



THE IMPACT OF ELECTRONIC BANKING SERVICE QUALITY ON CUSTOMER SATISFACTION

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Abstract

The study critically examine the impact of electronic banking service on customer satisfaction,. the study specifically probed on the various dimensions of electronic banking service quality. Also on the relationship between customer satisfaction and the various electronic banking service quality dimensions. A descriptive survey research design was adopted. The sample size was 93 respondents. The main research instrument used was questionnaire. Data collected were analyzed using descriptive statistic followed by Pearson correlation, and regression analysis to test the hypotheses. The findings revealed that there is a significant relationship between customer satisfaction and the various electronic banking service quality dimensions and electronic banking service quality has significant impact on customer satisfaction. Hence, the study concluded that banks have and still are putting in massive investments into electronic banking infrastructure and as such customer satisfaction is turning into one of the most crucial factor for the success of electronic banking service meaning that the generation of positive customer value on the electronic banking requires the establishment and maintenance of long-standing customer relationship. The study therefore recommended that banks should improve on their e-banking products relentlessly, upgrade their channels (such as ATM, MPOS and POS) and enhance their software application (such as online application, e-mobile application).

Keywords: Electronic Banking, Customer Satisfaction, Service quality, Information, Communication and Technology, SERVQUAL

INTRODUCTION

The increasing competitive nature of the financial service market has resulted in the need to develop and utilize alternative delivery channel. The most recent delivery channel introduced being online banking. Also, the increasing development of information and communication technologies has brought about numerous achievements for the human society and immensely influenced human behaviors. An important achievement that has increased the awareness of the society is the ability to gain access to a wide range of diverse information (Fathian, Shafiea and Shahrstani, 2009).

The definition of e-banking varies amongst researchers partly because electronic banking refers to the various types of services through which bank customers can inquire for information and perform most retail banking service via computer, television or mobile phone (Sathye, 1999). Burr (1996), for instance, describes it as an electronic connection between bank and customer in order to prepare, manage and control financial transactions. For the purpose of this study, we shall adopt the definition of electronic banking as posited by the Basel Committee (2003) as the provision of retail and small value banking products and services through electronic channels. Thus, e-banking consists of Internet banking, POS, telephone banking, PC banking, mobile banking, TV based banking and ATMs.

The adoption of these various electronic channels is to improve the operations of banks and also increase customer satisfaction. Farris et al (2010) describe customer satisfaction as the number of customers, or percentage of total customers, whose reported experience with a firm, its products or its services exceeds specified satisfaction goals. It is often difficult to measure how satiated a customer is from using a firms products or services, as satisfaction varies from person to person, depending on variables which may be both psychological and physical. Timothy (2012) opined that customer satisfaction boosts the potential of a customer-oriented organization; it also increases the use of more volatile consumer mix and boosts a firm's reputation. Therefore, achieving competitive advantage by recognizing customer needs intelligently and faster than the competition ensures retaining customers through the provision of better services and products (Ogunlowore and Rotimi, 2014).

Nigerian banks today are seriously into new electronic delivery channels for banking products and services with a view to delivering better services and satisfying customers and banks that cannot offer these services are increasingly losing their customers'.

The growth and development of the banking sector is a sine qua non for economic growth hence every country seeks the development of that sector and just as banks depend on customers' patronization either for deposit, loan, or other services in order to make profit and

grow, customers too need service satisfaction from banks in order to continue transacting business with such bank, hence the need for this study

However, the adoption of e-commerce has been hindered by the quality, availability and the cost of accessing telecommunication infrastructures, lack of skilled staff, low internet penetration, low bank account, and lack of timely delivery of physical goods (Jalal, Marzooq & Nabi, 2011). In an attempt to catch up with global developments and improve the quality of their service delivery, Nigerian banks have invested highly on technology; and have widely adopted electronic and telecommunications networks for delivering a wide range of value added products and services. It is as a result of this huge investment that it is germane to ascertain how satisfied customers are with the quality of electronic banking services offered by their banks.

LITERATURE REVIEW

Electronic Payment

Electronic payment systems, as a premeditated information system, are regarded as one of the key mechanisms of economic development, most especially, in developing countries, and they help immensely to strengthen the provision and capabilities of financial services (Akbarian and Vakili, 2011). Madhousi, Zali, and Amani (2005) opined that a payment system is in fact a set of regulations that enables users transfer money. The payment system is a mechanism, that facilitates the transfer of money from an account in a bank to an account in another bank and as a result, its result in the economy is likened to veins that flow money to various economic unit (Golnabi, 2013). Abrazhevich (2004), E-payment is a means of financial exchange that is carried out between a buyer and a seller and this financial exchange is facilitated by electronic communication. In other perspective, e-payment is a payment service that utilizes information and communication technologies, inclusive of cryptography as well as remote communication networks (Moertini *et al*, 2011). Havinga, Smit and Helme (1996), E-payment systems can be categorized into three extensive classes: traditional monetary transactions, digital money, and credit debt payment. These payment systems have many requirements, such as security, acceptance, convenience, cost, control, tracking capability, and encryption control.

Electronic Banking

The concept of electronic banking has been defined in many ways; Daniel (1999) opined that electronic banking is the delivery of banks information and services by banks to customers through various delivery platforms that can be utilized with different terminal devices such as

personal computers and mobile phones with browser or desktop software, telephone or digital television.

Abod and Noreen (2006) defined electronic banking as any use of information communication technology and electronic means by a bank to facilitate transactions and network with stakeholders.

Timothy (2012), electronic banking is the utilization of the Internet as a remote supply channel for providing services, such as opening a deposit account, transferring funds among different accounts and electronic bills presentment and payment. Stan (1997) also defined electronic payment as a system of payment in which case transaction is done electronically without the use of cash. Magembe, and Shemi (2002) defined electronic banking as e-business in banking industry. E-banking is the universal term for delivery of banking services and products through electronic outlets, such as the telephone, the internet, cell phone, etc. The range and notion of electronic banking is still growing. It ensures an effective payment and accounting system as a result augmenting the promptness of delivery of banking services significantly (Uppal and Jatana, 2007). Ovia, (2001) claims that electronic banking is an invention of e-commerce in the field of banking and financial services. In what can be regarded as business to consumer purview for balance enquiry, request for cheque-books, stop payment instruction, balance transfer instruction, account opening and other forms of traditional banking services. Banks are also proposing payment services on behalf of their customers who shop indifferent e-shops.

Bhosale (2013) Electronic banking as a substitute provision channel, offers many opportunities for the growth and development of financial institutions. E-banking offers financial services to its customers through the internet. The most important electronic channels in e-banking are the Internet, wireless communications networks, Automatic Teller Machines (ATMs), phone bank (Schaechter and Ugolini, 2002), cell phone, fax, and sales terminal and booth (Fathian, *et al.* 2009). Internet bank is regarded as a virtual and 24-hour branch of a bank that enables customer's carry out financial transactions devoid of time and location limits (Saffar and Moghaddam, 2012). Electronic banking can be defined as the opportunity for customers to access bank services without the need of physical presence in the bank and making use of safe mediums. E-banking encompasses systems that allow customers to use bank services at three levels, including communication, information and transaction (Bakhshali, Hosseinifard and Rahmati, 2010). Electronic banking reduces the cost of implementation of bank services like transportation costs, requirements, and personnel and at the same time, maximizes wages ensued by providing various high quality services, which maximizes banks revenues. Electronic banking has been in existence for some time in the form of automatic teller machines (ATMs)

and telephone transactions. In more recent times, it has been transformed by the internet- a new delivery channel that has enabled banking transactions for both customers and banks (Nitsure, 2003).

There are various electronic banking delivery outlets to provide banking services to customers. Among them are ATMs, Telephone/Mobile banking, Internet banking and, POS, which are the most widely used are conversed below.

E-Banking and Customer Satisfaction

Agboola (2012) studied the effect of computer automation services and discovered that electronic banking has vastly improved the services of some banks to their customers in terms of satisfaction in Lagos. He asserted that e-banking provided customers with a wide range of financial benefits such as lower transaction handling fees, higher deposit rates, opportunities to win prizes and extra credit card bonus points. It enables customers save time by carrying out their transactions quickly without having to queue up and to make use of paper documents. E-banking allows customers the opportunities to tradeoff electronic data to communicate with bank staff with the aim of improving customers' satisfaction.

The objections of customers' are part of the business life of any corporate entity. This is more so for banks as they are a service providing organization, the satisfaction of their customers' should be their utmost concern. Adewuyi (2013) posited that customers' complaints, grievances and dissatisfaction can be reduced by banks through proper service delivery and review mechanism. The extent to which the customers' of a bank are satisfied with the quality of service they are provided with has an effect on the overall performance of the bank. E-banking is expected to expand banks service delivery in a form of transactional convenience, time saving, quick transaction alert and cost saving, and in the long run customers' satisfaction. The extent to which e-banking is related to customers' satisfaction is worth assessing and that is what this study seeks to achieve.

Electronic Service Quality and Customer Satisfaction

E-service quality entails an encompassing valuation and judgment by customers as regards the importance and quality of e-service delivery (Santos, 2003). Wang, Lo, and Hui (2003) opined that endurance in today's competitive banking environment depends on the provision of top-notch service and products to customers.

Satisfaction has a deep connection with service quality. It is therefore imperative for the online banks to make customer's perception about the quality of online banking services' their

concern, that way; it is remotely easier for the customer to evaluate the advantages of rival services (Santos, 2003).

Researchers have validated that providing quality service to customers would make them remain loyal to an organization, as well as attract the attention of new ones, boost corporate image and guarantee endurance and profitability of an organization (Negi, 2009) (Ladhari, 2009). Husain and Akhtar (2016) posited that a customer's pleasure is the provider of absolute gains of a quality uprising, which is primarily dependent on customer's cognizance of overall service quality. It is therefore important to take note of how customer's regard service quality and how it will affect their satisfaction level, and by this banks can highlight the fissure in service quality delivery in order to take remedial actions to improve their activities.

Parasuraman, Zeithaml, and Berry (1985) developed a model called SERVQUAL used in evaluating service quality on the basis of study on four service sectors; retail banking, credit card services, repair and maintenance of electrical appliances, and long-distance telephone services. The model originally consisted of ten dimensions which were reduced to five as some of them were coinciding. These dimensions include; reliability, responsiveness, assurance, tangibles, and empathy.

SERVQUAL model is regarded as an apt scale to measure service quality in different industries. Dimensions of the model fit to a particular service in order to guarantee dependable and valid results (Ladhari, 2009). In the banking sector all the dimensions have been deemed vital in determining service quality.

Gaining the trust of customers on electronic channels is the vital factor for the triumph of electronic banking. Rapid delivery of innovations can be made possible by providing improved infrastructural services (Stewart, 1999). Liebana, Mufioz, and Rejon (2013) in their study posited that accessibility, ease of use, trust and usefulness has significant effect on customer satisfaction in the context of e-banking services. In evaluating electronic banking users' satisfaction, an important feature to be considered is website's user-friendliness as well as positive word of mouth. Convenience and accessibility are identified as the most important factors in improving performance of e-banking (Kaur & Kiran, 2015).

THEORETICAL FRAMEWORK

Innovation Diffusion Theory

The Innovation Diffusion theory proposed by Everett Roger (1983) argues that diffusion is the process by which an innovation is conversed through certain conduits over time among the participants in a social system (Ratcliff, Van Zandt & Mckoon, 1999). Furthermore, the theory explains the intention of individuals' to espouse a technology as a modality to carry out a

traditional activity. Meso *et al.* (2006) argued that not every innovation is adopted, even if they are good, it may take a while for an innovation to be adopted. Rogers posited that there are four main elements which influence the spread of a new idea which are the innovation itself, communication conduits, time and a social system. The theory is basically concerned with the mode in which a new technological idea, technique, or a new use of an old one, migrates from creation to use.

Theory of Reasoned Action

This theory was developed to explain the relationship between attitudes and behaviors within human actions (Fishbein and Ajzen, 1967). Poon (2008) concluded that the theory is one of the most important theories used in explaining human behaviors. Behavioral intention to use technology is explained by people's attitudes towards that behavior and subjective norms. Deepened competition and deregulation has driven many services and retail businesses to seek profitable ways to distinguish them; one strategy that has been related to success in these businesses is the delivery of high service quality (Cheah, 2011). Service quality has therefore become an important research topic in past decade due to high revenues, increased cross sell ratios, higher customer retention, purchasing behaviors (Kaynak & Harcar, 2015) and increased market share.

Electronic Banking and Customer's Satisfaction: Nigeria's Experience

Banking in Nigeria has come a long way from the time of ledger cards and other manual filing systems. Before the emergence of electronic banking in Nigeria, the provision of banking services were a tedious and cumbersome process, with large files kept and retrieved manually, and customers having to stand on queues for long hours and sometimes may not achieve their aim. Ogunlowore and Rotimi (2014) explain that there is no bank in Nigeria that does not render one form of e-banking service or the other, even the remote parts of the world. In the bid to measure up with the evolving nature of modern banking, the ATM was introduced into the Nigerian banking system in 1989 as an electronic delivery conduit followed by the introduction of mobile telephone in 2001. The growth of electronic banking in Nigeria can be traced to the decision of banks to utilize e-banking facilities efficiently in order to provide quality services (Abaenewe et al, 2013; Agwu and Murray, 2014).

Electronic banking officially came into play in 1996 (Ekwueme et al, 2012); Abubakar (2014) posited that, the evolvement of electronic banking in Nigeria is traceable to 1986 when the banking sector was deregulated resulting into an extensive transformation through computerization and improved bank service delivery. However, the non-provision of adequate

security for fraud has impacted e-banking in Nigeria negatively. Likewise, the epileptic network connectivity services and intermittent power supply, in general, has hindered the maximum use of e-banking in Nigeria being a developing country, as customers are unable to transact businesses at their own convenience.

Chemtai (2016) opines that technological innovation has a direct impact on performance improvement. Abubakar (2014) revealed that, e-banking has the ability to improve productivity, growth and profitability performance of banks due to low cost advantages associated with the delivery of its service. To this effect, Nigeria being a developing country has seen its banking industry benefit from the advantages of e-banking to a great extent as well as improve customer satisfaction when compared to the pre and post e-banking period. The adoption of the services of electronic banking has consequently ushered in the services of Financial Technology , geared towards improving service delivery and customer satisfaction in Nigeria, as well as a more improved and standardized banking industry.

METHODOLOGY

The design of this study is quantitative in nature as it is meant to collect and analyze given data on the relationship between two variables, namely, electronic banking and customer satisfaction. The study identified four e-banking channels, including automated teller machines, electronic TV/mobile banking, point of sales, and internet banking as indicators of electronic banking in Nigeria; while, the SERVQUAL Model will be used as the indicator of customer satisfaction.

The study used primary data obtained from customers of Guarantee Trust Bank, Access Bank, Nigeria Plc in the University of Lagos, Akoka, Yaba Metropolis. It is imperative to focus on these banks' branches customers in the locality in that they generally reflect technologies and operations by sister branches nationwide. Hence, the sample of this study is one hundred (100) customers of the banks selected. In terms of the sampling technique, the selection of the bank is done using purposive sampling technique, while the bank customers were selected using the simple random sampling technique.

The data is analyzed using the Statistical Package for Social Science (SPSS) software. The correlation analysis and regression are used to test the stated hypotheses in chapter one of this study. The correlation analysis ascertains the relation that exists between the dependent variable and the independent variables while the regression analysis ascertains the impact of the independent variable has on the dependent variables.

ANALYSIS AND FINDINGS

Demographic Profile of Respondents

Table 1 shows the demographic characteristics of sampled respondents, focuses on the gender distribution it is seen that 45.2% of the respondents are male, while 54.8% of the respondents are female. This implies that majority of the respondents that partook in the survey are female. However, the distributions also show that both genders were well represented and this eliminates gender biasness among response survey.

Also, the age distribution of the sampled respondents shows that 34.4% of the respondents were within the age range of 18-25 years, 37.6% of the respondents were within the age range of 26-40 years, while 28.0% of the respondents are 41 years and above.

In addition, the distribution of the sampled respondents according to their occupation shows that 46.2% of the respondents were students, 17.2% of the respondents were employed, 24.7% of the respondents were businessman, while 11.8% of the respondents chose other.

However, according to the educational qualification of the sampled respondents it is seen that 15.1% of the respondents had been matriculated, 54.8% of the respondents were at the intermediate level, 24.7% of the respondents are graduate, while 5.4% of the respondents had master degree.

Lastly, the distribution of sampled respondents according to their preferred banking institution shows that 65.6% of the respondents make used of Guaranteed Trust bank, while 35.4% of the respondents bank with Access bank.

Table 1 Demographic of Respondents

Variables	Items	Frequency	Percent
<i>Gender</i>	Male	42	45.2
	Female	51	54.8
	Total	93	100.0
<i>Age</i>	18-25 years	32	34.4
	26-40 years	35	37.6
	41 years and above	26	28.0
	Total	93	100.0
<i>Occupation</i>	Student	43	46.2
	Employee	16	17.2
	Businessman	23	24.7
	Other	11	11.8
	Total	93	100.0

<i>Educational Qualification</i>	Matriculation	14	15.1
	Intermediate	51	54.8
	Graduate	23	24.7
	Masters	5	5.4
	Total	93	100.0
<i>Bank</i>	GTB	61	65.6
	Access	32	34.4
	Total	93	100.0

Table 1...

Inferential Statistics

Ho 1: There is no relationship between customer satisfaction and the various electronic banking service quality dimensions

Hypothesis one was tested using Pearson's moment correlation coefficient between customer satisfaction and electronic banking service quality dimensions and this include reliability, responsiveness, assurance, tangibility, and empathy. The results are shown in Table 2 below.

Table 2: Correlations Matrix for Hypothesis One

		CS	RLBTY	RPSN	ASR	TGB	EPTY
CS	Pearson Correlation	1	.699	.806	.878	.708	.943
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	93	93	93	93	93	93

** . Correlation is significant at the 0.01 level (2-tailed).

Keys

CS	=	Customer Satisfaction
RLBTY	=	Reliability
RPSN	=	Responsiveness
ASR	=	Assurance
TGB	=	Tangibility
EPTY	=	Empathy

From the table 2 above which shows the correlational matrix of the relationship between dependent variables and independents, the result shows that there exist strong relationship between customer satisfaction and e-banking service quality in terms of Responsiveness ($r = 0.806$, $p = 0.0000$), Tangibility ($r = 0.708$, $p = 0.0000$), Empathy ($r = 0.943$, $p = 0.0000$). In addition, the result also shows that there exist moderate and positive relationship between

customer satisfaction and e-banking service quality in terms of Reliability ($r = 0.599$, $p = 0.0000$), Assurance ($r = 0.578$, $p = 0.0000$).

Hence, the null hypothesis that states that there is no relationship between customer satisfaction and the various electronic banking service quality dimensions was rejected while its alternative was accepted and this states that there is a significant relationship between customer satisfaction and the various electronic banking service quality dimensions

H₀ 2 Electronic banking service quality has no significant impact on customer satisfaction

Table 3 Multiple Regression

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.959 ^a	.920	.915	.20030		
a. Predictors: (Constant), EPTY, RLBTY, ASR, TGB, RPSN						
ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	40.189	5	8.038	200.339	.000 ^b
	Residual	3.491	87	.040		
	Total	43.680	92			
a. Dependent Variable: CS						
b. Predictors: (Constant), EPTY, RLBTY, ASR, TGB, RPSN						
Coefficients^a						
Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients		
1	(Constant)	.505	.168		3.002	.004
	RLBTY	.090	.072	.117	1.250	.215
	RPSN	.386	.116	.306	3.312	.001
	ASR	.556	.109	.487	5.095	.000
	TGB	.015	.070	.019	.219	.827
	EPTY	.791	.079	.855	9.970	.000
	a. Dependent Variable: CS					

The table 3 shows the result of the regression analysis which used the simple linear regression method. From the table, the R-squared which is also known as coefficient of determination measures how the variation in the dependent variable is accounted for by the variation in the

explanatory variables that is the independent variables. The R-squared above is 0.920. This means that there was 92.0% variation in customer satisfaction can be explained by variations in e-banking service quality.

The Adjusted R squared is coefficient of determination which tells us the actual variation in the dependent variable due to changes in the independent variable, from the findings in the table 3 the value of adjusted R squared is 0.915 an indication that there was 91.5% variation in customer satisfaction due to changes in e-banking service quality

Furthermore the F-statistic (200.339) is significant at 5% level since the probability of its value (0.000) is lesser than the 0.05 level of significance. This simply implies that the model is statistically significant, hence to this end the null hypothesis that electronic banking service quality has no significant impact on customer satisfaction was rejected while its alternative was accepted and this states that electronic banking service quality has a significant impact on customer satisfaction.

DISCUSSION OF FINDINGS

Based on the empirical results above the study found out that there is a significant relationship between customer satisfaction and the various electronic banking service quality dimensions. This findings corroborates the view of Abubakar (2014) revealed that, e-banking service quality has the ability to improve satisfaction, and as such improved loyalty. Hence the adoption of the services of electronic banking has consequently ushered in the services of Financial Technology , geared towards improving service delivery and customer satisfaction in Nigeria, as well as a more improved and standardized banking industry. The findings also corroborates the view of Roozbahani, Hojjati and Azad (2015) examined the role of e-payment tools and e-banking in customer satisfaction using the Pasargad bank e-payment company as a case study. The study made use of a correlation-type descriptive-survey regarding methodology. The findings of the study revealed that there is a positive and significant relationship between e-payment tools and customer satisfaction.

Also, in the second hypothesis the study noted that electronic banking service quality has a significant impact on customer satisfaction. This is findings corroborates the view of Ololade and Ogbeide (2017) explored electronic banking in Nigeria with regards to its issues and challenges. Their study highlighted the relationship between e-banking and quality of service delivery, security of financial transactions as well as customer satisfaction in the Nigerian banking industry. The survey and descriptive research design were adopted in the methodology of their study.

CONCLUSION AND RECOMMENDATIONS

Banks have and still are putting in massive investments into electronic banking infrastructure and as such customer satisfaction is turning into one of the most crucial factor for the success of electronic banking service meaning that the generation of positive customer value on the electronic banking requires the establishment and maintenance of long- standing customer relationships. One of the basic ways of achieving high customer satisfaction is providing high quality services. To this end it is seen why the study critically assessed the impact of electronic banking on customer's satisfaction in Nigeria with particular reference to customers of Guaranty Trust bank and Access Bank Plc. Based on the empirical findings the study has shown that there is a significant relationship between customer satisfaction and the various electronic banking service quality dimensions and that electronic banking service quality has a significant impact on customer satisfaction.

Based on the findings and conclusion of the study the following recommendations were made as: Firstly, banks are advised to improve on their e-banking products relentlessly, upgrade their channels (such as ATM, MPOS, and PoS) and enhance their software application (such as online application, e-mobile application). Secondly, the management of Nigerian banks should put in more resources in staff training and development. This will help with quality and timely service delivery. They should also introduce other products that could enhance their customer satisfaction. Lastly, in order to eliminate challenges that customers face in the usage of e-banking products, banks are advised to ensure stable power supply, ensure 24/7 network service availability, improve more on the security of customers' transactions and personal data and create a platform whereby customers and bank management can interface to discuss on the (new) challenges that the former is facing and chart a new course of action so as to stimulate and ensure customers' satisfaction.

LIMITATIONS OF THE STUDY

This study was limited by time constraint and the particular conditions under which the study was carried out. Only 93 respondents were used to analyse and test the hypotheses used to measure e-banking service quality for this study. However, the reliability and validity of the instrument used in this study had been proven to be reliable, as such it should be accepted as an initial scale and tested further with higher number of participants.

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