

# E-Banking Service Quality And Customers' Satisfaction: Evidence From Customers Of Deposit Money Banks In Yenagoa Metropolis, Nigeria

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*Abstract: Electronic banking services are provided by virtually all the Deposit Money Banks (DMBs) within Yenagoa metropolis, with the aim of decongesting the banking hall and providing a convenient and satisfactory services to customers. Yet, bank customers experience delayed services, as the banking halls and ATM stands are always crowded. This study therefore, investigated the impact of e-banking service quality on customers satisfaction in Yenagoa metropolis. Survey data was collected from 186 customer (respondent) of the 15 DMB, in the study area. Both correlation and regression analyses were used to analyze the data. Findings showed that customers are relatively satisfied with quality of e-banking services (accessibility, convenience, speed and security), but were dissatisfied with the fees/charges compared to quality of services provided by the banks. The result showed that accessibility, convenience, speed and security have significant positive impact on customers' satisfaction. On the other hand, fees/charge has a significant inverse relationship with customers' satisfaction. It is thus, recommended among others for DMBs, to reduce their fees/charges on e-banking services, this would lead to greater patronage of the e-banking services. This in turn will lead to decongestion of the banking halls and greater customers' satisfaction.*

*Keywords: E-banking, Customers' satisfaction, DMBs, Fees/Charges, Bayelsa State, Nigeria*

## I. INTRODUCTION

Banks play an important role in the development of any society, be it social or economic. This has drawn the attention of several scholars from different fields to investigate the role of banks and their contributions towards the development process of the economy. According to Olorunmolu (2009), banks provide services that help to enhance business activities by granting loans, overdraft, money transfer, deposit, and withdrawal among others to their customers.

Over the years, the statutory functions of banks have become more complex owing to their dynamic and highly competitive business environment and the ever-increasing demand and number of their customers. Therefore, to remain afloat, several banks resort to customer-oriented services to enhance efficient and effective customer services. It is worthy

of note that, the business of banking is no longer perceived merely as the conventional generation of deposits, liabilities and creation of liquid assets, but the generation, storage, communication and application of financial information with the aim of achieving customer satisfaction (Irechukwu, 2000). To achieve this several banks have adopted the electronic banking system for better service delivery to their customers.

Electronic banking has been defined by Shahriari (2014) as the automated delivery of new and traditional banking products and services directly to customers through electronic and interactive communication channels. E-banking is of paramount importance in meeting user expectations. Oliver cited in Mwinga (2014:13) defined Customer satisfaction in the context of consumption as "the summary psychological state resulting when the emotion surrounding disconfirmed expectations is coupled with the customer's prior feelings

about the consumption experience". In other words, customer satisfaction reflects a post-purchase evaluation of a product quality given pre-purchase expectation.

In a bid to achieving customer satisfaction, banks employ different strategies such as physical decentralization of branches around population/commercial areas, making them accessible to customers, and have also taken advantage of Information Communication Technology (ICT). ICT has introduced a number of new systems in all aspects of business activities and banks have not failed to explore this in their desire for customer satisfaction. One of the systems that have come along with ICT is electronic banking, otherwise known as e-banking.

With the provision of e-banking services in virtually all the banks in Yenagoa metropolis in Bayelsa state, aimed at decongesting the banking hall and providing a convenient and satisfactory services, customers still experience delayed services. It takes hours to effect a simple transaction and the hall is always full of customers waiting to either pay in or withdraw money from their accounts. The situation is even worse during festive periods or when workers' salaries and other emoluments are paid to workers at the end of each month which has become a norm within the Yenagoa metropolis in Bayelsa state.

Woherem (2000) observed that although, the adoption of e-banking by banks has made some changes in time consumption in banks, the changes do not reflect the accurate service that is expected from the banks. Some customers see banking activities in Bayelsa state as time consuming or wasting. The aim of this study, therefore, is to determine the effect of e-banking service quality (accessibility, convenience security, speed and fees/charges) on customer satisfaction in Yenagoa metropolis, Bayelsa state.

## II. LITERATURE REVIEW

### A. ELECTRONIC BANKING AND CUSTOMERS SATISFACTION

Banks have achieved an improved level of productivity and profitability with the handling of high volume of transactions that otherwise would not have been impossible without the use of e-banking services. According to Erinle cited in Olorunmolu (2009), the increasing volume, complexity, competitiveness, customer satisfaction and globalization of financial service have brought about the use of e-banking services in the banking industries in Nigeria. These have induced a number of technological developments in the banking industry which include: (a) production of computers to cope with the phenomenal increase in the volume of transactions, product development and credit management, (b) The use of automated bank notes processing system by the Central Bank of Nigeria (CBN), (c) The introduction of the magnetic ink character recognition (MICR) which is an automated system for sorting cheques and other payment instruments, (d) The use of automated teller machines (ATMs), (e) the use of smart card/value card (f) The setting up of inter-bank statement system, (g) on-line real time banking, (h) electronic fund transfer system, and others.

Therefore, it is clear that e-banking service improves business relationship with customers and promotes corporate image of banks. Customers have great regards and admiration for banks that operates e-banking services. E-banking service has become a birth right of the customer, as the customer demands flexibility in operating an account in any branch of a bank irrespective of which branch the account was domiciled. Through internet or online banking, customers would enjoy sitting in the comfort of their homes and offices and with a personal computer log in to their banks savers and transact banking activities (Ovia, 2001).

### B. CONCEPTUAL FRAMEWORK

The conceptual framework of this paper is hinged on the traditional service quality. Yang, Jun and Peterson (2002) defined the traditional service quality dimensions in the context of online services and suggested an instrument consisting of seven dimensions to service quality (reliability, access, ease of use, personalization, security, credibility and responsiveness). This paper however, collapsed the seven service quality dimensions into five which are discussed below.

**ACCESSIBILITY:** Accessibility is seen as the ability of customers to access information, products and services from the internet at any given point in time. Joseph, McClure and Joseph (1999) considered banking service quality with the respect to technology use such as ATM's, telephones and the internet and identifies six dimensions. They were convenience; complaint management; efficacy queue management; accessibility and customization. Therefore, it is hypothesized that accessibility has positive effect on customer satisfaction (Ahmad and Hassan, 2011).

**CONVENIENCE:** E-banking provides higher degree of convenience that enables customers to access internet bank at all times and places. Apart from that, the ease of access of computers is perceived as a measure of relative advantage (ibid, 2011).

**SECURITY:** Assurance about security relates to the extent to which the web sites guarantee the safety of customers' financial and personal information, an area which has witnessed a proliferation for many researchers. Security can be assured by providing a privacy statement and information about the security of the shopping mechanisms and by displaying the logos of trusted third parties.

**SPEED:** Hoffman and Novak (1996) find that there is a significant correlation between speed and user satisfaction. Very often slow response time after any e-interaction leads to delay of service delivery and makes customers unsure about whether or not the transaction is completed. Johnston (1997) illustrates that certain actions such as increasing the speed of processing information and customers, are likely to have an important effect in terms of pleasing customers; however other activities, such as improving the reliability of the equipment will lessen dissatisfaction rather than delight customers. Thus, it is hypothesized that speed has positive effect on customer satisfaction.

**FEES AND CHARGES:** Service quality attributes in e-banking industry are important since human-internet interaction is the main service delivery and communication

channel. Offering high quality services to satisfy consumer needs at lower costs are potential competitive advantage of e-banking. Therefore, it is hypothesized that fees and charges have positive impacts on customer satisfaction (Johnston, 1997).

From the foregoing, this paper model customers' satisfaction as a function of the quality of service provided by the DMBs, and it is presented in figure 1 below.

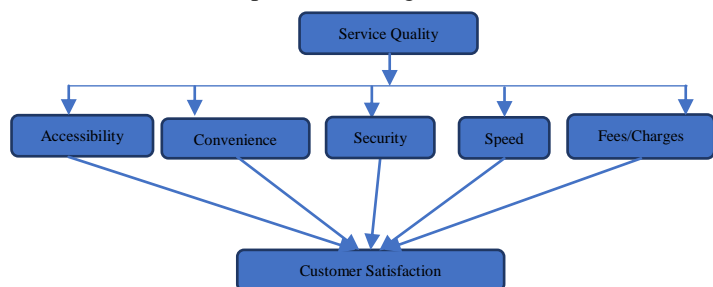


Figure 1: Conceptual Framework depicting customers' satisfaction as a function of service quality

### C. EMPIRICAL LITERATURE

Babatunde and Salawudeen (2017) carried out a study on the analysis of the impact of electronic banking on customers' satisfaction in Nigeria. They employed both descriptive and inferential statistics to analyze the data collected. In addition, simple frequency counts, percentages and the Chi-square were used in the data analysis. Findings show that 22 credit officers or 62.9% of respondents agree with the opinion that electronic banking system has made banking transactions easier, 11 credit officers representing 31.45% strongly agree, while 2 of them representing 5.7% were undecided and none of the respondents either disagree or strongly disagree. The study concludes that the adoption of electronic banking has enhanced the bank's efficiency, making it more productive and effective.

The study by Mousa (2017) on how the online service influence customer satisfaction within the banking sector in United Arab Emirate (UAE) found that customers were found to opt for online services to perform tasks of less sophistication such as performing balance queries and managing cash. The majority of customers did not prefer the online route for carrying out investment and loan related activities.

The impact of electronic banking services on customer loyalty of commercial banks in Jordan was investigated by Sulieman and Ahlam (2017). They carried out a survey on 400 respondents that were randomly selected and found that electronic banking services (ease of use, usefulness, web site design, privacy) have significant impact on customer loyalty of commercial banks in Jordan. The study also found that accessibility has insignificant impact on customer loyalty in Jordan.

A study by Olannye, Dedekuma and Ndugbe (2017) titled 'enhancing customer retention through electronic service delivery channels in the Nigerian banking industry' was directed towards examining the effect of electronic service delivery channels on customer retention in the Nigerian banking industry. The study adopted a sample of 235

employees from some selected banks in Asaba metropolis in Delta State, Nigeria. A cross sectional survey design was used, and the statistical tools adopted comprised of simple percentage, correlation and multiple regression analysis. The study found that POS service exhibits a relatively high positive effect on customer retention. It was also found that online banking service, point of sales service and mobile banking have significant relationships with customer retention. The study concluded that the demand for POS technology seems high, however banks are tapping into this opportunity by making POS available at all times, so as to reduce queuing time in the bank and give customers convenience and control.

Also, Aishatu and Lim (2017) evaluated customer loyalty towards internet banking in Nigeria. Their study investigated whether customers' trust, satisfaction, commitment, bank reputation, and the bank's website quality predict customer e-loyalty in a survey using structured questionnaire. The study used ordered logistic regression analysis to analyze the data and found that bank reputation, satisfaction, trust, and commitment have a significant and positive impact on customer e-loyalty towards internet banking in Nigeria. However, website quality has a positive but insignificant influence on customer e-loyalty towards internet banking. The result further showed that reputation is an essential factor in building customer e-loyalty.

Sadaf and Rahela (2017) studied the impact of internet banking service quality on customer satisfaction in New Delhi. Their result showed that internet banking service quality dimensions have a significant impact on the customer satisfaction of internet banking customers. Each of the dimension namely efficiency, system availability, fulfillment, privacy, contact, responsiveness and contact individually contribute 70% to the overall customer satisfaction in internet banking.

In identifying the effect of successful e-banking on customers' satisfaction, trust, commitment and loyalty, Hasandoust and Saravi (2017) randomly interviewed 385 customers of Bank Sepah Branches in North of Tehran and found that quality of e-banking website has a significant effect on customer satisfaction and trust; quality of e-banking services has a significant effect on customer's trust; e-banking perceived security has a significant effect on customer's satisfaction, trust and commitment; e-banking perceived privacy has a significant effect on customer's commitment; customer's trust in e-banking has a significant effect on his commitment and loyalty; customer's satisfaction from e-banking has a significant effect on his loyalty. It was also indicated that perceived privacy of e-banking does not have a significant effect on customer's satisfaction and trust; quality of e-banking services does not also have a significant effect on customer's satisfaction; customer's satisfaction from e-banking does not have a significant effect on his trust; and customer's commitment to e-banking does not have a significant effect on his loyalty.

Amu and Nathaniel (2016) also conducted a study on e-banking and commercial bank performance in Nigeria for the period 2009 to 2013. The study used a combination of the cointegration and causality approach. It used value of Point-of-Sale (POS) transactions as proxy for electronic banking and customers' deposits for banks performance. Their finding

showed that POS is not cointegrated with both the savings and time deposits but is cointegrated with demand deposit. It is pertinent to note that this study lacks merit as it captures just one aspect of the e-banking services provided by deposit money banks in Nigeria (POS service). Thus, the generalization made from the study is not only bias but also lopsided.

Martin and Kwaku (2016) studied the contribution of electronic banking to customer satisfaction in Koforidua in Ghana. The study was carried out on GCB bank limited. The study is a quantitative study that employed the use of questionnaires as the main tools for data collection. Data was collected from management, staff and customers of GCB Bank, Koforidua Branch. Findings from analysis of data revealed that though there was the existence of internet banking facilities of the bank, respondents of the study were not fully aware of the existence of such facilities. It was also found that the use of internet banking was quite expensive and that though the bank was utilizing the facility, customers were not fully patronizing them. It was concluded that internet banking brings efficiency in the operations of the bank.

Exploring the mediating role of trust, Vimi (2016) also studied customer satisfaction with internet banking in the UAE. The study was an exploratory study of customers of six banks conducted to identify the factors that enhance satisfaction with internet services. It adopted a combination of factor analysis and regression analysis and found that satisfaction with security and privacy with internet banking are not dependent on trust but satisfaction with variables like information needs, most of the bank transactions, the feedback through internet banking and website aesthetics the customers have trust in internet banking. Findings also showed that satisfaction with accessibility of the internet is not dependent on trust but satisfaction with payment through internet banking is dependent on trust.

In a similar study, Areeba, Mudassir, Talha, Shoaib and Adnan (2016) analyzed the impact of e-banking on customer satisfaction in Pakistan. The study adopted a quantitative research design to analyze data collected from 264 e-banking users from different cities in Pakistan. Results of the study revealed that there is momentous relationship between service quality dimensions and customer satisfaction in e-banking in Pakistan, with more or the weight of reliability, responsiveness and assurance among the five dimensions. The study concluded that service quality in e-banking leads to satisfied customers, thus banks can gain competitive advantage by offering better quality services to their customers.

Bismark, Bismark, Eric and Isaac (2015) empirically examined electronic banking and customer satisfaction in Ghana. They used a combination of primary and secondary data. Using multiple regression analysis, the study found that there is a positive correlation between customer satisfaction and e-banking availability, reliability, and convenience in the study area.

Ogunlowore and Oladele (2014) examined the impact of electronic banking on satisfaction of corporate bank customers in Nigeria. Structured questionnaires were analyzed by simple descriptive statistics. Findings showed that there is a significant relationship between electronic banking and

customers' satisfaction. Also, that E-banking has become popular because of its convenience and flexibility, and transaction related benefits like speed, efficiency and accessibility. Simon (2016) in her study on the effect of electronic banking on customer satisfaction in selected commercial banks in Kenya also share the same opinion with Ogunlowore and Oladele (2014).

No doubt several works have been done on the subject both in Nigeria and abroad. However, the research gap that necessitated this paper is that little or no research has been done in Bayelsa State, thus, the satisfaction of banks' customers as it relates to e-banking services quality in Bayelsa state, Nigeria is not known. Also, the dimensions (proxies) for e-banking service quality used in the works reviewed does not capture a salient issue such as fees/charges on e-banking services provided by DMBs (see Bismark et al, 2015; Vimi, 2016; Martin et al, 2016; Sadif et al, 2017 and Babatunde et al 2017 etc). In order to bridge this gap, this study modelled fees/charges as an explanatory variable, along with other key variable in the e-banking-customer satisfaction model as it relates to Bayelsa state.

### III. METHODOLOGY

#### A. AREA OF THE STUDY

This study was conducted in Bayelsa state (Yenagoa Metropolis) of Nigeria where banks operate e-banking services. Bayelsa state is in the South-South geo-political zone of the country and it comprises of 8 Local Government Areas (Brass, Ekeremor, Kolokuma/Opokuma, Nembe, Ogbia, Sagbama, South Ijaw and Yenagoa). The choice of Yenagoa Metropolis in Bayelsa state is necessary because, it is the capital of the state and is the commercial hub of the state. Thus, several DMBs have sited their branches in Yenagoa.

#### B. POPULATION FOR THE STUDY

The population of this study comprises of all customers of the 15 deposit money banks providing e-banking services to their customers in Bayelsa state (Yenagoa Metropolis). The banks are; First Bank Nigeria Plc, Union Bank Nigeria Plc, United Bank for Africa Plc, Unity bank Nig. Plc, Access bank Nig. Plc, Zenith Bank Nig. Plc, Eco Bank Nig. Plc, Diamond bank Nig. Plc, First City Monument Bank Plc, Guarantee Trust bank Nig. Plc, Wema Bank. Plc and Sterling Bank Plc, Heritage Bank, Polaris Bank and Stanbic IBTC.

#### C. SAMPLING AND DATA COLLECTION

The study is mainly based on primary data source that is analyzed using quantitative research methods. Customers of different banks in Yenagoa metropolis who are using any of the e-banking facility were considered as respondents. The respondents were selected through non-probability sampling method (convenience sampling), as it was not possible to get access to the list of e-banking customers to conduct random sampling. A total of 200 questionnaires were administered, out of which 186 were retrieved for the study. Respondents are

from different banks across the Yenagoa metropolis. The respondents responded to a questionnaire consisting of some demographic questions and questions on each dimension of service quality on five-point Likert Scale.

D. METHOD OF DATA ANALYSIS

Correlation and Regression analyses were applied to determine the extent of effect each of the identified proxies for e-banking service quality has on customer satisfaction in e-banking, as well as their significance level. To achieve this, this paper states that customers’ satisfaction is a function of the quality of e-banking service they enjoy. It is worthy to note that responses from the questions on the sampled questionnaire were coded to form the proxies for e-banking service quality using the five-point Likert scale using Statistical Package for Social Sciences (SPSS, Version 25). Therefore, the functional relationship between e-banking and customers’ satisfaction is expressed below as:

$$CUSSAT = f(ACC, CONV, SPE, SEC, FCH) \dots \dots \dots eqn 1$$

The basic econometric model for the above functional relationship is given as;

$$CUSSAT = \beta_0 + \beta_1 ACC + \beta_2 CONV + \beta_3 SPE + \beta_4 SEC + \beta_5 FCH + \epsilon \dots \dots \dots eqn 2$$

Where; CUSSAT = Customers’ Satisfaction

ACC = Accessibility

CONV = Convenience

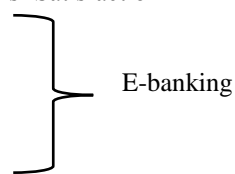
SPE = Speed

Service Quality Dimensions

SEC = Security

FCH = Fees/Charges

$\beta_0$  = Constant;  $\beta_1 \dots \beta_5$  = Coefficients of the parameters; and  $\epsilon$  = error term.



IV. RESULTS AND FINDINGS

A. EXPLORATORY FACTOR ANALYSIS (EFA)

This analysis was carried out on the customers’ satisfaction data collected from the 186 respondents on the 5 electronic banking service quality variables using the 5-point Likert scale using SPSS 22. The EFA analysis make use of the Bartlett’s test of sphericity as a measure to quantify the degree of inter-correlation among the variables. The appropriateness of EFA is measured by the Kaiser-Meyer-Olkin (KMO) which is a measure of sampling adequacy. This index ranges from 0 to 1 and the values above 0.50 are accepted (Hair, et al, 2005). Results in table 1 showed that the set of 5 variables collectively meets the necessary threshold of sampling adequacy with a KMO measure of sample adequacy value of 0.923. Thus, it is established that the variables are appropriate for the model.

Kaiser-Meyer-Olkin Measure of Sample Adequacy		.923
Bartlett’s test of Sphericity	Approx. Chi-Square	161.034
	Df	181
	Sig.	.000

Source: Author’s computation from survey data, January 2019

Table 1: KMO and Bartlett’s Test

B. RELIABILITY ANALYSIS

This analysis was conducted using the Cronbach’s Alphas for the scale items and are calculated to make sure that they exhibit satisfactory levels of internal consistency. Table 2 shows the calculated values of Cronbach’s Alpha for all the 26 items on the questionnaire as well as for each one of the electronic banking service quality proxies extracted in the EFA. It is obvious from table 2 that all the proxies fall above the cutoff point of 0.7 as recommended by Nunnally and Berustein (1994). This means that the items selected for this study are internally consistent for conducting analysis.

Factor	Cronbach’s Alpha Value
CUSSAT	.879
ACC	.821
CONV	.874
SPE	.945
SEC	.916
FCH	.798
Overall Cronbach’s Alpha = .858	

Source: Author’s computation from survey data, January 2019

Table 2: Cronbach’s Alpha Reliability Result

		ACC	CONV	SPE	SEC	FCH
CUSSAT	Pearson Correlation	.671**	.643**	.814**	.562**	-.812**
	Sig. (2-tailed)	.000	.000	.000	.000	.034
	N	186	186	186	186	186

\*\* Correlation is significant at the 0.05 level (2-tailed)

Source: Author’s computation from survey data, January 2019 using SPSS

Table 3: Correlation result of e-banking services qualities and customers’ satisfaction

In table 3, the significance value of the correlation between ACC and CUSSAT is 0.000 which is lower than the significance level of 0.05 and even 0.01, depicting that there is significant correlation between accessibility and customer satisfaction. The correlation coefficient of 0.671 shows the existence of a positive correlation between accessibility and customer satisfaction. This negates the finding by Sulieman et al (2017) who found that accessibility has insignificant impact on customer loyalty (satisfaction) in Jordan. Similarly, convenience in the use of e-banking service and customers’ satisfaction are seen to have a significant positive correlation. Bismark et al, (2015) and Simon (2016) had a similar finding. Also, speed in e-banking transactions and customers’ satisfaction are positively and significantly correlated judging from their corresponding correlation coefficient and sig. (2-tailed value). This corroborates the findings of Ogunlowore et al (2014) and Simon (2016). The same is true between security in the use e-banking platform and customers’ satisfaction. Fees/charges on the other hand was seen to be inversely and significantly correlated with customers satisfaction.

		Coefficients <sup>a</sup>				
Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	.361	.191		1.894	.059
	ACC	.422	.065	.382	6.466	.000
	CONV	.348	.062	.355	5.593	.000

SPE	.194	.056	.100	3.464	.001
SEC	.087	.043	.257	2.023	.003
FCH	-.132	.028	.048	-4.714	.000

Dependent Variable: CUSSAT

Table 4a: Summary of Regression result of all the e-banking service quality proxies on CUSSAT

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.732 <sup>a</sup>	.536	.528	.42905

Predictors: (Constant), ACC, CONV, SPE, SEC, FCH

Source: Author's computation from survey data, January 2019 using SPSS

Table 4b: Model Summary

In table 4a, the Significance (probability) values of ACC, CONV, SPE and SEC clearly shows that they have significant effects on customer satisfaction, as their Significance values are less than 5%. This is similar to the findings of Areeba, et al (2016), Bismark, et al (2015), Hasandoust, et al (2017), and Vimi (2016). However, FCH is seen to have an inverse relationship with customers' satisfaction. This means that once fees and charges increase, there is a corresponding reduction in customers' satisfaction. This assertion is validated by the t-statistic value of -4.714 and its corresponding probability value of 0.000. Table 4a further shows that all the e-banking service quality proxies used in this work are positively related with customers' satisfaction in the study area except for fees/charges.

Table 4b shows the overall predictability of the model. The adjusted R-square value of 0.528 indicates that the predictors (ACC, CONV, SPE, SEC and FCH) are jointly explaining 52.8% of customer satisfaction in e-banking. The remaining 47.2% is accounted for by the error term which captures other dimensions to e-banking service quality that are not captured here.

## V. CONCLUSION AND RECOMMENDATIONS

Drawing from the findings of this study, it is obvious that customers are relatively satisfied with the quality of electronic banking services provided by the banks operating within Yenagoa metropolis in terms of accessibility, convenience, speed and security. Major finding of this study is that almost all the e-banking service quality proxies are positively related with customers' satisfaction except for fees/charges. Customers are dissatisfied with the fees/charges they pay for various e-banking services of their banks. Majority of them indicated that the charges/fees of their banks is not commensurate with the quality of e-banking services provided by the banks. This could be the reason for the number of persons that are seen in the banking halls in Yenagoa metropolis.

Since fees/charges on e-banking services is not peculiar to state, it is recommended for DMBs, to reduce their fees/charges on e-banking services, this would lead to greater patronage of the e-banking services and in turn lead to decongestion of the banking halls and greater customers' satisfaction.

The other service quality proxies used in this work (accessibility, convenience, speed and security) should be improved upon at interval to bring about greater customers' satisfaction and decongestion of the banking halls and ATM stands.

Also, a bank specific study could be carried out on individual banks operating within Yenagoa. This may provide a clearer result regarding customers' satisfaction and e-banking in Yenagoa metropolis.

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