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Full Length Research Paper

Financial incentives and financial innovation adoption in Nigeria (2005– 2010)

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Abstract

Various scholars and researchers have recognized that the development of the financial sector has productivity and growth-enhancing effects. In this regard, several policies that increase financial deepening have been nurtured with the aim of improving economic growth both in developed and developing countries. Access to financial services in Nigeria is still relatively low. As at 2010, only 36.0 per cent were served by formal financial services, compared to 68.0 per cent in South Africa and 41.0 per cent in Kenya. In addition, about 34.0 per cent of the excluded population had no formal education, while 80.4 per cent reside in rural areas. A large percentage of Nigerian populace is unbanked. Therefore the rate of financial innovation adoption is low. This study sought to investigate the effects financial incentives (Interest rate) on financial innovation adoption in the Nigerian banking sector. The study achieves this objective using data from CBN and NBS from 2005 to 2010. Financial Incentives: the independent variable was captured by Interest Rate, the dependent variables; Financial deepening and financial innovation adoption were measured by Customers and Deposit base. Multivariate regression analysis was used to analyze the secondary data collected. The study found that in Nigeria, financial incentive - interest rates were effective for financial innovation adoption by increasing banks customers' deposit base, but interest rate is not enough to draw more people to the bank (financial penetration), i.e. improving customer base. However, the empirical results also revealed that there is more to financial innovation adoption and penetration other than just monetary instruments (interest rate), because banks have limited power on interest rate movement, which is subject to directives from CBN. The study therefore recommends policies that will encourage the public to have more confidence in the financial system and Deposit money banks. This will encourage more people to patronize financial innovation products and services, participate in economic activities, borrow and invest more, there by bringing quick turnaround to economic and financial development in Nigeria.

Key words: Financial Deepening, Economic growth, Behavioral pattern and Deposit money banks.

INTRODUCTION

Financial Incentives and Financial Innovation Adoption in Nigeria

Financial innovation is this study is all about providing essential banking services and products on the platform of information technology ICT (Agboola, 2006), thereby enhancing financial deepening, financial penetration and economic development. Central Bank of Nigeria's (CBN) main mandate is the development of Nigeria Financial System aside from licensing, regulating and controlling the banks. She is therefore interested in financial deepening, financial inclusion, as well as financial penetration efforts of the banks through their financial innovation products and services, as financial intermediaries.

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Financial inclusion is generally defined as ensuring access to formal financial services at an affordable cost in a fair and transparent manner (Financial Access, 2009). Financial inclusion simply implies enabling access to financial resource and services for economic agents, especially, those on the lower wrung of the income ladder at an affordable cost. Strategies for financial inclusion is aimed at increasing the number of people with accounts in banks and other formal financial institutions-savings, current and credit. It also pursues the promotion of the use of formal payment media, including, ATM, internet payments, mobile payments and others by the populace. The financial inclusion strategy document states that "financial inclusion is achieved when adult Nigerians have easy access to a broad range of formal financial services that meet their needs at affordable cost." Although there has been progress over time in the extent of financial inclusion in Nigeria, the country still lags other peer-level countries in many of the indicators of inclusion. In the period from 2008 to 2010 the percentage of completely financial excluded people fell from 53% to 46%, while those served by the informal sector fell from 24% to 17%. At the same time, 'formal other' doubled from 3% to 6% and formally banked rose from 21% to 30%" (CBN, 2012).

One of the core focuses of monetary policy is to control the cost and availability of credit and money in the economy. The effectiveness of monetary policy may be undermined if a larger proportion of the population lacks access to the formal financial infrastructure. The larger the size of the formal sector the more effective monetary policy is likely to become. Central banks change interest rate with a view to affecting aggregate demand. If higher proportion of economic agents are not in the formal financial system, the effectiveness of such a policy change may be undermined, since higher or lower interest rates can only influence the segment of the population that is banked and consequently financial innovation usage and adoption, so the interest rate becomes a viable instrument or tool to entice (financial incentive) customer to use, adopt, and patronize financial innovation products and services (CBN, 2009).

Banks have used various methods to package and encourage the usage, patronage and the adoption of financial innovation prominent among which are; products' promotion and advertisement campaign and financial incentives- Interest rates (Adesina and Ayo, 2010). The government, with the instrumentality of the CBN has set specific targets with accompanying actionable plans to advance financial inclusion in the country. The list of advantages of financial inclusion and innovation in the economy are in exhaustive. However, this paper takes a specific look at the impact of Interest rate incentive on financial inclusion and financial innovation adoption in Nigeria. The financial inclusion strategy document envisages that financial inclusion will help CBN to achieve its core mandate of ensuring price and monetary stability in the economy by increasing the scope of savings, investment and consumption decisions that are made within the formal financial sector, it is also hoped that widening financial inclusion will reduce the cost of cash management, and defend the strength of the local currency, while promoting a sound financial system in the economy through the availability and adoption of financial innovation. So, the aim of this paper is to evaluate the influence of interest rate on financial inclusion and financial innovation adoption in Nigeria. The linkage between interest rate, financial innovation, deepening and inclusion (Deposit base) will be explored. The objective of the study is to draw the attention of stake holders to the relevance and sensitivity of financial innovation and inclusion to interest rate movement.

Financial deepening and penetration are important for growth, reduction in poverty and income inequality. Generally, positive correlation tends to exist between poverty incidence and financial exclusion in most regions of the world. Evidence has shown that the largest proportion of the unbanked population resides in developing countries (Financial Access, 2009). The extension of modern financial infrastructure to both rural and urban dwellers offers a wide range of opportunities for expanding financial inclusion. Provision of financial services to the deprived and excluded segment of the society could enhance their level of participation in economic activities, thereby enabling them to take advantage of growth opportunities. This is the honorable route being pursued by banks and the government in Nigeria.

Traditionally, financial services have been found to be concentrated in the urban centers leaving rural dwellers to rely largely on informal arrangements including family or close relatives for their financial service's needs. The benefits accruable to a well-functioning financial sector, especially in the area of engendering growth and development, cannot be over-emphazised. This justifies the need to increase financial penetration to all segments of the population. Essentially, efforts have been made over the years by various agencies and institutions such as the World Bank, but such effort have been focused on developing a formal financial sector in order to mobilize savings and convert them into investment. The major challenges to the realization of banking service extension to the rural areas include: (i) high cost of implementation; (ii) low level of demand and (iii) the ability and willingness of rural dwellers to pay for such services.

However, advances in ICT have led to the development of cost-effective ways of building new business models that can accelerate the penetration and expansion of financial services in rural areas using ICT and favourable interest rate for financial deepening and inclusion as a result, payment infrastructure and services have improved substantially, thereby providing huge opportunities for service providers to design customized financial services and products for both urban and rural

segments of the population. Technological products such as Global System for Mobile Communication (GSM), internet and mobile payments among others have improved the delivery of financial services significantly in most developing economies.

Problem of study

According to statistics, 30% of the adult population (25.4 million people) of Nigeria has at least one bank account while 56.9 million adults are unbanked (UNCTAD, 2009). Virtually all 21 banks in Nigeria today offer banking services on financial technology innovation platform with a view to boost commercial activities via financial deepening and inclusion. The issue now is low level of patronage and how to improve it. While financial innovation services are numerous in number, there is not enough evidence of consumer acceptance and their stance towards the adoption of the services (Muniruddeen, 2007). Access to financial services in Nigeria is still relatively low. As at 2010, only 36.0 per cent (about 31.0 million out of an adult population of 84.7 million) were served by formal financial services, compared to 68.0 per cent in South Africa and 41.0 per cent in Kenya. In 2012, there was a little improvement to 39.2 million Nigerian adult representing 46.3 per cent of the adult population that were financially excluded. Of this figure, 54.4 per cent were women, 73.8 per cent were between the age of 0 and 45 years. In addition, about 34.0 per cent of the excluded population had no formal education, while 80.4 per cent reside in rural areas. This suggests that majority of the financially excluded are educationally disadvantaged and are rural dwellers. According to Mbutor and Uba (2013), Nigeria has a formal payments penetration of 21.6 per cent that is lower than the level of 46% in both South Africa and Kenya, This connotes that majority of the populace is unbanked, transactions are predominantly cash bashed, then the level of financial innovation adoption, could not be anything better than low. In such environment, economic developments will be loop-sided and commercial activity cannot be optimal.

Objectives and Hypotheses of study

The general objective of this study is to evaluate the role of financial incentive (interest rate) in financial deepening and financial innovation adoption in Nigeria. Specifically, to determine how financial incentives (interest rate) affect the adoption of financial innovation products and services (deposit base); and how the customers (customer base) react to the movement of interest rate in Deposit Money Banks in Nigeria.

In order to address the above objectives, the following hypotheses will be tested.

1 **Ho**: Financial incentives (Interest rates) has no effect on the adoption of financial innovation (Deposit base)

2 **Ho**: Financial incentives (Interest rates) has no effect on financial deepening (Customer base)

Theoretical and Empirical Literature Review

Two theories on interest rates are paramount to this study and one on Rational choice theory. They all relate to capital accumulation, mobilization and of course productivity, which is about capital utilization: Fisher's theory says- Time is of relevance in interest rate system because interest rate is a function of income distribution, degree of certainty of future enjoyment and character or temperament of the individual concerned (Time preference theory of interest rate). This indicates time value of money and benefits of interest payment over time. Tushar Seth's theory stated that interest is paid on capital because it is productive, however the rate of interest is a function of scarcity of capital i.e. it is the need to mobilize capital for productivity that determines the interest rate (Productivity theory of Interest rate). Integrating these two positions into financial deepening, inclusion and financial innovation adoption is the theory on rational choice that says, everyone assumes that individual choose the best action according to personal identifiable functions and constraints facing them.

The basic idea of rational choice theory is that pattern of behavior in societies reflect the choices made by individuals as they try to maximize their benefits and minimize their costs. In other words, people make decisions about how they should act by comparing the costs and benefits of different courses of action. The idea of rational choice, where people compare the costs and benefits of certain actions is easy to see in economic theory. Since people want to get most useful products at the lowest price, they will judge the benefit of a certain object by comparing it to a similar object. They will compare benefits, price, or costs. In general people will choose the object that provides greatest reward at the lowest cost. This behavioral pattern is also traceable in adoption of financial innovation, where people made choice by comparing alternatives and their attached incentives. Rational choice theory is at the heart of modern economic theory and in the disciplines contiguous to economics (Nozick, 1993).

Interest Rates in Nigeria

There has being various types of interest rates regime in Nigeria, aimed at contrasting or expanding volume of money supply, depending on the situation at hand (state of liquidity and government policy).This invariable rub on banks to determine their asset and liability structure

(Balance Sheet Management) and repackage their products for competitive advantage. Managerial skills of bank management is often put to task here using product features and interest rates (financial incentives) to penetrate and entice various pedigree of customers no matter their location i.e. marketing, deliberate strategy targeting the unreached and unbanked (financial deepening and inclusion) through financial innovative products and services.

The CBN influence and control the rates of interest in Nigerian financial system by stipulating a base rate called the Minimum Lending Rate – MLR (CBN). This is the rate used by CBN to dictate overnight interbank rate through the Discount houses and paid by the CBN on the daily balances on the account of banks with the CBN. This rate determines what interest rate banks will pay on their customers' deposit and charge for credit. As the level of liquidity in the banking system declines, interbank interest rates tend to rise relative to the policy rate. On the other hand, when the banking system is sufficiently liquid, interbank interest rates tend to fall and hover around the policy rate (CBN, 2009). The daily closing balances of the DMBs with the central bank reflect the level of liquidity in the banking system. Significantly low balances, other than the statutorily required reserves, indicate tight monetary conditions, while large balances signify that the system is highly liquid.

Financial innovation and financial incentives (interest rates).

According to Siyanbola, et al (2012), the main focus of every financial system is financial intermediary. Mobilising financial resources from the surplus sector and lend to the deficit outlets to facilitate business transactions and economic development based on the monetary and fiscal policy of the nation. The attraction for getting the deposit from the surplus sector is interest payment, which must be reasonable and acceptable to the owner of the money. Conversely, the attraction for granting credit facility by the bank is interest payment for the use of credit by the borrowers in consideration for parting with liquidity by the lenders. Therefore interest rate dictates both the level of deposit and the amount of credit being offered by the banks.

Advanced retail payment transaction technologies will foster innovation and growth in the retail banking sector. This will further create more value associated with retail payment services for banks. On the other hand, if more retail payment transactions have been done through ATMs or POS instead of retail payments offices, banks can be more cost efficient and obtain more income. Innovations of retail payment services have a larger impact on bank performance in countries with a relatively high adoption of retail payment transaction technologies (Iftekhar, Schmiedel and Song, 2009). Hence the need to entice, retain and win more customers and secure their loyalty. This is the essence of the need for various modes of incentives to encourage loyalty, entice and stimulate customers' interest, via steady and improved adoption by customers

A higher interest rate would make it more costly to hold cash in hands, thus giving people more incentives to adopt financial innovation. According to Yang and Chin, (2012), a one-percentage-point increase in interest rate would induce 12.6% more non-adopters to adopt ATM cards, and a two-percentage point increase would make an additional 23.3% of non-adopters decide to adopt. It is important to highlight a public policy implication of this experiment. When the central bank raises the interest rate, it would not only give all customers stronger incentives to save, but also increase the number of ATM card holders. The increase in savings for the new ATM card adopters would even be higher. Taking this effect into account could allow us to predict how changing interest rate would affect money demand and inflation costs.

An increase in the volume of Currency in circulation (CIC) denotes a decrease in total deposits and available loans. This is a major indicator of financial inclusion. Currency outside banks represents a proportion of the CIC outside the banking system, held by the public for transactional purposes. It is also an indicator of the level of sophistication of the payment infrastructure (financial innovation) in an economy. Currency held by banks refers to the proportion of the CIC that is held in banks' vault. It is the summation of all naira currencies held by Deposit Money Banks, Merchant Banks and Non-Interest Banks. This is a good indicator of the level of financial inclusion as it captures the volume of money that is available in the banks vault. A high volume of currency held by banks (deposits) translates to increased volume of loanable funds in the banking system. One of the major techniques or tools used to do these is financial incentive via manipulation of interest rates paid by banks to depositors.

Customers Adoption of Financial Innovation

If the eras of traditional banking are compared to the present financial technology eras, the results show that financial innovation has contributed positively and proliferated the profits of banks (Ngumi, 2013). Banks are gradually transitioning from manual means to the electronic means. Hence the need to entice, retain and win more customers and secure their loyalty. This is the essence of the need for various modes of incentives to encourage loyalty, entice and stimulate customers' interest, via steady and improved adoption by customers (Mbutor and Uba, 2013).

A study on financial innovation by Mols et al. (1999) revealed that the diffusion of financial innovation is more determined by customer's acceptance than by the seller

offerings. As Woldie, et al. (2008) rightly observed: “It is one thing to innovate, but entirely another for the innovation to be accepted by consumers” O’Connell (1996) demonstrated that the explanation for slow growth of financial innovation is caused by security concerns, lack of knowledge about availability of such a service, (lack of financial deepening and penetration). In line with Wallis (1997) whose report states that new innovation adoption by the majority of the customers depends mainly on awareness (penetration) and usefulness as portrayed by; financial incentives, transaction cost, turnaround time and safety and security as portrayed by fraud risk.

According to Parasuraman et al., (1985), the study of customer service delivery has gained interest just after the concern on improving the quality of products and services become increasingly important in the globe. Today, information and communication technology, competition, deregulation and globalization have changed the landscape of the banking industry in such a way that it is characterized based on the services the banks offer to customers across the globe. This is one of the major reasons why the banking industry is among the most intense in deploying high technology innovation. (Drucker, 1985 and Shoebridge, 2005). It is noticeable that online banking, enabled banks to service customers not only in branches and other dedicated services sites, but also in a myriad of other channels (Lovelock, 1996 and Al-Hawari, et al., 2005). Thus, delivering effective customer service is indeed an important marketing strategy (Berry and Parasuraman, 1995), but the difficulty in defining customer service delivery in deploying a specific contextual instrument for measuring such constructs represents important constraints for the banks to approach their markets.

Nyangosi and Arora (2011) argue that financial institutions adopted different electronic distribution channels to meet the demands of customers. In their study to examine the adoption of information technology in Kenyan banks, focusing on services provided through internet and mobile banking, they found out that inclusion of information technology in banking business was necessary to achieve excellence goal. The study further revealed that ATM technology is the most available technology while SMS banking was also found useful. Mohammed, et al.,(2009) assert that financial innovative banking uses the internet as the delivery channel by which to conduct banking activity, for example, transferring funds, paying bills, viewing checking and savings account balances, paying mortgages and purchasing financial instruments and certificates of deposits. Customers prefer to deposit money into a system in which they can obtain a good timely information and payment service (Kemppainen, 2003 & 2008).

According to Abubarka & Tasmin (2012), owing to issues of increasing demand to meet customers’ expectation for customer service delivery, trustworthiness of the information system and competition in financial services, it is quite evident from their study that enhancing innovation for qualitative prompt service delivery in the banking industry is a must in a rapidly changing market place. ICT revolution has set the stage for exceptional increase in financial activity across the globe. However Customers are often mindful of Transaction cost and financial incentives such as interest rates,

METHODOLOGY AND SCOPE

This paper adopts both the descriptive and explanatory design. Consequently, the paper seeks to investigate the effect of using financial incentive – interest rate to enlist financial deepening, inclusion and adoption of financial innovation by customers. A carrot and stick measure often use by CBN and Deposit money banks in Nigeria as situation demand in order to widen customer base, mobilize fund, popularize products and reallocate capital for productivity. The study used secondary data from CBN and NBS from 2005 to 2010. Financial Incentives: the independent variable was captured by Interest rate. The dependent variables; Financial deepening, inclusion and financial innovation adoption were measured by Customers base and Deposit base. Multivariate regression analysis was used to analyse the data. Much cannot be understood in the study of Nigeria’s banking industry in the recent time without the background provided by the first major regulator induced consolidation in the industry in 2005. Industry analysts believed this was set to build a better banking industry by sheer size in all respects especially capital base. By that the banks would be in a better position to support economic development and less susceptible to the risks of bank failures, which had almost become the common phenomenon of Nigerian banks. Up until then banks were challenged with issues of persistent liquidity, poor asset quality, inability to take appropriate share of global financial business and under capitalisation. Banks also depended majorly on public sector deposits (CBN, 2012).

The study is therefore constrained to period between: 2005-2010 because of unavailability of reliable and authentic data prior 2005. Anyhow, proper and mass proliferation of financial innovation products and services started in 2006, after the recapitalization of banks in Nigeria. The impact of the contagious global financial crises also came into play in Nigeria financial system from 2010. Ever since, the directives of the CBN on banks action curtailing interest rate payments has being paramount, hence these informed the chosen scope of study.

Data presentation and Analysis

Specifically, years 2006 and 2010 were worth of special

Table 1. Dependent and independent variables of study

Year / Variables	2005	2006	2007	2008	2009	2010
Interest rates	8.68	8.26	9.49	11.95	12.63	7.19
Deposit base	1316957.4	1739636.9	2693554.3	4118172.8	5763511.215	5954260.452
No of Customers	15000000	17123290	20527397	19787671	21784813	20381072

Table 2. Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.965[a]	.932	.909	550311.16223

a. Predictors: (Constant), Interest Rates
b. Dependent Variable: Deposit Base

Table 3. ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	12413991533900.527	1	12413991533900.527	40.992	.008[b]
esidual	908527125819.400	3	302842375273.133		
Total	13322518659719.928	4			

a. Dependent Variable: Deposit Base
b. Predictors: (Constant), Interest Rates

mention and recognition in the study (Table 1). According to facts and figures presented, because 2006 was the first year after recapitalization of Nigeria banks, when things have not really settled in the banking sector, hence the drop in the interest rate in 2006. In 2009-2010, many banks in Nigeria folded up as a consequence of bad risk management revealed and precipitated by the contagious global financial crisis of 2008-2009 that started in 2008 in the USA. This snowballed into many government bailouts and takeover of many banks and of course the beginning of another round of interest rate management regime in Nigeria (2010-Date). There was a rising in all indicators (variables) considered between 2005 and 2010. That is a positive correlation, holding forth that the interest rate is doing what it is suppose to do in the financial market; encouraging more people to bank their money, adopt financial innovative products and services, and penetrate the neglected.

CBN statistical bulletin and National Bureau of Statistics- Various issues

Discussion of findings and Result

Evidence from the regression analysis done between the single independent variable, financial incentive (interest rate) and the two dependent variables financial innovation and inclusion (deposit and customers base), showed a significant relationship between interest rate and deposit base, but no relationship between interest rate and number of customers is not significant. That is as the interest rate is rising, it has no effect on number of customers which means many more customers are not enticed to patronize the banks. But as the interest rate increases, the bank balances are also improving, an evidence of encouragement to patronize and adopt financial innovative products deliberately targeted to the unreached and the unbanked.

Linear regression of Interest Rates on Deposit Base

The linear regression analysis shows a relationship with $R^2 = 0.932$ which means that 93.2% information about Deposit Base can be explained by Interest Rates. Table 2.

The Anova table indicates that the overall model was a good fit since (F-value=40.992 and p-value=0.008<0.05). Table 3.

The model becomes

$$\text{Deposit Base} = -5990360.968 + 893621.593_{interest\ rate} + \varepsilon$$

Interest rate was found to have a positive linearly significant influence on Deposit Base($\beta = 893621.593, p = 0.008 < 0.05$).

Table 4. Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-5990360.968	1445051.039		-4.145	.025
Interest Rates	893621.593	139574.556	.965	6.402	.008

a. Dependent Variable: Deposit Base

Table 5. Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.465[a]	.216	-.045	2675257.953

a. Predictors: (Constant), interest
b. Dependent Variable: customer_base

Table 6. ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	5913869612992.320	1	5913869612992.320	.826	.430[b]
Residual	21471015343368.887	3	7157005114456.296		
Total	27384884956361.207	4			

Table 7. Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	14340567.447	5796485.314		2.474	.090
Interest Rates	520475.605	572572.084	.465	.909	.430

a. Dependent Variable: customer_base

Here one unit change in Interest rate results in 893621.593 unit increase in Deposit Base.

Linear regression of Interest Rates on customer Base

The beta value for influence of Interest rate on customer base is not significant. (Tables 4, 5, 6 and 7).

Testing of Hypotheses

1). **Ho: Financial incentives (Interest rates) has no effect on the adoption of financial innovation (Deposit base)**

There is a positive relationship between interest rate movement and growth in the adoption of financial innovation depicted by increase in the Deposit base. So the alternate hypothesis is rejected because both interest rate and deposit base moved in the same direction over the period of study

2). Ho: Financial incentives (Interest rates) has no effect on financial deepening (Customer base)

On the contrary, there is a negative relationship between interest rate movement and the number of customers attracted into the banks. Though people now also prefer keeping their money in the bank, earn the higher interest rate and adopt appropriate financial innovation products and services for their transactions more people does not come into the bank just because of increase in interest rate. Null hypothesis two is accepted.

FINDING AND DISCUSSION

The Payments System in Nigeria

Nigeria's payments system is predominantly cash-based

reflecting the preference of economic agents. This means that most payments for business transactions are made using cash rather than through other payment modes. Dependence on cash for transactions implies that much of it is held outside the banking system which otherwise would have been available to banks for lending to the more productive sectors of the economy. For instance, currency outside the banking system (COB) as a proportion of money stock (M2) accounts for a larger component of the currency in circulation (at an average 25.8 per cent in 1990 – 2000. It increased to 30.0 per cent in 2001 – 2012). This ratio is indeed high when compared with other emerging and industrialised countries (CBN, 2012), hence, the need to entice and win more customers and retain their loyalty (adoption). Financial innovation has been able to do this through the instrumentality of using interest rate to boost customers' and deposit base.

Over the last 50 years, the CBN has put in place a number of measures to strengthen its internal capacity to cope with rapid internal developments and growth in the global payments system. The Bank continues to focus on strengthening the institutional and regulatory frameworks that would facilitate financial inclusion of the unbanked and promote more usage of electronic payments as clearly enunciated in the Payments System Vision (financial innovation). In any modern society, the need for functional and efficient payments system is very obvious. Modern economies have developed or are developing multilateral payments systems in response to the sophistication in economic activities. This permits the settlement of financial obligations for economic operators, no matter where such transactions are made. For the payments system to function effectively, it is important that the financial system is properly developed and made efficient. An efficient payments system minimizes liquidity, settlement, systemic, credit and operational risks which are inherent in financial transactions. For the effectiveness of monetary policy, central banks, world over, play a leading role in development of appropriate payments policies and instruments. Responding efficiently to current and future payment needs of economic units while, leveraging on new technological innovations reduces costs and increases the speed of settlement of funds and securities as well as value and volume of transactions. However, according to Mol, et al (1999) and Woldie et al (2008), it is necessary for customers to accept and adopt the financial innovation. Evidence from the finding of the study showed that increase in interest rate payment on financial innovation products have successfully stimulated the adoption and acceptance by drawing more deposits into banking but not customers.

The payments system plays a crucial role in any economy as it remains the main channel for inter-sector, inter-industry, inter-company and interpersonal financial resources flow, thus promoting economic growth. It, therefore, represents the major foundation of the modern market economy. Essentially, there are four pivotal roles for the payments system, namely: Financial Intermediation, Facilitates Settlement of Transactions, Minimize Risks and Provision of Necessary Framework for Monetary Stability. The ultimate goal of any payments system is to ensure that the financial system operates without interruption so that transactions are effected with minimum delay, risks and cost to the economy. Using interest rate as incentive, many people have been encouraged to put their money in the bank through financial innovation product that suit their circumstance as confirmed by the finding of this study and this enhances the performance of the banks and the entire economy as asserted by Ngumi (2013).

Similarly, an efficient payments system reduces the cost of exchanging goods and services and is indispensable to the functioning of the inter-bank, money, and capital markets. It also underlies the optimal utilization of resources and enhances implementation of monetary policy to achieve price stability. In addition, it is a channel for settlement of all types of transactions including cross-border financial flows. An efficient payments system must be secure, reliable, accessible, prompt and cost effective to meet all users' needs. Its technical efficiency would determine the extent to which monetary transactions are consummated in any economy and the risks associated with its use. In contrast, a weak payments system may severely drag on the stability and developmental capacity of any economy, while its failures can result in inefficient use of financial resources.

Different types of payments system are available through different platforms often used as marketing tool for comparative advantage and competition with a view to reach the unreached, widen catchment areas, customers and deposit base The economic and social structure of Nigeria is changing so also is the financial structure as opined by Abubakar and Tasmin (2012). Financial incentive (interest rate) as found in by this study has enhanced financial deepening, penetration and inclusion owing to the improved adoption of financial innovation products and services.

CONCLUSION AND RECOMMENDATION

In this study, interest rate has been effective as incentive in boosting customer and deposit base thus supporting the adoption of financial innovation in line with the submission of Yang and Chin (2012). Nigeria has made considerable progress on increasing access to financial services. Advances in ICT have led to the development of cost-effective ways of building new business models that can accelerate the expansion of financial services in rural areas. As a result, payment infrastructure and services have improved substantially, thereby providing huge opportunities for service providers to design customized

financial services and products for both urban and rural segments of the population. Technological products such as Global System for Mobile Communication (GSM), internet and mobile payments among others have improved the delivery of financial services significantly in most developing economies. Today, information and communication technology has become the heart of banking sector, while banking industry is the heart of every robust economy. Financial innovation system has become the main technology driven revolution in conducting financial transactions. However, banks have made huge investments in telecommunication and electronic systems, users have also been validated to accept financial innovation system as useful (Adesina and Ayo, 2010). According to Loonam and O'Loughlin (2008), ICT advancements, globalization, competition and changing social trends such as heightened customer pro-activeness and increased preferences for convenience have caused intense restructuring of the banking industry.

The scattered settlement pattern of rural dwellers in Nigeria remains a major impediment in the drive to achieve financial inclusion due to the difficulty and cost in reaching them. By their structure, non-bank institutions such as cooperatives, specialized financial institutions and microfinance institutions are better placed to serve the rural population with customized financial services and products. Low patronage of existing banking infrastructure is a major challenge to achieving financial inclusion in Nigeria. Available evidence has shown gross under-utilization of banking services and products. Despite the phenomenal growth in banking activities, evidenced by large number of bank branches, ATMs and POS terminals (5,797 bank branches, 9,958 ATMs and 11,223 POS terminals in 2010), the average number of clients per branch is only 3,882 compared to 3,922 in Kenya and 8,595 in Tanzania. In this regards, awareness creation and increased confidence of clients in the banking system is critical towards deepening financial.

Traditionally, financial services have been found to be concentrated in the urban centers leaving rural dwellers to rely largely on informal arrangements including family or close relatives for their financial service's needs. The benefits accruable to a well-functioning financial sector, especially in the area of engendering growth and development, cannot be over-emphazised. This justifies the need to increase financial penetration to all segments of the population. Essentially, efforts have been made over the years by various agencies and institutions such as the World Bank, but such effort have been focused on developing a formal financial sector in order to mobilize savings and convert them into investment. The major challenges to the realization of banking service extension to the rural areas include: (i) high cost of implementation; (ii) low level of demand and (iii) the ability and willingness of rural dwellers to pay for such services.

Financial inclusion is important for growth, reduction in poverty and income inequality. Generally, positive correlation tends to exist between poverty incidence and financial exclusion in most regions of the world. Evidence has shown that the largest proportion of the unbanked population resides in developing countries (Financial Access, 2009). The extension of modern financial infrastructure to both rural and urban dwellers offers a wide range of opportunities for expanding financial inclusion. Provision of financial services to the deprived and excluded segment of the society could enhance their level of participation in economic activities, thereby enabling them to take advantage of growth opportunities. This is the honorable route being pursued by banks and the government in Nigeria, using ICT for financial deepening and inclusion.

The general expectation based on open market economy being practiced in Nigeria is that favourable interest rates can be use as incentive to draw more people to use or adopt appropriate financial innovative products and services thereby increasing banks' customer and deposits base. Based on the result, the tendency is to think that the study has little added value, on the contrary, in view of financial and economic theories supporting the fact that interest rates can be used to stimulate financial innovation adoption and draw more customers and deposits to the banks through financial deepening and inclusion, what this finding is saying in addition about situation in Nigeria is that there is more to interest rates being used to expand or contrast the economy. To do so effectively, the following three factors are necessary:

1). Stable political and industrial environment,
2). Installation of Corporate Governance guidelines and principles to guarantee Investors' confidence, and
3). High level of literacy and infrastructural development.

All these had been taken for granted in the developed economies around the world. These also can be subject matter of other researches on this issue to get Nigeria completely out of the wood.

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