

ELECTRONIC BANKING AND CUSTOMERS' SATISFACTION ON TELECOMMUNICATION IN SELECTED DEPOSIT MONEY BANKS IN OTA- OGUN STATE

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Abstract

Electronic banking has contributed to the unemployment rate in the country due to the replacements of human labor with machines. Thus, this study seeks to empirically examine the effects of electronic banking on mobile telecommunication customer satisfaction in Nigeria. The primary source of data was used for the study through the administration of questionnaires to the customers of the telecommunication companies. Regression analysis was used to analyze the hypothesis with the aid of the statistical package for social science (SPSS) version 23. The study found that electronic banking channels have significantly affected customer's satisfaction. The study recommends that the problem of financial exclusion should be alleviated such that businessmen that have limited literacy level should be captured in the e-banking channels by galvanizing new and innovative e-payment platforms in various voice prompt local dialects to encourage the informal sector to be part of the online-payment processes.

Keywords: electronic banking, online-payment, customer's satisfaction.

1.1 INTRODUCTION

Over the years the introduction of the various electronic banking platforms has been a blessing because of the ease and convenience it provides its users (customers) but also a curse due to its involvement in the perpetration of fraud and the replacements of human labor with machines. Therefore, electronic banking is one of the disruptive innovation that has sufficed in the banking industry. Electronic banking is quite becoming a fast prevailing mode for aiding financial intermediation which has helped in fast-tracking payments (both domestic and internationally) and inter-bank settlement system thus creating new opportunities, horizons, and frontiers for aiding the satisfaction of customers. Vally and Divya (2018) stated that demonetization in India has stemmed from a tremendous increase in electronic payments. Information technology (IT) adoption in the banking sector has changed the banking structure from the former core traditional banking practice to electronic banking practice. Thus, mobile banking as an extension of electronic banking has helped to eliminate the idle time spent by customers on long queues in the banking halls, where at the comfort of your house you can easily transfer and receive money from friends, families, and business colleagues. Other utility payments have also been digitalized such as; energy bill payment, cable network payments, mobile network subscriptions, airtime recharge e.tc are workable at customer's convenience.

Nigeria striving to become a cashless economy has led to a drastic reduction in the use of cash while the Nigerian inter-bank settlement system (NIBSS) has helped in alleviating the bottlenecks faced by electronic payment platforms by ensuring all glitches connected with cashless transactions are eliminated to the barest minimum (Ikpefan, Enobong, Osuma, Evbuomwan, & Ndigwe, 2018). Customers are now seeking for a faster and

convenient technology with more rewarding banking experience. This has helped in boosting the confidence of customers to patronize e-payment platforms leading to advances in information technology (IT) which have been the driving force of electronic banking services for banks over the years. These deposit money banks (DMBs) tend to increase their customer satisfaction, reduce their operating expenses and the risk of physical cash robbery is minimized by providing such electronic payment platforms. But the problem of financial exclusion persists in Nigeria especially those in the informal sector who do not engage in active banking (brick and mortar Banking) let alone being part of the electronic banking platforms and there have been lots of fraud cases being perpetrated with these electronic banking platforms. It is against this background that this paper seeks to investigate the effects of electronic banking on customer satisfaction. The next section discusses various concepts on electronic banking, theoretical review and the empirical review, followed by the methodology adopted for the study, analysis, discussion of results and ends with conclusion and recommendation.

1.2 RESEARCH OBJECTIVE

- i. This study seeks to empirically examine the effects of electronic banking channels on customer satisfaction.

1.3 RESEARCH HYPOTHESIS

- H₀ There is no significant relationship between electronic banking channels and customer's satisfaction.

2.1 REVIEW OF RELATED LITERATURE

2.1.1 Conceptual and empirical review of related literature

The role of technological advancement in the banking sector has attracted increased attention in recent times. No doubt that e-banking is one of the noticeable innovations in the banking sector that has attracted increased interest among researchers and industry practitioners. Sullivan (2000) opined that customers with a high level of education, demand for more internet banking

services than customers with a low level of education and if the number of bank customers using e-banking services doesn't grow, it would lead to reduced profitability for the banks due to the cost of such services. Furst, Lang, and Nolle (2002) found from their study that deposit money banks are more profitable and become larger after the adoption of internet banking. Kagan, Acharya, Rao, and Kodepaka (2005) stated that e-banking is aimed at increasing the asset quality of banks and it also affects the return on assets (ROA) directly but on the other hand there is a stern indirect effect on its profitability through the cost incurred in setting up the e-banking channels. Before the adoption of the e-banking channels, technology and some of its gadgets like calculators, telegram, mail transfer was engaged as a support tool for daily banking operations. These technologies were aimed at expediting the banking work process with little or no human errors. The first electronic banking gadget is the automated teller machine (ATM) which became commercialized in 1968 (Kondabagil, 2007).

Customer satisfaction refers to the degree to which customers derive utility from the use or consumption of a product and/or service. The automated teller machine was known to be a single function machine solely for cash dispense but it later metamorphosed to a multifunctional machine that performs a wide range of services such as accepting cash deposit, payment of utility bills, fund transfers thus, improving the utility derived from it by customers. E-banking became popular after the introduction of the internet and the World Wide Web (www) where customers could make fund transfers and receive the same at the comfort of their homes. Oni and Ayo (2010) stated that e-banking is the most recent service channel offered by various retail banks especially deposit money banks in various nations.

Salehi and Alipour (2010) in a comparison statement averred that the cost of providing and offering electronic banking services is far cheaper than the cost of maintaining proliferated branch banking. This point was corroborated by BBC (2016) who stated that

increased electronic banking has made some banks in the United Kingdom reduce their branch numbers. Khrawish and Al-Sadi (2011) examined the impact of electronic banking on the profitability of Jordan banks and they found that the cost of developing internet banking channels is high in some developing countries, and a commensurate lack of customers patronage adversely affect the bank's profitability. The adoption of electronic banking channels has enabled customers to carry out banking transactions beyond banking hours. Hossain, Irin, Islam, and Saha (2015) classified electronic banking system into three main channels namely; (i) Mobile/telephone banking, (ii) Internet banking, and Smart card banking.

- (i) **Mobile/telephone banking:** this is the most subscribed electronic banking channel in which customers can easily initiate their transactions with specific shortcodes assigned to their respective banks. The unstructured supplementary service data (USSD) code is the most common amongst such codes and it allows users to pay their bills, top-up airtime, open account, check account balance inquiry, transfer funds and do other transactions by simply dialing a short code on their phones. This service is similar to internet banking except that it does not make use of the internet for its functionality.
- (ii) **Internet banking:** the internet banking channel is one of the core drivers that facilitate electronic commerce. A secured website is usually provided by the banks for the registered internet banking customers to utilize. The volume of funds transacted with the internet banking channel is much more than that of the mobile/telephone banking.
- (iii) **Smart card banking:** this type of e-banking occurs with the use of plastic electronic cards that has an electronic microchip. Such cards could be either; a value card, verve card, master card, credit card or visa debit card. The smart cards make access to cash, fund transfers, utility bill payments, and balance inquiry easy for bank customers

even without entering the banking halls. It also helps in driving the cashless economy goal of the financial authorities where such cards can be used to pay for items purchased at the supermarkets, malls e.tc with the use of a point of sale (POS) machine.

Nitsure (2003) opined that there is a major risk in India that led to the digital split of the poor being unable to access the internet leading to their exclusion from the financial system. Ngango, Mbabazize, and Shukla (2015) examined the contribution of e-banking on the performance of banking Institutions in Rwanda and they found that there is a significant positive correlation between electronic banking and the performance of banks in Kigali, Rwanda. Ngango, Mbabazize, and Shukla (2015) also posited that e-banking has been seen to play a germane role in fostering financial intermediation between lenders and borrowers thereby creating liquidity and further leading to economic development. Also, the problem of infrastructural amenities such as epileptic power supply, and high transaction costs associated with the use of such e-banking platforms are some of the factors believed to hinder e-banking service channels. Sarker, Islam, and Rahman (2015) stated that for an increased banking performance to be achieved, and to attract more customers to the banking sector the banking practice has to be changed from the traditional banking system to the electronic banking system. Taiwo and Agwu (2017) posited that e-banking is the use of electronic means to transfer and receive funds between account holding customers of banks, rather than the traditional cheque and cash practice. Taiwo and Agwu (2017) also opined that e-banking is fast becoming a strong pillar for the sustainability of the banking sector due to customers' insatiable desire for effective and efficient service delivery.

Various electronic payment platforms have been adopted in Nigeria thus, increasing the volume of transactions associated with automated teller machines (ATM), point of sale (POS), and mobile banking payment channels such as the unstructured supplementary

service data (USSD), etc. For example, the volume of ATM transactions executed in 2009 was ₦548.60 million and this increased to ₦74.9 trillion in 2016 (Adegbesan, 2017).

2.1.2 Theoretical review

Most deposit money banks are keen on driving various disruptive electronic banking channels, but the worth of these e-channels can only be validated by their level of acceptance from the customers. Thus, this research anchors on the technology acceptance model (TAM) which was proposed by Davis (1986) and it anchors on the perceived usefulness and the simplicity or perceived ease-of-use of the technology. Thus, for this study, the various electronic banking channels are the technologies that need to be accepted by bank customers. The primary goal of TAM is to explain factors affecting computer application acceptance in general. Besides, this technology model helps researchers and practitioners to identify why a particular system is unacceptable (Davis, 1986).

3.1 Methodology

This study was designed to examine the effects of e-banking on customer's satisfaction which made use of regression analysis to analyze the model that is specified below:

$$CS = f(ATMU, POSU, IBU, \dots, U_i)$$

Where:

CS = Customer's satisfaction.

ATMU = Automated teller machine usage.

POSU = point of sale usage.

IBU = internet banking usage.

3.1.1 Population of the study

The population of this study is the registered mobile telecommunication customers (subscribers) making a total of 168,700,000 cuts across the leading four telecommunication industries in Nigeria namely; MTN Nigeria, Airtel Nigeria, Globacom Nigeria, and 9Mobile. The actual sample size was

calculated with the Taro Yamane formula so that the inferences reached can be generalized to the entire population.

3.1.2 Sample size determination

The Yamane’s formula was used for this particular study and it is calculated with the formula as follows;

Table 3-1 Determination of sample population

S/N	Telecom Firms	Number of Subscribers
1	Globacom NG	43,300,000
2	MTN NG	66,900,000
3	9Mobile	15,400,000
4	Airtel NG	43,100,000
	Total	168,700,000

Source: Nigerian Communications Commission, 2019

$$\text{Taro Yamane's formula (1967) } n = \frac{N}{1+N(e)^2}$$

Where:

n = Sample size

N = Population

e = Sampling error; (0.05)

$$n = n = \frac{168,700,000}{1+168,700,000(0.05)^2}$$

$$n = \frac{168,700,000}{421750}$$

$$n = 400$$

n = 400 respondents

4.1 Data analysis and discussion of findings

Table 4-1 Number of Respondents

QUESTIONNAIRE	RESPONDENTS	PERCENTAGE OF RESPONSE
Returned	342	85.5%
Not returned	58	14.5%
Total	400	100%

Source: Author’s computation from field survey, (2019).

Table 4-1 shows the total number of respondents that returned their questionnaire and those that were not returned. A total number of three hundred and forty-two (342) questionnaire was returned culminating to (85.5%) while a total of fifty-eight (58) questionnaires were not returned culminating to (14.5%). A normality test was carried out first and the Kolmogorov-Smirnov probability result was interpreted and according to the rule of thumb any responses more than fifty (50) should make use of the Kolmogorov-Smirnov while for below fifty (50) the Shapiro-Wilk should be used Das and Imon (2016). For this study, we had three hundred and forty-two (342) responses that align with the rule for Kolmogorov-Smirnov.

	Customers Satisfaction	Kolmogorov-Smirnov ^c			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Electronic banking channels		.452	107	.065	.562	107	.060
Customers Satisfaction		.423	80	.090	.597	80	.900

Source: SPSS Output version 23, (2019)

The normality test is a pretest to determine if data were normally distributed. The study made use of the Kolmogorov-Smirnov test and from the result, the probability value should be accepted since it is greater than the 0.05 which is stated at 95% confidence level. (i.e. 0.065 and 0.09 > 0.05). Thus the data is normally distributed.

Table 4-3 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.337 ^a	.114	.128	1.18775	.114	18.758	1	341	.004

a. Predictors: (Constant), Electronic banking channels.

Source: SPSS Output version 23, (2019)

Interpretation

From the table 4-3, the adjusted R square of 12.8% shows that the percentage of the variance in the dependent variable or outcome variable is explained by the independent variable or predictor variable. Thus, 12.8% of the variance in Customers Satisfaction can be explained by electronic banking channels

Table 4-4 ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	26.462	1	26.462	18.758	.004 ^b
Residual	205.970	341	0.604		
Total	232.432	342			

- a. Dependent Variable: Customers Satisfaction
- b. Predictors: (Constant), electronic banking channels

Source: SPSS Output version 23, (2019)

Interpretation

The ANOVA table helps us to know if our model is significant. From table 4-4 the probability value of 0.04 is statistically significant at 0.05%. From the ANOVA table, the probability value of 0.004 is less than 0.05 level of significance which from the rule of thumb we accept the Alternative hypothesis and reject the null hypothesis.

Decision

Thus we would reject the Null hypothesis (H_0) and accept the alternative hypothesis (H_1) which states that there exists a significant relationship between electronic banking channels and deposit money banks Customers Satisfaction from customer's perception.

4.1.1 Test for Internal consistency and reliability

The Cronbach alpha was used to test the internal consistency of the questionnaire and to know how closely related the items are as a group.

Table 4-5 Reliability Statistics

Cronbach's Alpha	N of Items
.870	10

Source: SPSS Output, (2019).

Interpretation

The Cronbach alpha test is used to measure the reliability of a score or scale, it applies under the assumption of the availability of multiple variables/ items used to measure a specific construct in research. The items are usually weighted as decided by the researchers and thus researched to get the alpha results. The rule of thumb is that a Cronbach's alpha of above 0.70 is good, above 0.80 is better, and above 0.90 is best. Thus from the Cronbach alpha result of 0.84, it is acceptable and better.

5.1 Conclusion and recommendation

Based on the result of findings from the study; electronic banking has a significant positive effect on customer satisfaction. Thus, banks are now willing and able to give better and swift services to their customers. This has further reduced the level of queues in the banking hall and to some extent complaints of customers. Before the introduction of e-banking, customer's experience in the banking hall has been poor due to the laxity and sentiments expressed by some banking officials in terms of the time used to service customers. It is highly germane for bank managers to boost their investments in the various electronic banking channels to facilitate speed, accurate services, or otherwise lose out to their stern competitors.

Recommendation

The study recommends that the problem of financial exclusion should be alleviated where businessmen that have limited literacy level should be captured in the e-banking channels by galvanizing new and innovative e-payment platforms in various voice prompt local dialects to encourage the informal sector to be part of the e-payment processes

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