

**TITLE PAGE**

**EFFECT OF ELECTRONIC PAYMENT SYSTEM ON SERVICE  
DELIVERY IN UNITED BANK FOR AFRICA PLC, KADUNA MAIN  
BRANCH**

**BY**

**YETUNDE DEBORAH ADEBAYO**

**KPT/CBMS/19/42846**

**BEING A PROJECT SUBMITTED TO THE DEPARTMENT OF  
BUSINESS ADMINISTRATION, COLLEGE OF BUSINESS AND  
MANAGEMENT  
STUDIES, IN PARTIAL FULFILLMENT OF THE REQUIREMENT  
FOR THE AWARD OF HIGHER NATIONAL DIPLOMA (HND)  
IN BUSINESS ADMINISTRATION AND MANAGEMENT**

**KADUNA POLYTECHNIC**

**MAY 2022**

## **DECLARATION**

I hereby declare that the research work has been written by me under the guidance and supervision of Dr. Nasiru Bello Wailare of the Department of Business Administration. I have neither copied someone's work nor has someone done it for me. All references made to published literature have been duly acknowledged.

---

**Yetunde Deborah Adebayo**  
**KPT/CBMS/19/42846**

---

**Date**

## APPROVAL PAGE

This is to certify that this project titled “Effect of Electronic Payment System on Service Delivery in United Bank for African Plc Kaduna main Branch” is an original work undertaken by, **Yetunde Deborah Adebayo KPT/CBMS/19/42846** and has been read and approved as having met the requirement governing the preparation and presentation of project in Kaduna Polytechnic. It is hereby approved for its contribution to knowledge and literary presentation.

**Dr.Nasiru Bello Wailare**  
**Project Supervisor**

---

**Signature**

---

**Date**

**Dr. Ismael M. Anchau**  
**Project Coordinator**

---

**Signature**

---

**Date**

**Mr. Tunde Lawal**  
**Head of Department**

---

**Signature**

---

**Date**

---

**External Examiner**

---

**Signature**

---

**Date**

## **DEDICATION**

This project is dedicated to Almighty God for making it a reality.

## **ACKNOWLEDGEMENT**

I am indeed grateful to almighty God for making it possible for me to complete this research.

I wish to express my sincere thanks to my supervisor Dr. Nasiru Bello Wailare who scarified his valuable time and went through the manuscript and offer useful guideline which made it possible for me to produce this research work.

I am grateful to my beloved mother in person of Omolola Ajibade for her financial support throughout my studies, may Almighty God reward you abundantly. My profound appreciation goes to my head of department Mr. Tunde Lawal and the entire staff of the department.

## ABSTRACT

*This work examined the Effect of Electronic Payment System on Service Delivery in United Banks for Africa Plc Kaduna Main Branch. The objective of the study include; To access the effectiveness of the implementation of e-payment system in Nigeria. The study provide insight into the relationships between electronic banking and customer service and bank performance brought by transforming from traditional banking to electronic banking. The methodology adopted was survey research design. The population of the study was 25. Questionnaire were administered to 25 staff of the bank to seek their opinion on the subject matter. Mean Statistics was used to analyse the data gathered from field survey, The findings reveals that electronic payment system provides a high powered processing system that eases and increase the speed of processing of larger financial transaction. In conclusion electronic banking system has no doubt brought about positive changes to the customer service delivery offered by banks. The researcher recommended that the industry and government should show strong commitment and effort to educate the entire population about the benefits of operating electronic banking system.*

# **TABLE OF CONTENTS**

Title Page .....	i
Declaration.....	ii
Approval Page .....	iii
Acknowledgement .....	v
Abstract.....	vi
Table of Contents.....	vii

## **CHAPTER ONE**

### **INTRODUCTION**

1.1 Background to the Study .....	1
1.2 Statement of the Problem .....	4
1.3 Research Hypothesis .....	6
1.4 Objectives of the Study .....	6
1.5 Significance of the Study.....	7
1.6 Limitation of the Study.....	8
1.7 Scope of the Study.....	8
1.8 Definition of Terms .....	8

## **CHAPTER TWO**

### **LITERATURE REVIEW**

2.1 Introduction .....	11
2.2 Conceptualization .....	11
2.2.2 Overview of Electronic Payment Systems .....	19
2.1.3 Concept of Service and Service Delivery.....	24

2.1.4	Features of Electronic Payment Systems .....	30
2.1.5	Service Delivery in Banks .....	33
2.1.6	Economic Benefits of Electronic Payment System in Nigeria.....	34
2.1.7	Challenges of Electronic Payments .....	40
2.1.8	Evaluation of E-payment in Nigeria.....	42
2.3	Theoretical Framework .....	43
2.4	Empirical Review .....	46
2.5	Summary of the Chapter.....	53

### **CHAPTER THREE**

#### **RESEARCH METHODOLOGY**

3.1	Introduction .....	55
3.2	Research Design .....	55
3.3	Area of the Study.....	55
3.4	Population of the Study .....	55
3.5	Sample Size and Sampling Techniques.....	55
3.6	Instrument of Data .....	56
3.7	Validation and Reliability of the Instrument.....	56
3.8	Method of Data Collection .....	57
3.9	Method of Data Presentation and Analysis .....	57

### **CHAPTER FOUR**

#### **DATA PRESENTATION AND ANALYSIS**

4.1	Introduction .....	59
4.2	Respondents Characteristics and Classification .....	59
4.3	Data Presentation and Analysis .....	61
4.3.1	Presentation of Data .....	62
4.3.2	Analysis of Data .....	65



4.4	Summary of Findings .....	70
4.5	Discussion of Findings .....	72

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

5.1	Summary.....	75
5.2	Conclusion.....	75
5.3	Recommendations .....	76
	References .....	78
	Appendix I: Questionnaire .....	86

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background to the Study**

In the earliest human societies, goods were swapped or bartered, in other words, in barter trade; the ability to pay for goods and services was reflected in the physical existence of goods, which could be used for exchange. This was then followed by the advent of fiduciary money in form of modern coins and paper notes. Thus, it is important to appreciate at the outset that money as defined today is simply information, which can be electronically transmitted to facilitate economic transactions. It is this new definition of money, which has resulted in the electronic revolution of financial institutions (Ovia, 2012).

One of the most recent development in the Nigerian payment system is the venture into “electronic payment system” (E-payment). Electronic payment system can simply be defined as payment or monetary transactions made over the Internet or a network of computers. In other words, it involves the provision of payment service and transfer through devices such as telephone, computer, internet, Automated Teller machine (ATM), smart card and visa cards. It is a paperless system of payment that offers an alternative to the traditional system of payment, which involves the use of cash and cheques. Currency and notes are now been converted to data, which are transmitted through telephone lines and satellite transponders. This new financial services created through electronic payment systems have

resulted in a substantial reduction in financial costs and ease of funds transfer (Okoro, 2009).

Nigeria's payment systems have indeed come of age. From the early barter system, through the use of coins and commodity money to the present day information technology-driven instruments and systems, the transformation owes much to the improvement engineered by the Central bank of Nigeria. However, the use of currency is still preponderant as almost 70 percent of transactions are undertaken with cash. Cheques are also assuming widespread use, with the percentage of cheques and other payment instruments such as cards increasing significantly in the last few years. Recognizing that a properly functioning payments system is central to the implementation of monetary policy, the CBN regularly takes steps to ensure the system's smooth-running and orderly development (Balachandher, Santha, Norazlin, & Prasad, 2011).

The Nigerian Banking sector is generally coming up in term of efficient service delivery specifically in the area of payments to customers. This was not the case many years ago when the use of cheques, bankers drafts, bills of exchange and open account methods of payment were more proliferating than the use of electronic payments systems. E-Payment employs cash replacements such as debit cards, credit cards, electronic funds transfer, direct debits |credits, internet banking and e-payments systems. The introduction of technology based payments systems has done a lot to increase the convenience of bank's customers, staffs as well as the

society at large. Nowadays, paying and receiving money between buyers and sellers are not necessarily done through raw cash. Such payment can be made using e-payment products such as ATM, internet, Point of Sale terminals (POS), Mobile money solutions and so on and so forth.

Though, the use of these payment mechanisms are not totally free from difficulties often, customers experience delay in having access to the services provided through this electronic channels (Olakah, 2012). One principal challenge in the use of (EPC) is power outage. Power problem is a monster threatening every business in Nigeria. It may fluctuate for hours and sometimes not available. These payment systems may experience failure at any time or malfunction and as a result frustrate transaction which may be urgent. A common ache in the use of one of the electronic payment devices known as ATM is the trapping of cards for days by the terminals thus preventing customers from making transactions until he or she is able to retrieve his card from the machine. Occasionally, the ATM may debit a customer's account without dispensing cash to him or she, such case has to be reported or the customer accepts liability. Generally, in every electronic card based payment mechanisms, "server down" is a usual slang, meaning that there is a network failure. When this occurs, the machine is temporarily unable to function properly or obey instruction given by the customers at the payment terminals.

The improvement on different electronic payment systems has helped to enhance the payment of cash in banks up to a limit of N500, 000 (Five Hundred Thousand

Naira only) daily by individual customers and N3,000,000 (Three Million Naira only) for corporate customers without attracting charges except withdrawal is above the limit stated. The payment has also promoted efficiency in the clearing of financial instruments between the banks and Central Bank of Nigeria (2010). Despite the challenges attributed to the use of electronic payments devices, the devices have indeed provide relieve and convenience to the banking public, thereby promoting trade and commerce and helping to grow the sectors of the economy.

## **1.2 Statement of the Problem**

With the fast growth of Information and Communication Technology (ICT), Electronic Commerce (Electronic-Commerce) is now acting as a means of carrying out business transactions through electronic means such as internet connections (Anik and Pathan, 2012). E-commerce is the most recent step in the evolution of business transactions as it replaces or augments the swapping of money or goods with the exchange of information from computer to computer (Slater, 2000).

Though, e-commerce sounds like a great opportunity, it greatly needs new payment systems that will support its further development (Abrazhevich, 2002). A critical challenge for many economies is drawing more people and their capital into the banking system.

Electronic payment (E-payment) in Nigeria was done initially to eliminate the unacceptable delay in the payment of government contractors by minimizing interaction between contractors and government officials who have role to play in the payment system but was later extended to cover all payments from any government fund effective 1st January, 2009. Concerns have been raised on the payment system implementation and concerns.

In spite of the successes recorded so far in the implementation of the cashless policy of Federal Government of Nigeria, it is observed that to sustain customer usage of e-payments platform has been difficult (CBN, 2016). This indicates that despite the introduction of cashless economy with its attendant benefits the following data representing low penetration of POS compared to ATM. This is as a result of lack of adequate electricity supply, connectivity and network challenges by service providers.

Another challenge is the need for the bank to recruit employees who know how to use the new technology or train those who already work in the bank often they hire consultants instead of internal staff to address these concerns. Also, security issues such as hackers breaking into computers and, other cybercrime related cases, spread of computer viruses especially where there is no backup device, etc. (Kilonzo, 2017)

Lastly, there is the problem of privacy issue, information technology presents increasing threats to bank customers' privacy as more and more personal information is stored in computers and people (bankers) are able to access that data, legally or illegally. Not left out is the problem of hacking into banks customers' information with the use of information with the use of information technology and gaining access to customers fund without authorization (Landon & Traver, 2013). This may be very costly both to the customers and the bank. Hence the study examines the effect of electronic payment system in improving customers' service delivery.

### **1.3 Research Hypothesis**

The following null hypotheses was formulated to guide the study.

**H<sub>0</sub>:** Electronic payment system have no impact on service delivery in United Bank for Africa.

**H<sub>i</sub>:** Electronic payment system have significance impact on service delivery in United Bank for Africa.

### **1.4 Objectives of the Study**

The major objective of the study is to examine the effect of electronic payment system on service delivery in United Bank for Africa. The specific objectives are to:

- i. assess how e-payment system has impacted on Banks service delivery in United Bank for Africa Plc

- ii. determine the level of customer satisfaction as a direct deployment of electronic payment systems.

### **1.5 Significance of the Study**

The findings of this study are considered important to provide insight into the relationships between electronic banking and customer service and bank performance brought by transforming from traditional banking in to electronic banking. Practically, the study is significant because, it provided crucial facts about the drawbacks and challenges of electronic systems that are faced by the bank and the impact of the system from service delivery and the bank's performance perspectives.

The importance of this study to UBA Plc is to help the bank improve its services and customer base with the use of electronic payment, it will also provide job efficiency and effectiveness as well as customer satisfactions. It will also help in identifying the problems related to electronic payment in banks and method of improving them. It also served as a guide on the applications in the bank as well as problems that are likely to arise as well as their remedies.

It is also expected that, these research works will contribute to the bank's future protection on strategies to be used in attracting the depositors' fund, reducing queues in the banking halls and proper implementation of management policies in the bank. The project research will also contribute in the academic field to all those



that may wish to learn more on the project topic as well serve as a reference materials to all those researchers that may like to further their study in these field of research or related field.

## **1.6 Limitation of the Study**

It is expected that the management and staff of the selected bank may not want to divulge certain data required for the study and this may in way reduce the quality of data for the study. However, the researcher try her best to mitigate these limitations and others unforeseen ones. This will be done by structuring and designing the instrument for data collection to elicit non sensitive information from them.

## **1.7 Scope of the Study**

This research attempts to assess the electronic payment system as used in the banking industry. The study will cover the period of 5 years from, 2016-2021. The study will be limited to United Bank for Africa Plc, Kaduna main Branch, Yakubu Gowon way, Kaduna. as area of study because they are among the pioneers of deploying e-payment systems in Nigeria.

## **1.8 Definition of Terms**

**Access Products** – Products that allow consumers to access traditional payment instrument electronically, generally from remote locations (Sali, 2012).

**ATM Card** - UB Debit Card is a Chip device consisting of circuit element on single silicon chip. The Card a complex circuits that process microprocessors with a single chips that contain the complete arithmetic and logic unit of computers. (Ogunsemor A.O (2012).

**Chip Card** – Also known as an integrated circuit (IC) Card. A card containing one or more computers chips or integrated circuits for identification, data storage or special purpose processing used to validate personal identification numbers, authorize purchases, verify account balances and store personal records (Ogunsemor A.O (2012)..

**Electronic Data Interchange (EDI)** – The transfer of information between organizations in machine readable form (Sadeghi, A & Schneider, M (2001).

**Electronic Money** – Monetary value measured in currency units stored in electronic form on an electronic device in the consumer's possession. This electronic value can be purchased and held on the device until reduced through purchase or transfer (Sadeghi, A & Schneider, M (2001).

**Electronic Recruitment** –This is an online recruitment services to all kinds and categories of clients such as (Army, navy, police and the Paramilitary) through customizable web portals and the use of scratch cards/PINs for a Prospective applicants simply buy the scratch cards, visit portal and fill relevant information (Sadeghi, A & Schneider, M (2001)..

**Electronic Web Collection** - This enables the Bank partner with Universities and higher institutions of learning to handle Admission, Registration, Examination Managements and Fees Collection needs (Taiwo and Agwu, 2017).

**Internet Banking-** This is a product that enables the Bank leverage on the Internet Banking System Module in-built on the new Banking Application (BANKS) implemented by the Bank to serve the Internet Banking needs of the Bank's customers (Tooki, 2006).

**Mobile Banking** - This is a product that offers Customers of a Bank to access services as you go (Sali, 2012).

**Point Of Sale (POS) Machine** - A Point-of-Sale machine is the payment device that allows credit/debit cardholders make payments at sales/purchase outlets (Gilaninia, Fattahi and Mousavian. 2011).

**Smart Card** – A Card with a computer chip embedded, on which financial health, educational, and security information can be stored and processed (Gilaninia, Fattahi and Mousavian, 2011)

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter review existing relevant literature to provide appropriate theoretical framework for the study.

#### **2.2 Conceptualization**

##### **2.2.1 Concept of Electronic Payment**

According to Joseph and Richard (2015), electronic payment is a form of financial exchange that takes place between the buyer and seller facilitated by means of electronic communication. According to Cobb (2004), the value of electronic payment goes way beyond the immediate convenience and safety of cards to a greater sphere of contributing to overall economic development. The term electronic payment can be referred narrowly to e-commerce- a payment for buying and selling goods and services offered through the internet, or broadly to any type of electronic funds transfer (Massimo & Garcia 2008).

Ayodele (2007) defined e-payment as electronic transfer of cash via online transactions for business-to business (B2B), business-to-consumer (B2C), person-to-person (P2P), and most recently administration-to consumer (A2C) purposes. A2C payment addresses the payment of taxes toward the government. Humphrey, Kim and Vale (2001) defined e-payment as cash and associated transactions

implemented using electronic means. Typically, this involves the use of computer networks such as the internet and digital stored value system. This system allows bills to be paid directly from bank, and without the use of writing and mailing cheques.

Guttman (2013) defined e-payment as credit card details, or some other electronic means, as opposed to payment by cheque and cash. It is also defined as a payer's transfer of monetary claim on a party acceptable to the beneficiary (Worku 2010). Electronic payment can also be defined as convenient, safe and secure methods for payment of bills and other transactions by electronic means such as card, telephone, the internet, EFT and etc. Electronic payment gives consumers an alternative to paying bills and debts by cash, cheque, money order etc. Its main purpose is to reduce cash and cheque transactions.

In the Nigeria perspective, e-payment is effecting payments from one end to another and through the medium of the computer without manual intervention beyond inputting the payment data, it is the ability to pay the suppliers, vendors and staff salaries electronically at the touch of a computer button (Agba, 2010). Electronic payment systems have developed from a simple system involving cash as a means of exchange to a more sophisticated system containing various institutions and related regulations providing payment instruments and infrastructures allowing for interconnections between various partners or business units in fulfilling their business or social obligations. It could thus be seen to

include any payment to businesses, banks and public services from citizens, businesses or governments, which are executed through electronic networks (Sumanjeet, 2009).

Commercial non-cash electronic transactions, which is the focus of this paper, usually involve a payer and a payee exchanging money for goods or services, and one or two financial institutions acting as an issuer on behalf of the payer or an acquirer on behalf of the payee. A typical payment system therefore interconnects the payer and the payee, and is usually initiated by an instruction from the payer, using an agreed instrument, through the issuer and acquirer and the central bank in computer networks, which enables them to exchange money (CPSS, 2016; Ovia, 2010). The European Central Bank (2010) defines a payment system as consisting of a set of instruments, banking procedures and typically interbank funds transfer systems that ensure circulation of money with minimum delay and cost.

Greenspan (1996) cited in Abubakar (2014), views EPS as a set of mechanisms which can only provide the necessary infrastructure when coupled with appropriate rules and procedures. Therefore having the technology, systems, or instruments such as debit/credit cards without the supporting rules and arrangements between the institutions involved, may not necessarily present a safe and working payment system.

There may be a need for a platform of collaborative arrangements for the mechanism. CPSS (2016) therefore views the payment system as comprising all institutional and infrastructure arrangements in a financial system for initiating and transferring monetary claims in the form of commercial bank and central bank liabilities. A national payment system therefore includes a country's entire matrix of institutional and infrastructure arrangements and processes.

**a. Automated Teller Machine**

An automated teller machine or automatic teller machine (ATM) is a computerized telecommunications device that provides a financial institution's customers a secure method of performing financial transactions in a public space without the need for a human clerk or bank teller. It is incorrect and redundant for one to say "ATM Machine" because the "M" in ATM stands for Machine. Automated Teller Machines are data terminals for convenient money transactions. Don Wetzel is credited as the inventor of the ATM. He created the machine while working for the Docutel Company in Dallas, Texas, during the 1960s.

ATMs are actually kiosk computers with a keypad and a screen. The patron is prompted with instructions and given a choice of transactions. An optional receipt can be printed for patron records. Bank access to accounts is provided through telephone networking, a host processor, and a bank computer to verify data. Using an ATM card, a debit card, or a credit card, bank patrons can electronically access their accounts and withdraw or deposit funds, make payments, or check balances.

ATMs have eliminated the need to enter a bank for basic transactions and allow access to accounts at machines throughout the United States. Financial institutions started charging fees to use their ATMs in the mid-1990s, making the transactions very profitable for the host banks. The use of ATMs has cut service staff in traditional banks, impacting employment in the industry. As many machines are now commercially owned and leased in public venues, a technical industry for creating, leasing, and maintaining the machines has developed.

#### **b. Plastic Money/Card**

The latest in the development of payment system is the growth in plastic money/card. It is called plastic money/card because it is a plastic card but has gained acceptance as a medium of payment. There are various types of plastic money but for the purposes of this project we shall restrict ourselves to those that can be found in Nigeria, these include: credit cards, cheques guaranteed cards, cash cards and smart cards.

#### **c. Credit Cards**

Credit cards give the cardholders the ability to buy goods and services on credit up to a personal credit up to a personal credit limit. The period of repayment and interest is chosen by cardholders subject to minimum monthly repayment.



Current account customers are provided with credit limits and a credit card. These cards have raised numbers on them in order to identify the customer's account, the card's expiry date and name of customer. Credit cards serve two purposes:

- i. Provide credit for cardholders
- ii. Provide means of repayment for goods and services

#### **d. Cash Cards**

Cash cards are used to obtain cash from ATM dispensers. Thus it is also called ATM card. It allows the user access to his account when a PIN is provided.

#### **e. Smartcards**

Smartcard is the latest development in card technology. It is so called because it carries a semi-conductor chip, which enables it to store data. it usually comes with a card reader, which enables the holder to know his balance as well as past transactions. The smartcard is already functional in Nigeria. It is an electronic payment scheme that was introduced by a special purpose company, Smartcard Nigeria Plc. now called Valucard Nigeria Plc., which was incorporated by a consortium of banks. The trial run commenced in some Nigerian cities in April 1999. Full and final implementation of the scheme began in 2000 and the cards are currently accepted by 4,207 retail outlets in most of the major cities in Nigeria. As at 2006 about 164,924 cards have been issued. Valucard Nigeria Plc., which acts as the clearing institution for the card scheme, it also coordinates the hardware and software procurement.

The participating banks serve as card issuers, while cardholders are required to maintain an account with the issuing bank. The cards are PIN-protected and can be used for loading or withdrawal of funds at any of the participating banks, and for payment of goods and services. Smartpay is another multipurpose.

Smartcards or electronic payment scheme that was introduced in November 1999 by Gemcard Nigeria Ltd now called Smartpay. It operates as the Valucard.

As at 2007, about 78,266 cards have been issued and are acceptable by more than 760 retail outlets spread over some 20 cities in Nigeria (BIS2009,p: 124). Currently in Nigeria, 25 banks under the Valucard consortium have joined the Visa International network, the largest e-payment service provider.

#### **f. Visa Card**

Visa is a membership association owned by more than 21,000 financial institutions around the world that provides member institutions with global payment platform development. Banks became a part of the Visa family following a partnering agreement between Valucard and Visa International. It is denominated in Dollars but can be used to settle purchase in major currencies.

#### **g. Point of Sales (POS)**

POS as defined by some notable researchers is that it is a device used for recording transactions in a store, which can be said to be a modern day cash register (Shari, 2012). Gilaninia, Fattahi and Mousavian (2011) defined POS as a device that is installed in the center of the sale of goods and services instead of paying cash by

physical transportation of money, the transaction amount from an account holder i.e. customer are deducted from their account electronically using an electronic card, while the card acceptor (seller) is paid. Similarly in the work of Krawetz (2017), Point-of-Sale (POS) system is comprised of components that perform credit card transactions. The following were identified as the main components of POS:

Card reader, a device for reading credit cards. This device is either a stand-alone unit, such as the Verifone TRANZ system, or integrated into a cash register. It is most recognisable by the magnetic strip reader (MSR), numeric keypad, and receipt printer. Transaction unit, this device sends the credit card information to an authenticating source (e.g. Visa) and receives a transaction confirmation number for VeriFone, the card reader and transaction unit are integrated into an embedded device (although VeriFone does sell individual components as well). The VeriFone units consist of a digital display and a numeric keypad. For other devices, such as IBM SurePOS or Panasonic's POS workstations, Ingenico the card reader and transaction unit may be integrated into a cash register system.

There is a server connected to cash register to allow sharing of network resources at various branches. A single computer at the store may collect all transactions for auditing purposes. The type of information collected varies by vendor, store, and location. Branch servers may be local to the particular store, regional, or national. Intel (1998) defined POS as a platform designed for a retail and service

environment, and that a major difference between POS and normal PC is that POS terminal is a cost effective device with features on normal PC not needed removed. In the work of Alilonu (2012), POS is a device deployed in a merchant locations where users swipes their electronic cards in order to make payment for purchases or services as against the use of cash. With the rapid growth of information and communication technology, electronic banking has played a central role in the field of electronic payments. The field of online transactions to support many applications, e-commerce such as electronic shopping, electronic auctions, buying and selling stocks online, and many others, makes its willing tool for adoption (Ming, 2009).

### **2.2.2 Overview of Electronic Payment Systems**

According to Imafidon (2013) E-payment systems are the instruments, organizations, operating procedures, information and communication systems employed to initiate and transmit payments from a payer to a payee and for settling payments that is, transfer money (Imafidon, 2013). The E-payments channels are the apparatus used to safely and efficiently transfer monetary value in exchange for goods and services as well as financial assets (Oloruntoyin and Olanloye, 2012). In 2007, a survey conducted on Nigerian e-banking customers provided accurate and credible feedbacks on the performance of banks and their ratings in electronic banking; that is, first hands knowledge of banks performance across e-banking channels in different regions of the country. First-hand knowledge of performance

of the competition, information on the key drivers of excellent performance in e-banking channels that is ATM, Point of Sale, and cards; direct customers feedback on e-banking services and products in Nigeria.

Okafor (2012), perceives the ATM as an electronic device which allows a financial institution's customer to use a secured method of communication to access their accounts, make cash withdrawals or cash advances using credit cards and checking their account balances without need for human teller or cashier.

E-payments systems are becoming popular among banks and non-bank financial institutions in Nigeria, a survey conducted by Interware consulting, reveals that, ATM Point of sales (POS), are still evolving and that various banking services rendered by Nigerian banks is mostly limited to the traditional services.

Ebulu (2014) asserts that in the banking industry, customers are gradually coming to terms with the arrays of products vaunted by banks in their bid to offer convenient banking services to their customers. On daily basis depositors are inundated with an array of service options which they are encouraged to embrace as they canvass ease access to cash as well as deepen their relationship with the banks and of course the fad is paying off. Through the e-banking payment channels customers may deposit cash, transfer money, recharge GSM prepaid account, credit postage stamp and so on and so forth. According to Atteh (2012), payment systems are related collection of structure of instruments for settling payments and transactions or part thereof. Although the system work together but each of the

instruments share attributes of being exchangeable with one another through substitution and convertibility mechanisms.

Uwah (2011) examines the various categories of payments systems ranging from: cash- paper-based instruments, paperless or electronic instruments, and other payment instruments. Paper based instruments include cheques, bank drafts, debit cards, credit cards, and traveller's cheques. Although, cheque is a major payment instrument in Nigeria, they are not popular for day to day payment because of high incidence of dud cheques and forgeries, a safe financial system is thus hedged on effective payment infrastructure which are core to the financial stability of a country.

In his contribution, Tijani (2013), observes that payment systems are accessible and can be measured in terms of their reliability, transaction costs and risks. The reliability of payment system can be increased if all factors surrounding the efficiency of the electronic payments could be upgraded to prevent system breakdown and area of financial risks which may arise in form of liquidity risk, credit risk and systematic risk.

In line with the objective of the payment system vision 2020, the (CBN) adopted payment system policies that will help to migrate from a cash based economy to an e-payment driven economy.

According to CBN (2010) the following measures will assist the country in her drive towards this laudable objective:

- i. Setting up of an independent audit of 16 mobile payments schemes which were on a pilot run. Pursuant to the issuance of final operating license.
- ii. Sensitize stakeholders on the approved direct debit rules to facilitate the use of electronic payments.
- iii. Issuance of guidelines on the initiatives highlighted to improve public confidence in the payment system especially the area of payment of taxes electronically, paying salaries, pensions by organizations with more than 50 employees and electronic payments suppliers.
- iv. Commencement of the upgrade of the real time gross settlements system to meet the requirements of FSS 2020.
- v. Direct all banks to implement the 10 digit Nigeria uniform bank account number (NUBAN) with a transition period of one year with expectation to reduce the volume of unprocessed transactions due to wrong account numbers, number of postings to wrong accounts by recipient banks and incidence of delayed in presentation of automated clearing house.

The Central Bank of Nigeria, adopted the following initiatives to enhance the Nigerian payment system.

- i. Fixing of a daily cumulative limit of N500,000 for individual customers and N3,000,000 for corporate customers on cash withdrawals. The above measure was introduced to reduce the high and sustainable currency issue and

management expenses thereby promoting the use of cost effective non-cash payment modes.

- ii. Over the counter encashment of third party cheques above N500,000 will be disallowed forthwith when value for such cheques shall only be received through clearing.
- iii. The policy abolished cash in transit (CIT) lodgment services, and advice merchant customers to engage the services of CIT companies to facilitate cash movements on agreed terms and conditions.
- iv. The policy also prohibits exclusive acquired contracts for card schemes to enhance interoperability.
- v. Massive deployment of point of sales (POS) terminals under the shared service project with a view of reducing the cost of operations and
- vi. Approved in principle, a strategic alliance with the Nigerian postal service (NIPOST) to integrate the “post” into the payments system by offering branchless banking to reach the remote parts of the country.

The initiative was expected to promote confidence in the system, enhance efficiency, improve customer convenience and facilitates financial inclusion. This led to a growth rate of 17.79 and 7.06 percent respectively in Central Bank of Nigeria interbank transfer between the first half of 2011 and second half of 2010. So also, Cheque clearing in the first half of 2011 declined by 12.30 percent and 4.74 percent to N16,188,775 billion and N9, 919.05 billion respectively from



N18,458,480 billion and N10,412.12 billion recorded in the second half of 2010. The decline was attributed to increase in the use of other modes of payment, such as RTGS, NIBSS interbank Funds Transfer (NEFT), automated Teller Machines (ATMs), mobile banking, and Internet payments among others. The Volume and value of electronic card payments transactions increased to N167,962,665 billion and N764.14 billion during the first half of 2011, from N106,739,822 billion and N610.22 billion respectively during the second half of 2010, reflecting an increase of 57.36 percent and 25.22 percent respectively.

The growth was attributed to the public confidence in card payments, following the enhanced security features in the cards and adoption of stringent measures to combat frauds and deepens the use of electronic payments. From the available data, it was gathered that among the e-payments channels the most popular was the ATM (98.09%) followed by web (internet) (0.72%) and mobile (0.71%). The least patronized was the Point of Sales (POS) terminal accounting for 0.48% of the total e-payment transactions (National Bureau of Statistics, 2012).

### **2.1.3 Concept of Service and Service Delivery**

According to Ndlovu and Mlungis (2013), a service is an intangible commodity. More specifically, services are an intangible equivalent of economic goods. Service provision is often an economic activity where the buyer does not generally, except by exclusive contract, obtain exclusive ownership of the thing purchased.

The benefits of such a service, if priced, are held to be self-evident in the buyer's willingness to pay for it. Public services are those societies (nation state, fiscal union, and regional) as a whole pays for through taxes and other means.

He further stated that by composing and orchestrating the appropriate level of resources, skill, ingenuity, and experience for effecting specific benefits for service consumers, service providers participate in an economy without the restrictions of carrying inventory (stock) or the need to concern themselves with bulky raw materials. On the other hand, their investment in expertise does require consistent service marketing and upgrading in the face of competition.

Dogara (2010) opined that services can be paraphrased in terms of their generic key characteristics as mentioned below:

**i. Intangibility**

Services are intangible and insubstantial: they cannot be touched, gripped, handled, looked at, smelled, and tasted. Thus, there is neither potential nor need for transport, storage or stocking of services. Furthermore, a service can be (re)sold or owned by somebody, but it cannot be turned over from the service provider to the service consumer. Solely, the service delivery can be commissioned to a service provider who must generate and render the service at the distinct request of an authorized service consumer.

**ii. Perishability**

Services are perishable in two regards

- i. The service relevant resources, processes and systems are assigned for service delivery during a definite period in time. If the designated or scheduled service consumer does not request. An empty seat on a plane never can be utilized and charged after departure.
- ii. When the service has been completely rendered to the requesting service consumer, this particular service irreversibly vanishes as it has been consumed by the service consumer. Example: the passenger has been transported to the destination and cannot be transported again to this location at this point in time (Dogara, 2010).

**iii. Inseparability**

The service provider is indispensable for service delivery as he must promptly generate and render the service to the requesting service consumer. In many cases the service delivery is executed automatically but the service provider must preparatorily assign resources and systems and actively keep up appropriate service delivery readiness and capabilities. Additionally, the service consumer is inseparable from service delivery because he is involved in it from requesting it up to consuming the rendered benefits. Examples: The service consumer must sit in the hair dresser's shop & chair or in the plane & seat; correspondingly, the hair dresser or the pilot must be in the same shop or plane, respectively, for delivering the service (Dogara, 2010).

#### **iv. Simultaneity**

Services are some kind of horse and consumed during the same period of time. As soon as the service consumer has requested the service (delivery), the particular service must be generated from scratch without any delay and friction and the service consumer instantaneously consumes the rendered benefits for executing his upcoming activity or task (Dogara, 2010).

#### **v. Variability**

Each service is unique. It is one-time generated, rendered and consumed and can never be exactly repeated as the point in time, location, circumstances, conditions, current configurations and/or assigned resources are different for the next delivery, even if the same service consumer requests the same service. Many services are regarded as heterogeneous or lacking homogeneity and are typically modified for each service consumer or each new situation (consumerised). Example: The taxi service which transports the service consumer from his home to the opera is different from the taxi service which transports the same service consumer from the opera to his home another point in time, the other direction, maybe another route, probably another taxi driver and cab. Each of these characteristics is retractable per se and their inevitable coincidence complicates the consistent service conception and makes service delivery a challenge in each and every case. Proper service marketing requires creative visualization to effectively evoke a concrete image in the service consumer's mind. From the service consumer's point

of view, these characteristics make it difficult, or even impossible, to evaluate or compare services prior to experiencing the service delivery (Field, 2009).

In view of the Mass generation and delivery of services is very difficult. This can be seen as a problem of inconsistent service quality. Both inputs and outputs to the processes involved providing services are highly variable, as are the relationships between these processes, making it difficult to maintain consistent service quality. For many services there is labor intensity as services usually involve considerable human activity, rather than a precisely determined process; exceptions include utilities. Human resource management is important. The human factor is often the key success factor in service economies. It is difficult to achieve economies of scale or gain dominant market share. There are demand fluctuations and it can be difficult to forecast demand. Demand can vary by season, time of day, business cycle, etc. There is consumer involvement as most service provision requires a high degree of interaction between service consumer and service provider. There is a customer-based relationship based on creating long-term business relationships. Accountants, attorneys, and financial advisers maintain long-term relationships with their clients for decades. These repeat consumers refer friends and family, helping to create a client-based relationship.

### **Service Delivery**

According to Steve (2011), the delivery of a service typically involves six factors:

- i. The accountable service provider and his service suppliers (e.g. the people)

- ii. Equipment used to provide the service (e.g. vehicles, cash registers, technical systems, computer systems)
- iii. The physical facilities (e.g. buildings, parking, waiting rooms)
- iv. The requesting service consumer
- v. Other customers at the service delivery location
- vi. Customer contact

Gonzalez (2014), sees service delivery as all activities involved in the service delivery process. Some service managers use the term "moment of truth" to indicate that defining point in a specific service encounter where interactions are most intense.

Many business theorists view service provision as a performance or act (sometimes humorously referred to as dramaturgy, perhaps in reference to dramaturgy). The location of the service delivery is referred to as the stage and the objects that facilitate the service process are called props. A script is a sequence of behaviors followed by all those involved, including the client(s). Some service dramas are tightly scripted, others are more ad lib. Role congruence occurs when each actor follows a script that harmonizes with the roles played by the other actors.

In some service industries, especially health care, dispute resolution, and social services, a popular concept is the idea of the caseload, which refers to the total number of patients, clients, litigants, or claimants that a given employee is presently responsible for. On a daily basis, in all those fields, employees must

balance the needs of any individual case against the needs of all other current cases as well as their own personal needs.

#### **2.1.4 Features of Electronic Payment Systems**

Electronic money has also been defined by the European monetary Institute as “an electronic store of monetary value on a technical device, including pre-paid cards that may be widely used for making payments to entities other than the issuer without necessarily involving bank accounts in the transaction, but acting as a prepaid bearer instrument.” Typically, therefore, electronic money has the following features: -

- a. Value is stored electronically in a device such as a chip card or on a hard drive in a personal computer.
- b. Issued on receipt of funds of an amount not less in value than the money value issued; and
- c. Generally accepted as a means of payments by enterprises and persons other than the issuer.

The two main types of electronic money are card-based e-money (electronic purse) and network or software-based e-money (digital cash). Other variants of card-based e-money include public telephone cards, transport cards, telephone recharge cards, vending machines, etc.

Delali (2010), electronic payments system automates the entire payment process, from delivering the invoice, sorting the payment to match a particular debt, securing a payee approvals and delivering final payment to the vendor. The broad benefits accruable from the electronic payments system include: -

- a. Information Paired with Payment – Electronic Payments system has the unique ability to ensure critical invoice information is delivered alongside the payment.
- b. Electronic Information Repository: - Historical data from the invoice and payment ends are stored in a central repository, providing interested parties from both the payer and payee organizations easy access to critical information.
- c. Payment Flexibility: - The emerging electronic payments system provides companies with greater flexibility, particularly with regard to form of payment.
- d. Money-saving opportunity: - By using electronic payments system, companies' liquidity is enhanced by removing the float.

It is necessary to note, however, that an electronic payments system can only be effective and user-friendly when a number of issues have been considered thoroughly and solutions provided for: -

- a. Foolproof verification procedures
- b. Effective use of digital signatures
- c. The security of banking computer systems



- d. Client PC security, in the case of electronic commerce, and
- e. Managing client information interception risks, etc.

There is no doubt that for Nigeria to benefit from the progress being made in world commerce through the internet and also to derive benefits from the payments architecture that support this new commerce, the country has to redouble effort in its march towards electronic payments system. The new computer-based innovations have led to electronic trade finance; whereby letters of credit are processed electronically and documents interchanged electronically (an example is Bolero.net which enables trade finance electronic document interchange). In the same vein, all banking services have been transformed in the more advanced economies to electronic processes in services like account management, loans, credit card, etc (Worku, 2010).

Overall, it is pretty clear that emerging payment technologies provide huge opportunities to the business world, from saving money to decreasing float to improving cash flow. The payments systems that Nigerian Businesses are currently accustomed to, most of which are cash and cheque payments, are inefficient and increasingly becoming antiquated. We live in a technology-driven world and it is time the Nigerian business community began to recognize the value that new technology systems deliver when it comes to delivering the payment. According to the UN economic and social council, in a white paper titled, “the virtuous circle:

electronic payments and economic growth”, it was noted that “electronic payment are at a critical threshold of growth (Ayodele, 2007)

### **2.1.5 Service Delivery in Banks**

The purpose of banking is to enrich society through the provision of infrastructure for savings, Investments and settlement/payment of exchanges. A more pragmatic definition of purpose of banking would be to meet society’s need for efficient payment system (reliability at minimum cost). The responsibility of bank management is to establish priorities and objectives as well as monitor performance in the desired direction. Banks in the advanced countries have over the years developed roadmaps to quality financial services delivery. They have identified application of ICT as strategic to achieving global competitive advantages (reduced operational costs, improve service quality, increased market, shorten service cycle time, increased capacity to respond to changing environmental and socioeconomic drivers of profitability) (Aral et al., 2006). The banks operating in Nigeria have of recent joined the trend but this is not without some problems. This range from resistant from employees who tend to believe that ICT application may lead to job loss to the near lack of socioeconomic, technological and legal infrastructure needed to support the policy.

Global competition according to Kouvelis, et al. (2006) has created need for transformation of modern organizations from multi-layered, hierarchical, fat ones

to networked, flat, thin ones. These are aimed at helping organizations to face adverse environmental conditions such as economic recession, global competition and deregulation. In the process of making these transformations, organizations tend to have identified ICT application as a necessary requirement. The above misgivings may have slowed the pace at which the Nigerian banking industry responded to the need for ICT application to their operations.

However, there have been near lack of empirical research efforts geared towards assessing the successes attain in ICT application by banks in Nigeria. With the successful consolidation of banks in Nigeria, the industry is pursed to operate at global best practices. Hence ICT facilities especially the ATM are massively being deployed at remote stations by banks. It therefore follows that the need to investigate the critical success factor of this policy on the overall realization of the objective of banking in Nigeria is timely, hence the need for this study.

#### **2.1.6 Economic Benefits of Electronic Payment System in Nigeria**

Delali (2010) noted that the arrival of the internet has taken electronic payments and transactions to an exponential growth level. Consumers could purchase goods from the internet and send unencrypted credit card numbers across the network, which did not provide much security and privacy. But a wide variety of new secure network payments schemes have been developed as consumers became more aware of their privacy and security.

Digital money has significant benefits for financial institutions, banks and merchants (Fiallos & Wu, 2005). Digital Money is an electronic payment technology, which can provide anonymous flexible electronic payment, like paper cash, but with added security requirements needed for internet transactions. In a similar work by Lee, Choi & Rhee (2003), a secure electronic cash system can guarantee anonymity of legitimate users but also provides traceability about illegally issued cash or laundered money. If illegal activity did take place, it can cancel anonymity of the digital cash in order to protect the bank. Lee, Oh & Lee, (2014) added that since digital money can trace double spending, and double spending protects content by exposing the double spender's identity, digital cash is a fool proof way of guarding against illegal redistribution of intellectual property and materials. Digital money can also be used to deter illegal content copying and distribution by inserting tracing content factors into the digital cash payment scheme that prevents users from individual replication activity, (Lee, Oh & Lee, 2014). By using this function, legal, anonymous purchasers can spread contents to other paying anonymous users while abiding by copyright laws. Using digital money in industries like digital entertainment can increase the demand for products through easier and safer dissemination channels. Digital money can trace who is illegally reproducing and distributing copyrighted intellectual material, therefore increasing security for authors and at the same time deferring lost revenue and sales for digital media entertainment companies (Lee, Oh & Lee, 2014).

Digital Media entertainment, as well as property providers and distributors, can also implement this technology and its safety features in order to ensure greater copyright compliance between consumers (Fiallos & Wu, 2015). By adopting such a method of payment and distribution, software and intellectual property piracy can be halted and eventually eliminated. Digital money can provide financial institutions with decentralized structures, faster transaction and decision making processes, and more cost effective ways of doing business. Electronic payments as argued by (Taddesse & Kidan 2015) have a significant number of economic benefits apart from their convenience and safety. These benefits when maximized can go a long way in contributing immensely to economic development of a nation.

Automated electronic payments helps deepen bank deposits thereby increasing funds available for commercial loans- a driver of all of overall economic activity. According to Taddesse & Kidan (2005), efficient, safe and convenient electronic payments carry with significant range of macro- economic benefits. “The impact of introducing electronic payments is akin to using the gears on a bicycle. Add an efficient electronic payments system to an economy, and you kick it into a higher gear. Add better controlled consumer and business credit, and you notch up economic velocity even further” (Taddesse & Kidan 2015).

While the high level of cash transactions creates an opportunity for the electronic payment industry, it also imposes a cost on local economics. Cash has to be minted, securely transported, counted and reconciled, kept secure and maintained

for re-use time and time again. The per-payment cost is high, and will always remain high whereas the costs of electronic system are fixed. Once the infrastructure has been built, the costs per transactions is very low. When cardholders use their cards at the point of sale they are helping to keep money in the banking system. EPS can help displace shadow economies, bring hidden transactions into the banking system and increase transparency, confidence and participation in the financial system.

Taddesse & Kidan (2015) detected that there is a correlation between increase in point of sales volumes and rise in demand deposits. “Automated electronic payments act as a gateway into the banking sector and as a powerful engine for growth. Such payments draw cash out of circulation and into the bank accounts, providing low cost funds that can be used to support bank lending for investment- a driver of overall economic activity. The process creates greater transparency and accountability, leading to greater efficiency and better economic performance. Electronic payment is very convenient for the consumer. In most cases, you only need to enter your account information- such as your credit card number and shipping address- once. The information is then stored in a database on the retailer’s web server. When you come back to the website, you just log in with your username and password. “Completing a transaction is as simple as clicking your mouse: All you have to do is confirm your purchase and you are done.” Worku (2010) emphasized the fact that electronic payment lowers costs for

businesses. The more payments that is processed electronically, the less money is spent on paper and postage. Offering electronic payment can also help businesses improve customer retention. “A customer is more likely to return to the e-commerce site where his or her information has already been entered and stored”.

According to Taddesse & Kidan (2015), electronic payments can thus lower transaction costs stimulate higher consumption and GDP, increase government efficiency boost financial intermediation and improve financial transparency”. They further added that “Governments play a critically important role in creating an environment in which these benefits can be achieved in a way consistent with their own economic development plans”. The introduction and use of electronic payment instruments holds the promise of broad benefit to both business and consumers in the form of reduced, greater convenience and more secure reliable means of payment and settlement for a potentially vast range of goods and services offered worldwide over the internet or other electronic networks. One such benefit is that electronic payments enable bank customers to handle their daily financial transactions without having to visit their local bank branch. Electronic payments products could save merchants time and expense in handling cash (Appiah & Agyemang, 2007).

The resource cost of a nation’s payment system can account for 13% of its GDP. Since most electronic payments cost only about one-third to one-half as much as paper-based non-cash payment, it is obvious that the social cost of a payment

system could be considerably reduced if it is automated (Appiah & Agyemang, 2007). Automating and streamlining electronic payments made from self-serve channels such as ATMs, branch office terminals and point-of-sale (POS) systems can reduce paper-based errors and costs.

A research work carried by Visa Canada Association in collaboration with Global Insight revealed that electronic payments provide transactional efficiency to consumers, merchants, banks and the economy. Electronic payments have contributed \$107billion to the Canadian economy since 1983 and represents nearly, 25% of the \$437 billion cumulative growth in the Canadian economy over the same period (Delali, 2010). Over the same two decades, \$60 billion of the increase in personal consumption expenditures was directly attributable to electronic payments, with credit card holding a commanding share of this growth (\$49.4 billion) over debt cards (\$10.4 billion) (Delali, 2010).

Nigeria is lagging way behind most of the world in the general quest to boost micro economic activity by reducing the role played by physical cash in daily transactions and by encouraging the creation of cashless society, this can be averted (Dankwambo, 2009). However, experts in the financial sector have stressed that unless something radically innovative, functional and savvy is introduced, which accounts for attitudes as well as the huge un-banked population, the country's dream of building a functionally cashless society in the shortest possible time could be elusive (Dankwambo, 2009).



### 2.1.7 Challenges of Electronic Payments

Electronic payments despite its numerous benefits come with its own challenges even in the developed world. The problems militating against e-payment as listed by Ogedebe & Babatunde (2012) generally revolve around.

- **Integrity:** to ascertain that transmitted financial information is unchanged in transit.
- **Non-Reputation:** to ascertain that all parties have non-deniable proof of receipt.
- **Confidentiality:** to ascertain that transactions are protected from possible eavesdroppers.
- **Reliability:** to ascertain that there is reduced possibility of failure.
- **Authorization:** to ascertain that individuals are recognized and granted the desired rights and privileges.

Summer (2012) observed that the system which is still in its early stage requires a lot of information and education of the public to enable them appreciate the laudable programme put together by government to protect their interests. If they are properly and adequately educated, the chances of total acceptance of the programme can be assured. The banks also need to be carried along in the implementation process as they play a crucial role. Furthermore, many see e-payment as an imposition.

- i. **Lack of Uniform Platform of Banks and MDAs:** There is no compelling law mandating the banks to use common software platform. Every bank is left to use whatever platform that they felt will perform the e-payment

services on behalf of the clients. There is the problem of switches in effecting transfer from one bank to another. Interconnectivity has been a problem. No uniformity of account numbers since different banks different numbering systems. Happily enough, the Federal Government according to Dankwambo (2009) through the Office of Accountant General of the Federation will be rolling out a common platform configuring soon.

- ii. **Lack of Adequate Infrastructure:** The e-payment system is being partially implemented. If it is to be fully implemented, a number of IT infrastructures will have to be put in place. These include but not limited to laptop, desktop, scanners, good internet connectivity, training and global software. The provision of basic Information Technology infrastructures according to Ovia (2012) is a major challenge.
- iii. **Platform Security:** Atanbasi (2010) pointed out that the major challenges of e-payment in the country are security. Security in terms of platform, hackers and virus attacks. This will ensure that output from the system are reliable and accurate. The MDAs still carry their schedule(s) to the banks with compact disks (CDs), flash drives or e-mail attachments.
- iv. **Lack of Seriousness by Banks:** While a number of banks have deployed the necessary infrastructure in place to ensure effective implementation, it is sad to note that some banks are still not fully ready for this new payment regime.

### **2.1.8 Evaluation of E-payment in Nigeria**

Joseph and Richard (2015) stated that in achieving the mission of introducing e-payment system in Nigeria it is crystal clear that only a few of the objectives have been achieved. These include among others the following:

- i. Elimination of many risks involved in carrying large sums of money such as armed robber, fraud, theft and others.
- ii. At least government organizations no longer pay cash to “contractors” and civil servants.
- iii. Elimination of the use of cash to facilitate speedy payments for all transactions.

But to a very large extent, the following objectives have not been met.

- iv. Fast tracking the implementation of government policies through the elimination of delays in government payment system. There are instances of delay in payment to contractors who are not ready to play bale.
- v. There has been a complaint from some contractors handling projects in the rural areas over difficulties associated with the e-payment model.
- vi. Minimize interaction of government, officials and contractors to eliminate opportunity for corruptive tendencies. It will be difficult to eliminate this as interaction at which every level will continue formally or informally if Nigerians are to be honest with themselves. In whichever case, there is need to ask the question. Who are the contractors? Is the due process of government working or not? Who are the officials subverting this and other laudable

programme of government? Can corruption really be stamped out of the system?

vii. Achievement of economy and efficiency in government financial transactions.

For as long as corruption remains within the polity, there can be no efficiency in the system. The EFCC and the judiciary will have to find a common ground to tackle this cankerworm that has defiled all solution. China's example could be the best solution but for tribal and religious sentiment among some Nigerians.

viii. Enhancement of real time reporting and improve quality of financial reporting system in the public sector it has been observed that since the implementation of the policy, there have been late returns or no response in respect of unapplied funds. The existing system cannot guarantee real-time reporting of finances. As result there can be no good financial reporting.

## **2.3 Theoretical Framework**

### **2.3.1 Diffusion of Innovation Theory (IDT)**

The process of implementing new innovations has been studied for over years and one of the most adaptation models is described by Rogers in his book “diffusion of innovation” (2003). He offered the following description of an innovation. An innovation is an idea, practice or project that is perceived as new by an individual or other unit of adaptation (Roger, 2003). An innovation may have been invented long time ago, but if individual perceive it as new, then it may still be an

innovation for them. The newness characteristics of an adoption are more related to the three steps (knowledge, persuasion and decision) of the innovation-decision process. In addition, Roger claimed there is a lack of diffusion research on technological clusters. For Roger (2003), “a technology cluster consists of one or more distinguishable elements of technology that are perceived as being closely interrelated. In general (IDT) explains individuals’ attention to adopt a technology as a modality to perform a traditional activity, it outlines the critical factors that determine the adoption of an innovation: such those of relative advantage, compatibility, complexity, trialability and observability. The nominalized factors are complexity, trialability and observability. (Moga, 2010).

### **2.3.2 The Decomposed Theory of Planned Behavior (DTPB)**

The second reviewed theory is the decomposed theory of planned behaviour (DTPB). The theory was developed by Taylor and Todd (1995). The theory postulates that the intention to use a certain technology is influenced by attitude, subjective norm and perceived behavior control. An attitude is defined as an individual’s positive or negative feeling about performing the targeted behaviour. It’s related to behavioural intention because people form intentions to perform behaviours toward which they have positive feeling. Subjective norms refer to the person perception that most people who are important to him think he should or should not perform the behaviour in question. It’s has been found to be more important prior to, or in the early stages of innovation implementation when user

have limited direct experience from which to develop attitudes. Perceived behaviour control is concerning with difficulty-especially as it's related to internal constraints is a most important factors. (Moga, 2010).

Dimension of DTPB: it has several dimensions of such those related to attitudes are perceived usefulness of technology, perceived easy to use and security. Those related to subjective norm course leaders influence and lastly those dimensions related to behavioural control are self-efficacy of the user, computing experience, training, technological facilities and computer anxiety (Sarawak, 2004). The purpose of employing the two theories was consequences of the weakness of one theory. For that reason the adoption was altered by the supplementary and complimentarily of one theory to another. The IDT theory explain the necessity of adopting technology in an organization to replace the traditional system of management and administration as well as model of service provision if is service orientated company a theory is normative in nature as it aims to establishes structures while DTPB concentrate on the behavioural aspects of adopting certain technology such those of perceiving, attitudes, satisfactions, subjectivity and behaviour control of people i.e. training, experience motivations, incentives and awards. NMB bank adopted e-banking system as everyone can observe the presence of ATM cards, mobile phone programs, and ATM machines all over the country. But the question remained on the satisfaction of the users who are the

NMB customers with the service and thus was the intention of the study. The study intention was guided by DTPB theory.

## **2.4 Empirical Review**

Using time series data for the period 2006- 2012, Abubakar (2014) examined the effects of electronic banking on growth of deposit money banks in Nigeria. Data were collected from secondary sources through annual reports and statistical bulletin of Central Bank of Nigeria. Electronic banking was measured using the total value of internet and mobile banking while growth was measured using the value of total deposits and total assets of deposit money banks in Nigeria. A total deposit was regressed on internet and mobile banking, while a total asset was regressed on internet and mobile banking using multiple regression technique. The study revealed that positive relationships exist between mobile banking and total deposits, and between internet banking and total asset while on the other hand, no significant relationships between internet banking and total deposits, and between mobile banking and total asset. It is therefore recommended that banks that want to improve their deposit growth performance must offer numerous products/services through mobile phones in an effective, efficient and cost effective manner. The study did not pay attention to mobile banking application. It should note that banks should make mobile banking application, all mobile phones enabled so that those customers who cannot afford Java enabled mobile phones can also use the product.

In the same vein, Tijani and Ilugbemi (2015) in their study examines the impact of electronic payments channels (EPC) on National development (ND). The survey was targeted at current and savings accounts customers of deposit money banks in Nigeria. One hundred and twenty (120) questionnaires were administered in six (06) banks in Ado –Ekiti metropolis. Ninety-Eight (98) questionnaires were returned for processing. The data was analyzed using inferential statistics specifically with the use of chi-square. The study reveals that electronic payment channels (EPC) have impacted on the economy and therefore contributing positively to national development (ND). It was recommended that the Central Bank of Nigeria (CBN) should mount other e-payment products for the promotion of trade and commerce in Nigeria. The study indicate that there was no adequate information about the e-payment at the grassroots level. In this case, there will be need for the Central Bank of Nigeria (CBN) to embark on intensive campaign for complete adoption of e-payment products especially at the grassroots level among others.

Similarly, Alao and Sorinola (2015), conducted research on Cashless Policy and Customers' Satisfaction with specific reference to Commercial Banks in Ogun State. Data was collected with a well structural questionnaire and analyzed with descriptive statistics, while hypotheses formulated for the study were tested with correlation co-efficient. The findings of the study reveal that cashless policy contributed significantly to customers' satisfaction in Ogun State. Also, the study



revealed that cashless policy contributed significantly to customers' satisfaction through electronic channels. Therefore, the study concluded that the cashless policy is customer friendly and progressive and that infrastructures should be improved upon to ensure easy operation of the policy in Ogun state.

Furthermore, Iluno and Yakubu (2017) examine the impact of E-commerce on customer satisfaction in Kaduna State Metropolis. Basically this study adopts both descriptive and regression analysis. Multiple regression analysis where done on data obtained from questionnaire, dummy variables on a scale of 1-5 were obtained in order to answer the objective question of the research, and address the research problem. The study found out that there is significant level of customer satisfaction in E- commerce, would be safe to conclude for Nigeria at large. It was concludes by suggesting that service providers of internet accessibility involved in E-commerce should improve efficiency and security in their service delivery to justify the benefits of Ecommerce and also in still customer's confidence.

Nevertheless, Chiomaobi (2018), ascertaining the impact of internet banking services expenditure on the profitability of commercial banks in Nigeria; with the focus on Zenith Bank Plc. Information for this study is gathered from the annual reports of the Zenith Banks from the year 2005-2017. The design for the study is ex-post-factor research design. A regression analysis was prepared and data obtained. The result reveals that there exists a positive and significant relationship between the log of internet banking services expenses and the return on assets. The

empirical results of the study have revealed significant relationship between the log of internet banking services expenses (IBSE) and return on asset (ROA). It is therefore conclude that advocate for more ATM facilities which should be placed at strategic location for easy access.

In the work of Akerejola (2017), determinants and adoption of Point of Sales of selected business organisations in the banking, Oil and Gas, retail and airline sectors of Lagos State. The study adopted a cross-sectional survey research design. The population of the study consisted of individual SMEs who are users of POS in the selected sectors and business organisations in Lagos State with population figure of 11,663 and sample size of 2,059. The respondents were randomly sampled from the selected organisations where the data were collected. A validated questionnaire was used. A total of 2,059 copies of the questionnaire were administered, with a response rate of 77.1%. The Cronbach's alpha coefficients for the constructs ranged from 0.719 to 0.810. The data were analysed using descriptive and inferential (Pearson Product Moment correlation and Regression) statistics. The study concluded that availability of infrastructure; POS security; customer trust; customer education and customer motivation had significant and positive relationship with adoption of POS in the selected business organisations who are SMEs in Lagos State Nigeria. The study thus recommended that stakeholders should ensure that infrastructure; POS security; Customer trust; Customer education; and Customer motivation are in place to enhance the adoption of POS in selected business organisations in Nigeria.

Kadiri (2014), also investigates the prospects and problems of information technology in the Banking Industry in Nigeria. Survey study was used, numerous customers were sampled from 9 totally different banks in Nigeria mistreatment accidental sampling technique and form was used as knowledge assortment instrument. Whereas four hundred and fifty (450) questionnaires were distributed to respondents, however solely three hundred and sixty (360) were retrieved. The study discovered that data technology has vital result on the bank productivity, cashiers' work, banking transactions, bank patronage, bank services delivery, client services and bank services. These have an effect on the expansion and development of the industry completely. Customers can currently withdraw money through the ATM machines in any part of the country. Customers don't have to be compelled to move regarding with huge sums of money anymore; customers also are being attended to inside the Banking hall within a reasonable time frame with advent of IT In the light of the above the paper advice that the ability banking sector ought to be deregulated along with the independence of the country.

Asia, Mbabazi and Jaya (2015) in their study, e-banking and performance of commercial Banks in Rwanda: A Case of Bank of Kigali he study used descriptive research design by basing on qualitative and quantitative approach in order to get better analysis of the study. Both primary and secondary data collection tools were used with their relevant tools like questionnaire and documentary analysis in order to come up with required data. In the findings it was established that Electronic

banking system like ATM, Pay direct, electronic check conversion, mobile telephone banking and E transact has a great impact on bank performance because they increase profitability, reduce bank cost of operations, and increase bank asset and bank efficiency. As conclusion E banking contributes to positive performance of banks as witnessed by of bank of Kigali.

Elisha (2007), empirically examines the impact of e-banking in Nigeria's economy using Kaiser-Meyar-Olkin (KMO) approach and Barlett's Test of Sphericity which support the use of factor analysis in order to extract independent variables associated with e-banking. The study explores the major factors responsible for internet banking based on respondents' perception on various e-banking applications. It also provides a framework of the factors which are taken to assess the e-banking perception. Due to emergence of global economy, e-business has increasingly become a necessary component of business strategy and a strong catalyst for economic development. E-banking has become popular because of its convenience and flexibility, and also transaction related benefits like speed, efficiency, accessibility, etc. The results of this study shows that e-banking serves several advantages to Nigerian banking sector. The customers (respondents) perception is that e-banking provides convenience and flexible advantages. It also provides transaction related benefits like easy transfer, speedy transaction, less cost and time saving. However, the study shows that the Nigerian customers have security, access, and no enough knowledge regarding e-banking services rendering

by banking sector in Nigeria. The study suggest that critical infrastructure like power and telecommunication should be provided and with high level of stability to ensure the application of e-banking in Nigeria. Also, the relative skewed nature of banks location mostly in urban area should be addressed to ensure spread and accessibility by rural dwellers.

Similarly, Asaolu, Ayoola and Akinloye (2011), investigates the Federal Government of Nigeria electronic payment system implementation and the constraints confronting it with a view to providing solutions to the constraints so identified. The study is motivated by the apparent low level of satisfaction with the level of e-payment system in Nigeria. In carrying out the study, government agencies, contractors and the banks formed the population with a total of 200 respondents sampled through convenient sampling method and the analysis is based principally on the primary data collected from the respondents. The study identified constraints that are bedeviling the system and also suggested recommendations for effective implementation of the system

Furthermore, Sumanjeet (2009) conduct study on the emergence of e-commerce has created new financial needs that in many cases cannot be effectively fulfilled by the traditional payment systems. Recognizing this, virtually all interested parties are exploring various types of electronic payment system and issues surrounding electronic payment system and digital currency. Broadly electronic payment systems can be classified into four categories: Online Credit Card Payment System,

Online Electronic Cash System, Electronic Cheque System and Smart Cards based Electronic Payment System. Each payment system has its advantages and disadvantages for the customers and merchants. Sumanjeet further stressed that these payment systems have numbers of requirements: e.g. security, acceptability, convenience, cost, anonymity, control, and traceability. Therefore, instead of focusing on the technological specifications of various electronic payment systems, the researcher have distinguished electronic payment systems based on what is being transmitted over the network; and analyze the difference of each electronic payment system by evaluating their requirements, characteristics and assess the applicability of each system.

## **2.5 Summary of the Chapter**

Electric payment addresses the payment of taxes toward the government. Different authors has give definition of e-payment among others, Guttman (2003) defined e-payment as credit card details, or some other electronic means, as opposed to payment by cheque and cash. E-payments systems are becoming popular among banks and non-bank financial institutions in Nigeria, a survey conducted by Interware consulting, reveals that, ATM Point of sales (POS), are still evolving and that various banking services rendered by Nigerian banks is mostly limited to the traditional services.

Uwah (2011) examines the various categories of payments systems ranging from: cash- paper-based instruments, paperless or electronic instruments, and other payment instruments. Paper based instruments include cheques, bank drafts, debit

cards, credit cards, and traveller's cheques. The Central Bank of Nigeria, adopted the following initiatives to enhance the Nigerian payment system.

Features of Electronic Payment Systems as postulated by Delali (2010), is a system automates the entire payment process, from delivering the invoice, sorting the payment to match a particular debt, securing a payee approvals and delivering final payment to the vendor. Service Delivery in Banks were highlighted. The economic benefit of Electronic Payment System in Nigeria was discuss at length, Electronic payment has vital result on the bank productivity, cashiers' work, banking transactions, bank patronage, bank services delivery, client services and bank services. The chapter established that Electronic banking system like ATM, Pay direct, electronic check conversion, mobile telephone banking and E transact has a great impact on bank performance because they increase profitability, reduce bank cost of operations, and increase bank asset and bank efficiency. As conclusion E banking contributes to positive performance of banks as witnessed by of results from empirical studies.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

In this chapter, the chapter deal with methods and procedures used in collecting relevant data and gathering of information.

#### **3.2 Research Design**

The study adopts a survey research design. Survey research design is appropriate for an academic research of this sort which studies a small population and generalizes the finding on the entire population. It is reliable because it gets to the root of solving the problem.

#### **3.3 Area of the Study**

This study shall involves all the staff members of staff of United Bank for Africa (UBA) Plc, Kaduna Main Branch.

#### **3.4 Population of the Study**

The population for the study is 25 staff of United Bank for Africa Plc, Kaduna main branch, which represent both male and female employees of the bank.

#### **3.5 Sample Size and Sampling Techniques**

The study shall use census. This is due to the smallness of the population.



### **3.6 Instrument of Data**

The instrument that will be used for data collection of data is a self-designed structured questionnaire. The scale of strongly agree, agree, undecided, disagree and strongly disagree options will be drawn to elicit responses to address the research questionnaires. The questionnaire for this study will be specifically designed to give the respondents clear comprehension of the questions being asked. It will be designed such that it would induce the right response and cooperation from the respondents.

The structured type of questionnaire will be employed for the study to make for ease of collecting and analyzing data.

### **3.7 Validation and Reliability of the Instrument**

The copy of the questionnaire will be accompanied by a letter containing the purpose of the study and the questions will be presented to the supervisor and other two lecturers from the department for validation. The suggestions of the supervisor and others will be used in improving the questionnaires.

In order to test for reliability, a pre-testing technique of validity test will be used. This will provides a trial run for the questionnaires, which shall involves testing the wording of the questions and identifying the ambiguous questions. Bell (2006) described a pre-testing as “getting the bugs out of instrument so that the respondents in the main study will experience no difficulties in completing it, and

to ensure that one can carry out a preliminary analysis to see whether the wording and format of questions will present any difficulties when the main data are analyzed.

### **3.8 Method of Data Collection**

The data for the study was personally collected by the researcher. Questionnaire were personally floated to the respondents at United Bank for Afrfica in which they indicated their opinions on each questionnaire item.

### **3.9 Method of Data Presentation and Analysis**

The researcher will use the likert-5 point rating scale in collection and analysis of data. Likert scale measures the intensity or degree of agreement by the respondent to a statement that describes a situation, phenomenon, item or a element, Likert scale varies from 3 points

The five point likter scale is used in the options for the questionnaire in the range of

SA, A, UD, D and SD

Where:

SA = Strongly Agree

A = Agreed

U = Undecided

D = Disagreed

SD = Strongly Disagreed

**Table 1: Grading of Questionnaire**

<b>Grade/Key</b>	<b>Point</b>	
<b>Range</b>		
Sa= Strongly Agree	5	4.5 – 5.0
A= Agree	4	3.5 - 4.4
U= Undecided	3	2.5 - 3.4
D= Disagree	2	1.5 - 2.4
SD=Strongly Disagree	1	0.5 - 1.4

Hence any mean score that is 3 and above is accepted and if it is below or less than then it is been rejected.

## CHAPTER FOUR

### DATA PRESENTATION AND ANALYSIS

#### 4.1 Introduction

This chapter deals with the presentation and analysis of data collected through questionnaires administered to respondents of United Bank for Africa Plc. The questionnaire distributed to staff of UBA was designed to address to answer certain issues raised in the research.

#### 4.2 Respondents Characteristics and Classification

A total number of Twenty four (24) questionnaires were distributed to the staff of the bank and only twenty (20) were filled and returned. The data collected were analyzed through the use of tabular methods and percentages. The responses collected were subsequently tabulated and analyzed as follows:

**Table 4.1: Educational Background**

Variable	Responses	Percentage (%)
Primary	-	-
Secondary	-	-
Tertiary	20	100%
<b>TOTAL</b>	<b>20</b>	<b>100%</b>

*Source: Field Survey, 2022*

The table above shows that all the respondents representing 100% has attended tertiary institution before they were employed to work in the bank

**Table 4.2: Sex of the Respondents**

<b>Variables</b>	<b>Responses</b>	<b>Percentage (%)</b>
Male	12	60%
Female	8	40%
<b>TOTAL</b>	<b>20</b>	<b>100%</b>

*Source: Field Survey, 2022*

The table above shows that 12 respondents representing 60% are male while 8 respondents representing 40% are female.

**Table 4.3: Years of Working Experience**

<b>Variable</b>	<b>Responses</b>	<b>Percentage (%)</b>
1 – 5 years	4	20%
6 – 10 years	11	55%
11 – 15 years	3	15%
16 years above	2	10%
<b>TOTAL</b>	<b>20</b>	<b>100%</b>

*Source: Field Survey, 2022*

The table above shows the analysis of length of service of the respondents. The grouping reveals that, 6 respondents representing 20% are between 1 – 5 years, 15 (55%) of the respondents are between 6 – 10 years while 5 respondents representing 15 are between 11 – 15 years and 10% of the respondents are 16 years and above in the organization.

**Table 4.4: Position in the Bank.**

<b>Variables</b>	<b>Respondents</b>	<b>Percentages %</b>
Senior Staff	8	40%
Junior Staff	12	60%

<b>Total</b>	<b>20</b>	<b>100%</b>
--------------	-----------	-------------

*Source: Field Survey, 2022*

The table 4 shows that 8 respondents representing 40% are senior staff while 12 respondents representing 60% are junior staff.

### 4.3 Data Presentation and Analysis

Data analysis is the statement of the result which summarizes all the data in the research work. Data were collected through questions and interviews conducted on the subject matter. Table 4.5: The introduction of e-payment systems has reduced the queue and time spent in the banking hall.

Where	SA	-	Strongly Agree
	A	-	Agree
	UD	-	Undecided
	D	-	Disagreed
	SD	-	Strongly Disagreed

#### Solution

			<b>X</b>	<b>F</b>	<b>FX</b>	
	SA		5	12	60	
	A		4	8	32	
	UD		3	0	0	
	D		2	0	0	
	SD		1	0	0	
				20	92	
Therefore:	$\frac{\Sigma fx}{\Sigma f}$	=	$\frac{92}{20}$	=	<u><b>4.6</b></u>	The mean score

#### 4.3.1 Presentation of Data

**Table 4.5:** Respondents' level of agreement with the research survey statements.

S/N	Statement	Scales					Total
		SA	A	UD	D	SD	
1.	The introduction of e-payment systems has reduce the queue and time spent in the banking hall	12	8	0	0	0	20
2.	The deployment of electronic payment system offers significant benefits to bank customers	8	8	1	3	0	20
3.	The deployment of e-payment services offer efficient service to bank customers.	10	6	2	1	1	20
4.	E-Payment has significant impact on the service delivery of Nigerian Banks.	7	9	1	2		20
5.	Individual and organization now rely on e-payment services for their business transactions	7	9	2	2	0	20
6.	E-payment is an effective tool, to attract customers' patronage	9	8	1	2	0	20
7.	Lack of government support on improvement of e-banking is one of the challenges of e-payment in Nigeria	10	7	3	0	0	20
8.	Some banks are faced with the problem of inadequate skilled managers and requisite tools on end users and client systems	7	12	0	1	0	20
9.	The performance of computer based payment services has improved your banks profit level	13	7	0	0	0	20
10.	The introduction of electronic payment products such as smartcard, ATMs, internet payment etc reduced your customer's strength (financial ability)	8	11	0	1	0	20
11	E-payment has increase the customer loyalty patronage and establishes good relationship between bank and customer since the introduction of the products	12	8	0	0	0	20

**Source:** Field Survey, 2022



**Table 4.6: Respondents' Mean Scores.**

S/N	Statement	SA	A	UD	D	SD	Total	Mean (x)	Remark
1.	The introduction of e-payment systems has reduce the queue and time spent in the banking hall	60	32	0	0	0	92	4.6	Agreed
2.	The deployment of electronic payment system offers significant benefits to bank customers	40	32	3	6	0	81	4.1	Agreed
3.	The deployment of e-payment services offer efficient service to bank customers.	50	24	6	2	1	83	4.1	Agreed
4.	E-Payment has significant impact on the service delivery of Nigerian Banks.	35	36	3	4	1	79	4.0	Agreed
5.	Individual and organization now rely on e-payment services for their business transactions	35	36	6	4	0	81	4.1	Agreed
6.	E-payment is an effective tool, to attract customers' patronage	45	32	3	4	0	84	4.2	Agreed
7.	Lack of government support on improvement of e-banking is one of the challenges of e-payment in Nigeria	50	28	9	0	0	87	4.4	Agreed
8.	Some banks are faced with the problem of inadequate skilled managers and requisite tools on end users and client systems	35	48	0	2	0	85	4.3	Agreed
9.	The performance of computer based payment services has improved your banks profit level	65	28	0	0	0	93	4.7	Agreed
10	The introduction of electronic payment products such as smartcard, ATMs, internet payment etc reduced your customer's strength (financial ability)	40	44	0	2	0	86	4.3	Agreed
11	E-payment has increase the customer loyalty patronage and establishes good relationship between bank and customer since the introduction of the products	60	32	0	0	0	92	4.6	Agreed

**Source: Field Survey, 2022**

### 4.3.2 Analysis of Data

Item 1 in the table above gives a score of 4.6. This means that the introduction of e-payment systems has reduced the queue and time spent in the banking hall. Item 2 in the table show a means score of 4.1 greater the cut-off point, this shows that the deployment of electronic payment system offers significant benefits to bank customers.

Similarly, item 3 indicates that the deployment of e-payment services offer efficient service to bank customers this was proving by the means score of 4.1. Variables 4 in the table show the means score of 4.0, which simply mean that the e-payment has significant impact on the service delivery of Nigerian Banks. Also, the table shows the means score of 4.1 which simply mean that individual and organization now rely on e-payment services for their business transactions.

In the same vein the analysis in table shows that e-banking is an effective tool to attract customers' patronage. This is as a result of means score of 4.2 which is greater than the cutoff point (3.0). Furthermore, it was discovered from the analysis that lack of government support on improvement of e-banking is one of the challenges of e-banking in Nigeria; this was shown by mean score of 4.3 greater than the cutoff point.

Variable 8 with the mean score of 4.3 implies that some banks are faced with the problem of inadequate skilled managers and requisite tools on end users and client systems.

In addition, variable 9 of the Table shows the mean score of 4.7 greater than the cutoff point meaning that the performance of computer based payment services has improved your banks profit level. Item 10 shows the mean score of 4.3, which implies that the introduction of electronic payment products such as smartcard, ATMs, internet payment etc reduced your customer's strength (financial ability). Lastly, the analysis shows that e-payment has increased the customer loyalty patronage and establishes good relationship between bank and customer since the introduction of the products. This was supported by the mean score of 4.6 greater than the cutoff point.

### **Test of Hypothesis**

**H<sub>0</sub>:** Electronic payment systems have no impact on service delivery in United Bank for Africa.

### Observed Frequency

VARIABLES	SA	A	UD	D	SD	Total
The introduction of e-payment systems has reduce the queue and time spent in the banking hall	12	8	0	0	0	20
The deployment of electronic payment system offers significant benefits to bank customers	8	8	1	3	0	20
The deployment of e-payment services offer efficient service to bank customers.	10	6	2	1	1	20
E-Payment has significant impact on the service delivery of Nigerian Banks.	7	9	1	2		20
Individual and organization now rely on e-payment services for their business transactions	7	9	2	2	0	20
E-payment is an effective tool, to attract customers' patronage	9	8	1	2	0	20
Lack of government support on improvement of e-banking is one of the challenges of e-payment in Nigeria	10	7	3	0	0	20
Some banks are faced with the problem of inadequate skilled managers and requisite tools on end users and client systems	7	12	0	1	0	20
The performance of computer based payment services has improved your banks profit level	13	7	0	0	0	20
The introduction of electronic payment products such as smartcard, ATMs, internet payment etc reduced your customer's strength (financial ability)	8	11	0	1	0	20
E-payment has increase the customer loyalty patronage and establishes good relationship between bank and customer since the introduction of the products	12	8	0	0	0	20
Total	103	93	10	12	2	220

Degree of freedom

$$= (c-1) (r-1)$$

$$= (5-1) (11-1) = 4 \times 10 = 40$$

The study adopted 5 percent i.e. 0.05 level of significance in testing the hypothesis. The table value is 55.759 (Wooldrige, 2003).

### Expected Frequency

VARIABLES	SA	A	UD	D	SD	Total
The introduction of e-payment systems has reduce the queue and time spent in the banking hall	9.4	8.5	0.9	1.1	0.18	20
The deployment of electronic payment system offers significant benefits to bank customers	9.4	8.5	0.9	1.1	0.18	20
The deployment of e-payment services offer efficient service to bank customers.	9.4	8.5	0.9	1.1	0.18	20
E-Payment has significant impact on the service delivery of Nigerian Banks.	9.4	8.5	0.9	1.1	0.18	20
Individual and organization now rely on e-payment services for their business transactions	9.4	8.5	0.9	1.1	0.18	20
E-payment is an effective tool, to attract customers' patronage	9.4	8.5	0.9	1.1	0.18	20
Lack of government support on improvement of e-banking is one of the challenges of e-payment in Nigeria	9.4	8.5	0.9	1.1	0.18	20
Some banks are faced with the problem of inadequate skilled managers and requisite tools on end users and client systems	9.4	8.5	0.9	1.1	0.18	20
The performance of computer based payment services has improved your banks profit level	9.4	8.5	0.9	1.1	0.18	20
The introduction of electronic payment products such as smartcard, ATMs, internet payment etc reduced your customer's strength (financial ability)	9.4	8.5	0.9	1.1	0.18	20
E-payment has increase the customer loyalty patronage and establishes good relationship between bank and customer since the introduction of the products	9.4	8.5	0.9	1.1	0.18	20
	<b>103</b>	<b>93</b>	<b>10</b>	<b>12</b>	<b>2</b>	<b>220</b>

Chi-square formula is:

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

Where O = the observed frequency of any value

E = the expected frequency of any value

$\chi^2$  = the chi – square

### Computation of Chi-Square

O	E	O-E	(O-E) <sup>2</sup>	$\frac{\Sigma(O-E)^2}{E}$
12	9.4	2.6	6.76	1.390533
8	9.4	-1.4	1.96	4.795918
10	9.4	0.6	0.36	26.11111
7	9.4	-2.4	5.76	1.631944
7	9.4	-2.4	5.76	1.631944
9	9.4	-0.4	0.16	58.75
10	9.4	0.6	0.36	26.11111
7	9.4	-2.4	5.76	1.631944
13	9.4	3.6	12.96	0.725309
8	9.4	-1.4	1.96	4.795918
12	9.4	2.6	6.76	1.390533
8	8.5	-0.5	0.25	34
8	8.5	-0.5	0.25	34
6	8.5	-2.5	6.25	1.36
9	8.5	0.5	0.25	34
9	8.5	0.5	0.25	34
8	8.5	-0.5	0.25	34
7	8.5	-1.5	2.25	3.777778
12	8.5	3.5	12.25	0.693878
7	8.5	-1.5	2.25	3.777778
11	8.5	2.5	6.25	1.36
8	8.5	-0.5	0.25	34
0	0.9	-0.9	0.81	1.111111
1	0.9	0.1	0.01	90
2	0.9	1.1	1.21	0.743802
1	0.9	0.1	0.01	90
2	0.9	1.1	1.21	0.743802
1	0.9	0.1	0.01	90
3	0.9	2.1	4.41	0.204082
0	0.9	-0.9	0.81	1.111111
0	0.9	-0.9	0.81	1.111111
0	0.9	-0.9	0.81	1.111111
0	0.9	-0.9	0.81	1.111111
0	1.1	-1.1	1.21	0.909091
3	1.1	1.9	3.61	0.304709
1	1.1	-0.1	0.01	110
2	1.1	0.9	0.81	1.358025
2	1.1	0.9	0.81	1.358025

2	1.1	0.9	0.81	1.358025
0	1.1	-1.1	1.21	0.909091
1	1.1	-0.1	0.01	110
0	1.1	-1.1	1.21	0.909091
1	1.1	-0.1	0.01	110
0	1.1	-1.1	1.21	0.909091
0	0.18	-0.18	0.0324	5.555556
0	0.18	-0.18	0.0324	5.555556
1	0.18	0.82	0.6724	0.267698
1	0.18	0.82	0.6724	0.267698
0	0.18	-0.18	0.0324	5.555556
0	0.18	-0.18	0.0324	5.555556
0	0.18	-0.18	0.0324	5.555556
0	0.18	-0.18	0.0324	5.555556
0	0.18	-0.18	0.0324	5.555556
0	0.18	-0.18	0.0324	5.555556
0	0.18	-0.18	0.0324	5.555556
				<b>1009.7</b>

Decision Rule: since the computed  $\chi^2 = 1009.7$  which is greater than the critical  $\chi^2$  table value = 55.75. Therefore, we reject and conclude that Electronic payment system have impact on service delivery in United Bank for Africa.

#### 4.4 Summary of Findings

- i. The finding revealed that the introduction of e-payment systems has reduce the queue and time spent in the banking hall
- ii. From the research carried out it can be inferred that the deployment of electronic payment system as a strategy for effective service delivery in UBA Bank offers effective and efficient service to bank's customers. This is justified by the finding on the questionnaire and interpretation made; the following findings have been advanced.
- iii. E-Payment has significant impact on the service delivery of Nigerian Banks.

- iv. Electronic payment system provides a high powered processing system that eases and increase the speed of processing of larger financial transaction. This has resulted to the efficiency of banks in terms of service delivery to customers' .The deployment of e-payment system makes banks to be efficient and committed to their customers needed satisfaction.
- v. Individual and organization now rely on e-payment services for their business transactions.
- vi. E-payment is an effective tool, to attract customers' patronage.
- vii. Lack of government support on improvement of e-banking is one of the challenges of e-payment in Nigeria.
- viii. Some banks are faced with the problem of inadequate skilled managers and requisite tools on end users and client systems
- ix. With effective deployment of e-payment system, as indicted by the bank under study, Nigerian banks can be able to expand their operations, cut down cost and promote profitability if they implement the findings of this study.
- x. Also electronic payment has brought about different or wide range of services, increased and improved performance in the bank as a result, other banks transactions can be made easier with the deployment of their services effectively.
- xi. The introduction of electronic payment products such as smartcard, ATMs, internet payment etc reduced customer's strength (financial ability). E-



banking has increased the customer loyalty patronage and establishes good relationship between bank and customer since the introduction of the products.

#### **4.5 Discussion of Findings**

Based on the research carried out it can be inferred that the deployment of electronic payment system as a strategy for effective service delivery in UBA offers effective and efficient service to bank's customers. This is justified by the finding on the questionnaire and interpretation made; the following findings have been advanced. This is in line with the findings of Imafidon (2013) who posit that the E-payments channels are the apparatus used to safely and efficiently transfer monetary value in exchange for goods and services as well as financial assets.

Similarly, the findings revealed that electronic payment system provides a high powered processing system that eases and increase the speed of processing of larger financial transaction. This has resulted to the efficiency of banks in terms of service delivery to customers'. The deployment of e-payment system makes banks to be efficient and committed to their customers needed satisfaction. This finding support the work of Ebulu (2014) asserts that in the banking industry, customers are gradually coming to terms with the arrays of products vaunted by banks in their bid to offer convenient banking services to their customers. On daily basis depositors are inundated with an array of service options which they are

encouraged to embrace as they canvass ease access to cash as well as deepen their relationship with the banks and of course the trend is paying off.

Furthermore, it was discovered that with effective deployment of e-payment system, as indicted by the bank under study, Nigerian banks can be able to expand their operations, cut down cost and promote profitability if they implement the findings of this study. Also electronic payment has brought about different or wide range of services, increased and improved performance in the bank as a result, other banks transactions can be made easier with the deployment of their services effectively. This commensurate with the findings of Delali (2010) who posited that the arrival of the internet has taken electronic payments and transactions to an exponential growth level. Consumers could purchase goods from the internet and send unencrypted credit card numbers across the network, which did not provide much security and privacy.

The introduction of electronic payment products such as smartcard, ATMs, internet payment etc reduced your customer's strength (financial ability). E-banking has increased the customer loyalty patronage and establishes good relationship between bank and customer since the introduction of the products. This is in line with the work of Choi & Rhee (2003), who stated that a secure electronic cash system can guarantee anonymity of legitimate users but also provides traceability about illegally issued cash or laundered money.



## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Summary**

The electronic payments system is a system that enables funds to be transferred electronically between individuals, financial institutions, companies and government sector. One of the greatest challenges to the implementation of an electronic payment system in Nigeria is that of changing the attitude of people to migrate from cash transactions to electronic payments. The objectives of the study were to assess the impact of electronic banking system on banks' service delivery.

After looking at electronic payment system in general, the extent of its application in Nigeria and also considering some obstacles or challenges that have to be surmounted for a successful adoption of electronic payment system, it can be inferred that electronic banking system offers enormous potential but measures need to be developed to prevent abuses inherent in this environment.

#### **5.2 Conclusion**

The Nigerian payment systems are largely cash based. While the country is left behind compared to other industrial countries, its use of electronic payment systems is gradually gaining prominence. All major types of e-payments are trading upwards and some new electronic payment instruments are beginning to emerge. Looking ahead, it can be said that the trend toward greater use of electronic payment systems will continue given the continuous increase in

commercial activities in the economy that has provided the thrust for increased on-line transactions.

### **5.3 Recommendations**

In light of the findings and discussions, the researcher wishes to make the following recommendations towards ensuring an effective electronic payments system in Nigeria:

a. Government should

- Analyze all laws, regulations and licensing practice to identify and remove barriers to competition, innovation, development and deployment of advanced e-payment services that would meet the payment needs of Nigerians.
- Put in place the consumer protection laws to safeguard the interest of end users of e-payment instruments. Consumers, for example, must be protected against fraudulent charges, non-delivery of electronically purchased merchandise, unauthorized use of credit cards, etc.
- Enact clear and unambiguous laws supporting payment finality, payment netting and collateral arrangements and ensure that these laws are enforced and not left redundant.
- Ensure that taxation mechanism for electronically initiated payments and transfers are legally specified.

- Give adequately give necessary supports to banks in other to improve the e-banking in Nigeria.
- b. The Management of UBA should;
- employed more competent employees and also send the existing ones for training so as to increase their efficiency.
  - Send its managers on a periodical training and seminar. This will reduced the problem of inadequate skilled managers and improve customers satisfaction.
  - Put in place effective laws and regulations against money laundering. This is necessary because many electronic cash systems enable person-to-person transfers, i.e. a transaction between a consumer and another consumer without recourse to a bank or a merchant as intermediary.
- c. The industry and government should show strong commitment and effort to educate the entire population about the benefits of opening such an electronic account

## REFERENCES

- Abor, J.E. (2004). Technological Innovation and Banking in Nigeria: An evaluation of customers' perceptions, *American Academy of Financial Management*, 33(4), 76-80.
- Abrazhevich, D (2002). "Classification and Characteristics of Electronic Payment Systems" retrieved from [www.citeserr.nj.ntc.com](http://www.citeserr.nj.ntc.com)
- Abubakar, A. (2014), The Effects of Electronic Banking on Growth of Deposit Money Banks in Nigeria. *European Journal of Business and Management*. 6, (33), 44-56
- Accenture (2003). Delivering a World class payment Environment. Retrieved from <http://www.isc.ie/downloads/payments>.
- Accountant General of the Federation Treasury Circular (2008) TRY/A8&B8
- Agba, D. (2010). Implications and Challenges of E-payment System. 12th March, 2014. Retrieved from file <http://www.itnewafrica.com>
- Akerejola, W. O. (2017). Determinants and adoption of point of sales of selected Business organisations in Lagos State, Nigeria. Being a thesis submitted in the Department of Business Administration and Marketing School of Management Sciences Babcock University. Unpublished.
- Alao, A. A.& Sorinola, O.O. (2015). Cashless Policy and Customers' Satisfaction: A Study of Commercial Banks in Ogun State, Nigeria. *Research Journal of Finance and Accounting*, 6 (2) 201-214
- Anik, A.A. & Pathan, A.K. ( 2002) A framework for managing cost effective and easy electronic payment system in the developing countries. Retrieved from [www.Commonwealth.com](http://www.Commonwealth.com).
- Annon, B.U. (2003). Survey of retail payment systems: Consumer payment options grow. *ABI/INFORM Global*, 5(4A-13A)..-

Anon (2003). *Nigeria's Banks Now Upgrading Payment System* (online), available: [http://www.newsfromafrica.org/newsfromafrica/articles/art\\_781.html](http://www.newsfromafrica.org/newsfromafrica/articles/art_781.html) retrieved 04-05-17

Appiah, A. & Agyemang, F. (2007). *Electronic Retail Payment System: User acceptability and payment problems in Ghana. International Journal of Advanced Studies in Economics and Public Sector Management*, 4, (7), 67-71

Asaolu, T.O., Ayoola, T.J. & Akinkoye, E.Y. (2011). Electronic Payment System in Nigeria: Implication, Constraints and Solutions, *Journal of Management and Society*, 1 (2), 16 – 21.

Asia N., Mbabazi, & Jaya, S. (2015). E-banking and Performance of Commercial Banks in Rwanda: A Case of Bank of Kigali. *European Journal of Accounting Auditing and Finance Research*. 3, (4) 25-57

Atabansi, L.A. (2010). We can grow our technology. 15th March, 2014. Retrieved from file [en.wikipedia.org/wiki/electronicpayment](http://en.wikipedia.org/wiki/electronicpayment).

Atteh, O., (2012). Cashless policy: Implementation, challenges and the way forward. *A Paper Delivered at the Bankers Dinner*, Osogbo, 24, May.

Ayo, A.O. (2011). Emergence of Payment Systems in the era of e-commerce in Nigeria: Problems and Prospects. *Delta Business Education Journal*, 1 (6), 64-72.

Balachandher, K. G., Santha, V., Norazlin, I., & Prasad, R. (2001). Electronic Banking in Malaysia: a note on evolution of services and consumer reactions. *Journal of Internet Banking and Commerce*, 5, 1.

Bank for International Settlements (2000). Survey of Electronic Money Developments. *Committee on Payment and Settlement Systems*, Basle.

Bickerteth S.(2005). Making e- commerce a reality in Nigeria. *Financial standard*, 7, (1),5.

Business Council (CBC) & VISA (2004) Payment solutions for modernizing economies. A paper presented at the Commonwealth Banking and Financial Services Conferences.



CBN (2006). Central Bank of Nigeria statistical bulletin 2006

Central Bank of Nigeria, (2010). Annual Reports and Accounts, December, 24: 18.

Central Banking (2004). Effective oversight of payment and settlement systems, *Central Banking Publications Ltd*, London (online), available: <http://www.centralbanking.co.uk/conferences/archv/2004/PDF/em041broch>.

Chima, A. (2007). Stakeholders move to fast track e-payment culture in Nigeria. *Financial standard*, 6 (29), 8.

Chimaobi, C. M. (2018). Impact of Internet Banking on Profitability of Commercial Banks in Nigeria: A study of Zenith Bank Plc (2005-2017). A project submitted to the Department of Accounting and Finance, Faculty of Management and Social Sciences,. Unpublished Manuscript

Chorafas, D. S. (1988). *Implementing networks in banking and financial services*. New York: Houndmills.

Crede, A (1998) Electronic payment System, Electronic money and the Internet: The United Kingdom Experience to Date retrieved from [www.susx.ac.uk/spru](http://www.susx.ac.uk/spru).

Damkwambo, I.H. (2009). *Understanding the e-payment system in Nigeria*. Paper at the workshop on in Abuja, 30th March, 2009.

David, H., Willeson, M., Lindblom, T. & Bergendahl, G. (2001) “What Does it Cost to Make A Payment?”, Working paper, Department of Finance, Florida State University.

David, H., Willeson, M., Lindblom, T. & Bergendahl, G. ( 2001 ) “What Does it Cost to Make A Payment?”, Working paper, Department of Finance, Florida State University.

Delali, K. (2010). The Challenges of Implementing Electronic Payment System: The case of Ghana’s E-zwich payment system *MBA Thesis*.

Dogara, A. B. (2010). The Impact of E-banking on Customer Satisfaction in Nigeria. Online at <https://mpira.ub.uni-muenchen.de/23200/>.

- Ebulu, S., (2008). ATM scaling the hurdles: The Nations, newspapers, Wednesday, February, 27: 21.
- Federal Reserve Bank (2004). *The 2004 Federal Reserve Payments Study Analysis of Non-cash Payments Trends in the United States: 2000 – 2003*, Dec. p. 1-13.
- Fiallos, F. & Wu, L. (2005). *Digital Money: Future trends and impact on banking, financial institutions and e-business*.
- Field, A. (2009). *Discovering Statistics Using SPSS* (3rd ed.). London: Sage Publishers Ltd.
- Fisher, S.(2000). “Financial System Soundness” *Journal of Finance and Development*, IMF/World bank, 14-16
- Global Insight, Inc& VISA (2003). The Virtown Circle: Electronic Payments and economic growth retrieved from [www.corporate.visa.com](http://www.corporate.visa.com).
- Gonzalez, M.E. (2008). “An alternative Approach in Service Quality: An E-banking Case Study”. *Quality Management Journal*, 15(1), 41- 58.
- Hamper (1997). *Fundamentals of Management practice*. London: Prentice Hall
- Humphrey, D.B., Kim, M. & Vale, B. (2001). Realizing the gains from electronic payments, cost, pricing choice. *Journal of Money, Credit, and Banking*, 33 (2), 216 – 234.
- Ibrahim, D., 2009. Bottlenecks in operation cashless and the way forward. A Paper Presented at Bankers Dinner, Ibadan, 18 April.
- Iluno, E. C. & Yakubu, J. A. (2015). The Impact of e-Commerce on Customer Satisfaction: a Case Study of Kaduna State Metropolis in Nigeria. *International Journal of Advanced Studies in Economics and Public Sector Management*, 5, (3), 33-60
- Imafidon, A., (2013). Challenges of E-banking and payment systems in Nigeria. *Journal of The Chartered Institute of Bankers of Nigeria*, Lagos, April-June. pp: 39.

- Joseph, O. & Richard, I. (2015). Electronic Payment System in Nigeria: Its Economic Benefits and Challenges. *Journal of Education and Practice*. 6, (16),
- Kadiri K. O. (2014). The Prospects & Problems of Information Technology in the Banking Industry in Nigeria. *Journal of Computer Engineering (IOSR-JCE)*. 16, (5), 112-123
- Kalakota, R & Whinston, B (2000). *Frontiers of Electronic Commerce*” Fifth Indian Reprint, Pearson Education Asia Ltd, pp 295-33.
- Kelvin, O., (2012). Mobile money for financial inclusion. *Journal of Macro Finance, Africa, Nett, Lagos*, 4: 14.
- Kilonzo, K.D (2007) An Analysis of the Legal Challenges posed by electronic Banking Kenya. *Law Review*. 1 (4) 323-331.
- Kulkani,(2004).*Internet and Communication System in Nigeria*. (2<sup>nd</sup>ed), Ibadan: African Fed. Publishers Ltd.
- Lagos Daily Mail (2004). New cash card launched, *Money and Finance* (online), available: [http://www.clubgh.com/showart.asp?art=139&cat=8\(2005-08-12\)](http://www.clubgh.com/showart.asp?art=139&cat=8(2005-08-12)).
- Landon, K &Traver, C. (2003) *E-Commercial Business Technology*, Society. Second Edition, Addison Wesley.
- Lawrence U. O., Alexander E. O., Johnson, I. O. & Isibor, A. A. (2018), Technology-Based Financial Services Delivery and Customer Satisfaction: A study of the Nigerian Banking Sector. *International Journal of Civil Engineering and Technology (IJCIET)* 9, (13) 214-223
- Lee, D.G., Oh, H.G., & Lee, I.Y. (2004). *A study on contents distribution using electronic cash system*. Proceedings of the 2003 IEEE International Conference on e-Technology, e-Commerce and e-Service, IEEE Computer Society.
- Lee, H.J., Choi, M.S., & Rhee, I.Y. (2004). *Traceability of double spending in secure electronic cash system*. Proceedings of the 2003 International Conference on Computer Networks and Mobile Computing IEEE Computer Society.

- Leong, A. (1998) Paper, Plastic and now, Electronic: A Survey of Electronic Payment System, retrieved from. [www.euromoney.com](http://www.euromoney.com)
- Massimo, C. & Gracia, J.A. (2008). *Measuring Payment System Development*. The World Bank.
- Microfinance Nigeria (2010). *Poor infrastructure, low awareness may hamper e-payments drive*.
- Moody's Analytics (2010). *The impact of electronic payments on economic growth*.
- National Bureau of Statistics, 2012. Annual Statistical Reports, 13: 11.
- Ndlovu, I. & Mlungis, S. (2013). Benefits and risk of electronic Banking: A Case of Commercial Banking in Zimbabwe IJES 2.
- Neuman, B. C. & Medvinsky, G. (1996). Net Cheque, Net Cash, and the Characteristics of Internet Payment Services. *The Journal of Electronic Publishing*, 2, Issue 1
- Ogedebe, P.M & Babatunde, P.J. (2012). E-payment: Prospects and challenges in Nigerian public sector. *International Journal of Modern Engineering Research (IJMER)*, 2 (5), 3104 – 3106.
- Okafor, F.O (2006) *Valedictory Lecture*. Presented to the University of Nigeria, Enugu Campus. B& F Publications.
- Okafor, F.O (2006) *Valedictory Lecture*. Presented to the University of Nigeria, Enugu Campus. B& F Publications.
- Okafor, L., (2008). Nigeria payments system: The role of the banking industry. Paper Presented at the CBN Seminar on the Dynamics of Managing the Nigeria Payment System in the 21st Century.
- Okoro, U. (2009). The effects of information system investment in banking industry: *Journal of Management Sciences*. University of Uyo. Kennis Publishers.
- Okoro, U. (2009). The effects of information system investment in banking industry: *Journal of Management Sciences*. University of Uyo. Kennis Publishers.

- Olakah, T. (2012). Benefit, challenges and prospects of a cashless economy. *Journal of The Chartered Institute of Bankers of Nigeria*, Lagos. Jan-March: 11.
- Olayinka, D. (2012). An assessment of Electronic Banking Performance in Retail Banking. A thesis submitted to the University of Manchester for the degree of Doctorate in Business Administration. Unpublished.
- Oloruntoyin, S.T. & Olanloye, D. O. (2012). The role of information communication technology (ICT) on national development. *International Journal of Economic and Development Issues*, 1&2(11).
- Osuala, S.C. (1990). Introduction to research methodology, (2<sup>nd</sup> ed). African Fed. Publishers Ltd. Onitsha, 128
- Ovia J. (2002). *Payment system and Finance Innovation*. A paper presented at the 9<sup>th</sup> CBN Forum, Abuja.
- Owoniye, R. (1994). *Case study research: Design and methods* (2nd ed). Beverly Hills, CA: Sage Publishing.
- Pierce, P. T. (2001). *The future of electronic payments: Roadblocks and emerging practices*. Fried-Frank-Harris-Shriver & Jacobson. Sep.
- Rose, P. S. (1999). *Commercial banking management*, (4<sup>th</sup> ed). Boston: Irwin/McGraw-Hill,
- Sadeghi, A & Schneider, M (2001) Electronic Payment System Electronic Payment Systems.
- Sali, B. (2015). Varying Impacts of Electronic Banking on the Banking Industry. *Journal of Internet Banking and Commerce*, 20, (2) 67-82
- Sanusi, L. (2011). "Cashless Economy in Nigeria". *International Journal of Finance*, 34, 18-39.
- Taiwo, J. N, & Agwu, M. E (2017). The role of e-banking on operational efficiency of banks in Nigeria. *Basic Research Journal of Business Management and Accounts*, 6 (1) 01-10

- Taiwo, O. A., Tajudeen, J. A. & Ebenezer, Y. A. (2011). Electronic Payment System in Nigeria: Implementation, Constraints and Solutions. *Journal of Management and Society*. 1, (2) 16-21
- Tijani, J. A. & Ilugbemi, A. O. (2015). Electronic Payment Channels in the Nigeria Banking Sector and Its Impacts on National Development. *Asian Economic and Financial Review*, 5(3): 521-531
- Tijani, J., (2013). Integrating the unbanked and under-banked Nigeria population into formal financial services through mobile money solution. *Journal of Pristine, Zaria*, 8(1): 158.
- Tooki, A. (2006). Intermac Moves to Stem Rejection of Nigeria's e-payment abroad. *Financial Standard*, 7(21) 256-266
- Uwah, T. (2011). Operations cashless. An article published in the leadership Newspapers, Wednesday, 22, June:
- Victoria, T. S. & Thomas, A. S. (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

## APPENDIX I QUESTIONNAIRE

### SECTION A

Personal Data (Characteristics of Respondents) kindly tick (v) as appropriate in the boxes provided below to show your option.

1. Education background
  - a. Primary ☐
  - b. Tertiary ☐
  - b. Secondary ☐
2. Sex
  - a. Male ☐
  - b. Female ☐
3. Years of experience
  - a. 1 – 5 years ☐
  - b. 6 – 10 years ☐
  - b. 11 – 15 years ☐
  - d. 16 years and above ☐
4. Position in the company
  - a. Senior staff ☐
  - b. Junior staff ☐

### SECTION “B”

Questionnaire for Staff of UBA please tick (v) as appropriate in the boxes provided below.

1. The introduction of e-payment systems has reduce the queue and time spent in the banking hall.
  - a. Strongly agree ☐
  - b. Agree ☐
  - c. Undecided ☐
  - d. Disagree ☐
  - e. Strongly disagree ☐
2. The deployment of electronic payment system offers significant benefits to bank customers.
  - a. Strongly agree ☐
  - b. Agree ☐
  - c. Undecided ☐
  - d. Disagree ☐
  - e. Strongly disagree ☐
3. The deployment of e-payment services offer efficient service to bank customers.
  - a. Strongly agree ☐
  - b. Agree ☐
  - c. Undecided ☐
  - d. Disagree ☐
  - e. Strongly disagree ☐
4. E-Payment has significant impact on the service delivery of Nigerian Banks.
  - a. Strongly agree ☐
  - b. Agree ☐

- c. Undecided [ ]
  - d. Disagree [ ]
  - e. Strongly disagree [ ]
5. Individual and organization now rely on e-payment services for their business transactions
- a. Strongly agree [ ]
  - b. Agree [ ]
  - c. Undecided [ ]
  - d. Disagree [ ]
  - e. Strongly disagree [ ]
6. E-banking is an effective tools, to attract customers patronage
- a. Strongly agree [ ]
  - b. Agree [ ]
  - c. Undecided [ ]
  - d. Disagree [ ]
  - e. Strongly disagree [ ]
7. Lack of government support on improvement of e-banking is one of the challenges of e-banking in Nigeria
- a. Strongly agree [ ]
  - b. Agree [ ]
  - c. Undecided [ ]
  - d. Disagree [ ]
  - e. Strongly disagree [ ]
8. Some banks are faced with the problem of inadequate skilled managers and requisite tools on end users and client systems
- a. Strongly agree [ ]
  - b. Agree [ ]
  - c. Undecided [ ]
  - d. Disagree [ ]
  - e. Strongly disagree [ ]
9. The performance of computer based payment services has improved your banks profit level.
- a. Strongly agree [ ]
  - b. Agree [ ]
  - c. Undecided [ ]
  - d. Disagree [ ]
  - e. Strongly disagree [ ]
10. The introduction of electronic payment products such as smartcard, ATMs, internet payment etc reduced your customer's strength (financial ability).
- a. Strongly agree [ ]
  - b. Agree [ ]
  - c. Undecided [ ]



- d. Disagree [ ]
  - e. Strongly disagree [ ]
11. E-banking has increase the customer loyalty patronage and establishes good relationship between bank and customer since the introduction of the products.
- a. Strongly agree [ ]
  - b. Agree [ ]
  - c. Undecided [ ]
  - d. Disagree [ ]
  - e. Strongly disagree [ ]