

## Influence of Electronic Banking on Customer Satisfaction in a Fidelity Bank Plc In Nigeria

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**Abstract:** The paper examined the influence of e-banking on customer satisfaction: a study of Fidelity Bank Plc. The purpose was to; evaluate the influence of online credit card payment system on customer satisfaction and assess the influence of electronic e-cash system on customer satisfaction. The study employed survey research design and sampled forty-one respondents. Hypotheses was tested using Pearson Product Moment correlation analysis. The findings revealed that there is a significant effect of online credit card payment system on customer satisfaction in Fidelity Bank Plc. It was equally showed that there is a significant effect of electronic e-cash system on customer satisfaction in Fidelity Bank Plc. Based on this, it was recommended that banks are required to ensure that challenges of electronic banking system are solved totally or bring down to minimum. The problem of erratic power supply should be worked on so that customers that wish to use bank ATM can do so without fear of their being debited or customer cards being trapped. Inverters should be put in place to serve this purpose 24hours. Also, banks should organize seminars/workshops to customers to bring the awareness of electronic banking to people in the rural area and illiterate's customers who find it difficult to make use of their ATMs for transaction.

**Keywords:** e-banking, e-cash, online credit card payment system, ATM and Customer satisfaction

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### I. Introduction

The application of electronic banking and implementation of electronic devices in the banking industry has become a subject of fundamental importance and concern to all banks operating within Nigerian territory and indeed a prerequisite for local and global competitiveness. The recent consolidation exercise in Nigerian banking sector has drawn the attention of many banks to application of various technological devices in promoting/achieving better customer service delivery that guaranteed continuous increase in profitability and higher return on investment (Almazari and Siam, 2018).

However, the rapid growth in the global banking services has increased the pressure on the Nigerian banks for improved productivity. The new age of banking allows customers to walk into any computerized bank and conclude their transaction within a twinkle of an eye. In order to enhance banking services, majority of banks especially the new generation banks have adopted the electronic banking services to enhance their customer service delivery through the advancement in the information technology (Goi, 2015).

Akingbola (2016) asserts that payment systems have passed through a lot of ages. Prior to 700 BC when cowries were introduced in Asia Minor, barter remained the only medium of exchange but with the introduction of coins and notes, the era of cash and payment system emerged. In AD 1000, the first bank note appeared in China. This was later followed by the use of cheque as written instructions to transfer precious metal coins from one holder to another. Other written instructions such as credit transfer, postal orders, money orders and travellers' cheques have also been introduced. The next age of payment system that followed paper instruction is electronic banking, some payments are now being automated and absolute volumes of cash transactions have declined due to the adoption of Information and Communications Technology (ICT) to the payment system especially in the developed countries. There has been a very modest move away from cash and the advantage of cash charismatic as the value of transactions increase.

In order to enhance the customer service delivery in Nigeria, banks are expected to adopt latest technologies available for electronic banking system brought about by the advancement in the information technology. The increase in emerging Information Technology has made banking services become more and more automated and less paper work than in the past as averred in the Central Bank Nigeria reports and statistical bulletins, annual reports of most Nigerian banks and other literature of banking and finance (Keramati, 2017). Banks in Nigeria have realized that they would soon go out of corporate existence unless they keep with the pace at which Information Technology (IT) has redefined the creation of value and worth for their customers. In view of the above, this study will examine the influence of electronic banking on customer

satisfaction: A study of Fidelity Bank Plc. Electronic banking system was adopted by Fidelity Bank Plc so as to improve their service delivery, decongest queues in the banking hall, enable customers withdraw cash 24/7, aid international payment and remittance, track personal banking transaction, request for online statement, or even transfer deposit to a third-party account.

In Nigeria, customers of banks seek for safety of their funds and increased returns on their investment. Customers demand efficient, fast and convenient services. Many customers today want banks that offer them services that will meet their particular needs and support their business goals. For instance, a business man wants to travel without carrying cash for security reasons. The central bank of Nigeria has emphasized the need for banks to provide more efficient services to their intending and potentials customers. Therefore, the introduction of electronic banking system in Fidelity Bank Plc is expected to play an important role in the delivery of efficient and effective services.

Despite the effort of Fidelity Bank Plc to ensure that customers reap the benefits of e-banking, Fidelity Bank Plc is still faced with complaints from customers as regards, malfunctioning Automated Teller Machines (ATMs), network downtime, online theft and fraud, non-availability of financial service, payment of hidden cost of electronic banking like Short Message Services (SMS), for sending alert, mandatory acquisition of ATM cards, non-acceptability of Nigerian cards for international transaction amongst others. This study is aimed at finding out the influence of e-banking on customer of Fidelity Bank Plc.

The main objective of the study is to examine the influence of electronic banking on customer satisfaction, a study of Fidelity Bank Plc. The specific objectives include: To evaluate the influence of online credit card payment system as an aspect of electronic banking on customer satisfaction in Fidelity Bank Plc and to assess the influence of electronic e-cash system as an aspect of electronic banking on customer satisfaction in Fidelity Bank Plc

## **II. Review Of Literature**

### **2.1 Conceptual framework**

#### **2.1.1 Concept of electronic banking**

Electronic banking system is an electronic oriented payment mechanism that allows customers' accounts to be credited electronically within 24 hours. It is the ability to pay electronically for goods and services purchased online- are an integral part of e-commerce and an essential infrastructure for e-commerce models. One of the major reasons for the widespread of e-commerce transactions is perhaps the rapid development and growth of various electronic banking systems. In the developed countries, credit cards have been used even before the advent of internet (Ghosh, 1997). Electronic banking system is a financial exchange that takes place online between buyers and sellers. The content of this exchange is usually some form of digital financial instrument (such as encrypted credit card numbers, electronic cheques or digital cash) that is backed by a bank or an intermediary, or by a legal tender. Gio (2015) noted that the various factors that have led the financial institutions to make use of electronic banking are decreasing technology cost, reduced operational and processing cost and increasing online commerce. These payment systems have numbers of requirements: e.g. security, acceptability, convenience, cost, anonymity, control, and traceability.

According to Arunachalam and Sivasubramanian (2017), e- banking is a forum where a customer can access his or her bank account via the Internet using personal computer (PC) or mobile phone and web-browser. In addition, Ongkasuwan and Tantichattanont (2012) further defines e- banking system as banking service that allows customers to access and perform financial transactions on their bank accounts from their web enabled computers with Internet connection to banks' web sites any time they wish. E-banking service also enables bank customers to perform transactions such as transfer and payments, access of latest balance, statement viewing, account detail viewing, customization, print, downloading of statements and obtaining of a history statement on all accounts linked to the bank's customers' Auto Bank (ATMs). Electronic banking can be defined as the provision of information or services by a bank to its customers, describing it as an electronic connection between bank and customer in order to prepare, manage and control financial transactions (Karjaluo, 2012). E-banking is also defined as the automated delivery of new and traditional banking products and services directly to customers through electronic, interactive communication channels (Goi, 2015). Nancy (2001) describes electronic banking as the provision of banking services to customers through internet technology.

According to Khan (2017), internet banking includes the system that enables financial institution customers, individuals or businesses, access accounts, transact business, or obtain information on financial products and services on public or private network including Internet. Kim (2016) is of view that e- banking is the act of conducting financial intermediation on the Internet. It is that process whereby the customer is able to access, control and use his/her account over the Internet. Since the mid-1990s, there has been a fundamental shift in banking delivery channels toward using self-service channels such as electronic banking, mainly the use of automated teller machines (ATMs) and internet banking. Pikkarainen (2014) defined internet banking as an internet portal, through which customers can use different kinds of banking services ranging from bill payment

to making investments". With the exception of cash withdrawals, internet banking gives customers access to almost any type of banking transaction at the click of a mouse. Analysing the customer side, Birch and Young (2017) showed that customers seek convenience, transactional efficiency, a choice of core banking products, and access to competitive returns and prices. On the other hand, Wright (2012) mentioned that internet-banking has lifted the bank network as an entry barrier to the retail banking while introducing price transparency as customers can now easily compare prices online. Prices transparency also brings faster commoditization of basic services and products. Wright also suggested that traditional retail banking have developed to new strategies to compete with internet-only banks. Internet-only banks are pure-plays with no physical 'bricks and mortar' branches. However, they lack services like cash management services and accordingly they are unexpected to dominate the retail banking sector in the long term.

With the growing complexities in the e-commerce transactions, different electronic banking systems have appeared in the last few years. At least dozens of electronic banking systems proposed or already in practice are found (Murthy, 2012). The grouping can be made on the basis of what information is being transferred online. Murthy (2012) explained six types of electronic banking systems: (1) PC-Banking (2) Credit Cards (3) Electronic Cheques (i-cheques) (4) Micro payment (5) Smart Cards and (6) E-Cash. Kalakota and Whinston (2016) identified three types of electronic banking systems: (1) Digital Token based electronic banking systems, (2) Smart Card based electronic banking system and (3) Credit based electronic banking systems. Dennis (2011) classified electronic banking system into two categories: (1) Electronic Cash and (2) Electronic Debit-Credit Card Systems. Thus, electronic banking system can be broadly divided into four general types (Anderson, 2018); online credit card payment system, electronic cheque system, electronic cash system and smart card based electronic banking system.

### **2.1.2 Concept of online credit card payment system**

Online credit card payment system is a payment card issued to users (cardholders) to enable the cardholder to pay a merchant for goods and services based on the cardholder's promise to the card issuer to pay them for the amounts plus the other agreed charges. The card issuer (usually a bank) creates a revolving account and grants a line of credit to the cardholder, from which the cardholder can borrow money for payment to a merchant or as a cash advance (Birch and Young, 2017). A credit card is different from a charge card, which requires the balance to be repaid in full each month. In contrast, credit cards allow the consumers to build a continuing balance of debt, subject to interest being charged. A credit card also differs from a cash card, which can be used like currency by the owner of the card. A credit card differs from a charge card also in that a credit card typically involves a third-party entity that pays the seller and is reimbursed by the buyer, whereas a charge card simply defers payment by the buyer until a later date.

It seeks to extend the functionality of existing credit cards for use as online shopping payment tools. This payment system has been widely accepted by consumers and merchants throughout the world, and by far the most popular methods of payments especially in the retail markets (Laudon and Traver, 2012). This form of payment system has several advantages, which were never available through the traditional modes of payment. Some of the most important are: privacy, integrity, compatibility, good transaction efficiency, acceptability, convenience, mobility, low financial risk and anonymity. Added to all these, to avoid the complexity associated with the digital cash or electronic-cheques, consumers and vendors are also looking at credit card payments on the internet as one of possible time-tested alternative. But, this payment system has raised several problems before the consumers and merchants. Online credit card payment seeks to address several limitations of online credit card payments for merchant including lack of authentication, repudiation of charges and credit card frauds. It also seeks to address consumer fears about using credit card such as having to reveal credit information at multiple sites and repeatedly having to communicate sensitive information over the internet. Basic process of online credit card payment system is very simple. If consumers want to purchase a product or service, they simply send their credit card details.

### **2.1.3 Concept of electronic cash payment system**

Electronic cash (e-cash) is a new concept in online payment system because it combines computerized convenience with security and privacy that improve on paper cash. Its versatility opens up a host of new markets and applications. E-cash is an electronic or digital form of value storage and value exchange that have limited convertibility into other forms of value and require intermediaries to convert. E-cash presents some characteristics like monetary value, storability and irretrievability, interoperability and security. All these characteristics make it more attractive payment system over the Internet.

Added to these, this payment system offers numerous advantages like authority, privacy, good acceptability, low transactions cost, convenience and good anonymity. But, this system of payment also has many limitations like poor mobility, poor transaction efficiency and high financial risk, as people are solely

responsible for the lost or stolen. Gary and Perry (2012), just like real world currency counterpart, electronic cash is susceptible to forgery. It is possible, though increasingly difficult, to create and spend forged e-cash.

E-cash structure: e-cash structure could be identified as a string of bits that represents certain values such as reference number and digital signature, which could be used for the security purpose to prevent forgery and criminal use (Wright, 2012). But, the structure proposed by Wright (2012) needs some extension to make e-cash more secure. Therefore, the present model adds a digital watermark to e-cash structure to protect it from the illegal copy and forgery activities further, the model modified the structure of the reference number to support tractability. The proposed e-cash structure is comparatively better than suggested by Wright (2012), because security issue is given importance of top most priority in the present model. But, still there are certain concerns to be addressed for an electronic cash system. For example, who has the right to issue electronic cash? Can every bank issue its own money? If so how do you prevent fraud? And who will monitor the banking operations to protect consumers? Many of these concepts relate to the legal and banking regulatory aspects. However, all these issues are beyond the scope of the study and therefore, cannot be included here. But, these issues must be addressed before establishing a complete e-cash based payment system.

#### **2.1.4 Concept of customer satisfaction**

Customer satisfaction is defined as a collection of outcome of perception, evaluation and psychological reactions to the consumption experience with a product/service (Wright and Ralson (2012). In other words, Wright and Ralson further define customer satisfaction as a result of a cognitive and affective evaluation where some comparison standard is compared to the actually perceived performance. Customer's satisfaction holds the potential for increasing an organization's customer base, increase the use of more volatile customer mix and increase the firm's reputation (Alabar, 2012)

According to Ikechukwu (2010), consumer satisfaction is a term frequently used in marketing is a measure of how products and services supplied by a company meet or surpasses customer expectation. He added that customer satisfaction 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. Satisfaction is a judgment that follows a consumption experience - it is the consumer's judgment that a product provided (or is providing) a pleasurable level of consumption-related fulfilment (Nwaze, 2019).

During consumption, customers experience the product performance and compare it to their expected product performance level. Satisfaction judgments are then formed based on this comparison. The resulting judgment is labelled positively if the performance is better than expected, negative disconfirmation if it is worse than expected and simple confirmation if it is as expected. In short, customers evaluate product performance by comparing what they expected with what they believe they received.

Consumer satisfaction is seen as a key performance indicator within business and is often part of a Balanced Scorecard. In a competitive marketplace where businesses compete for customers, customer satisfaction is seen as a key differentiator and increasingly has become a key element of business strategy within organizations; customer satisfaction ratings can have powerful effects. They focus on employees and the importance of fulfilling customers' expectations. Furthermore, when these ratings dip, these problems can affect sales and profitability. When a brand has loyal customers, it gains positive word-of-mouth marketing, which is both free and highly effective.

In researching satisfaction, firms generally ask customers whether their product or service has met or exceeded expectations. Thus, expectations are a key factor behind satisfaction. When consumers have high expectations and the reality falls they will be disappointed and will likely rate their experience as less than satisfying. Conventional managerial wisdom holds that attending to customer satisfaction, value, and loyalty makes good business sense for at least two reasons:

- Satisfied customers are likely to continue to buy from and/or continue to do business with a company, while dissatisfied customers are likely to take their business elsewhere.
- Satisfied customers tell others about their positive experiences, while dissatisfied customers tell even more people about their negative experiences.

Today's most successful companies are raising expectations and delivering performance to match, these companies embrace total customer satisfaction. They track their customers' expectations, perceived company's performance and customer satisfaction. A company can always increase customer satisfaction by lowering its price or increasing its services but this may result in lower profits. Thus, the purpose of marketing is to generate customer value profitability and this requires a very delicate balance. The marketer must continue to generate more customer value and satisfaction but not "give away the house."

#### **2.1.5 Benefits of electronic banking to banks**

Indeed, the use of the internet as a new alternative channel for the distribution of financial services has become a competitive necessity instead of just a way to achieve competitive advantage with the advent of

globalization and fiercer competition. Ojokuku and Sajuyigbe (2012) state that electronic banking facilitates the customers' access to their accounts and executing transactions electronically in an easier way through visiting the bank websites at any given time. In utilizing this facility, individuals and companies are saving a lot of their time and money. Sharma and Diwan (2010) also agrees that electronic services contribute in reducing costs, increasing profits, activating bank's management, increasing bank's effectiveness and its competitive degree. This reflects the direct relation between increasing client's needs to reduce time, costs and between electronic banking services.

Gbadeyan and Akinyosoye (2011) believe that the use of e-banking has brought many benefits amongst which include: there are no barrier limitations; it is convenient; services are offered at minimal cost; it has transformed traditional practices in banking; the only way to stay connected to the customers at any place and any time is through internet applications; it results in high performance in the banking industry through faster delivery of information from the customer and service provider; customers prefer the use of e-banking because it saves time; it makes possible the use of innovative product or service at a low transaction fees and it encourages queue management which is one of the important dimensions of e-banking service quality. Amor (2009) also agrees that with the online services, customers can facilitate themselves by a number of ways: they can view their account details, review their account histories, payment and transfer funds, order and re-order cheques, pay utility bills, get loans by filling the loan application form online, activate or replace credit cards and get in touch with the customer care department.

Gbadeyan and Akinyosoye (2011) explained on multiple benefits to customers by e-banking services:

- The main benefit from the bank customers' point of view is significant saving of time by the automation of banking services processing and introduction of an easy maintenance tools for managing customer's money.
- Reduced costs in accessing and using the banking services.
- Increased comfort and timesaving - transactions can be made 24 hours a day, without requiring the physical interaction with the bank.
- Quick and continuous access to information: Corporations will have easier access to information as, they can check on multiple accounts at the click of a button.
- Better cash management: E-banking facilities speed up cash cycle and increase efficiency of business processes as large variety of cash management instruments is available on internet sites.
- Speed: The response of the medium is very fast; therefore, customers can actually wait till the last minute before concluding a fund transfer.
- Funds management: Customers can download their history of different accounts and do a what-if analysis on their own personal computer before affecting any transaction on the web. This will lead to better funds management.

### **2.1.6 The influence of e-banking on customer satisfaction in Fidelity Bank Plc**

According to Saha and Zhao (2015), customer satisfaction is defined as a collection of outcome of perception, evaluation and psychological reactions to the consumption experience with a product/service. In other words, Saha and Zhao further define customer satisfaction as a result of a cognitive and affective evaluation where some comparison standard is compared to the actually perceived performance. Customer's satisfaction holds the potential for increasing an organization's customer base, increase the use of more volatile customer mix and increase the firm's reputation (Alabar, 2012). Consequently, obtaining competitive advantage is secured through intelligent identification and satisfaction of customer's needs better and sooner than competitors and sustenance of customer's satisfaction through better products/services. Technology is then essential in providing faster and more efficient services to customers. Technology acquisition must be based on actual needs and the proven ability to deliver customer – friendly solutions (Alabar, 2012).

Howcroft, Hamilton, and Hewer (2012) agree that e-banking services have significant effect on customer satisfaction. Diwanand Singh (2010) argues that the online banking extends the relationship with the customers through providing financial services right into the home or office of customers. Ovia (2012) finds that electronic banking usage has a considerable effect on customer satisfaction among the electronic banking users, while it has a negative impact on non-users. It was concluded that customer care and customer retention should be taken into consideration, because the convenient, easy and fast banking services is associated with the human and technology based delivery processes so that they are linked with the customers' perceptions of how these bank services are delivered to them. Chakrabartiand Kardile (2012) who contend that higher levels of website usability might lead to higher levels of consumer's affective commitment to the website as well a direct, positive and significant relationship between satisfaction in previous interactions and the consumer's commitment to a financial services website.

## **2.2 Empirical framework**

FenugaandKolade (2010) investigated the effect of electronic payment on customer service delivery, as brought about by problem of satisfying customers need in Nigerian banks. The study was conducted on four commercial banks (United Bank for Africa, First bank, Zenith bank and Intercontinental bank) in Nigeria. The survey design was used for the study, which focused on the population of the four selected commercial banks in Nigeria. One hundred respondents were stratified proportionately amongst customers of the selected banks with the aid of questionnaire randomly administered. Chi-square and regression analysis were employed in testing whether there is significant relationship between the level of automation banking services and improvement in delivery of services to their numerous customers in Nigeria. The study concludes that electronic payment has significant impact on the services render by the banking industry in Nigeria thereby improves customer service delivery, better management efficiency, increased profit, customer satisfaction and sustainability in Nigeria.

Akpan, (2016) investigated on the influence of ATM service quality on customer satisfaction in the banking sector of Nigeria. The study adopted survey research in which questionnaires were administered on customers of four banks randomly selected for the study (First Bank of Nigeria Plc., United Bank for Africa Plc., Guarantee Trust Bank Plc. and Skye Bank Plc.) at the ATMs terminals of the Banks during transactions. Multiple Regression Analysis, Descriptive Statistics of the Mean, Standard Deviation, Tables and Charts were the main tools of data analysis. Findings revealed that the higher the ATM service quality, the higher the level of satisfaction it provides. The study then concluded that ATM service quality determines customer satisfaction. The study recommended that banks should improve on their service quality for them to remain relevant in the face of global competition.

Simon andSenaji (2016) investigated on effect of electronic banking on customer satisfaction in selected commercial banks, Kenya. The general aim of the study was to determine the effect of electronic banking and customer satisfaction among first tier bank in Nairobi Town. The study was hinged on diffusion innovation theory and contrast theory. The study adopted a descriptive survey research design. The target population was 262511 customers drawn from 5 first tier banks within Nairobi CBD. Stratified sampling technique was used to select a sample size 225 respondents. Primary data was collected using structured questionnaires addressed to the participants. The study conducted a regression analysis to establish the relationship between the study variables. From the findings, the study concluded that flexibility of internet banking influence customer satisfaction to a great extent. The study further concluded that usefulness of internet banking and friendliness of internet banking has relatively low effect on customer satisfaction. The study recommended that Management of banking institutions should enhance application of mobile banking to increase satisfaction of their customers. Mobile service providers in conjunction with banks should develop more friendly and easy to use and efficient applications for bank customers.

Onobrakpeyaand Mac-Attama (2017) investigated on improving customer satisfaction through digital marketing in the Nigerian deposit money banks. The objective of the study was to ascertain the effect of digital marketing on customer satisfaction in the Nigerian deposits money banks. The study made use of a sample of 214 employees from some selected banks in Warri Metropolis in Delta State, Nigeria. Cross sectional survey research design method was adopted, and the statistical techniques used comprised of simple percentage, correlation and multiple regression analysis. Findings showed that e-mail marketing have the highest significant positive effect on customer satisfaction in the Nigerian deposit money banks. The implication is that customers appreciate regular communication via e-mail because it brings value and satisfaction to them. The study concluded that companies whose website have quality contents are ranked higher in search engine results and are better positioned in achieving superior performance by way of customer satisfaction. The study recommended that a strategy should be put in place to integrate mobile marketing with other digital marketing media during its implementation because it is difficult to separate customers from their mobile devices and gadget.

Amin, Onyeukwuand Osuagwu (2018) investigated on E – banking, service quality and customer satisfaction in selected Nigerian banks. This study examined the relationship between the quality of service and customer satisfaction in the e-banking era. A sample of 398 respondents was selected, out of the total number of 66,895 customer population. Structured questionnaires and interview were used in collecting the data. Descriptive statistics was adopted in analyzing the data from the respondents. The results revealed that there is a significant relationship between quality of service and customer satisfaction. The study concluded that E-banking has a positive impact on the quality of service in the Nigerian banking sector, but not on customer satisfaction. The study recommended that staff training and development should be enhanced in the banking industry in order to render quality and timely services to their customers.

## **2.3 Theoretical framework**

This study adopted innovation diffusion theorydeveloped by Roger in 1983. This theory explains individuals' intention to adopt a technology as a modality to perform a traditional activity. The critical factors

that determine the adoption of an innovation at the general level are the following thus the assumptions: relative advantage, compatibility, complexity, trialability and observability. It is concerned with the manner in which a new technological idea, artefact or technique, or a new use of an old one, migrates from creation to use (Kim, 2016).

According to innovation diffusion theory, technological innovation is communicated through particular channels, over time, among the members of a social system. The stages through which a technological innovation passes are: knowledge (exposure to its existence, and understanding of its functions); persuasion (the forming of a favourable attitude to it); decision (commitment to its adoption); implementation (putting it to use); and confirmation (reinforcement based on positive outcomes from it).

The important assumptions of the theory include:

- i) Relative advantage (the degree to which it is perceived to be better than what it supersedes);
- i) Compatibility (consistency with existing values, past experiences and needs); complexity (difficulty of understanding and use);
- iii) Trialability (the degree to which it can be experimented with on a limited basis); observability (the visibility of its results). Different adopter categories are identified as: innovators (venturesome); early adopters (respectable); early majority (deliberate);
- iv) Late majority (sceptical); Earlier adopting individuals tend not to be different in age, but to have more years of education, higher social status and upward social mobility, be in larger organizations, have greater empathy, less dogmatism, a greater ability to deal with abstractions, greater rationality, greater intelligence, a greater ability to cope with uncertainty and risk, higher aspirations, more contact with other people, greater exposure to both mass media and interpersonal communications channels and engage in more active information seeking (Kim, 2016).

Important roles in the innovation process include: opinion leaders (who have relatively frequent informal influence over the behaviour of others); change agents (who positively influence innovation decisions, by mediating between the change agency and the relevant social system); change aides (who complement the change agent, by having more intensive contact with clients, and who have less competence credibility but more correctly or trustworthiness credibility). The change agent functions are: to develop a need for change on the part of the client; to establish an information-exchange relationship; to diagnose the client problems; to create intent to change in the client; to translate this intent into action; to stabilize adoption and prevent discontinuance; and to shift the client from reliance on the change agent to self-reliance (Dennis, 2011).

The relevance of the theory to the study is that it stresses that technological innovation which is communicated through particular channels (internet, ATM, POS), over time has ensure the efficiency and effectiveness in the banking sector, thus improve the performance of banks in Nigeria.

### III. Methodology

The study used the survey design. This enabled the researcher describe the nature of the population and determine the nature of relationships between variables of the study through questionnaire administration and subjecting data generated from primary sources to statistical analysis for the purpose of drawing empirical generalizations. The study area was Ebonyi State where Abakiliki is the capital. The population of the study consisted of the staff of Fidelity Bank Plc in Ebonyi State. A report from the two branches of Fidelity Bank in Abakiliki and Afikpo revealed that there are (25 and 16 staff respectively) making a total of 41 staff in the bank. This formed the population of the study. This study used simple random sampling technique. This allowed selection of a sample without bias. The sample size was 41 respondents since the population size is small. The data generated was analysed using pearson product moment correlation ( $r$ ) and t-test for validate the hypotheses through SPSS results.

### IV. Outcomes

#### 4.1 Findings

In testing the hypotheses formulated, it is important to restate the null hypothesis and alternative hypothesis as well as the model for the test.

**Table 1, Correlations**

		ONLINE CREDIT CARD PAYMENT SYSTEM	ELECTRONIC CASH SYSTEM	CUSTOMER SATISFACTION
ONLINE CREDIT CARD PAYMENT SYSTEM	Pearson Correlation	1	.562**	.530**
	Sig. (2-tailed)		.000	.000
	N	41	41	41
ELECTRONIC CASH SYSTEM	Pearson Correlation	.562**	1	.516**
	Sig. (2-tailed)	.000		.001
	N	41	41	41

	Pearson Correlation	.530**	.516**	1
CUSTOMER SATISFACTION	Sig. (2-tailed)	.000	.001	
	N	41	41	41

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

From table 1, it was observed that there are moderate, positive relationship (+0.530) between the online credit card payment system and customer satisfaction in Fidelity Bank Plc. More so from same table 1, it was observed that there are moderate, positive relationship (+0.516) between the electronic cash system and customer satisfaction in Fidelity Bank Plc.

**Table 2. Paired Samples Test**

		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	ONLINE CREDIT CARD PAYMENT SYSTEM - CUSTOMER SATISFACTION	-1.24390	.53761	.08396	-1.41359	-1.07421	-14.815	40	.000
Pair 2	ELECTRONIC CASH SYSTEM - CUSTOMER SATISFACTION	-1.24390	.73418	.11466	-1.47564	-1.01217	-10.849	40	.000

**Hypothesis one**

H<sub>o1</sub>: There is no significant effect of online credit card payment system on customer satisfaction in Fidelity Bank Plc

H<sub>a1</sub>: There is a significant effect of credit card payment system on customer satisfaction in Fidelity Bank Plc  
 From table 2, the observed mean difference is -1.24390. Since the value of t is -14.815 at P<.000, the mean difference (-1.24390) between online credit card payment system and customer satisfaction is statistically significant. According to the significance of 0.000 (which is less than 0.05), the hypothesis is rejected. Therefore, it can be inferred that there is a significant effect of credit card payment system on customer satisfaction in Fidelity Bank Plc

**Hypothesis two**

H<sub>o2</sub>: There is no significant effect of electronic e-cash system on customer satisfaction in Fidelity Bank Plc

H<sub>a2</sub>: There is a significant effect of electronic e-cash system on customer satisfaction in Fidelity Bank Plc  
 From table 2, the observed mean difference is -1.24390. Since the value of t is -10.849 at P<.000, the mean difference (-1.24390) between online credit card payment system and customer satisfaction is statistically significant. According to the significance of 0.000 (which is less than 0.05), the hypothesis is rejected. Therefore, it can be inferred that there is a significant effect of electronic e-cash system on customer satisfaction in Fidelity Bank Plc

**4.2 Discussion of findings**

The study after a careful analysis of data collected has the following findings: there is a significant effect of online credit card payment system on customer satisfaction in Fidelity Bank Plc. It was equally revealed that there is a significant effect of electronic e-cash system on customer satisfaction in Fidelity Bank Plc.

**V. Conclusion And Recommendation**

**5.1 Conclusion**

Based on the findings of the study, it was concluded that the use of online credit card payment system fosters customer satisfaction in Fidelity Bank Plc. The implication of the finding to the study is that through the use of electronic payment system facilities like online banking, ATMs and wire transfer, the bank customers enjoy quality and quick service delivery and this leads to customers' satisfaction of the bank services.

Moreso, it was concluded that the use of e-cash system leads to customer satisfaction in Fidelity Bank Plc. This implies the use of electronic payment system induces customers to be more loyal and dedicated to the bank and this increases customer base in the bank.



## 5.2 Recommendations

The following recommendations were made for the study:

- 1) Banks are required to ensure that challenges of electronic banking system are solved totally or bring down to minimum. The problem of erratic power supply should be worked on so that customers that wish to use bank ATM can do so without fear of the being debited or customer cards being trapped. Inverters should be put in place to serve this purpose 24hours.
- 2) Customers are the main reasons why banks are going concern, therefore, this customer should be protected from the internet hackers, tight security should be put in place to ensure that customers information are not easily available to information hackers.
- 3) Bank staff should be trained on how to provide satisfactory services to customers. Customer should be treated with courtesy and empathy, staff should be ready to help and provide solution to all customer problems because they are the reasons why banks are in business and due to huge amount of charges received from bank customers, and they should be treated as a king.
- 4) Bank should organize seminars/workshops to customers to bring the awareness of electronic banking to people in the rural area and illiterate's customers who find it difficult to make use of their ATMs for transaction and also let them know the advantages that accrues from using electronic banking instruments.

## References

- [1]. Akingbola, P. (2016). Electronic banking in Malaysia: A Note on evolution of services and consumer reactions. *Journal of Marketing*, 24(1), 56-78.
- [2]. Akpan, S. (2016). The influence of ATM service quality on customer satisfaction in the banking sector of Nigeria. *Global Journal of Human Resource Management*, 4(5), 65-79.
- [3]. Alabar, A. (2012). Trends in South African internet banking: Aslib proceedings. *New Information Perspectives*, 56(3), 187-196.
- [4]. Almazari, O & Siam, A. (2018). E-banking and bank performance: Evidence from Nigeria. *International Journal of Scientific Engineering and Technology*, 2(8), 766-771.
- [5]. Amin, H.; Onyeukwu, P. & Osuagwu, H. (2018). E-banking, service quality and customer satisfaction in selected Nigerian Banks. *International Journal of Innovation and Economic Development*, 4(2), 51-57.
- [6]. Amor, T. (2009). Risk management for electronic banking and electronic money activities. *Journal of Small Business Management*, 4(2), 51-840.
- [7]. Anderson, E. (2018). Learning-by-doing, scale efficiencies, and financial performance at internet-only banks. Working Paper, Federal Reserve Bank of Chicago, September.
- [8]. Arunachalam, S. & Sivasubramanian, M. (2017). The impact of e-banking on the profitability of banks: A study of Pakistani Banks. *Journal of Public Administration and Governance*, 5(1), 45-67.
- [9]. Birch, D & Young, M.A. (2017). Financial Services and the Internet- What does cyberspace mean for the financial services industry? *Internet Research: Electronic Networking Application Policy*, 7(2), 120-128
- [10]. Chakrabarti T. & Kardile, A. (2012). The effect of e-banking on Nigerian economy. *Greener Journal of Internet, Information and Communication Systems*, 1(2), 040-043.
- [11]. Dennis, D. (2011). Banking over the internet. *Journal of Small Business Management*, 17 (4), 23-67.
- [12]. Diwan, D. & Singh, E. (2010). Internet banking and its developments in the contemporary era. Working Paper, 2(3), 33-45.
- [13]. Fenuga, O. & Kolade, O. (2010). The effect of electronic payment on customer service delivery in Nigerian banks. *International Journal of Economic Development Research and Investment* 1(1), 227-239
- [14]. Fidelity Bank Plc (2017). Annual report. Abuja: First Bank Publication.
- [15]. Garry, D. & Perry, E. (2012). Who offers internet banking? *Quarterly Journal of Banking and Finance*, 19(2), 27-46.
- [16]. Gbadeyan, M. & Akinyosoye, E. (2011). An alternative approach in service quality: An e-banking case study. *Quality Management*, 2(2), 78-109.
- [17]. Ghosh, K. (1997). Internet banking in India. *Mondaq Business Briefing*, 2(1), 21-25.
- [18]. Goi, K. (2015). Deconstructing CBN cashless policy. Retrieved from the website: <http://www.mobilemoneyafrica.com>
- [19]. Howcroft, C., Hamilton, R. & Hewer, N. (2012). Internet banking in the US, Japan and Europe. *Multinational Business Review*, 2(1), 73-81.
- [20]. Ikechukwu, B. (2010). Mobile banking: concept and potential. *International Journal of Mobile Communications*, 1 (3), 273-288.
- [21]. Kalakota, D. & Whinston, E. (2016). How the internet affects output and performance at community banks. *Journal of Small Business Management*, 4(2), 51-840.
- [22]. Karjuluoto, E. (2012). E-banking in developing economy: Empirical evidence from Nigeria. *Journal of Applied Quantitative Methods*, 5(2), 23-56.
- [23]. Keramati, S. (2017). *Commercial bank management*. Boston, USA: Irwin/McGraw-Hill.
- [24]. Khan, K. (2017). The impact of e-banking on customer satisfaction in Nigeria. *International Journal of Small Business Management*, 40(1), 51-840.
- [25]. Kim, N. (2016). The economic effects of technological progress: Evidence from the banking industry. *Journal of Money, Credit and Banking*, 35(2), 141-76.
- [26]. Laudon Y. & Traver, R. (2012). The performance of internet-based business models: Evidence from the banking industry. *International Journal of Business*, 78 (3), 893-947.
- [27]. Murthy, T. (2012). Noninterest income and financial performance at U.S. commercial banks. New York: Macmillian.
- [28]. Nancy, M. (2001). The impact of internet banking on performance and risk profile: Evidence from Australian credit unions. *The Journal of International Banking Regulation*, 6(20), 23-45.
- [29]. Nwaze, J. (2019). Internet banking: Practices and Potentials in Nigeria. A paper at the conference organized by the Institute of Chartered Accountants of Nigeria (ICAN), Lagos.

- [30]. Ojokuku, J. &Sajuyigbe, T. (2011). Is the internet delivery channel changing bank's performance? The Case of Spanish Banks, Banco de Espana, Unpublished Manuscript.
- [31]. Ongkasuwan, J. &Tantichattanon, H. (2012). Internet banking. A survey of current and future development. Emerald Internet Research, 2(3), 323-339.
- [32]. Onobrakpeya, A., & Mac-Attama, A. (2017). Improving customer satisfaction through digital marketing in the Nigerian deposit money banks. Open Access International Journal of Science and Engineering, 2(7), 15-24
- [33]. Ovia, C. (2012). Branch employee perception towards Implication of e-banking in Greece. International Journal of Retail and Distribution Management, 32(6), 302-311.
- [34]. Pikkarainen, R. (2014). The financial progress of pure-play internet banks. BIS Papers, 7(1), 61-75.
- [35]. Sharma, K. &Diwan, D. (2010). Internet services. Journal of Financial Services Research, 22(2), 93-117.
- [36]. Simon, V. &Senaji, T. (2016). Effect of electronic banking on customer satisfaction in selected commercial banks, Kenya. International Academic Journal of Human Resource and Business Administration, 2(2), 41-63.
- [37]. Williamson, H. O (2016). The effect of electronic banking on the financial performance of commercial banks in Kenya, Unpublished MBA Project, University of Nairobi.
- [38]. Wright, A. &Ralson, D. (2012). The lagging development of small business internet banking in Australia. Journal of Small Business Management, 40(1), 51-84.
- [39]. Wright, D. (2012). Internet banking: Developments and prospects. Economic and Policy Analysis, 2(9), 67-79.

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