



Full Length Research Paper

Financial Innovation Adoption and Turnaround Time

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ABSTRACT

The challenges associated with the use of manual banking and the dynamic nature of the environment that the industry operates in the country, necessitated the adoption of modern technologies, especially ICT – financial innovation by the Nigerian banking sector. This was aimed at improving service delivery and internal operation. Liberalised domestic regulations, intensified competition and the massive growth in information technology have also fueled the growing desire for innovation in the banking industry (Frei *et al.*, 1998). Innovations provide an impetus for banks to improve their market performance by recovering from palpable inefficiencies prevalent in the banking industry (Frimpong, 2010). Financial innovative products and services have been found to be fast, cheap, reliable and efficient to prosecute banking transactions on either side, emphasizing time and cost advantages. But there is no commensurate evidence in the level of patronage and customer’s adoption. Though it is undeniable that innovation is important in expanding financial inclusion and deepening (Bamidele, 2006), the level and rate of financial innovation adoption has not been encouraging in Nigeria, very low (Agboola, 2006), causing concern in academic, finance, commerce and economic circles. The main objective of this study was therefore to determine how turnaround time affects the adoption of financial innovation products and services in Deposit Money Banks in Nigeria. Based on this objective it was hypothesized that: Turnaround time has no significant influence on the adoption of financial innovation. This study used mixed method design, relying on primary data collected through structured questionnaire and secondary data from authentic sources Descriptive and inferential analyses were used to display and relate data e. g. mean, frequency tables and multinomial regression was used to test the hypothesis. The sample size was 536, and 392 respondents returned the questionnaire duly filled. Evidence from the study showed that majority of the respondents opined that modern banking is faster than traditional banking. Findings on the study further showed that as far as turnaround time is concerned ATM is the most preferred, followed by POS and MB. This preference may have to do with what the customers are used to. As the products get more popular and recognized, there might be improvement. The import of this is that the banks have more works to do on public enlightenment and product awareness. Customers enjoy self-service, freedom from time and place constraint, and reduced stress of queuing in banking hall. Therefore, time, cost savings and freedom from place confinement have been found to be major factors underlying banking financial innovation adoption.

Keywords: Industrialized, Financial deepening, Financial innovation, Cutting –edge, Core-competence, inefficiency, competitive advantage and Significance

INTRODUCTION

Over the years, the Nigerian banking industry has undergone remarkable operational changes; from the use of tallies and registers to cutting-edge technologies such as computers, automated teller machine (ATM), point of

sales (POS) among others. In the past, much time is required to consummate business transactions successfully like cheque clearing, local and international money transfers among others. This inefficiency was due

to the manual approach to initiating and completing business transactions in the banking system. Given the challenges associated with the use of manual approach to banking and the dynamic nature of the environment that the industry operates in the country, necessitated the adoption of modern technologies, especially ICT – financial innovation by the Nigerian banking sector. This was aimed at improving service delivery and internal operation. Liberalised domestic regulations, intensified competition, rapid innovations in new financial instruments, and the massive growth in information technology have also fueled the growing desire for innovation in the banking industry (Frei *et al.*, 1998).

Traditional delivery methods have given way to new delivery technologies which include e-banking products such as Internet banking, mobile banking and various Automated Teller Machine (ATM) products as indicated by Sweeny and Morrison (2004). The extent to which the financial sector can make contributions to the economy depends, to a large extent, on the quality and quantity of the products and services it offers customers. Research indeed confirms that innovation affects a firm's performance positively (Damanpour *et al.*, 2009). Various authors such as Singh (2006) and Rogers (1995) posit that Innovation is important for the survival of every business due to its ability to give firms a competitive advantage. The banking industry globally has undergone a substantial change over the years. The impact has been evident in changes in the way financial services are delivered to customers. Business entities wishing to restore customer confidence need to focus on innovative products that meet their customers' needs (Kumar, 2011). Innovations provide an impetus for banks to improve their market performance by recovering from palpable inefficiencies prevalent in the banking industry, as is the case in Ghana and other emerging countries (Frimpong, 2010).

Nigeria Scenario

Till late, 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, according to CBN (2012), 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 industrialized nations. In any modern society, the need for functional and efficient payments system is very

obvious. Modern economies are daily developing multilateral payments systems in response to the sophistication in economic activities. This is why financial innovation adoption become inevitable for banks, customers and the Nigerian government and main reason for federal government of Nigeria 'Cashless Policy' introduced in 2012 (Odumeru, 2013).

Financial innovation channels and purpose

These are non-paper computer-based technology payments instruments. The electronic payments system is amenable to electronic platforms such as automated teller machines (ATM), point-of-sale (PoS) terminals, internet payment, plastic money (e.g. e-purse, debit and credit cards), mobile payment and wire transfers, etc. Banks have not only come to realize that to become relevant in global financial issues, they must embrace technology, repackage products in manners acceptable to customers and use it as competition strategy for their core competence.

Major Product of Electronic Banking in Nigeria

Smart card or electronic pulse (use of point of sale terminal), Electronic Fund Transfer (ETF), Internet banking, Automated Teller Machine (ATM), Telephone banking and personal computer banking are the major products of electronic banking in Nigeria.

Electronic Cards: These are cards issued to a customer (a person who has an account with the bank) to aid them in their transactions e.g Smart card, Debit card, Credit card, Master card, Visa etc. these cards have similar function.

Electronic Fund Transfer (EFT): This is an electronic oriented payment mechanism. It allows customers' accounts to be credited electronically within 24 hours.

Point of Sale Terminals (POS): This is a second generation remote service unit that is capable of electronically placing a third party into the customer-financial institution communication link. POS terminals handle cheque verification, credit authorization. This enhances electronic fund transfer at the point of sale (EFT POS). EFTPOS enables a customer's account to be debited with the cost of purchase and credited into the seller's account immediately anywhere it is accepted. Electronic fund transfer has been variously designed to ease international transfer of money

Mobile banking: Mobile phones are increasingly being used for financial services in Nigeria. Banks are enabling the customers to conduct some banking services such as account inquiry and funds transfer through the mobile telephone. It is an innovative banking service via mobile

phone (SMS). This notifies the customer of any transaction on his/her account.

Automated Teller Machine: This is an electronics device which allows a bank's customers to make cash withdrawals and check their account balances at any time without the need for a human teller. Many ATMs also allow people to deposit cash or cheques, transfer money between their bank accounts or even buy postage stamps. To withdraw cash, make deposits, or transfer funds between accounts, you generally insert an ATM card and enter your personal identification number (PIN). Some ATMs impose a surcharge, or usage fee, on consumer who are not member of their institution or on transactions at remote locations.

The Internet banking: Internet is a global network of computers. It is a collection of computers networks, computers and millions of users, who share a compatible means for interacting with one another to exchange information for settlement transactions, especially among financial institutions (Idowu, 2013).

Customers adoption of Financial Innovation

Customers prefer to deposit money into a system in which they can obtain a good timely information and payment service (Kemppainen, 2003 and 2008). Customer dissatisfaction with branch banking because of long queuing and poor customer service is an important reason for the rapid movement to electronic delivery (Karjaluoto, Mattila and Pentto, 2002). The commitment of senior management is a driving force in the adoption and exploitation of technology (Shiels, Mclvor and O'Reilly, 2003). Banks have invested heavily in financial innovation due to their cost advantages on a per-transaction basis. Bank for International Settlement (BIS) in their study recognized that safe and efficient retail payment systems enhance the effectiveness of the financial system, boost consumer confidence and facilitate the functioning of commerce (BIS, 2003).

Problem of the study

Financial innovative products and services have been found to be clean, fast, cheap, reliable and efficient to prosecute banking transactions on either side, emphasizing time and cost advantages. But there is no commensurate evidence in the level of patronage and customer's adoption. Though it is undeniable that innovation is important in expanding financial inclusion and deepening (Bamidele, 2006), the level and rate of financial innovation adoption has not been encouraging in Nigeria, very low (Agboola, 2006), causing concern in academic, finance, commerce and economic circles. Also despite the recognized importance of financial innovations and an extensive descriptive literature, there

have been surprisingly few empirical studies in Nigeria especially on time element. This situation has denied the banks the much needed information (Soludo, 2008). According to Ndlovu and Siyavora (2014), financial innovation has had a positive impact on bank efficiency but its magnitude of adoption by users has been relatively low, denying banks of good timely returns on their investment. 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).

In order to encourage further financial innovation adoption in developing countries, a better understanding of the barriers and drivers of financial innovation adoption becomes crucial. By gaining an in-depth understanding of the factors and conditions that influence developing country's ability to fully adopt and realize its benefits, strategic implications can be generated for the researchers and practitioners regarding how to promote the growth of banks and financial innovation in the developing countries.

Objectives of study

The main objective of this study was to determine how turnaround time affects the adoption of financial innovation products and services in Deposit Money Banks in Nigeria.

Research Hypothesis

Based on the above objectives, it was hypothesized that: Turnaround time has no significant influence on the adoption of financial innovation.

The research work becomes important in view of the recent trend in global financial sector where technology culture is in vogue and various governments are embarking on financial reformative processes. The study appraised the patronage, utilization and adoption of financial innovation in Nigeria Deposit Money Banks within the last 10 years by the customers (2005-2014) based on acclaimed service time and productivity improvement. This become important in view of the government involvement and interest in financial deepening, inclusion, growth and productivity; more so the level of resources commitment by banks to innovation to enhance customers' satisfaction and the growth of e-commerce. The study is also relevant to the following stakeholders; Researchers, Practitioners and Policy makers.

Theoretical Literature Review

Theories and models used in studies related to the innovations, acceptance and use of new technology are many. For instance, focusing on the technological issues (Davis, 1989) advances the Technology Acceptance

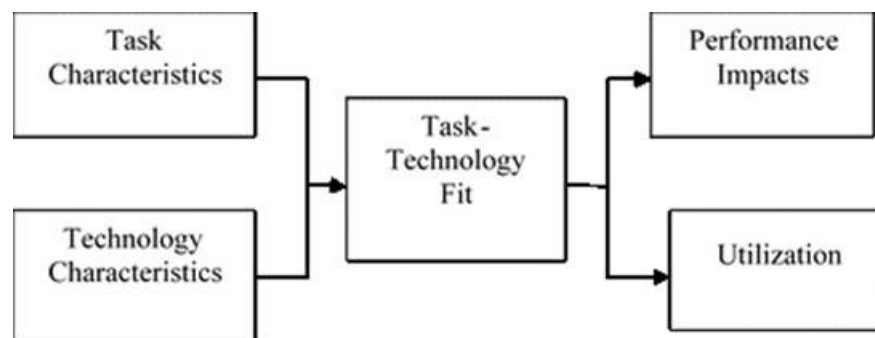


Figure 1. Task-Technology Fit Diagram/Schematic of Theory
Source: Goodhue and Thompson, 1995

Model (TAM). This model relates the individuals' behavioural intentions and his/her ICT use. It is suggested that, the actual behaviour of a person is determined by his behavioural intention to use, which is in turn influenced by user's attitude toward and perceived usefulness of the technology. However, attitude and perceived usefulness are both determined by ease of use. Adopting the TAM model requires the understanding of end-user's requirements regarding usefulness and user friendliness (Pedersen, Leif, Methlie and Thorbjornsen, 2002). From this model, usefulness and user friendliness affect users' attitudes towards any service. In practice, constraints such as limited ability, time, environmental or organizational limits and unconscious habit will limit the freedom to act. Perceived usefulness and Perceived ease of use is crucial (Davis, 1989). These two factors have been empirically justified as important factors determining the adoption and use of new information technology (Vijayasaraty, 2004).

This model is the most widely used and widely accepted model among researchers due to its usefulness. Though the model has captured the attention of Information Systems community in predicting user's acceptance of technologies, Chin and Todd (1995) and Doll *et al.*, (1998) believe that it has its weaknesses and cannot be fully used to understand factors that affect users' acceptance (Moon and Kim, 2001). As a result of this many other models of extension have been suggested by Matilla (2003); Adesina *et al.* (2010). The perceived credibility, perceived financial cost and perceived self-efficacy has been adopted by Agbemabiese *et al.* (2015) as an extension of Technological Acceptance Model (TAM).

Task Technology Fit (TTF) Theory: This theory contends that IT is more likely to have a positive impact on individual performance and be used if the capabilities of information communication and technology (ICT) match the tasks that the user must perform (Goodhue and Thompson, 1995). Goodhue and Thompson (1995)

mention the factors that measure task-technology fit as; quality, locate-ability, authorization, and compatibility, eases of use/training, production timeliness, systems reliability and relationship with users. The model is useful in the analysis of various context of a diverse range of information systems including electronic commerce systems and combined with or used as an extension of other models related to information systems outcomes. The theory maintains that a match between business tasks and information technology is important to explain and predict the success of information systems (Goodhue and Thompson, 1995; Zigurs and Buckland, 1998). One such innovation is represented by mobile technology to support an increasingly mobile workforce (Barnes, 2003).

Upon applying the theory of task-technology fit to mobile information systems, however, it becomes apparent that previous studies have focused mainly on the functionality that is provided by the technology, and have paid less attention to the context in which the technology is being used (Perry *et al.*, 2001). It is a must for banks to ensure that the financial innovation that they are promoting has a relative advantage to the customer and add value especially on cost and time saving (figure 1).

EMPIRICAL LITERATURE REVIEW

Rational Theory of Choice (RTC): Typically, rationality means Sane, or Thoughtful clear headed manner. Rational choice theory uses a specific and narrower definition of rationality simply to mean an individual act of balancing cost against benefits to arrive at action that maximizes personal advantage (Friedman, 1953). In rational choice theory, all decisions crazy or sane are postulated as mimicking such a rational process. Thus rationality is seen as a property of patterns of choices rather than of individual choices. Rationality under modern theory of choice is considerably narrower than its

name might suggest, it mandates just a consistent ranking of choice alternatives. Rational choice theory is at the heart of modern economic theory and in the disciplines contiguous to economics, such as some parts of political science, decision theory, sociology, history and law that have adopted the theory as their model of decision making. There is no widely accepted definition of rational choice theory.

Although models used in rational choice are diverse, everyone assumes that individual choose the best action according to personal identifiable functions and constraints facing them. In general people will choose the object that provides greatest reward at the lowest cost, including time spent. This behavioral pattern is also traceable in adoption of financial innovation. Customers are more likely to identify and adopt innovation that would be free of physical, emotional and mental effort. All else held constant, financial innovation e. g ATM and Internet banking aside that it is the most cost-efficient technological means of yielding higher productivity, it eliminates the barriers of distance / time and provides continual productivity for the bank and customers no matter the distance since it is accessible on a 24-hour basis (Agbemabiese *et al*, 2014).

In Ghana, many bank customers including companies do not accept cheques as a payment method Domeher *et al*, (2014). This is because of the time and the inconveniences involved in accepting and depositing cheques in company accounts, accordingly they foretold that if the present trend of customer dissatisfaction continues, banks will lose valuable clients to their competitors especially to private and foreign banks. As an antidote, Domeher *et al.*, (2014) suggested the need for adoption of modern banking technologies which saves time as a means to improve customer services. According to Ndlovu and Siyavora (2014), financial innovation has had a positive impact on bank efficiency. It has reduced customer turnaround in banking hall, reduced operational costs through reduced stationery expenses (bank slips, deposit slips), but the magnitude of internet banking users has been relatively low.

In Nigeria, Auta (2010) identify time factor as one of the prime factor that features in e-banking service quality for the customers. Saving time is an importance factor which influences the customers' preference to use e-banking (Beer, 2006). Real time transaction is very crucial with financial innovation. Banks can make the information of products and services available on their site, which is, an advantageous proposition. Real time access to information: The banks started e-banking with simple functions such as real time access to information about interest rates, checking account balances and computing loan eligibility. Then, the services are extended to online bill payment, transfer of funds between accounts and cash management services for corporate organizations (Mohammed, *et. al*. 2009). One of the important dimensions of e-banking service quality

is queue management (Agboola, 2006). Queue management translates into time management with consequent increase in productivity and efficiency. when one considers that traditional IT systems implementation can take up to six-months. Additionally, the organization was able to cut down on their administrative time by 65%.

In a Bank customers survey carried out on financial innovation adoption in Nigeria by KPMG (2014), more customers reported higher satisfaction levels with banks' turnaround time for processing transactions. In particular, speedy transactions processing was the most important service measure for SMEs and corporate clients with more than 96% of these customer segments describing it as critical to their banking relationships. Long queues at branches and ATMs continue to remain a point of hassle for customers. A majority of customers surveyed were quite dissatisfied with the almost habitual queues in bank branches, even for performing transactions considered to be routine e.g. checking account balances and making deposits etc. Banks can alleviate these concerns especially where they are unavoidable by setting minimum wait time expectations for routine transactions.

Research Design

Research design was described by Newing (2011) and Oloyo (2001) as the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. Thus a research design is the structure or the blue-print of research that guides the process of research from the formulation of the research questions and hypothesis to reporting the findings. This study used mixed method design, relying on primary data collected through structured questionnaire and secondary data from authentic sources. This allows for the "opportunity to compensate for inherent method weaknesses, capitalize on inherent method strengths, and offset inevitable method biases" (Greene, 2007). Descriptive and inferential analyses were used to display and relate data e. g. mean, frequency tables and multinomial regression. Multinomial analysis has been successfully used for social economic survey by other researchers such as Muturi (2012) on Kenya Rosca. Explanatory studies look for explanations of the nature of variables relationship and hypothesis testing provides an understanding of the relationships that exist between these variables.

Target Population, Sample Size and Sampling Procedure

All recapitalized 21 banks in Nigeria were the target population of this study. There are about 35million bank customers in Nigeria (Odumeru, 2013). It is from this sample frame that the respondents were drawn. Kombo and Tromp (2009) also describe a sample as a collection

Table 1. Estimated Sample Size

POPULATION TARGET	ESTIMATED SAMPLE SIZE
Corporate Customers	110
Personal Customers	245
Operations Department	97
Research, Tech/ ICT Depts	84
TOTAL	536

of units chosen from the universe to represent it. For the purpose of this study, sampling was restricted to the head offices of all the banks. The head office was preferable because this is where the bulk of transactions and decisions on financial innovation process are normally concluded or performed. Therefore, purposive, stratified and simple random sampling methods were used to distribute the questionnaires. The samples were grouped into four strata: operations department, technology and ICT department, Corporate and individual bank customers. Within each of the stratum, simple random sampling was used to select the respondents who were given a questionnaire each to complete. A model to determine sample size as developed by Cochran (1977) was used to select the samples for this -536.

A deliberate attempt was made to ensure that all bank staffs and customers involved in this exercise must have been existing and in relationship for upward of 10 years (2005-2014) so as to be able to provide useful and valid information concerning the financial innovation process and adoption among the customers. The sample size and strata is as displayed in Table 1, was made up of 536 respondents, chosen from among the Banks senior managers, major corporate and individual customers. Also information and secondary data was collected from CBN bulletin, Nigeria Interbank Settlement System and National Bureau of Statistics.

DATA PROCESSING AND ANALYSIS

Descriptive statistics such as mean scores, standard deviations, percentages, and frequency distribution was computed to describe the characteristics of the variables of interest in the study. Inferential statistics such as correlation and multinomial logit regression analysis as suggested by Muthen and Muthen (2007) was used to establish the nature and magnitude of the relationships between the variables and to test the hypothesized relationships. Once the strength of the predictors was determined, the variables that best determine the model was used in a step by step method to run the multinomial logit regression to determine how the predictor best predict the dependent variable. That is Multinomial logit models were estimated to determine the study objective. According to Muturi (2013), in a multinomial logit model, the individual is assumed to know all the mode specific

attributes and to choose the alternative that maximizes his utility. The observed choice is determined by the differences in utility across alternatives, rather than in levels of utility. This implies that the modes involve a comparison of the utility obtained from each option. A MNL model is specified as ;

$$(y_i = j) = e^{\beta_{jvi}} / \sum_{j=1}^j (e^{\beta_{jvi}}) \quad j = 1 \dots j$$

Because $\sum_{j=1}^j y_i = 1$, a restriction is needed to ensure model identification and the usual restriction is that $\beta_i = 0$.

Factor analysis

Exploratory factor analysis was performed to assess construct unidimensional scales and identify the structure of the measurement or outer model for the items in the study. This was performed to achieve measure purification and refine the variables into the most effective number of factors. Only the factors with values of above 0.4 and were used for further analysis as recommended by Hair *et al.*, (1998) and Tabachnick and Fidell (2007) who noted that factors with factor loading above 0.4 shall be retained for further study. Hair *et al.*, (1998) and Tabachnick and Fidell (2007) described the factor loadings as follows: 0.32 (poor), 0.45 (fair), 0.55 (good), 0.63 (very good) or 0.71 (excellent). The researcher used the Cronbach's alpha to measure the reliability of the data gathered from the field. Cronbach's alpha is a coefficient of reliability that gives an unbiased estimate of data generalizability (Zinbarg, 2005). According to Zinbarg (2005), an alpha coefficient of 0.70 or higher indicated that the gathered data is reliable as it has a relatively high internal consistency and can be generalized to reflect opinions of all respondents in the target population. All constructs depicted that the value of the Cronbach's alpha are above the suggested value therefore reliable and accepted for the study. The results and interpretation of the factor analysis is presented in the summary. The finding in Table 2 show the overall summary of the factor analysis for all the variables, the factors measuring the independent variables and two factors measuring dependent variables; For Turnaround time, there were six items. One was dropped for inconsistency or irrelevance. The factor loadings for the remaining five were above 51%. The result of the factors

Table 2. Summary of Factor Analysis

Independent /Dependent Variables	Number of Items	Overall factor loading	Reliability Cronbach's alpha
Turnaround time	6	Above 51%	0.767
Customers Opinion on FINO Instruments	5	Above 54%	0.786
Staff Opinion on FINO Technology	6	Above 58%	0.854

Table 3. Response Rate

Response rate	Sample size	Percentage (%)
Returned questionnaires	392	73
Un-returned questionnaires	144	27
Total	536	100

measuring the dependent variable Financial Innovation Adoption (Customers' opinion (instruments) and Staff opinion (technology) FINO) was also subjected to factor analysis. All the factor loadings were above 41% which implies that all items fall within the acceptable threshold as no item was dropped from Table 2. It indicates that all the factor loading of all the items were above 40% and thus all were considered for further statistical analysis.

RESULT AND FINDINGS

The researcher distributed five hundred and thirty-six questionnaires (536). Out of these only three hundred and ninety-two questionnaires (392) were completed and returned. This represents a response rate of 73% and none response rate of 27%. According to Mugenda and Mugenda (2003), a response rate of 50% is considered good and response rate greater than 70% is considered to be very good. Kothari (2004) indicated that for a social study response rate above 60% is adequate. Based on the assertions of Bailey (2000), a good response rate for a study is important because it reflects the suitability of the study procedure. The 73% response rate is therefore considered a good representative of respondents to provide enough information for analysis and to derive conclusions (table 3).

General Customers Opinion on Financial innovation

Respondents were asked whether social status or peer group pressure, influence their adoption of financial innovation, a few numbers of respondents disagreed 9% and another 4% strongly disagreed. However, majority of the respondents still agreed 50% with another 17% strongly agreed. A question on preference within traditional and innovative banking revealed that 52% agreed that innovative banking is preferred but a total of 11% showed dissent by either disagreeing or strongly

disagreed. On the influence of the general state of infrastructure effect on adoption of financial innovation, 41% of the respondents agreed to this assertion while 8%strongly disagreed and another 9% just disagreed. The improvement in the level of disparity may be due to recent privatization of electricity and liberalization of telecommunication service providers. On issue of availability of information, public enlightenment and awareness on financial innovation, only 4% of the respondents thought information are not adequate enough, but over 80% of them agreed on the adequacy and availability of information on financial innovation but 17% did not comment as revealed in Table 4. From revelation above, as the state of infrastructure is improving, with sustained public enlightenment, in as much as the respondent prefers innovative banking, the rate of financial innovation is expected to improve.

Banks' Staff opinion on Financial innovation

From the onset of the discussion on Table 5, the position of the Banks' staff must be appreciated. They are out to market their products, justify their policies and defend their respective departments. The opinion expressed though may be biased, but will contain some intrinsic value that should not be glossed over. The summation of their response to specific questions as revealed by the findings will be given in summary. Over 69% of the staff respondents agreed that income level is not relevant to adoption of financial innovation. This means the attitude of concentrating on the 'rich' is changing, giving way for aggressive product marketing and market penetration. About 65% of them agreed that operating financial innovation service is flawless and no security compromise, but why are there many successful litigation cases and claims? Decision could be taken between the lines. 79% of them agreed that interest as an incentive could be successful but sensitive especially as far as overall bank performance is concerned. On question of

Table 4. General Customers' opinion on Components/Factors of Financial innovation

Factors/ Components	Strongly Disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly Agree (%)	Mean
COF11 Social status influence decision on adoption of FINO	4	9	20	50	17	3.67
COF12 Customers familiar with mortal banking than space banking	4	7	20	52	17	3.70
COF13 State of infrastructure inhibit Financial innovation adoption	8	9	20	41	22	3.61
COF14 Innovative banking is more secured and fraud free	2	8	23	48	18	3.71
COF15 Adequate information on use, benefits and availability of FINO	1	3	17	55	25	4.00
AVERAGE	4	7	29	49	20	3.74

Table 5. General Banks' Staff opinion on Components/Factors of Financial innovation

Factors/ Components	Strongly Disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly Agree (%)	Mean
SOF11 Income level relevant in Financial innovation adoption	4	10	17	49	20	3.71
SOF12 Financial innovation flawless, no security compromise	3	12	20	47	18	3.65
SOF13 Incentives like interest rate can improve adoption of FINO	2	5	15	56	23	3.93
SOF14 With FINO penetration strategy, no cause for alarm	1	6	19	52	22	3.89
SOF15 Financial deepening and inclusion comes with costs	1	4	18	54	24	3.96
SOF16 FINO products are totally fraud resistant	4	9	17	47	22	3.73
Average	3	7	18	50	22	3.81

Table 6. General Respondents opinion on effect of Components/Factors of Turnaround time

Turnaround Time	Strongly Disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly Agree (%)	Mean
TT1 Varieties of innovative products nullifies need to queue	1	4	15	44	36	4.11
TT2 Learning the use of Financial innovation is easy and saves time	0	2	18	51	29	4.06
TT3 Operational delays and interrogations are removed	0	3	17	52	28	4.04
TT4 Time and space barriers removed	1	2	17	52	30	4.08
TT5 Yuppies and Corporate customers are main targets	1	2	16	56	26	4.04
TT6 Modern banking is faster than traditional banking	1	2	17	54	26	4.04
TT7 Timing banking service is a fruitless effort	1	1	15	66	17	3.97
Average	1	2	16	54	27	4.05

influence of size capital base and spread, 74% of the respondents agreed that no cause for alarm or fear with Financial innovation, but in the recent time many big banks have failed in Nigeria, the government had to organize bail out for many cases in point were Intercontinental Bank Plc and Oceanic Bank Plc that collapsed due to fraudulent practices and Union Bank Plc that had to be bailed out by the government and restructured by CBN. Majority of these banks staff respondents (69%) however warned that financial innovation as a marketing strategy for financial deepening and competition has cost implication which of course will eventually be borne by customers.

Influence of Turnaround Time on the adoption of Financial Innovation in Deposit Money Banks in Nigeria (Objective)

The researcher sought to determine how turnaround time affects the adoption of financial innovation in deposit money banks. The respondents were asked the level of their agreement with turnaround time factors associated with financial innovation adoption. The findings were as presented in Table 6 that followed. On the availability of varieties of financial innovation products thereby reducing queue in the banks and saving precious time, 44% of the respondents agreed and 36% strongly agreed. Only 15% of the respondents were neutral, 4% disagreed and balance 1% strongly disagreed. This mean availability of option in FINO and varieties to choose from in effecting a transaction saves time to stay on queue waiting to be served. A total of 51% of the respondents agreed that learning about financial innovation products is made easy which in turn saves a lot of time in handling transactions. 29% of them strongly agreed, 2% disagreed and 18% are neutral. Respondents were asked about interrogation and delay associated with banking, 52% of respondents agreed that financial innovation removed unnecessary interrogation and delay by bank officials. Only 28% strongly agreed and 17% were undecided but 3% disagreed. This means a lot of time wasted in face to face attention and meetings are removed.

Follow on to this question was a question on time and space management, where 30% of the respondents strongly agreed that with FINO facilities available 24/7 everywhere, time and space barrier are removed as they can carry out their banking financial transaction at any location and at any time while 52% also agreed to this, about 3% disagreed and 17% remained neutral. About 82% of the respondents either agreed or strongly agreed with the question that young professionals (Yupes) and corporate organizations adopt and patronize FINO because they are time conscious, while 19% were either neutral, disagreed or strongly disagreed. Generally, 80% opined that modern banking is faster than traditional banking, while 17% were undecided and 3% think otherwise. Question was asked on the relevance of

timing banking service. Findings from Table 6 showed that 17% of the respondents strongly agreed it is a fruitless effort, 66% also agreed is fruitless, while 20% do not know the essence or care less. However, the majority who mainly agreed must have seen banking as daily part of life, and innovation and time consciousness as integral part of banking.

When respondents were asked on the duration of time taken to be served, there is a wide variation in time spent or taken to complete a transaction, ranging from 5mins to 3hours, at times two days depending on type of transaction and availability of network and power supply. At times it could be chaotic but things are getting better and faster especially with the restructuring of National power generation and distribution and licensing of more telecommunication service providers (table 6).

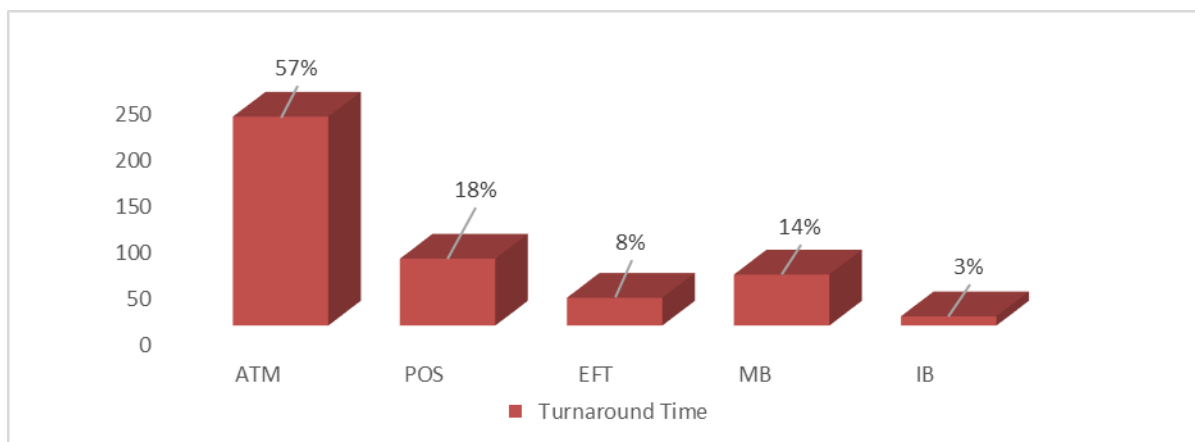
Respondents were asked on their preference in financial innovations product based on Turnaround time. The following findings and evidence revealed in table 7 showed that as far as turnaround time is concerned 57% preferred ATM, followed by POS 18% and MB 14%. This preference may have to do with what the customers are used to. As the products get more popular and recognized, there might be improvement. The import of this is that the banks have more works to do on public enlightenment and product awareness.

Evidence from findings as shown in table 7 on the preference of financial innovation products based on turnaround time is displayed clearly in figure 2 Customers enjoy self-service, freedom from time and place constraint, and reduced stress of queuing in banking hall. Therefore, time and cost savings as well as freedom have been found to be the main reasons underlying banking financial innovation adoption. However, not all bank customers engage in the use of financial innovation. There are multiple reasons for this, amongst which are customers need to have an access to the internet in order to utilize some financial innovation facilities such as Internet and Mobile banking facilities, furthermore, newest online users need first to learn how to use the service. Nonusers often complain that online banking is incomprehensible, difficult to use and has no social dimension, i.e. the lack of face-to-face situation at branch (Karjaluoto 2001; Mattila *et al.*, 2003). Auta (2010), identify time factor as one of the prime factor that features in e-banking service quality for the customers. Saving time is an importance factor which influences the customers' preference to use e-banking (Beer, 2006). Real time transaction is very crucial with financial innovation.

A cursory look at table 7 showed that from the opinion and findings from the respondents, ATM is the most popular, most known and most sought after. POS seems to follow, The EFT seems to be specially made for the corporate organization or for moving sizeable funds, while Internet Banking is reserved for the Yupes and sophisticated. With Licensing of new operators, Mobile

Table 7. Respondents preference for Financial innovation based on Turnaround time

Dependent Variables/ Determinants (factors)	ATM (%)	POS (%)	EFT (%)	MB (%)	IB (%)	TOTAL (%)
Turnaround Time	225 (57)	72 (18)	30 (8)	55 (14)	10 (3)	392 (100)

**Figure 2.** Respondents' Financial Innovation preference based on Turnaround Time

Banking is now getting recognized and it is hope that with further liberation of Nigerian economy and sustained infrastructural development, things will get better. Generally, adoption of ATM has no problem, being the most popular. However, it can also get better. But more work is needed to improve the adoption of POS, MB, IB and EFT if Nigeria Money Deposit Banks are to be relevant in the global financial order otherwise they will lose their business to foreign banks who daily besiege the CBN for operating and practicing license.

Combined Multinomial logit regression and Z- values on the adoption of Financial innovation products

The result of the combined multinomial regression model to determine the relationship between financial innovation products and turnaround time was as displayed in table 8 below. The table also included the Z value. Having established the popularity, availability and general preference for ATM from all parameter and indicators by respondents, ATM is made the reference mode for comparison. This is in accordance with Green and Salkind (2003) who noted that regression analysis is a statistics process of estimating the relationship between variables. The Z value showed the degree of relevance and the coefficient of the effect or relationship.

Like other data analysis procedures, initial data analysis should be thorough (Hosmer and Lemeshow 1989). Specifically, multicollinearity was evaluated with simple correlations among the independent variable

factors and used to assess for multivariate outliers and for the exclusion of outliers or influential cases. Multinomial logistic regression is often considered an attractive analysis because; it does not assume normality, linearity, or homoscedasticity. However, multinomial logistic regression does have assumptions, such as the assumption of independence among the dependent variable choices (Tabachnick and Fidell 2001). This assumption states that the choice of or membership in one category is not related to the choice or membership of another category (i.e., the dependent variable). The assumption of independence was tested with the Hausman-McFadden test. Furthermore, multinomial logistic regression also assumes non-perfect separation. If the groups of the outcome variable are perfectly separated by the predictor(s), then unrealistic coefficients will be estimated and effect sizes will be greatly exaggerated. All these had been complied with in this study.

Findings from the Secondary Data

Having done with all descriptive analysis; demography, factoring, regression and modeling based on collected primary data, the study now turn to secondary data consideration to confirm or dissent on the finding and revelation from the primary data. Secondary data collected from the Banks, Central Bank of Nigeria (CBN), Nigerian Interbank Settlement System (NIBSS) and National Bureau of Statistics Nigeria (NBS) from 2005-

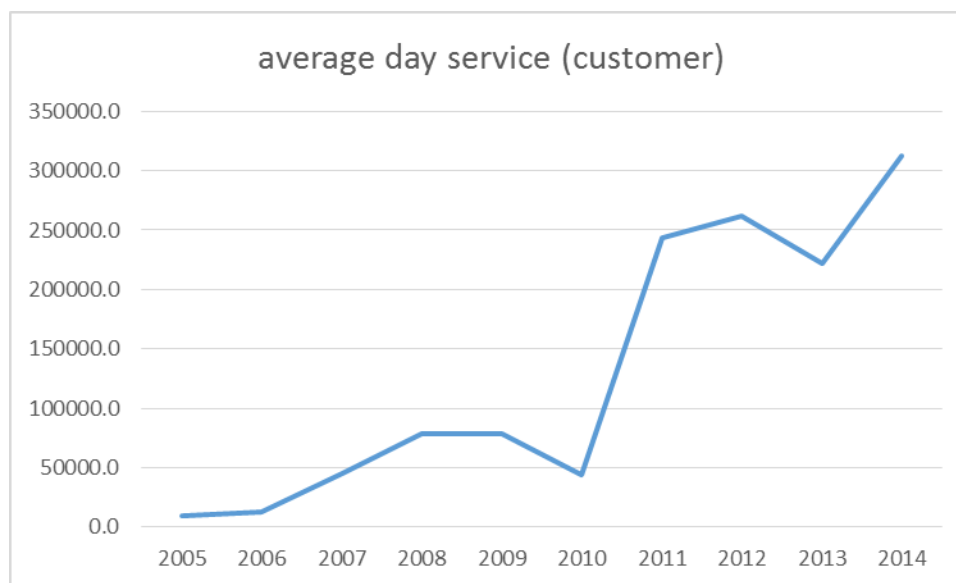
Table 8. Multinomial logit parameter estimates for Financial innovation adoptions (Z- values in parenthesis)

	Point of Sales Terminal	Internet Banking	Electronic Fund Transfer	Mobile Banking
Turnaround time	0.405** (13.696)	0.017 (0.467)	0.206+ (2.737)	0.153** (39.472)

Multinomial logit model coefficients were estimated relative to the reference mode ATM

+ Indicates statistical significance at the 10% level

** Indicates statistical significance at the 1% level

**Figure 3.** Average Customers serviced by Banks per day

2014 were used to compare the result and finding revealed under primary data analysis. These are the acknowledged authentic, reliable sources of valid data on published financial information on financial innovation.

In a day labour of 8 hours, average numbers of customers that patronized and serviced by financial innovation products have kept on increasing as revealed in Figure 3. The implication of this is that more customers are served per hour, in 2006, an average of 31250 customers per hour. The impact of global financial crisis made this plunged down to 6250 customers/hour in 2010. Since then numbers of customers served on financial innovation products have being increasing though it fell again in 2012-2013 to an average of 28,125 customers per hour, probably due to national election tension. However, generally service time per customer has being improving. In 2014 it was 38,750 customers per hour. As more customers are served per hour it means an average customer spent less time to be served. From this analysis service time is generally improving on financial innovation

products and services and it will encourage more people to adopt it.

This submission is further corroborated by evidence in Figure 4. This went further to show that, service down time of facilities e.g Internet and power are improving. These are necessary back bone to the successful adoption of financial innovation. The service down time officially recorded in 2005 was 25 days. This fell to 22 days in 2007. In 2008-2009 it went back to status quo, may be due to global financial crisis again that nearly affected all sectors directly or indirectly in Nigeria. As at now 2014, the average service downtime is steady at 10 days. This may further improve as the state of infrastructural facilities and technology improve. Of course as this improves, it will have a positive rub on effect on the adoption of financial innovation products and services.

On the evidence of Figure 4, the service time per customer had remained under 5mins for almost ten years. This is good, but the apparent tendency to rise,

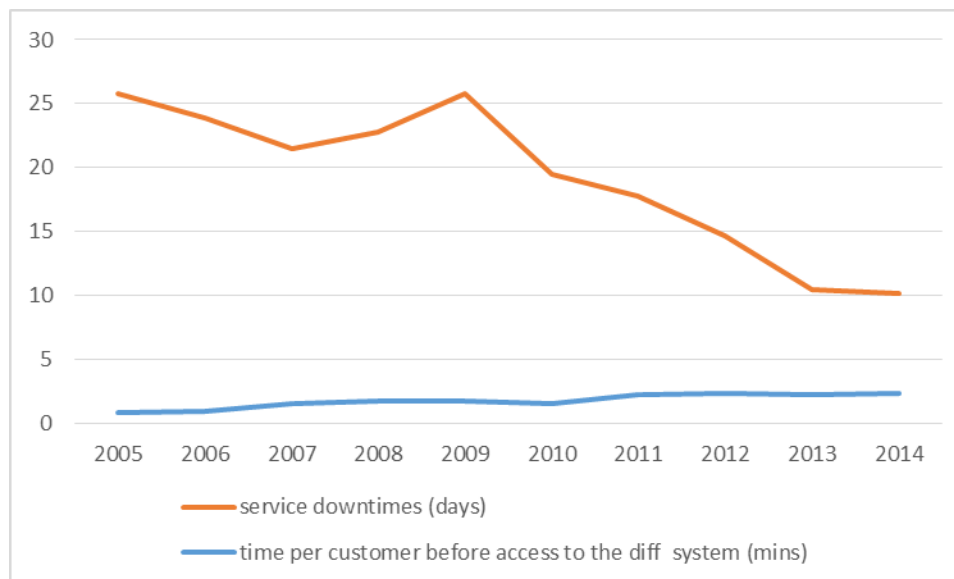


Figure 4. Service Downtimes Customers /Queuing time for service

that it is shown in the recent time (2011 to date) should be curtailed and resisted. True to form and in consonance with the findings on primary data, Customers enjoy self-service, freedom from time and place constraint. Therefore, time and cost savings and freedom from place restriction have been found to be the main reasons underlying banking financial innovation adoption. Real time transaction is very crucial with financial innovation. Auta (2010), identify time factor as one of the prime factor that features in e-banking service quality required by the customers. Savings in time is an importance factor which influences the customers' preference to use e-banking (Beer, 2006).

Testing of hypothesis: Turnaround Time has no significant influence on the adoption of Financial Innovation

The result of the multinomial regression confirmed that for ATM, POS and MB, turnaround time was significant but only significant for EFT at 10%. For IB, turnaround time is not significant. The multinomial logit estimate for a one-unit increase in **TT** in adoption of Point of sale Terminal relative to ATM was 0.405. If **TT** were to increase by one unit, the multinomial log-odds for POS relative to ATM would be expected to increase by 0.405 unit while holding all other variables in the model constant. The multinomial logit estimate for a one-unit increase in **TT** in adoption of Internet Banking relative to ATM was 0.017. If **TT** were to increase by one unit, the multinomial log-odds for Internet Banking relative to ATM would be expected to increase by 0.017 unit while holding all other variables in the model constant. The multinomial logit estimate for a one-unit increase in **TT** in adoption of Electronic Fund Transfer relative to ATM was

0.206. If **TT** were to increase by one unit, the multinomial log-odds for Electronic Fund Transfer relative to ATM would be expected to increase by 0.206 unit while holding all other variables in the model constant. The multinomial logit estimate for a one-unit increase in **TT** in adoption of Mobile Banking relative to ATM was 0.153. If **TT** were to increase by one unit, the multinomial log-odds for Mobile Banking relative to ATM would be expected to increase by 0.153 unit while holding all other variables in the model constant.

Since the **wald** test statistic for the predictor **TT** is 13.696 with an associated p-value of 0.000 which is less than 0.05 level of significance, we would reject the null hypothesis and conclude that the regression coefficient for **TT** has been found to be statistically different from zero for Adoption of POS relative to ATM. Since the **wald** test statistic for the predictor **TT** is 0.0467 with an associated p-value of 0.494 which is greater than 0.05 level of significance, we would accept the null hypothesis and conclude that the regression coefficient for **TT** has been found not to be statistically different from zero for adoption of Internet Banking relative to ATM. Since the wald test statistic for the predictor **TT** is 2.737 with an associated p-value of 0.098 which is greater than the 0.05 level of significance, we would accept the null hypothesis and conclude that the regression coefficient for **TT** has been found not to be statistically different from zero for adoption of Electronic Fund Transfer relative to ATM. Since the wald test statistic for the predictor **TT** is 39.472 with an associated p-value of 0.000 which is less than 0.05, level of significance, we would reject the null hypothesis and conclude that the regression coefficient for **TT** has been found to be statistically different from zero for the adoption of Mobile Banking relative to ATM.

SUMMARY OF FINDINGS

Findings from the study showed that Nigeria's slow adoption of financial innovation in banking practice is rapidly changing for the better. Awareness for financial innovation in Nigeria is increasing and it accounted for N10 trillion worth of transaction in 2014 (NIBSS, 2015). ATM is the mostly widely adopted financial innovation and mostly common. This is followed by EFT and POS in that order. Other channels like MB and IB are just getting off their starter blocks. With intensification of public enlightenment, promotion and advertisement, development and good maintenance of infrastructure, rate of adoption will have improved rapidly. More so in view of the current government recently introduced cashless policy. Findings have shown that with improved technological development and provision of basic infrastructure there will be improved adoption of financial innovation with overall reduction in the amount of cash based transactions. The advancement in technologies has led banks to improve effectiveness through reducing the transaction cost and increasing the speed of service. The consumers think that financial innovation allows consumers easier access to financial services, time saving and thrift in managing their finances. The study showed that variety of financial innovation services are some important drivers in the banking industry for Bank's performance and customer quality service delivery, while time is considered to be an influential factor for the use and adoption of financial innovation.

On the significance of turnaround time on adoption of financial innovation the objective investigated. Evidence from the study showed that majority of the respondents opined that modern banking is faster than traditional banking. Amazingly on relevance of timing banking service, most of the respondents also agreed is fruitless timing banking service. However, the majority who mainly agreed must have seen banking as part of daily live, so innovation and time consciousness as integral part of banking. Findings on the study further showed that as far as turnaround time is concerned ATM is the most preferred, followed by POS and MB. This preference may have to do with what the customers are used to. As the products get more popular and recognized, there might be improvement. The import of this is that the banks have more works to do on public enlightenment and product awareness. Customers enjoy self-service, freedom from time and place constraint, and reduced stress of queuing in banking hall. Therefore, time, cost savings and freedom from place confinement have been found to be major factors underlying banking financial innovation adoption.

CONCLUSION

Adoption of financial innovation is based upon meeting the needs of the customer, a view supported and

conveyed in Mols *et al.*, (1999). Nyangosi and Arora (2011) argued that financial institutions only embrace different electronic channels just to meet the demand of the customers. Woldie, *et al.*, (2008) rightly observed: "It is one thing to innovate, but entirely another thing for the innovation to be accepted by consumers". The general opinion is that modern banking is faster than traditional banking. But there is a wide variation in time spent or taken to complete a transaction, ranging from 5mins to 3hours, at times two days depending on type of transaction and availability of network and power supply. At times it could be chaotic but things are getting better and faster especially with the restructuring of national power generation and distribution and licensing of more telecommunication service providers. The implication of this is that more customers would be served per hour. In 2006, an average of 31,250 customers, were served per hour. The impact of global financial crisis made this plunged down to 6250 customers per hour in 2010. Since then number of customers served on financial innovation products have being increasing though it fell again in 2012-2013 to an average of 28,125 customers per hour probably due to national election tension. However, service time per customer has being improving. In 2014 it was 38,750 customers per hour. As more customers are served per hour it means an average customer spent less time to be served. This will translate into improved productivity as precious man labour hour will be saved. From this position as service time improves on financial innovation products and services, it will encourage more people to adopt it and this will enlist buoyant national productivity.

Finally, the banks' huge investment in telecommunication networks and various e-Banking services delivery could be seen as an effort towards measuring up with global standard. This is among other reasons such as increased customer demand, increased competition among banks, derived minimized cost, new entrants, and better service delivery (Muniruddeen, 2007). To further improve the efficiency of the payment system, the CBN in 2004 issued the broad guidelines on electronic banking (e-banking). E-banking practice in Nigeria will continue to be promoted in line with global trend. The CBN must continue to encourage banks to install ATM machines for cash withdrawals. Also, in order to encourage the use of electronic money (e-money), in line with international best practices, the CBN continues to issue specific guidelines on standards and use of e-money products such as credit cards, debit cards, digital cash etc. With the recent revolution in the telecommunication sector, the environment for efficient innovative banking service delivery has been laid.

Recommendations

The Deposit Money Bank is a key important sector in the economy, because of the big roles they play in the

financial system. A country is only as strong as its financial system. Their dynamism therefore becomes a must in a developing economy like Nigeria such that they can boost the local commerce and be relevant and competitive in global financial order. Financial innovation adoption therefore becomes a central issue; its growth, process, acceptance and patronage must be continually monitored and upgraded. This study therefore makes several recommendations to stakeholders in the financial sector like the government, policy makers as well as the deposit money banks. From these research findings, the study recommends that;

The government should ensure existence of stable political environment and good developmental infrastructures. This will enhance the knowledge base of the customers, reduced the running cost of financial innovation, development and accessibility to technology and telecommunication facilities. All these form the back bone of financial innovation development and its adoption.

Deposit money banks should also improve on their marketing strategy. Gone are the days of arm chair banking, personalized service is a viable option, the use of product advertisement, road shows, product souvenir should be resuscitated and intensified to register various innovation products in the mind of customers and thereby stimulate its demand.

Banks should consider stepping up their public enlightenment programmes to include adult education. This is because financial innovation has so much of technology content and technology is knowledge base driven. A large proportion of bank customers in Nigeria have low level of educational standard as revealed in this study, therefore Deposit money banks in Nigeria will do themselves a great deal of favour in getting a larger percentage of the citizens educated. This will positively impact the adoption of financial innovation.

On policy matters, banks should consider coming together on some issues to pressurize the government on infrastructure development such as to improve the core competence, despite individual banks competitive advantage. Banks can also consider venturing into provision of telecommunication providers service, obtain appropriate license either singularly or in a consortium, a move to reduce telecommunication and operational costs, and fast track service delivery: a strategic choice in the interest of their customers and adoption of financial innovation

REFERENCES

- Adesina AA, Ayo CK (2010). An empirical investigation of the level of users' acceptance of e-banking in Nigeria. *Journal of Internet Banking and Commerce*, 15(1).
- Agbemabiese CG, Patrick AA, Joseph GNTN (2015). Determinants of Mobile Banking Adoption in the Ghanaian Banking Industry. A Case Study of Access Bank Ltd. *J. Comp. Comm.* 3: 1-19.
- Agboola AA (2006). Electronic payment systems and tele-banking services in Nigeria, *J. Internet Bank. Commerce*. 11 (3)
- Assocham/ PWC Report (2015). Current fraud trends in Financial sector. Price Waterhouse Copper Pvt Ltd India.
- Auta EM (2010). E-banking in developing economy: Empirical evidence from Nigeria. *J. App. quantitative methods*. 5(2): 212-222.
- Bamidele F (2006). Who is afraid of e-payment Mileage Business Magazine 16th Edition Lagos Carriage: Concepts Communications Ltd. Pp 7.
- Bank of International Settlement (2003). Policy issues for Central Banks in retail payments. Report of the Working Group on Retail Payment Systems, Committee on Payment and Settlement Systems. Geneva: Bank for International Settlements, Basel.
- Barnes SJ (2003). Enterprise mobility concepts and examples. *Int. J. Mobile Comm.* 4: 341-359.
- Beer S (2006). Customers Preference on Internet Banking. Retrieved from <http://www.itwire.com/content/view/4570/53> on 20 March 2010.
- CBN (2013) Annual report and Financial Statements: Abuja.
- Chin WC, Todd PA (1995). On the use, Usefulness and Ease-of-Use of Structural Equation Modeling in MIS Research. A note of caution. *MIS Quarterly*, 19: 237-246.
- Cochran WG. (1977). *Sampling Techniques* (3rd. ed). New York: John Wiley and Sons.
- Cronbach LJ (1995). Coefficient alpha and the internal structure of tests. *Psychometrical*. 22(3): 297-334.
- Davis FD (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*. 13: 319-340.
- Domeher DJ, Frimpong M, Appiah T (2014). Adoption of Financial Innovation in Ghanaian Banking Industry. *Afr. Rev. Econ. Fin.* 6(2): 207-243.
- Damanpour F, Walker R, Avellaneda C (2009). Combinative effects of innovation types and organizational performance: A longitudinal study of service organizations. *J. Manag. Stud.* 46(4): 650.
- Essinger J (1999). "The virtual Banking Revolution": The customer, the Bank and the Future. 1st ed. International Thomson Business press, London, UK.
- Frei C, Schar C, Luthi D, Davies HC (1998). Heavy precipitation processes in a warmer climate, *Geophys. Res. Lett.*, 25: 1431-1434.
- Friedman M, Day GS (1953; 1984). *Strategic market planning: The pursuit of competitive advantage*. West Group. Chicago. University of Chicago Press.
- Gelbard ME, Leite MSP (1999). Measuring Financial development in sub-Saharan Africa (No. 99-105). Washington, DC., International Monetary Fund.
- Goodhue DL, Thompson RL (1995). Task-technology Fit and individual performance. *MIS Quarterly*, 19(2): 213-236.
- Green SB, Salkind NJ (2003). *Using SPSS for windows and Macintosh: Analyzing and understanding data* (3rd ed.). Upper Saddle River, NJ: Prentice Hall.
- Greene JC (2007). *Mixed methods in social inquiry*. New York: Wiley.
- Hair JF Jr., Anderson RE, Tatham RL, Black WC (1998). *Multivariate Data Analysis*, (5th Edition). Upper Saddle River, NJ: Prentice Hall.
- Hosmer DW, Lemeshow S (1989). *Applied logistic regression*. New York: Wiley. International Agency for Research on Cancer. Oaks, CA: Sage.
- Idowu AA (2013). e-Banking - Banking On the Super Highways. Ede: Aseda Publishing
- Karjaluoto H, Mattila M, Pentto T (2002). Factors underlying attitude formation towards online banking in Finland. *Int. J. Bank Market*. 20(6):261-272.
- Kemppainen K (2003). Competition and regulation in European retail payment systems. Bank of Finland Discussion Papers.
- Kemppainen K (2008). Integrating European Retail Payment Systems. Some Economics of SEPA. Bank of Finland Discussion Papers.
- Kombo DK, Tromp DLA (2009). Proposal and Thesis Writing. An Introduction. Paulines Publications Africa, Don Bosco Printing Press, Nairobi, Kenya.

- Kothari C (2004). *Research Methodology. Methods and Techniques*. (2nd ed). New age International Publishers, New Delhi, India.
- KPMG International (2014). *Nigeria Banking Industry Customer Satisfaction Survey*. Issue number: 8. Published and Printed in Nigeria.
- Muturi MW (2012). A thesis submitted in for degree of Doctor of Philosophy in Economics in the Jomo Kenyatta University of Agriculture and Technology.
- Mattila M (2003). Factors Affecting the Adopting of Mobile Banking Services. *Journal of Internet Banking and Commerce*. 8: 8-12.
- Mohammed SK, Siba SM, Sreekumar S (2009). Service quality evaluation in internet Banking. An empirical study in India. *Int. J. Ind. Culture Bus. Manag.* 2(1).
- Mols NP, Bush P, Nelsen J (1999). Distribution channels strategies in Danish retail banking. *International Journal of Bank marketing*. 27(1): 37-47.
- Mugenda OM, Mugenda AG (2003). *Research Methods. Quantitative and Qualitative Approaches*. Nairobi. Acts Press
- Muniruddeen L (2007). An Examination of Individual's perceived security and privacy the internet in Malaysia and influence of their intention to use e-commerce: Using an Extension of the Technology Acceptance Model. *Journal of Internet Banking and Commerce*, 12 (3): 77-89
- Muthén LK, Muthén BO (2007). *Mplus User's Guide*. (6th ed.). Los Angeles, CA: Muthén and Muthén Oboh G.A.T; Selected Essays on Contemporary issues in the Nigerian Banking System, University Press Plc. Ibadan.pg 45.
- Ndlovu I, Siyavora A (2014). Impact of internet banking on the Zimbabwean Banking sector: An application of the multinomial logit modeling. *Int. J. Econ. Commerce Manag.* United Kingdom. 2(8): 1-17
- Newing H (2011). *Conducting research in Conservation: Social Science Methods and Practice*. New York: NY Routledge.
- Ngumi MP (2013). Effect of Bank Innovations on Financial Performance of Commercial Banks in Kenya. A PhD thesis in Business Administration at the Jomo Kenyatta University of Agriculture and Technology.
- Nyangosi R, Arora JS (2011). Antecedents and obstacles to e-banking adoption: a comparative study of India and Kenya. *Int. J. Ind. Culture and Bus. Manag.* 4(2): 123-137.
- Oboh GAT (2005). Globalization and Competitiveness Concept, Fears and Prospect for Financial Institutions in commonwealth countries *Union Digest* 9:384.
- Odumeru JA (2013). Going cashless: Adoption of mobile banking in Nigeria. *Arabian J. Bus. Manag. Rev.* 1(2): 9-17.
- Oloyo RA (2001). *Fundamentals of Research Methodology for Social and Applied Science* Ilaro. Kinsbond Investment Ltd.
- Oyerinde DT (2011). Value relevance of Accounting Information in Emerging Stock Market in Nigeria. Kampala: International Academic of African Business and Development (IAABD). Uganda.
- Perry M, O'Hara K, Sellen A, Brown B, Harper R (2001). Dealing with mobility: Understanding access anytime, anywhere. *ACM Transactions on Computer-Human Interaction*. 8(4): 323-347.
- Rogers EM (1983). *Diffusion of Innovations*. Free Press, New York.
- Rogers EM (1995). *Diffusion of Innovations*. 4th ed. New York: Free Press.
- Rogers EM (2003). *Diffusion Innovation* (5th ed.) New York: The Free Press.
- Rotchanakitumnuai S, Speece M (2003). Barriers to Internet Adoption. A qualitative study among corporate customers in Thailand. *Int. J. Market.* 21(6/7): 312-323.
- Singh KP (2006). Information Use, Satisfaction, and Difficulties: A Case Study of Agricultural Scientists in India. *Library Philosophy and Practice* 2012, India ISSN: 1522-0222.
- Shiels H, Mclvor R, O'Reilly D (2003). Understanding the implications of ICT adoption: insights from SMEs. *Logistics Information Management*, 16(5): 312-326.
- Sweeny A, Morrison M (2004). Clicks vs. bricks: Internet-facilitated relationships in financial services, *Int. J. Internet Market. Advert.* 1(4):350-370.
- Soludo C (2008). *Nigeria's Financial System Strategy 2020 Plan*. Proceedings of the Financial System strategy 2020 International Conference. June 18. Abuja
- Tabachnick BG, Fidell LS (2007). *Using multivariate statistics* (5th ed.). Upper Saddle River, NJ: Pearson Allyn and Bacon.
- Vijayarathay LR (2004). Predicting consumer intention to use on hire-shopping. The case for an augmented technology acceptance model. *J. Info. Manag.* 41(6): 747-762.
- Woldie A, Hinson R, Iddrisu H, Boateng R (2008). Internet banking: Initial look at Ghanaian Bank consumer perception, Retrieval from <http://dspace.uabs.edu.ua/bitstream/123456789/7467/1/Atsede20%Woldie.pdf>
- Zigurs I, Buckland BK (1998). A theory of task-technology Fit and group support system effectiveness. *MIS Quarterly*, 22(3): 313-334.
- Zinbarg R, Revelle W, Yovel I, Li W (2005). "Cronbach's, Revelle's and McDonald's: Their relations with each other and two alternative conceptualizations of reliability". *Psychometrika* 70: 123-133.

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