EFFECT OF ELECTRONIC PAYMENT SYSTEMS ON CUSTOMERS SATISFACTION OF DEPOSIT MONEY BANKS IN JALINGO METROPOLIS

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Abstract

The aim of this study is to examine effect of electronic payment systems on customers satisfaction of deposit money banks in Jalingo Metropolis. Specifically, the study examined the combined effects of Automated Teller Machines (ATM) and Point of Sales (POS) on customer satisfaction. The study adopted survey research design for the purpose of achieving the objectives of the study. The population of the study comprised of all the customers of the twelve (12) quoted deposit money banks in Nigeria with branches in Jalingo Metropolis. While the sample size of 250 customers was conveniently, determined by randomly selecting 25 customers from the 12 operational banks in Jalingo. Primary data was collected through a four-point likert scale questionnaire. The study adopted the use of multiple regression analysis technique to analyze the data and the result revealed that both ATM and POS have significant effect on customer satisfaction . It was therefore, recommended based on the findings that banks should improve their collaborations with network providers in order to reduce the number of failed electronic transactions in Jalingo Metropolis.
Key Words: Atm, Pos, Eps, Eft

Background to the Study

Contributions of the financial sector to growth of an economy in developed, emerging, developing and undeveloped markets have been given astounding remarks in the literature. In Nigeria, the consensus of studies is that the financial sector propelled economic growth through various channels (Nwani & Bassey, 2016; Ogwumike & Salisu, 2010). thus, the banking sub-sector of the finance industry in Nigeria has been the main driver of growth and development in the industry. This can be buttressed with the impressive performances of the sub-sector within the sector and on the Stock Exchange market.

Banks focus on acceptance of deposits and settlements of financial commitments. The electronic banking operations concentrates on the payment aspect of banking activities, and therefore, most technology innovations are to support payment activities. In recent times, electronic payment innovations have brought about several electronic payment channels and subsequent establishments of financial technology companies (Mustapha, 2018). The widely used e-payment technologies in the

country are Automated Teller Machine (ATM), Point of Sale (POS) Mobile Banking System (MBS) Internet Banking System (IBS) Technology according to Nigerian Inter-Bank Settlement System report 2016.

The implementation of electronic banking platforms/technologies in Nigeria came to existence in 2012, following the directives of the Central Bank of Nigeria to promote cashless systems. Most banks commenced the implementation of the instruction almost immediately with the pilot study held in Lagos State, Nigeria. Before the end of 2012, the thirty-five States of the Federation and the Federal Capital Territory had adjusted to the cashless policy (Chimaobi 2018).

Conversely, the background of electronic payments can be traced back to the 1870's when Western Union (WU) introduced Electronic Fund Transfer (EFT) (Mustapha 2018). EFT is a system of transferring money from one bank account directly to another without any paper money changing hands (Bahia, 2007). In other words, EFT refers to any transfer of funds initiated through an electronic terminal, including credit or debit card, Automatic Teller Machine (ATM), Wire Transfer done via an international banking network such as SWIFT and Point-Of-Sale (POS) transactions. It is used for both credit transfers, such as payroll payments and for debit transfers.

The electronic banking operations concentrates on the payment aspect of banking activities, and therefore, most technology innovations are to support payment activities. Electronic payment has been widely used in developed and developing countries – Nigeria inclusive (Siyanbola, 2013; Agba, 2015; Abaenewe, Ogbulu, Ndugbu, 2013). In recent times, electronic payment innovations have brought about several electronic payment channels

and subsequent establishments of financial technology companies. The widely used e-payment technologies in the country are Automated Teller Machine (ATM), Point of Sale (POS) Mobile Banking System (MBS) Internet Banking System (IBS) Technology according to Nigerian Inter-Bank Settlement System report 2016.

Customer satisfaction on the other hand, is a measure of how products and services supplied by a company meet or surpass customer expectation (Mustapha, 2018). In other words it is the number of customers, or percentage of total customers, whose reported experience with a firm, its products or its services (ratings) exceeds specified satisfaction goals.

Generally, technology is making a tremendous impact on service companies and the financial services sector is no exception. The application of information and communication technology concepts, techniques, policies and implementation strategies to banking services has become a subject of fundamentals importance and concerns to all banks and indeed a prerequisite for local and global competitiveness in banking industry (Akinyele and Olorunleke, 2010).

The benefits banks derive from electronic payment products and services delivery is improved efficiency and effectiveness of their operations so that more transactions can be processed faster and most conveniently, which will undoubtedly impact significantly on the overall performance of the banks (Agboola, 2014; Chibueze, Maxwell and Osondu, 2013). The customers on the other hand, stand to enjoy the benefit of quick service delivery, reduced frequency of going to banks physically and reduced cash handling, which will give rise to higher volume of turnover.

The fundamental question this research intends to address are: how are bank customers really enjoying the electronic services? Have Queues disappeared in the banking halls? Do bank customers still handle too much cash? It is on this basis that this study focuses on the effect of electronic payment system on banks customers' satisfaction in Jalingo Metropolis.

Objective of the Study

i.) Evaluate the effect of Automated Teller Machine (ATM) on bank customers' satisfaction in Jalingo Metropolis.

ii.) Examine the effect of Point of Sale (POS) technology on bank customers' satisfaction in Jalingo Metropolis.

Research Hypothesis

The following hypotheses were formulated and tested in this study

Ho_1: Automated Teller Machine (ATM) has no significant effect on bank customers' satisfaction in Jalingo Metropolis.

Ho_2: Point of Sale (POS) technology has no significant effect on bank customers' satisfaction in Jalingo Metropolis.

Literature Review

The results of several studies in the literature consistently suggest implementation of electronic banking platforms/technologies positively increase customer satisfaction as well as organizational performance. For instance, Ogunlowore and Oladele (2014) empirically investigated An Analysis of electronic banking and customer satisfaction in Nigeria. The empirical result from the chi-square analysis revealed that electronic banking has significant relationship with customer satisfaction in GTB bank and the general banking customers in general. The result also revealed that the introduction of electronic banking has enhanced bank profitability level. Finally, the results showed the application of electronic banking has increased the market share of banks in Nigeria.

In a similar vein, Ogutu and Fatoki (2019) examine the effect of electronic banking on financial performance of listed commercial banks in Kenya. This study was guided by four objectives, establishing the effect of mobile banking, agency banking, ATM banking and online banking on financial performance of listed commercial banks in Kenya. The study found that there was strong positive relationship between mobile banking, agency banking, ATM banking and online banking and financial performance of listed commercial banks in Kenya.

In much the same way, Ugbede, yahaya and Edicha (2019) examined the effects of electronic payment on financial performance of deposit money bank in Nigeria. The study revealed that ATM does not contribute to profitability of the sampled banks and also is not significant to banks profitability; POS has a positive contribution to bank profitability, and is also statistically significant to bank profitability.

In another related research vein, Bingilar and Bariweni (2019) investigated the effect of electronic payment systems on the performance of commercial banks in Nigeria. Findings of the research showed that there is a statistically significant positive relationship between ATM transactions and the assets base of commercial banks in Nigeria.

In support of the above contention, Akhisar, Tunay and Tunay (2015) investigated the effects of electronic-based banking services on the profitability of 23 commercial banks in both developed and developing countries from 2005 to 2013. Findings revealed that ratio of number of branches to number of ATM have positive and significant effect on banks" profitability in both developed and developing countries.

Additionally, Okon and Amaegberi (2018) estimated the impact of mobile banking transactions on bank profitability in Nigeria using selected banks data from electronic payment system office, Central Bank of Nigeria statistical bulletin from 2007-2016. The results of this study showed positive and statistically significant relationship between automated teller machine of old and new generation banks in Nigeria. In addition the result indicates that automated teller machine and point of sale are major factors that contribute to old and new banks performance in Nigeria.

In their study of bank innovations in the field of internet banking, automated machines (ATM), point of sale terminals (PST) among others Sajud and Hashem (2017) found a significant positive impact of bank innovations on profitability and return on assets of Lebanese commercial banks and significance tests also showed that the impact was statistically significant.

In addition to all these, Obiekwe and Anyanwaokoro (2017) investigated the effect of electronic payment Methods (EPM) on the profitability of commercial banks in Nigeria. Findings revealed that Automated Teller Machine (ATM) has significant effect on the profitability of commercial banks in Nigeria. However, Point of Sale (POS) has an insignificant effect on commercial banks' profitability in Nigeria.

In another related research vein, Eze and Egoro (2016) examined the impact of electronic banking on the profitability of commercial banks in Nigeria. The study sought to examine the relationship between different e-banking channels and the profitability of commercial banks in Nigeria. Four e-banking channels (automatic teller machines, electronic mobile banking, internet banking transactions, and point of sales services) were identified and regress against the profit before tax of commercial banks operating in Nigeria between 2006 and 2014. The results revealed that the overall impact of electronic banking on the profitability of commercial banks was significant, whereas the impact of the individual channels was varied.

In another study, Ogutu and Fatoki (2019) establish the effect of electronic retail payment services on the financial performance of Commercial Banks in Kenya. The findings established that the adoption/use of electronic retail payment services has improved the performance in the banking industry through ensuring its productivity and efficiency is greatly improved.

Furthermore, Ugwueze and Nwezeaku (2016) studied the relationship between electronic banking and the performance of Nigerian commercial banks. Electronic banking was proxied by value of Point-of-Sale transactions while commercial banking performance was proxied by customers" deposits. The results show that POS is not integrated with both the savings and time deposits but are integrated with demand deposits

Research Methodology

This study adopted survey research design and a positivist research paradigm as well as the causal approach for the purpose of achieving the objectives of the study. The population of the study was comprised of all the customers of the twelve (12) deposit money banks in Jalingo Metropolis. These customers were restricted to those using ATMs and POS.

The population of customers per each bank will be collected over a month period. The study randomly sampled (25) customers per bank who are using ATMs and POS. The

three hundred customers constituted the sample size of the study. The justification for sampling (25) twenty five customers per bank is based on convenience as it is almost impossible to get the exact total number of customers without bothering the bank management.

This study collected data mainly from primary source through questionnaires with response pattern 'Strongly Agree' (SA), 'Agree' (A), 'Disagree' (D), and 'Strongly Disagree' (SD).   The result of reliability test conducted showed that all the three variables depicted Cronbach's Alpha values above 0.7, as such the instrument is considered reliable.

Model Specification

The study adopted a multiple regression model to test the relationship between the two variables in electronic payment platforms measured by Automated Teller Machine (ATM) and Point of Sale (POS) and customer satisfaction.

The model for the study is specified thus:

CS = f (ATM and POS)

The above equation can be written in more detail form as follows:

$$CS_{it} = b_\circ + \beta_1 ATM_{it} + \beta_2 POS_{it} + U_{it} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots (i)$$

Where:

CS = Customer Satisfaction
ATM= Automated Teller Machine
POS = Point of Sale
β_0 = intercept/constant term
$\beta_1, \beta_2, \beta_3, \beta_4$ = coefficients of determination
U_{it} = error term
Whereby Y is the dependent variable, β_0 is the regression constant or Y intercept β_1 and B2 are the coefficients of the regression model. Coefficient of determination will be used to establish whether the model is a good predictor. The test of significance will be ANOVA test.

Data Analysis and Result

The data collected was subjected to statistical analysis using multiple regression technique. Also, the hypotheses formulated were tested to ascertain the causality between the individual explanatory variables with the dependent variable. Below, is the table showing the statistical output generated from STATA version 13.

Table 4.5 Regression Result

Variables	Statistics	p-values	
R Square	0.6269		
Adj. R square	0.6258		
F. statistics	590.22	0.000	

Variables	Coefficient	P-Value
Automated Teller Machine	0.3335198	0.039
Point of Sale	0.4297243	0.000

Source: Researcher STATA Output, 2020

This section analyses and presents the regression results of the model of the study.

The result of the linear regression in table 1 above indicated R-squared=0.6269. The R-

squared value of 0.6269, gives an indication that there is a strong linear relationship between the dependent and independent variables. The R-squared indicated that the explanatory power of the independent variables is 63%. This means that about 63% of the level of customer satisfaction in banks can be explained by the independent variables while the remaining 37% is explained by variables not included in the model. The table also showed the model is fitted as indicated by the F-Statistics of 590.22 which is significant at 1% level of significance (as evidenced by the p-value of 0.0000).

The result from the table 1 showed that automated teller machine has a coefficient of 0.3335198 and a p-value of 0.0039. Based on the p-value which is less than the t-statistic of 0.05, the study therefore rejects the null hypothesis which states that, automated teller machine has no significant effect on customer satisfaction among commercial banks in Jalingo Metropolis. This implies that the use of automated teller machines by banks exerts a significant influence on customer satisfaction levels.

Furthermore from the table point of sale has a coefficient of 0.4297243 and p-value of 0.0000. Based on this finding which is evidenced by a p-value of 0.0000 we reject the null hypothesis which states that point of sale has no significant effect on banks customer satisfaction in Jalingo Metropolis. This means that point of sale can be used as a strategy for improving customer satisfaction levels in Jalingo Metropolis.

Discussion of Findings

The first objective of the study was to ascertain the effect of automated teller machine (ATM) on banks customer satisfaction in Jalingo Metropolis. The result

of the regression showed that ATM exerts significant influence on banks customer satisfaction in the area covered by the study. The import of this result is that a percentage increase in the ATMs will result to an increase satisfaction of banks customers in Jalingo Metropolis. The result also, underscores the relevance of ATMs in the banking business as customer from the convenience it offers. This out outcome supports the technology acceptance theory which is the core theory underpinning this work and consistent with finding is also in line with Ogunlowore and Oladele (2014), Obiekwe and Anyanwaokoro (2017) and Sajud and Hashem (2017) who also found that Automated Teller Machine has a significant effect on customer satisfaction and banks overall performance.

The study also, assessed the effect of point of sales (POS) on banks customer satisfaction in Jalingo Metropolis. The result of the study using multiple regression analysis indicated that POS as an electronic payment platform has a significant effect on the satisfaction of banks customers in the area covered by the study. Most of the customers agreed with the assertion that the introduction of POS has greatly increased their satisfaction due ease of assess ability and limited transaction time. This outcome also supports the technology acceptance theory which is the main theory underpinning this work and also in line with the findings of Ugbede (2019), Ugbede, yahaya and Edicha (2019) and Ogutu and Fatoki (2019) who provided evidence to show that POS as a payment platform has a tremendous impact on customer satisfaction.

Conclusion

The study examined the effect of electronic payment systems on banks customers' satisfaction in Jalingo Metropolis. Based on the findings of this study, it was concluded that the introduction and use of automated teller machines and point of sales

have significant positive effect on customer satisfaction.

Recommendations and Suggestion for Further Research
Based on the findings and conclusion of this study, the following recommendations are made:

1. Commercial banks should create more ATM pay points in their branches and if need arises in other public places like shopping malls, markets, filling stations etc so that there will be ease of assess ability for customers (convenience) and regularly service the machines to avoid errors.

2. It is also, recommended that reasonable number of point of sales machines should be supplied to retailers so that customers can benefit using their ATM cards to pay for goods and services. Again, the bank should ensure cases of errors are resolved within the shortest possible if not completed eliminated.

3. Since internet banking allows customers of a financial institution to conduct financial transactions on a secure website operated by the institution, which can be a retail or virtual bank, credit union or society it is recommended that banks should strengthen their relationship with the subscribers to provide more efficient services to customers.

The study was limited in scope due to the inability of the researchers to capture other states in Nigeria; as such further studies are encouraged to replicate this research using any of the zones. If same result is achieved, the findings can be generalized across Nigeria.

Furthermore the explanatory power of the model indicated that there are number of variables which were not captured in the study but which can have effect on customers satisfaction of deposit money banks in Jalingo Metropolis that need to be studied. Perhaps electronic payment systems such as Mobile Banking System (MBS) Internet Banking System (IBS) that could be considered as scope for future research.

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