

IMPACT OF REGULATION OF FINANCIAL TECHNOLOGY (FinTech) SERVICES ON THE PERFORMANCE OF DEPOSIT MONEY BANKS IN NIGERIA

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Abstract

In the recent years, the performance of Deposit Money Banks (DMBs) has stunted in Nigeria due to the unregulated risks and challenges of FinTech services and the lack of safety nets in the business models, misuse of personal data, difficulties in identifying customers, and electronic fraud among other vulnerabilities of the new digital financial practices. This paper therefore become imperative to examine the impact of regulation of FinTech services on the performance of Deposit Money Banks in some selected banks in Kwara State Nigeria. Quantitative methods were utilized in the gathering and analyzing data. 220 employees from five (5) Deposit Money Banks were selected in Ilorin Metropolis. Consequently, data were generated on accounts of ethical practice in the regulatory framework of FinTech service from the banks using well structured questionnaire. The banks' managers and senior staff were the selected participants. Pearson Moment Correlation, ANOVA and Multiple Regression were the statistical tools used to test for the hypothesis of the study. The study revealed that PayStack ($\beta=0.705$), Branch ($\beta=0.602$) PiggyVest ($\beta =0.602$), Mines ($\beta=0.235$) NetPlus ($\beta =0.227$) have direct positive impact on the performance of Deposit Money Banks at 5% level. Further, regulation of digital innovation in the banking industry have significant relation to the performance of banks in Nigeria at 5% level ($F=532.130$, $R=0.960$, $R^2=0.922$; $p=0.00<0.05$). For the improved bank's performance, it is concluded that the adoption of FinTech service has the cost-benefits approach which improve efficiency and social structure of FinTech companies in a more secure network. It is recommended that Management of the Nigerian Deposit Money Banks (DMBs) should as a matter of urgency conduct regulatory network on the managerial practice of FinTech services and aligned them with proper link between FinTech services offered by the FinTech firms and bank services.

Keywords: DMBs, FinTech, PayStack, Branch, PiggyVest, Mines, NetPlus, and Security Challenges

Introduction

The discussion on how financial innovation, new technologies, products and players would affect the business models and product offering of traditional (incumbent) banks is not a new, and has been there before the recent FinTech spin. We have already witnessed increased competition and entry of new market players affecting banks' business models, their strategies and both sides of the balance sheet in the past. We recall here a lecture by Padoa-Schioppa in 1999, where he explained how both sides of the banks' balance sheet are affected by emerging trends in the wider use of derivatives, money market mutual funds, electronic payments offered by challenger financial and non-financial companies which have led banks to adopt and innovate (Padoa-Schioppa, 1999). Already then, the debate was about an increased role of electronic access and

Internet companies (albeit different ones from the likes of Google, Apple and Facebook we are talking today) and non-bank companies entering into the core banking activities and customer relations. The banks have adopted them, and we witnessed the wide-spread changes in their business models: branch networks have generally shrunk and became no-cash advisory centres, payments are mostly electronic and moving from Internet banking to mobile phones, almost nobody is using cheques and younger generations do not even know of their existence.

In fact the author lived through that technological revolution analysed by PadoaSchioppa, getting the first touch of the emerging ‘chip and pin’ card technology in the newly independent Estonia in 1993 (e.g. ELT Kaart introduced in 1993 was one of the first processor equipped bank cards in Europe (Kruut, 2006), an electronic banking solution in the same year and internet banking services in 1996 (e.g. Estonian Hansapank offer its stand-alone electronic bank Telehansa in 1993), and first fully Internet based banking solution that was introduced by Estonian banks EestiForeksbank and EestiHoiupank in 1996) (Kerem, 2003). The level of such innovation was remarkable as the emerging banking sector was at the forefront of technological development in Europe benefiting from not having the burden of past experience, historical processes, routines and older technologies. Looking back at the banking system back in the 1990s and banks’ efforts to rapidly roll-out new technologies getting buy-in from the customers who were willingly accepting new experience – the developments look very similar to the current FinTech innovation.

In Nigeria in the 2000s newly established banks were market and product innovators – the role currently assumed by the FinTech companies – disrupting exiting routines and markets. All those electronic services that represent a ‘new normal’ to us currently, and that were so easy to adopt to newly established banks in places like Lagos, Abuja, Kano and River State, required significant changes for the longer established banks’ business models. This represents another interesting parallel in the current FinTech debate – the costs of innovation/disruption and abilities of incumbent institutions to adopt. Back in the 2000’s Nigerian banks were like FinTech companies of today – newly established late movers not rooted into existing routines, principles, solutions and technologies without the so called legacy IT issues, and not burdened by the vast branches’ networks, were able to easily and relatively cheaply introduce digital technologies and innovative products (Kerem, 2003). This is the type of the competitive advantage current FinTech companies have vis-à-vis the incumbent banks, will note this, but will not explore it further.

Recently, the CBN launched its consultation on the role of FinTech in building a more competitive and innovative financial sector which among other aspects focuses on two important aspects (1) financial services accessibility to customers, and (2) bringing down operational costs and increasing efficiency of the financial services industry (CBN, 2017). These are the two areas, which in our view have direct influence on the incumbent banks’ business models that will need to adopt and innovate.

Despite the potential benefits, financial services also pose new types of risks. The lack of safety nets in the business models, misuse of personal data, difficulties in identifying customers, and electronic fraud are among the main vulnerabilities of the new digital financial practices. Because most of the peer to peer (P2P) lending platforms do not hold the loans originated in their

balance sheets, the profitability of their businesses is highly dependent on the number of loans they intermediate and might evaporate during economic recessions. Banks covered by deposit insurance schemes are better equipped to cope with economic downturns (Demirgüç-Kunt, Kane, and Laeven, 2014). At the centre of the policy debate is how this new area of finance should be regulated and supervised. Lending discrimination against some customers, disclosure requirements for clients, and the sharing of customer data are some of the main areas of concern for bank's regulators with respect to the new online platforms (Politico, 2016). Moreover, customer protection and education measures are much needed because many FinTech services serve segments of more vulnerable customers (some of whom are accessing financial services for the first time). Another area of concern is the cross-border activity of the new digital financial services. Although many FinTech companies operate locally or offer digital products involving multiple countries, financial regulation remains region-specific and highly fragmented. Therefore, it is not clear which country's laws should prevail.

To understand all the risks and FinTechs opportunities to banks, it becomes imperatives to see the context where these changes are taking place in a stable atmosphere free of frauds, and insecure transactions in the handful of banking regulatory framework so that financial performance can improve better than expected. This formed the thrust of the paper research in the regulation of FinTech services and the performance of deposit money banks in Nigeria.

This study therefore will examine the significant impact of FinTech services on the performance of DMBs in Nigeria, and focus will be on how Nigerian Deposit Money Banks are adapting to the business models and reacting to such challenge in FinTech services in Nigerian banking industry. Also, the study will assist the regulators to mould strategies in place to address the various aspects of financial technology that will level the playing ground for both FinTech Companies and the deposit money banks in a bid to improve performance in term of service and cost-efficiency.

Literature Review

Financial Technology (FinTech)

The origin of FinTech dates back to the mid-90's. The roll-out of the services has been incremental ever since because of the low operating costs associated with them. Initially FinTech service constituted ATM and over the telephone transactions. Internet is a new channel for transactions between banks and their customers and this channel has given rise to electronic funds transfer (EFT), POS banking and mobile banking. FinTech service is popularly used to move money across bank accounts, either within the same bank or to a different bank. FinTech has enabled the businesses to lower the intermediate costs and increase financial access through broadening financial inclusion. According to Vives (2017), this efficiency is mainly attributed to the role of FinTech in overcoming information asymmetries which is still a big challenge in the banking sector. Furthermore, FnTech firms lack legacy technologies to deal with cultures efficient operational designs. This gives them higher innovative capacities than the traditional businesses. According to Mutua (2013), rapid change in technology in the payments sector, has increased financial inclusion thus changing the trend of undertakings of the traditional banking systems.

The untapped financial market by the Nigerian banks is still large, which provides an opportunity for the FinTech companies to venture in. Globalization, increasing customer needs and the increasing number of industries in the sector has led to higher levels of competition and market share and for Nigerian Deposit Money Banks (DMBs) to enhance financial performance and remain competitive; forming collaborations with FinTech companies is mandatory. FinTech companies have a commitment to excellence, superior customer experience and a demonstrated ability to do one thing in a market better than everyone else” (Vives, 2017). FinTechs’ advancements in the use of digital technology have so far occurred in lending, financial advising, insurance and payment systems. Some global banks appear to be shifting their distribution channels from brick and mortar operations to nonphysical channels, which will probably be the main channel of interaction between banks and consumers in the future. Banks also seem to be shifting toward viewing FinTech companies as partners and enablers rather than disruptors and competitors (Economist Intelligence Unit, 2015). Incumbents are realizing the need to take advantage of FinTech capabilities to grow business, retain existing customers, and attract new ones, some of whom were previously unbanked. Meanwhile, without access to a client base, client trust, capital, licenses, and a robust global infrastructure, the new FinTech companies will discover that there are limits to their growth. Collaboration between banks and new players is already taking place, and incumbent financial institutions seem to be pouring increasing amount of investments into the FinTech sector through FinTech acquisitions, investment funds, incubators, and accelerators.

FinTech Benefits in Nigerian Deposit Money Banks

As with any evolution, we are now entering the new spiral of innovation with new technologies and products like: FinTech credit (loan-based crowd funders, peer-to-peer lenders, marketplace lenders) (CBN, 2017), use of artificial intelligence in advice giving (robo-advice), big data analytics, use of distributed ledger technology (blockchain) in payments, customer identification etc., expansion of internet-only or mobile-only banks and payments – all taking a more prominent space in the financial business models. It is understood that the benefits of financial innovation and financial technology to the consumers, is wider competition and lower distribution costs will make products and technologies more accessible to consumers. The angle of reduced costs and increased accessibility of financial products is important and lies at the heart of the Nigerian banks’ initiatives building a technology-driven Single Market in retail financial services (CBN, 2017).

Digital innovators are bringing increased competition and efficiency to the traditional financial sector (Philippon 2015, 2016). Following the increasing use of FinTech providers, the cost of sending remittances has been declining, while the speed of transactions has been increasing. This holds special importance for developing countries because remittances constitute one of the biggest flows of funds from the developed to the developing world (World Bank, 2016). Importantly, the development of FinTech also promotes financial inclusion for customers. Historically, there has been a wide gap between the financial needs of households and businesses in Nigeria and the set of financial products available to them. The banking sector has constrained lending to this segment, among other reasons, because of the high costs relative to the small transaction values involved and the difficulties lenders have in identifying and assessing the risk of potential borrowers (CBN, 2017). Mobile money platforms allow unbanked customers, with basic mobile phones, to make and receive payments much faster and less expensively than in the

recent past. They also provide the infrastructure and generate the digitized data that can be used to create and tailor new financial offerings for the financially excluded. An example is M-Shwari in Kenya, which leverages the mobile money infrastructure and digital information of M-Pesa to make credit-scoring decisions (CGAP 2015). Moreover, low-income earners and SMEs are the user targets of most marketplace lenders, which typically arrange small loans for these financially constrained segments. Lastly, one of the benefits of the financial technology for financial inclusion is its potential to reform and improve property ownership through block-chain registries, which would generate proof of collateral (an important problem in developing nations) and thus improve access to credit.

Risks and Regulation of FinTech Services

Excessive regulation might not be desirable because it could be deadly for FinTech start-ups. Understating this trade off, regulators in some countries are developing regulatory sandboxes to manage the transition to a new landscape. This approach has two aims. On the one hand, it allows FinTech companies to live test their services with real customers while facing a low level of regulation during a predefined period. On the other hand, it helps financial authorities better understand the functioning of the new services as well as their advantages and risks, ensuring that appropriate consumer protection safeguards are built into the new products and services before they reach the mass market (Financial Conduct Authority, 2015). The United Kingdom has launched its sandbox, and other economies, such as Australia, Singapore, and Hong Kong SAR, China, are pursuing similar initiatives. The sandbox strategy in Nigeria has also been contemplated by financial regulators (FSB, 2017). The new digitally enabled methods could also be used to address compliance requirements and to monitor digital financial services (“regtech”) in all African countries.

Theoretical Reviews

The theories summarized in this section are, the theory of market power and efficiency structure, and institutional theory.

Market Power Theory: The MP theory states that increased external market forces results into market power which is defined as the capacity of an organization to increase its prices without losing all its clients. In banks, as in other business organizations, Market Power can take two forms: differentiation of products and services, or ease of search. There is a trade-off between differentiation and loss of legitimacy which is optimized at a strategic balance point (Shepherd, 1986). Likewise, there is a trade-off between ease of search and security that must be taken into account. This theory categorizes Information Communication and Technology (ICT) investments into Market-Power driven initiatives profit. Moreover, the hypothesis suggest that only firms with large market share and well differentiated portfolio can win their competitors and earn monopolistic profit.

Efficiency structure theory (ES) suggests that enhanced managerial and scale efficiency leads to higher concentration and then to higher profitability. According to Olweny and Shipho (2011) balanced portfolio theory also added additional dimension into the study of bank performance. It states that the portfolio composition of the bank, its profit and the return to the shareholders is the result of the decisions made by the management and the overall policy decisions. From the above theories, it is possible to conclude that bank performance is influenced by both internal

and external factors. The internal factors include bank size, capital, management efficiency and risk management capacity. The same scholars contend that the major external factors that influence bank performance are macroeconomic variables such as interest rate, inflation, economic growth and other factors like ownership.

The Institutional Theory

The theory contends that institutions are social structures with norms and expectations which have had to attain a high degree of resilience. Institutional theory looks into the deeper attributes of the social structure and takes into consideration the mechanisms through which structures such as schemes, norms, routines and rules become ingrained as the accepted guidelines for social behaviour in organizations (Scott, 2004). Banks undergo restructuring to provide services to different clients and remain competitive. Restructuring allows organizations to change their structure and form in order to increase their efficiency. Institutional theory therefore requires firms to be able to conform to their environments. Currently the environment has progressed to the use of mobile phones, which have greatly increased convenience, and cost of doing transactions. There is also available social media and other internet platforms, which have provided big data that is being used by FinTechs to reduce information asymmetry while providing financial services. In order for banks to survive and thrive in Nigeria, they must comply with the current social structure and the regulatory network of clients' behaviours in the environment.

Methodology

The study used descriptive survey method that was aimed at discovering the nexus between regulatory framework of FinTech service and the performance of Deposit Money Banks in Nigeria. The study was conducted through a survey of five Deposit Money Banks in Kwara State Nigeria. The main reason for selecting descriptive research design is that it provides a knowledge base when little is known about a phenomenon or such things as clarification of a situation, classification of information, or description of subject characteristics that aided in the refinement of the research problem, formulation of the hypothesis, or design of data collection and analysis procedure (Powers & Knapp, 2006). The study sample size was drawn from the total population of 541 staffs of the five selected banks in Kwara State, Nigeria. Primary data and secondary data were pertinent to the research. The target population is Managers of the banks who are more directly involved in the decision and regulation of FinTech services in the selected DMBs in Kwara State. The secondary data is significant as it includes the logical framework of the research. For the purpose of the study, the collected primary data included constructs on FinTech regulatory services and adoption of services by customer of the selected banks between the period 2014 to 2018.

Data on bank performance was measured through deposit target and cycle time (turnaround). Data was cleaned, sorted and checked for completeness and consistency after collection. Statistical package for the social sciences (SPSS) was then used to analyze the data's descriptive statistics such as maximum, minimum, mean, and standard deviation to outline sample characteristics and significant trends from the collected data. A multiple linear regression model was then employed to estimate the relationships between the variables. The Pearson's product moment correlation coefficient (r) method will be used to determine the degree of relationship or strength of association between dependent and independent variables i.e. productivity and the job

hazards. The significance of the relationship will be tested at 95% or 0.05 significant levels respectively using the student ‘F’ test. Simple correlation method measures the degree of relationship between regulatory FinTech services and DMBs performance in Nigeria.

The formula for calculating Pearson’s product moment correlation coefficient (r) is given as:

$$r = \frac{n\sum xy - n\sum x\sum y}{\sqrt{[n\sum x^2 - (\sum x)^2] - [n\sum y^2 - (\sum y)^2]}}$$

$$F\text{-ratio test} = t = r \sqrt{\frac{n-2}{1-r^2}}$$

- Where
- x = FinTech’s services
 - Y = DMBs’ performance
 - n = number of sample
 - r = correlation coefficient
 - F= t-value (calculated)

The degree of freedom (df) = n-1

From the research topic “regulation of FinTech services and the performance of Deposit Money Banks in Nigeria”.

Two variables are measured

- i. X=FinTech’s service = measure through “efficiency/social structure of the bank”
- ii. Y=DMBs’ performance = measure through “service turnaround/cycle time”

Where: X is the independent variable
Y is the dependent variable

Model 1

The analytical models for this study were specified based on the theories that categorizes Information Communication and Technology (ICT) investments into Market-Power driven initiatives profit. The functional form of the relationship between FinTech Service and Bank Performance is operationalized as follows:

$$\text{Service Turnaround} = f(\text{PayStack, Branch, PiggyVest, Mines, NetPlus}) \dots\dots\dots(1.1)$$

Service Turnaround= This is the proxy for Bank Performance, in the equation 1.1. Hence, it is expressed as the dependent variable for Y in equation 1.2

$$Y = \text{Banks’ performance} = \beta_0 + \beta_1 \text{PayStack} + \beta_2 \text{Branch} + \beta_3 \text{PiggyVest} + \beta_4 \text{Mines} + \beta_5 \text{NetPlus} + \epsilon_0 \dots\dots\dots(1.2)$$

Where, β_0 = constant,

β_i = slope of the estimated parameters, and $i=1$ to 5

ϵ = the ‘Stochastic error’ affecting other unexplained variables in the model.

Where:

Y = Banks’ performance (measure through Turnaround/Cycle time)

β_0 = Constant/Vector-error Correction

β_1 - β_5 = the slope/gradient of the regression line;

ϵ = stochastic term (which reveals the strength of $(\beta_1 \text{PayStack} + \beta_2 \text{Branch} + \beta_3 \text{PiggyVest} + \beta_4 \text{Mines} + \beta_5 \text{NetPlus})$); if ϵ is low. This implies that the amount of unexplained factors is low, and then the residual R and R^2 will be high and vice versa.

Results and Discussion of Results

Descriptive Statistics Analysis of FinTech Innovative Services/products and Banks' Performance

FinTech services/innovative packages were captured by five constructs for critical self-assessment by employees of selected banks over internal and external operational performance. This is to establish whether there is no personal interest or bias in the opinion of staff that the dimension of FinTech service and innovative products was in actual sense used to improve Bank's financial performance. This was indicated in the descriptive analysis further explained in the table below:

Table 1: Dimension of Fintech Service and Banks' Performance

Model Construct			Bootstrap ^a			95% Confidence Interval	
			Statistic	Bias	Std. Error	Lower	Upper
Paystack financial technology is seamy faster in registration process and reduce turnaround times	N	230	0	0	230	230	
	Minimum	1.00					
	Maximum	5.00					
	Mean	4.2391	.0029	.0583	4.1130	4.3574	
	Std. Deviation	.91529	-.00640	.06523	.78641	1.03958	
Branch digital platform is handled strictly by staff who have specialized training in I.C.T that hasten the lending rate	N	230	0	0	230	230	
	Minimum	1.00					
	Maximum	5.00					
	Mean	4.2870	.0078	.0599	4.1643	4.4096	
	Std. Deviation	.94166	-.00688	.07283	.79687	1.07595	
PiggyVest is cost-efficiency and increase deposit target	N	230	0	0	230	230	
	Minimum	1.00					
	Maximum	5.00					
	Mean	4.0913	-.0069	.0673	3.9528	4.2130	
	Std. Deviation	1.01749	.00357	.07244	.84821	1.15416	
Lower threshold of instant access to credit is a good digital platform of Mines that increase the bank service delivery	N	230	0	0	230	230	
	Minimum	1.00					
	Maximum	5.00					
	Mean	4.3348	.0004	.0565	4.2295	4.4565	
	Std. Deviation	.88958	-.00494	.05937	.76488	1.00588	
Electronic Fund transfer (EFT) of cash-in-cash-out helps in increasing the deposit target of the bank	N	230	0	0	230	230	
	Minimum	1.00					
	Maximum	5.00					
	Mean	3.9783	-.0032	.0781	3.8286	4.1140	
	Std. Deviation	1.16890	-.00202	.06309	1.02645	1.28447	
Valid N (listwise)	N	230	0	0	230	230	

a. Unless otherwise noted, bootstrap results are based on 230 bootstrap samples

The statistics table 1 shows, for each level of model construct, the mean value for FinTech service/innovative products. Since the constructs on FinTech services takes agree values (5) and disagree (1) on five-point likert scale, with 5 signifying the maximum score of effectiveness over bank's performance. The mean is equal to the proportion of respondents who agreed. The statistic column shows the values of frequencies, using the dataset produced by the bootstrapping algorithms. The parametric mean ($\mu = 4.2391$) which was found between the pendulum of bootstrap confidence interval for the mean $4.1130 < \mu < 4.3574$ and the standard error of ($s.e = 0.0583$), suggested that the typical respondents agreed on PayStack financial technology is

seamy faster in registration process and reduce turnaround times in bank’s operational performance. Also result equally revealed that Branch digital platform is handled strictly by staff who have specialized training in I.C.T that hasten the lending rate and this increase bank internal performance with sample mean ($\mu = 4.2870$) found between the pendulum of bootstrap confidence interval for the mean $4.1643 < \mu < 4.4096$ and the standard error mean = 0.0599.

The parametric mean score, ($\mu = 4.0913$) that PiggyVest is cost-efficiency and increase deposit target was found between the pendulum of $3.9528 < \mu < 4.2130$ and the standard error is 0.0673. Lower threshold and instant access to credit is a digital platform of Mines that increase the bank service delivery has mean ($\mu = 4.3348$) found between pendulum of $4.2295 < \mu < 4.4565$ and the standard error is 0.0565 while the mean score ($\mu = 3.9783$) of Electronic Fund transfer (EFT) of cash-in-cash-out helps to increasing the deposit target of the bank was found between $3.8286 < \mu < 4.1140$ and has standard error of 0.0781 which invariably means that all standard error are too small and that the views of respondents on the average is not due to chance. However, these mean scores are affected by outliers because some standard deviations spread out, meaning that the consistency is higher in the respondents’ opinion that the Lower threshold of instant access to credit is a good digital platform of Mines that increase the bank service delivery due to lower standard deviation compared to other constructs in the ranking. Based on this result, the mean scores assessment of the five statements are above the mid-point of 3.00, suggesting that survey participants do anticipate the possibility of high internal and external operational performance. Therefore, this is sensitive to further investigate the types of FinTech innovative services adopted by the selected DMBs to ascertain whether these services help the sampled banks in the actualization of internal and external operational bank’s performance in Nigeria.

H₀₁: There is no significant impact of FinTech services on the performance of DMBs in Nigeria

Table 2: Model Summary

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	.960 ^a	.922	.921		.32225

a. Predictors: (Constant), PayStack, Branch, PiggyVest, Mines, NetPlus

The table 2 shows the model summary which explains the relationship between FinTech services and banks’ performance. The result shows the coefficient of determination is $R^2 = 0.922$; which means that 96% of the change in the level of banks’ performance is explained by a unit change in FinTech services in PayStack, Branch, PiggyVest, Mines and NetPlus digital platform of financial technologies and that $R = 0.960$ indicate that there is positive relationship between FinTech services and the level of performance of DMBs in Nigeria. The regression equation appears to be relatively useful for making predictions since the value of R squared is very close to 1.

Table 3: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	276.287	5	55.257	532.130	.000 ^b

Residual	23.261	224	.104
Total	299.548	229	

- a. Dependent Variable: Banks' Performance
- b. Predictors: (Constant), PayStack, Branch, PiggyVest, Mines, NetPlus

Table 3 presents the overall diagnostic test of significant of relationship between FinTech services and Bank’s performance. The ANOVA results for regression coefficients indicate that the significance of the $F=532.130 > F\text{-table}=3.84$ at a degree of freedom of (5, 224); i.e. P-value=0.00 is less than 0.05. This indicates that the regulation of FinTtech services like PayStack, Branch, PiggyVest, Mines and NetPlus significantly predict the Banks’ Performance in Nigeria (meaning it is a good fit for the model). Therefore, a significant relationship between Banks’ performance and FinTech services exists at 95% confidence level.

Table 4: Regression Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.317	.143		-2.217	.002
	PayStack	.705	.115	.793	6.130	.013
	Branch	.352	.044	.305	8.011	.001
	PiggyVest	.602	.036	.658	16.722	.000
	Mines	.235	.102	.317	2.304	.022
	NetPlus	.227	.041	.199	5.537	.000

a. Dependent Variable: Bank performance

From regression Table 4, the result show that PayStack ($\beta=0.705$), Branch ($\beta=0.602$) PiggyVest ($\beta =0.602$), Mines ($\beta=0.235$) NetPlus ($\beta =0.227$) have positive impact on the performance of Deposit Money Banks. The regression parameters were shown to means that 70.5% improvement in bank performance is caused by1% increase in PayStack digital service. Similarly, 35.2% improvement in bank performance is significantly cause by 1% increase in branch digital platform, 60.2% improvement in bank performance is cause by 1% increase in PiggyVest, 23.5% improvement in bank performance was cause by 1% increase in Mines digital service while about 22.7% increase in bank performance was cause by 1% increase in NetPlus.

This result implies that all dimensions of FinTech digital service have direct positive impact on the performance of selected deposit money banks at 5% level. The vector-error correction indicate in the constant of regression analysis ($c=-0.317$) make further presumption that if peradventure “FinTech Service=0”, the bank performance might drop by 31.7% which implies that the removal of financial technology service is significant at 5% level. Therefore, zeroing FinTech service can be use drawn inference on the bank performance. Thus practical finding in this study have show that the bank may not have facilities to adopted all the digital platforms or services because of cost implications. Therefore, bank managers should look deeper into the FinTech service that most improved bank performance especially in their decision to weigh cost-benefits approaches without losing clients, which by extension is justifiable for most bank in Nigeria to adopt PayStack for better improvement of bank performance as indicated in this study. In addition, this will regulate the spread of FinTech companies for more secure transaction in the

Nigerian Deposit Money Banks. Hence, the null hypothesis is rejected and the alternative hypothesis is accepted by posited that there is positive significant impact of financial technology services on the performance of deposit money banks at 5% level.

Discussion of Findings

The study specifically sought to establish how the FinTech regulatory services tested positive in relationship with the performance of the Deposit Money Banks (DMBs) in Nigeria. The significance of the relationship of FinTech regulatory services in PayStack, Branch, PiggyVest, Mines and NetPlus were retained in the study for improved performance of banks as indicated in the strength of correlation and ANOVA. The descriptive statistics in table 1 reveal that the all FinTech service were normally distributed by equal mean and variance. This was indicated by the level of consistency in the constructs due to lower standard deviation and average mean in the level of agreement of respondents. This was further support in the finding of regression analysis that all dimensions of FinTech digital service have direct positive impact on the performance of selected deposit money banks at 5% level. Additionally, the vector-error correction in the constant of regression analysis ($c=-0.317$) make further presumption that if peradventure "FinTech Service=0", the bank performance might drop by 31.7% which implies that the removal of financial technology service is significant at 5% level. Therefore, zeroing FinTech service can be use drawn inference on the bank performance. Thus practical finding in this study have shown that the bank may not have facilities to adopted all the digital platforms or services because of cost implications.

Therefore, bank managers should look deeper into the FinTech service that most improved bank performance especially in their decision to weigh cost-benefits approaches without losing clients, which by extension is justifiable for most banks in Nigeria to adopt PayStack for better improvement of bank performance as indicated in this study. In addition, this will regulate the spread of FinTech companies for more secure transaction in the Nigerian Deposit Money Banks. Hence, the null hypothesis is rejected and the alternative hypothesis is accepted by posited that there is positive significant impact of financial technology services on the performance of deposit money banks at 5% level. This conform with the finding of Ngigi (2012) that the FinTech regulatory services has been designed on the basis of perceived ease and efficiency of bank performance. This was supported by Olweny and Shipho (2011) that the efficiency and social structure of FinTech services is an added dimension into the study of bank performance. This implies that the banks should embarked on restructuring strategies, compliances and regulatory of financial technology services as suggested by findings by Agboola (2006) and Osage (2012) that the deployment of various e-banking tools was highly evident in banks' performance. The finding of this study has shown that FinTech regulatory service is tested positive to internal and external operational performance of DMBs in Nigeria.

Conclusion

From the above findings, it can be concluded that certainly, uptake of regulation of FinTech services has significant impact on Banks performance. Efficiency, Secure transaction and social structure in digital globalization by mean of regulating the PayStack, Branch, PiggyVest and NetPlus services reduce the risk and security challenges which increasing customers' needs and the number of FinTech firms in the banking industry in Nigeria. Therefore, to enhance performance in Nigerian Deposit Money Banks and remain competitive; adoption of FinTech

service that has the cost-benefits approach will improve efficiency and social structure of FinTech companies in a more secure network. Therefore, the paper recommends among others that:

Recommendations

1. Management of the Nigerian Deposit Money Banks (DMBs) should as a matter of urgency conduct regulatory network on the managerial practice on FinTech services and aligned them so that establishment of a proper link between FinTech services offered by the FinTech firms and bank specific factors ensure that banks do not lose market share and customers due to the risks and challenges in the efficiency and security challenges in social networks of the FinTech services in the industry.
2. Policy recommendations are that the Central Bank of Nigeria (CBN), which is the financial sector regulatory agency, should recognize that FinTech companies increasingly play a major role in the economy and should therefore formulate regulations relating to them.

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