Electronic Banking Services and Customers' Satisfaction in Deposit Money Banks in Rivers State, Nigeria

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Abstract
Electronic banking is increasingly becoming very dominant in the Nigerian banking sub-sector due to quest for improved service delivery, thus, making it a subject of interest in both business and academic cycles. This study assessed the impact of electronic banking services on customers' satisfaction in selected Deposit Money Banks in Rivers State, Nigeria. Three hundred and seven (307) copies of questionnaire were utilized to elicit the required information from the customers and staff of four (4) systematically Important (Too Big to Fail) Banks and eight (8) National Banks. The data gathered focused mainly on the socio-economic characteristics of the respondents, nature and types of customers' complaints regarding electronic banking and other challenges that influence effective implementation of electronic banking services as perceived by the bank staff. A combination of descriptive and inferential statistics was employed as techniques for data analysis. The findings reveal that customers' complaints regarding electronic banking include debiting of their accounts by the ATM without payment, non-availability of cash at the ATM, resolution of disputes on the electronic banking products and trapping of customer's card by the ATM. Aside the customers' complaints, it was equally found that the bank staff identified network failure, limited personnel, mishandling of the naira note and CBN's directive on trapped cards as other key challenges that obstruct effective implementation of electronic banking services. Thus, it was recommended that access to improved network via maximum link-up time and periodic review of cash withdrawal and transaction limits on the e-channels should command top priority in the operations of Deposit Money Banks to meet customers' needs.

Keywords: *Electronic banking, customers' satisfaction, Deposit Money Banks, Rivers State and Nigeria*

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I. Introduction

The start-up of banking system revolution in Nigeria was in 2003, with Central Bank of Nigeria (CBN) introducing the guidelines and procedures for electronic banking. Other reforms equally followed in June, 2004, as a roadmap to sustainable development in the Banking subsector. The outcome of the reform is the emergence of twenty-five strong and reliable banks in Nigeria contrary to the eighty-nine banks that existed previously. The banks that survived the recapitalization exercise since then have spontaneously adopted a complete use of information and communication technology as basis for effective and efficient banking service delivery (Ayo *et al*, 2007).

According to Munirodden (2007), the huge investment in information and communication telecommunication technology and various electronic banking services is considered means and ways of measuring up with standard that are invoked globally. This has raised effective and healthy competition among banks as well as enhanced the level and quality of service delivery. In the last few years, banking operations changed from manual to digital and electronic systems. The internet technology advances have considerably impacted the business environment in the banking system and have in particular brought about a shift in banking operations in Nigeria. This has necessitated the adoption of internet banking by banks.

The major driving forces of e-banking for customers comprises of access to better banking services, reduced prices and high personnel and corporate privacy. Customers can easily transact their bank activities at the comfort and convenience of their homes and offices using various electronic devices. Ovia (2003) identifies these to include e-commerce, e-banking and e-marketing which are slowly being integrated into the Nigerian financial system and incorporated into the digital device. In its survey on the extent of e-banking adoption by Nigerian banks, in September 2003, the CBN found that out of eighty-nine banks licensed in Nigeria, just seventeen offers internet banking, twenty four offered basic telephone, seven uses ATM services and thirteen of them offers other forms of e-banking operation. Some of the factors and reasons stated by Ezeoha (2005) as why internet banking was exacting less impact in the country are inadequate infrastructure such as steady power supply for efficient service delivery. Cashless policy was introduced by the CBN in April 2011 (Odior and Banuso, 2012). This primarily aims at mandating Nigerians to subscribe to electronic banking services.

Notably, the advent of electronic banking faced out the manual and traditional ways of processing customers' request which was in vogue. It was very costly and frustrating for customers to wait on a long queue in other to be attended to. Cheques take five working days to clear and customers have to draw huge amount of cash in other to carry out their numerous business transactions. The benefit of electronic banking service and its impact on improved customer service and satisfaction in the 21st century cannot be over emphasized. Sergeant (2000), stated that the benefits of electronic banking are numerous and obvious from the perspectives of the banks themselves, customers, regulators and various stakeholders in the Nigerian banking sub-sector.

Nigerian banks and indeed all the financial service industry, in the resent years, embraced electronic banking made possible through the use of advanced technologies. In spite of its associated benefits, the banks are faced with incessant complaints from customers as regards malfunctioning of Automated Teller Machines (ATMs), network downtime, online theft and fraud, non-availability of cash, payment of hidden costs, ATM cards acquisition, inability to accept some card of Nigerian banks for some international transaction, too many account numbers and account names linked to online banking which cause a lot of confusion on the ease of using internet banking products amongst others. In the light of these challenges, this paper attempts to find out how e–banking has impacted on customer service quality and delivery in Nigerian banks and the challenges facing the effective implementation of electronic banking system as well as incessant complaints from customers.

II. Literature Review

2.1 Theoretical Underpinnings
2.1.1 Technology Acceptance Model (TAM)
The technology acceptance model usually referred to as TAM was linked to Davis (1989) and Davis, Bagozzi and Warsaw (1989) as an extension of Ajzen, fishbeinand Heilbroner(1980) theory of reasoned action is the most outstanding model that provides an insight into the acceptance and usage of technology by users. Legris, Ingham and Collerete (2002) assert that TAM is very helpful in explaining and predicating the behaviour of users regarding information technology. It equally provides the baseline for identifying how the belief, attitude and intention to use an information technology by the target users are influenced by external factors (Park, 2009). Emphasizing on the efficacy of TAM, Davis (1989) posits that it offers a great opportunity for tracing how users view about the usefulness, simplicity of usage and manner towards the use of a particular technology influences its eventual use.

More broadly, TAM assumes that user's choice and decision to use a technology system is direct or indirect function of his/her character, viewed or known usefulness of the system, behavioral intentions and anticipated simplicity of use of the system (Park, 2003). It is noteworthy that TAM has been described by researches as the most widely used model in investigating the acceptance and usage of technology by the target users. However, it has evolved overtime with the emergence of TAM-2 which is an extension of the initial model. Developed by Venkatesh and Davis (1996), TAM-2 integrates the influence of social process and cognitive instrument process into the initial model. .

2.1.2 Innovation Diffusion Theory (IDT)
The innovation diffusion theory (IDT) emanated from Rogers (1962) publication of "Diffusion of Innovations". He argues that some innovations are communicated from initial introduction to popular usage over time among the target users. Specially, Rogers identified four drivers of innovation spread to include innovation itself, time, and social system and communication channels. More importantly, diffusion scholars including Rogers (1962) outlined five characteristics of technology innovation that determine its adoption by the target users. These include relative advantage, compatibility, complexity, trial ability and observable results.

Relative advantage measures the degree at which the target users perceived an innovation as being superior to the previous practice. With regard to electronic banking, relative advantage measures how the users view electronic banking services as superior to the traditional banking practice. Several researches identified relative advantage as core the driver of customer's choice of electronic banking (Tan and Teo, 2000). Robinson (2009) describes compatibility as a measure of the extent potential users of an innovation perceive it as being consistent with their values, previous experiences and needs. Thus, the extent to which a given innovation matches with the social and technological infrastructure of the potential users determines its acceptance. As an attribute of innovation, complexity defines the degree the potential users of a particular technology perceive it as difficult to understand and use. Innovations with easy understanding are more rapidly embraced by the potential users than those that require difficult understandings and technicalities (Robinson, 2009). Trial ability involves the extent an innovation allows potential users to experiment it before taking decision on whether it can be adopted.

It is important to note that a trialable technology poses less risk to the potential users. Undoubtedly, observable results provide opportunity for potential users to evaluate the usefulness of a given technology from

its visible results which reduces the perceived uncertainly. This increases the tendency to adopt the technology due to the recognized benefits. Regardless of the usefulness of the innovation diffusion theory, it has been characterized by various criticisms. Bayer and Melone (1989) argue that the IDT poses a challenge in forecasting the adoption of technological innovation. Also, Lee *et al.* (2005) posit that the observable results associated with the IDT are of marginal importance in terms of predicting users' adoption of electronic banking.

2.2 Empirical Literature

The growing concern for effective customer service delivery in the banking sub-sector has necessitated the conduct of researches to appraise how the adoption of electronic banking system affects customer services. These studies have been predicated on consumer internet banking models (CIBM) such as TAM and IDT amongst others. The results of these researches have varied across different geographical locations.

Adewoye (2013) explored the effect of electronic banking on service delivery in four selected commercial banks in Lagos metropolis. The research adopted a survey method which necessitated the use of a well-structured questionnaire to elicit the required information from a sample of 125 staff of the selected banks. The data sourced from the respondents were analyzed using descriptive statistics while the working hypotheses were tested with the application of chi-square statistic. The results reveal that the adoption of mobile banking helped to improve the quality of service delivery in the banking sub-sector through time saving, convenience in transaction and reduction in the cost of service. The study suggested that management of banks should embark on awareness to sensitize the public about the gains associated with electronic banking.

Agboola (2003) investigated the effect of e banking on customer services in Lagos metropolis. The study Centered on five areas of customer services comprising accuracy of records, convenient business hour, prompt and fair attention, efficient services and tendency for convenient banking operations. A sample of 90 customers of six selected commercial banker was used for the study. The data elicited from the target respondents were analyzed with the application of mean rating, frequency distribution and simple percentage. The results indicate that electronic banking improved the keeping of accurate record, convenient banking hours and faster services. The study advocated for the improvement of security system to ensure effective and successful electronic banking operations.

Chidindi, Niekerk and Matiza (2014) analyzed the perceptions of electronic banking services by both bank managers and customers in the Limpopo province of South Africa. The data sourced from the target respondents were analyzed simple multiple regression. The results show that customer satisfaction differs from one electronic banking service provider to another in the same location. Thus, the study suggests for the provision of electronic banking service that meet the needs of customers in order to sustain their loyalty.

Nochai and Nochai (2013) studied the effect of internet banking service on satisfaction of customer in Bankok. Three banks including Bankok Bank, Kasikom bank and Siam Commercial bank were randomly selected in the Bankok area. A well-structural questionnaire was used in sourcing for the required data from 450 respondents selected using a quota sampling technique. The estimation technique adopted by the study is multinomial logistic regression analysis and the results indicate that constant service provision, immediate staff responses, accurate completion of tasks and availability of accurate information impacted on customer satisfaction.

III. Materials And Methods

3.1 Research Design

This paper adopts a survey research design. The choice of survey approach stems from Alford (2011) assertion that it provides basis for selecting respondents who qualify as part of the population of study.

3.2 Area of the Study

The area of the study is limited to Port Harcourt metropolis, the capital of River State. It is located in the South-South geopolitical zone and lies along the Bonny River. The National Population Census (2006) reported that the population of Port Harcourt is 1,382,592. As a major industrial center, the city has large number of multinational companies and other industrial concerns, particularly businesses related to the petroleum industry. Aside being the major oil city in Nigeria, the city equally creates opportunities for other business to thrive. These necessitated the large presence of deposit money banks in the city to provide financial services to businesses, individuals and government agencies.

3.3 Population of the Study

The target population for this study consists of all the staff and customers of deposit money banks (DMBs) in Rivers State.

3.4 Nature and Sources of Data

This study used a combination of primary and secondary data. The primary data which formed basis for the analysis was sourced from the respondents using the well-structured questionnaire. The questionnaire is designed in a likert format to allow for easy response on issues related to the research questions. The choice of questionnaire as the data collection instrument stems from its consistency in asking the required questions. Apart from the primary data, other important information will be sourced from the secondary sources through the review of bulletins, journals and other related publications.

3.5 Sampling Technique and Sample Size Determination

This study adopted a stratified random sampling approach. The rationale for this approach is to allow for the selection of a sample size that is highly representative of the study population. Specifically, four strategically important banks and eight national banks were selected. Strategically important banks are the eight banks in Nigeria described by the CBN in 2014 as 'Too Big to Fail'. The four strategically important banks selected include Zenith Bank, Access Bank, First Bank and United Bank for Africa (UBA) while the national banks are Sterling Bank, First City Monument Bank (FCMB), Diamond Bank, Heritage Bank, Union Bank, Fidelity Bank, Skye Bank and Unity Bank. From each of the strategically important banks, 4 managers and 20 customers wereselected while 4 managers and 25 customers were selected from each of the national banks. Given this sampling criteria, the total sample size for this study is 328 respondents.

3.5.1 Validity and Reliability of the Questionnaire

This study employed content validity. This is very helpful in ascertaining how the items contained in the questionnaire gathered the necessary information. In accordance to this, the questionnaire is subjected to scrutiny and subsequent approval by the supervisor. Additionally, the reliability of the questionnaire is verified through a pilot test by administering it to customers and staff of other banks not included as the study sample. Cohen et al. (2002) posit that pilot test is very helpful in identifying the clarity of questionnaire items, time required for its completion and rephrasing of some difficult words in the questionnaire.

3.6 Method of Data Analysis

The data elicited were analyzed with the application of descriptive statistics. These involved frequency distribution, simple percentage and mean ratings. For the mean ratings, the criterion mean derived from the number of options of the questionnaire item and the associated responses is 2.5. This formed basis for decision regarding each of the question items.

IV. Results And Discussion
4.1 Demographic Information of the Respondents

Table 1: Socio-economic characteristics of bank customers

Variable		Frequency	Percentage (%)
Sex	Male	126	49
	Female	133	51
	Total	259	100
Age:	18-25 years	76	29
	26-35 years	60	23
	36-45 years	93	36
	Above 45 years	30	12
	Total	259	100
Educational attainment	Primary	11	4
	Post – Primary	93	36
	Vocational	34	13
	Tertiary	121	47
	Total	259	100
Account ownership	Yes	259	100
	No	0	0
	Total	259	0
Subscription for e-banking services	Yes	259	100
	No	0	0
	Total	259	100
E-banking services subscribed for by customers	ATM	109	42
	POS	10	4
	SMS alert	68	26
	Online banking	53	20

Two or more services	12	5	
Email	7	3	

Source: Authors' compilation

In table 1, the sex distribution of the bank customers reveals that 126 (49%) of them are male while the remaining 133 (51%) are female. It was equally observed that 76 (29%) of the sampled bank customers are between 18-25 years, 60 (23%) of them are between 26-35 years, 93 (36%) of them are between 36-45 years while 30 (12%) of them are above 45 years. Again, the distribution of the respondents based on educational attainment indicates that 11 (4%) of them acquired primary education, 93 (36%) of them had post primary education, 34 (13%) of them had vocational education while 121 (47%) of them had tertiary education. This is an indication that majority of the sampled bank customers had higher education. More so, evidence from table 4.2.1A reveals that all the sampled bank customers have account in the selected banks and subscribed for various electronic banking services which made their opinion very appropriate for this study. Additionally, it was found that 109 (42%) respondents subscribed for ATM services, 10 (4%) respondents use POS, 68 (26%) respondents subscribed for SMS alert, 53 (20%) respondents subscribed for online banking, 12 (5%) respondents subscribed for all the outlined electronic banking services while only 7 (3%) opted for email services. Thus, this finding reveals that majority of the sampled customers opted for ATM card as an electronic banking service.

4.2 Issues Related to the Specific Research Questions

Table 2: Responses on customers' complaints regarding electronic banking in Nigeria

Item	SA 4	A 3	UD 2	D 1	SD 0	Total Score (N)	Mean Score
Payment of hidden costs of electronic banking services	26	74	40	112	7	259	2.0
Non-availability of cash on the ATM	97	139	16	7	0	259	3.2
Trapping of customer's customers card by ATM	84	124	41	10	0	259	3.1
Online theft and fraud/cloning of ATM cards	81	118	36	13	11	259	2.9
Non-acceptance of some Nigerian cards for international transaction	42	73	33	96	15	259	2.1
Debiting of customers account by ATM without dispensing cash	102	146	4	7	0	259	3.3
Non-availability of service on the ATM	75	131	27	16	10	259	2.9
Dispute resolution on e-banking	88	109	41	12	9	259	3.0
Poor knowledge on the usage and operation of the ATM	62	113	15	56	13	259	2.6

Source: Authors' compilation
Note: SA = strongly agree, A = agree, UD = undecided, D = disagree and SD = strongly disagree

It was identified from the corresponding mean score of each of the items that the customers' complaints on electronic banking include non-availability of cash on the ATM, trapping of customers card by the ATM, online theft and fraud, debiting of customer's account by the ATM without dispensing cash, non-availability of service on the ATM, dispute resolution on ATM and poor knowledge on the usage and operation of the ATM. This is because the corresponding mean score of these items are greater than the mean criterion of 2.5. Debiting of the customer's account by the ATM without dispensing cash is identified as the most outstanding customer's complaint given that it is associated with the highest mean score of 3.3. The second ranked customer's complaint based on the mean rating is the non-availability cash on the ATM. However, payment of hidden costs of electronic banking services and non-acceptance of some Nigerian cards for international transactions were not identified as part of the customers' complaints given that their associated mean scores are less than the accepted mean score of 2.5.

Table 3: Responses on ways of addressing customers' complaints regarding electronic banking in Nigeria

Item	SA 4	A 3	UD 2	D 1	SD 0	Total Score (N)	Mean Score
Customers should always use their ATM to avoid hidden costs and destruction of trapped cards	46	103	63	41	6	259	2.5
Increasing the availability of cash at deposit money banks for loading ATM	65	114	47	31	2	259	2.8
Online bank customers should be mindful of the website they visit	31	93	40	89	6	259	2.2
Disclosure of customers pin to the third party should be avoided	97	116	25	19	0	259	3.1
Access to improved network should be	107	142	10	0	0	259	3.4

	SA	A	UD	D	SD		
guaranteed							
Placing of cameras and CCTV to detect cloned ATM	80	117	13	29	20	259	2.8
Proper education of the customers on the ATM features and their operation	113	132	5	9	0	259	3.3

Source: Authors' compilation
Note: SA = strongly agree, A = agree, UD = undecided, D = disagree and SD = strongly disagree

The mean score in table 3 indicates that access to improved network is the most appropriate solution to customers' complaints on electronic banking. Again, proper education of customers on the ATM features and their operations is equally identified as the second best solution to customers' complaints regarding e-banking. All the items in table 4.2.2B except online customers' carefulness on the website they visit are identified as ways of resolving customers' complaints regarding electronic banking. Based on the foregoing, access to improved network to improved network should be accorded top priority among efforts to drastically reduce or find lasting solution to customers' complaints on electronic banking in Nigeria.

Table 4: Responses on otheEr challenges constraining effective implementation of e-banking in Nigeria

Item	SA 4	A 3	UD 2	D 1	SD 0	Total Score (N)	Mean Score
Non availability of cash on ATM	15	27	6	0	0	48	3.1
Mishandling of naira note by Nigerians	17	25	4	2	0	48	3.2
Network failure	28	19	1	0	0	48	3.5
CBN's directive on trapped ATM cards	14	23	6	5	0	48	2.9
Cash withdrawal and transaction limits on e-banking products	21	19	2	5	1	48	3.1
Inadequate personnel	26	22	0	0	0	48	3.5
Perception of Nigerian on the use of e-banking	18	20	4	4	2	48	3.0
Illiteracy and ignorance	12	22	2	7	0	48	2.9

Source: Authors' compilation
Note: SA = strongly agree, A = agree, UD = undecided, D = disagree and SD = strongly disagree

As observed from table 4, all the items outlined were accepted by the respondents as other challenges constraining effective electronic banking implementation in Nigeria. These were evident in their associated mean scores which are greater than the mean criterion of 2.5. Notably, the ranking order based on the mean score indicates that network failure and inadequate personnel are the most outstanding challenges impeding effective electronic banking implementation in Nigeria. Again, it was evident from the mean score that mishandling of the naira note by Nigerians is another key challenge that impairs the effective electronic banking implementation in Nigeria.

Table 5: Responses on ways of resolving other challenges obstructing effective implementation of electronic banking in Nigeria

Item	SA 4	A 3	UD 2	D 1	SD 0	Total score (N)	Mean Score
Increasing the availability of cash at deposit money banks for loading ATM	19	25	2	0	0	48	3.3
CBN's directive on trapped ATM cards should be flexible	14	22	8	3	1	48	2.9
Increasing the cash withdrawal and transaction limits on e-banking products to decongest the banking hall	17	24	5	2	0	48	3.2
Provision of new naira notes for loading the ATM	6	13	10	18	4	48	2.0
Provision of cash sorting machine for dirty naira notes	15	21	8	4	0	48	3.0
Proper education of the customers on the use of e-banking product	20	19	6	3	0	48	3.2
Communicating the value added and other benefits associated with e-banking to customers	16	23	7	2	0	48	3.1

Source: Authors' compilation
Note: SA = strongly agree, A = agree, UD = undecided, D = disagree and SD = strongly disagree

The mean score in table 5 reveals that all the suggested remedial measures, except provision of new naira for loading the ATM are considered appropriate by the respondents for successful electronic banking implementation in Nigeria. Increasing the availability of cash at deposit money banks for loading ATM is considered as the utmost remedial measure for challenges limiting proper electronic banking implementation in Nigeria. This is evident from its associated mean score. Again, increasing the cash withdrawal and transaction limits on e-banking products and proper education of the customers on electronic banking services are the second ranking measures considered appropriate for overcoming the challenges that impede effective implementation of e-banking in Nigeria.

V. Concluding Remarks

The desire to meet the increasing customers' needs in the global financial system and Nigerian banking sub-sector has prompted the introduction of electronic system. Basically, electronic banking services are intended to engender cashless society, promote convenience in banking transaction, enhance speed and security in banking transactions and decongest the banking hall among others. In spite of the several benefits and other value added associated with electronic banking in Nigeria, the level of customers' satisfaction as regards electronic banking can be described as not very impressive. This is evident from the findings of this study as regards customers' complaints regarding electronic banking services in Nigeria and other challenges identified by bank staff. Based on the findings, it can be concluded that despite the popularity and associated gains of electronic banking, it has been characterized by several complaints by the users and other key challenges which impair its successful implementation in Nigeria.Thus, it was recommended that access to improved network via maximum link-up time and periodic review of cash withdrawal and transaction limits on the e-channels should command top priority in the operations of Deposit Money Banks to meet customers' needs.

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