking to digital payments/financial technology will enhance financial inclusion, improve efficiency (increasing speed of payments and reducing cost), increase transparency and security of payments and have a long-term positive effect on bank performance (Demirguc-kunt, Klapper and Singer, 2017; Scott, Reenen and Zachariadis, 2017).

The choice of theoretical framework for this study is the technological innovation theory propounded by Joseph Schumpeter in 1934. As noted earlier, it states that innovation or technological progress is the only determinant of economic progress and so, once the technology becomes constant, the process of growth stops. Financial technology would ultimately mean technological innovation that seeks to improve and automate the delivery and use of financial services. The theory captures the broad objective of the study which is the impact of financial technology on the performance of the financial sector. When the financial sector deepens its technological adoption, its service and products will also improve and hence its total performance in terms of its contribution to the aggregate economic output of the country.

METHODOLOGY

Research design

Ex-post facto research design was adopted for this study due to its suitability in forecasting time series variables. In this design, the use of past values to explain future outcomes is made possible. The processes to be followed will begin with the unit root test of stationarity, followed by the test for co-integration using the Johansen approach and then the ordinary least squares analysis.

Sources of Data

To ensure reliability of the information resulting from this study, time series secondary data is the most suitable and reliable for this study, therefore data employed in this study were sourced from the Central Bank of Nigeria (CBN) statistical bulletin (2021). The period under review is 2005-2021.

Model Specification

Based on the theoretical framework, the model for this study is specified thus:

The functional model is stated as:

BSP = f (POST, ATMT, MBT, OBT) …… (1)

The econometric models can be specified as follows:

$BSP = \beta 0 + \beta 1POST + \beta 2ATMT + \beta 3MBT + \beta 4OBT + Ut$ …… (2)

A priori Expectations: $\beta 1, \beta 2$, and $\beta 3 > 0$

Where:

BSP = banking service performance

POST = point of sale technology

ATMT = ATM technology

MBT = mobile banking technology

OBT = online banking technology

Ut = White Noise Stochastic Error Term

3.4 Analytical Technique

In the preliminary test, the following teat conducted.

Unit root test

This test is used to check for the stationarity of the time series data, it involves testing for the order of integration of the individual to time series under consideration, performed at levels and then at first difference from. The Augmented Dickey Fuller test is employed at 5% level of significance. If the ADF test statistic is greater than the critical values, then the data is concluded to be stationary at the test order. The ADF relies on rejecting a null hypothesis of unit roofs (the series are non stationary) in favour of the alternative hypothesis of stationary. If the ADF test fails to reject the in levels but reject the test in first difference then, the series contain some unit root and it is

integrated of order 1(1). If the data are stationary at level i.e. at 1(0), the OLS will follow but where the data are stationary at first or more difference i.e at 1(d), the co-integration test will follow. The unit root test generally is used to confirm that the data in use is fit for the intended purpose.

Co-Integration

In co-integration test, if the several variables are all integrated of the order 1(d), their linear combination may be stationary; this means that the variables exhibit long-run relationship.

Decision Rule

Accept H_0: (there is no significant co-integration relationship) is t-statistic is greater than the critical value or if P-values is less than the level of significance (5%).

Otherwise Accept H_1: (there is significant relationship) if test statistic is less than the critical values or if P-values is greater than the level of significant. The testing sequence ends if the null hypothesis cannot be rejected for the first time.

RESULTS

In this chapter, the results of all the analysis done in the course of this study were presented. These results are presented alongside some major statistical data, were necessary.

Descriptive Statistics

Table 1: Descriptive Statistics

	BSP	MBT	ATMT	OBT	POS
Mean	2223.002	832.6830	2623.895	143.5893	667.4213
Std. Dev.	1308.582	1242.289	2198.377	165.9809	889.5282
Skewness	0.341933	2.356127	0.751150	2.409277	1.696705
Kurtosis	2.026684	8.672481	2.170168	7.667695	5.148456
Observations	18	18	18	18	18

Source: Author's computation 2023 (Eviews 10)

The summary of the descriptive statistics from the data set is presented in table 3. From the table, average value of banking sector output (proxy for banking sector performance) (BSP) is about 2223.002 billion for the period under review while that of mobile banking technology (MBT), automated teller machine technology (ATMT), the online banking technology (OBT) and the point of sale technology (POS) are 832.6, 2623.895, 143.59 and 667.42 billion respectively, in terms of volume of transactions on those electronic channels.

Unit Root Test

Stationarity is important because many useful analytical tools and statistical tests and models rely on it. Unit root tests can be used to determine if trending data should be first differenced or regressed. Moreover, economic and finance theory often suggests the existence of long-run equilibrium relationships among non-stationary time series variables.It usually implies that the statistical properties of a time series (or rather the process generating it) do not change over time. Hence, in order to ensure the policy forecasting reliability and suitability of the data employed in this, it was subjected to unit root diagnostic test and the summary of the result is presented below:

Table 5: Unit root test result

Variable	ADF Stat @level	@1st Diff	5% critical value	Order	Remark
BSP	-1.407490	-4.247517	3.710482	1(1)	stationary
ATMT	-1.005622	-5.562023	4.107833	1(1)	stationary
POS	-0.413278	-5.691660	4.107833	1(1)	stationary
ONLIT	- 2.520221	4.700182	4.107833	1(1)	stationary

Source: Author's computation 2022 (E-views 10)

The result in table 1 above shows that (@ level), all of the model variables (ROA, ATM, POS and ONLIT) did not achieve stationarity; hence, the need for first differencing. However, the individual series became stationary after been subjected to the ADF test @ 1st difference, they are integrated of order 1(1). The study concluded stationarity based on the fact that following the rule for unit root testing, the ADF test statistic was greater than the 5% critical value. The implication of stationary process or series is that the model employed can be relied upon for policy analysis and decision making.

4.4 Correlation test

Correlation test was used to ascertain the strength and magnitude of the relationship between the dependent and independent variables. The result of the correlation test is presented in table 6 below.

Table 6: Correlation Matrix

	ROA	ATM	POS	ONLIT
ROE	1.000000			
ATM	0.726003	1.000000		
POS	0.715874	0.856042	1.000000	
ONLIT	0.538253	0.559169	0.833443	1.000000

Source: Author's Computation (Eviews10)

The correlation test result in table 6 above shows the correlation movements of the dependent variable and the independent variables. The relationship appeareduniformly positive across board but the strength of the correlation differed. The strength was highest in the automated teller machine (ATM) and the point of sale (POS) variables at 72.6 and 71.16 percent respectively. This implies that bothh variables produce greater effect of the banks' profits. Following is the online banking transactions (ONLIT) variable with 53.83.

Estimation of the model

After the unit root test, the variables were not stationary at level hence the study could not proceed directly to the ordinary least squares (OLS) regression). Since they were integrated of order 1(1) the appropriate technique is the autoregressive distributed lag (ARDL) technique. The result is presented below:

Table 7. Regression result

Dependent Variable: ROA
Method: ARDL
Dynamic regressors(0 lag, automatic): ATM POS ONLIT
Fixed regressors: C

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
ATM	49.90569	13.12017	2.711717	0.0005
POS	305.8029	110.3412	2.492959	0.0029
ONLIT	-298.2524	1568.989	-0.190092	0.8567
R-squared	0.601812			
Adjusted R-squared	0.593624			

Source: author's computation 2022 (E-views 10)

The estimation from research model was done using E-view statistical package. The result obtained from the ordinary least square regression is presented in table 7. From the table, the coefficient of the determination shows the explanatory power of both the exogenous and the endogenous variables. The result of the adjusted R^2 is 0.593624 which shows that the model and the explanatory variables altogether explains about 59.36% variations in the entire electronic channels transactions in the Nigerian banking industry from 2010-2020. Even when the model specification adjusted the data, it still captures a significant proportion of the variations. To this regards, the adjusted R^2 captured about 59% (0.596324) variations in the bank electronic channels transactions.

Test of Research Hypothesis

Based on the research objectives of the study, research hypotheses were formulated from the beginning of the study for the purpose testing them to accomplish the set goals in the research objectives. The specific ICT channels used in the study were used for the formulation of research hypotheses. These structured hypotheses were tested using the probability value anchored on population parameter (t-stat) of the autoregressive distributed lag (ARDL) result. The following steps were taken in testing the hypothesis.

Step 1*:* Restatement of the Research Hypothesis

The research hypothesis of the study is restated in this session in both null and alternate form to enable the researcher to draw valid conclusion.

Hypothesis One:

H_0: There is no significant effect of Automated Teller Machine on the performance of Nigerian banks.

H_1: There is significant effect of Automated Teller Machine on the performance of Nigerian banks.

Step 2: The decision rules:

If the p-value of the population parameter is less than 5% level of significance) reject the null hypothesis, otherwise do not reject. The above expression implies that the researcher should reject the null hypothesis if the P-value of the regression outcome for each explanatory variable is greater than 0.05; but will accept the alternate hypothesis if the P-value is less 0.05; or using t-statistics, it is stated thus:

If population parameter (t-stat) greater than 2 => Reject H_O and accept H_1

But if population parameter (t-stat) less than 2 => Reject H_1 and accept H_0

The result shows that the t-value for ATM is 2.711717 (approximately 2.7), while the corresponding P-value is 0.0005. Since P-value is less than 5% level of significance, the researcher therefore rejects the null hypothesis and accepts the alternate hypothesis. This means that there is significant positive effect of Automated Teller Machine on the performance of Nigerian banks. Thus, at 95% level of confidence, we therefore conclude that there is positive significant effect of Automated Teller Machine on the performance of Nigerian banks. This means that an increase in use of ATM brings about a corresponding increase in the performance of banks in Nigeria.

Hypothesis Two

Step 1: Restatement of the Research Hypothesis

$H0_2$: There is no significant effect of point of sell (POS) on the performance of Nigerian banks.

$H1_2$: There is significant effect of point of sell (POS) on the performance of Nigerian banks.

If the p-value of the population parameter is less than 5% level of significance) reject the null hypothesis, otherwise do not reject. The above expression implies that the researcher should reject the null hypothesis if the P-value of the regression outcome for each explanatory variable is greater than 0.05; but will accept the alternate hypothesis if the P-value is less 0.05; or using t-statistics, it is stated thus:

If population parameter (t-stat) greater than 2 => Reject H_O and accept H_1

But if population parameter (t-stat) less than 2 => Reject H_1 and accept H_0

From the results obtained from the test of the hypothesis two, the p-value for the point of sale (POS) is 0.0029, while the corresponding t-value is 2.492959. Therefore, since P-value is less than 5% level of significance, the researcher therefore rejects the null hypothesis and accepts the alternate hypothesis. This means that there is significant positive effect of POS of electronic channels on performance of Nigerian banks. And at 95% level of confidence, we therefore conclude that there is positive significant effect of POS channels on the performance of Nigerian banks.

Discussion of Findings

Automated Teller Machine (ATM) was tested the result revealed that there is significant positive effect of Automated Teller Machine on the performance of Nigerian banks. This means that the use of ATM or the acceptance and usage of ATM by bank customers enhance the bank performance in Nigeria within the time of this study at 5% level (t-value 2.711717 and p-value 0.0005)

Result from the analysis showed that that there is significant positive effect of POS electronic channels on the performance of Nigerian banks. And at 5% level of confidence, we therefore conclude that there is positive significant effect of POS channels on the performance of Nigerian banks and as such an increase in use of POS channels brings about a corresponding 305% increase in the performance in the banks at p-value at 0.0029 and t-value of 2.492959 it shows that the relationship between POS and Bank performance is statistically significant since the P-value is less than 5% level of significance. Accordingly we reject the null hypothesis and support the alternative hypothesis.

The hypothesis of this study which tested the effect of internet banking on the performance of Nigerian Banks and its result showed that there is significant negative effect of internet banking on the performance of Nigerian banks. This means that the use of internet banking in Nigerian has significant effect on the financial performance of banks. This finding is also at variance with the findings of Wilson et al (2014). The result obtained from 5% level of significance shows that the p-value 0.0007 and t-value -3.190092

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

Summary of Findings

This study entitled " Effect of Information and communication Technology Channels on the Performance of Nigerian Banks between 2009 and 2020" has the main objective of investigating the effect of information and communication technology channels on the performance of Nigerian banks over the period (2006-2020) .The summary of finding are:

1. Automated Teller Machine (ATM) transaction at 5% level of significant with t-value of 2.711717 and p-value of 0.0005 has positive impact on bank performance in Nigeria. While at 95% level of confidence it has positive significant effect on the performance of Nigerian Banks, .this means that an increase in the use of ATM brings about a corresponding increase in the performance of Nigerian Banks.

2. Point of Sale (POS) terminal at 5% level of significant with t-value of 2.492959 and p-value of 0.0029 has significant impact on bank performance in Nigeria. While at 95% level of confidence we conclude that there is a positive significance. An increase in the use of POS brings a corresponding 305% increase in bank performance.

3. Online internet banking(ONLIT) transaction at 5% level of significant with t-value of -3.10292 and p-value of 0.0007 has significant impact on bank performance in Nigeria. While at 90% level of confidence we conclude that the effect is negative and significant.

Conclusion

Studies have found that the higher the application of Information and Communication Technology (ICT) in banking operations and by customers of banks, the higher the financial performance of the deposit money banks. Econometric model was specified and estimated via econometric techniques to ascertain the relationship between ICT channels and deposit bank performance in Nigeria. The variables were tested for stationarity, co-integration analysis was carried and their result revealed that the variables were stationary and conitegrated. The study found that deposit money bank performance proxied by ROA and the selected ICT channels variables included in the model have a long run relationship within the period under study. The study therefore, concluded that ICT channel variables induced financial performance of the deposit money banks in Nigeria during the period of this study.

Recommendations

Based on the findings from this research conducted on the effect of Information and communication technology on performance of Nigerian banks, we therefore recommend the followings;

1. The policy maker should design a strategy toward enhancing the automated teller machines in term of its availability not only the cities also in the rural areas, improve on its networking and its ability to dispense different Naira denomination.

2. Point of Sale instrument have been found to be significant on its positive effect to Banks in Nigeria, the Central Bank of Nigeria should make it more accessible to all businesses in Nigeria,

3. The Internet banking over the period of the study has no significant effect on performance of Nigerian banks. Effort should be made by the government through the network provider to improve in its networking for effective uses of internet banking. There should be a campaign by the banks to their customers to educate them on how to use the services

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