**TITLE PAGE**

**ASSESSMENT OF ELECTRONIC BANKING AND SERVICE DELIVERY IN THE**

**BANKING INDUSTRY IN NIGERIA**

**(STUDY OF ZENITH BANK PLC)**

**BY**

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**U13/MSS/BAF/001**

**A PROJECT**

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**JULY, 2017.**

**DECLARATION PAGE**

I, INYANG - UDO, KENNETH NNAH with the registration number U13/MSS/BAF/001,I am a bonafide student in the Department of Accounting and Finance under the Faculty of Management and Social Sciences in Godfrey Okoye University. I hereby affirm that the work embodied in this research: **ASSESSMENT OF ELECTRONIC BANKING AND SERVICE DELIVERY IN THE BANKING INDUSTRY IN NIGERIA (Study of ZENITH BANK PLC, ENUGU STATE)** is original and has not been submitted either in part or full in any other diploma or degree either in this or any other tertiary institution.

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**CERTIFICATION**

This is to certify that this research work entitled Assessment of Electronic Banking and service Delivery in the Banking Industry in Nigeria (Study of Zenith Bank Plc, Enugu State) written by Inyang -Udo, Kenneth Nnah with a registration number U13/MSS/BAF/001 submitted to the Department of Accounting and Finance of Godfrey Okoye University, Enugu has been assessed and approved Tor oral examination/defense by the Department of Accounting and Finance of Godfrey Okoye University, Enugu.

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External Examiner Date

**DEDICATION**

I dedicate this work to God Almighty for His grace and favour upon my life and for granting the enablement and power to finish the work. To him be glory, honour and praise forever.

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**ABSTRACT**

The study assessed the level of adoption of electronic banking in Zenith Bank. The main objective of the study was to evaluate whether electronic banking has improved service delivery by the bank. Four objectives and four-hypotheses were formulated and tested in the study. The researcher adopted the survey design and structured questionnaire was administered to selected respondents in the bank. The respondents were divided into two strata: staff and customers. Out of 135 staff, 103 were selected as sample using Taro Yamani approach. Because the population of customers is large, the Topsman sampling technique was adopted and 138 customers were selected. The questionnaire was administered to the staff by the researcher while few assistants were used to administer the questionnaire to the customers. Table and frequency distribution were used to present the data while the Chi- Square (X2) technique was used to test the research hypotheses. Findings from the study showed that there are sufficient technological capabilities in Zenith bank such as computer, tele-transfer, electronic purse, e-transacts, Automated Teller Machine, Smart Cards, Telephone Banking, Electronic Funds Transfer, Electronic Data Interchange, Electronic Home and Office Banking, etc. to enable the bank exploit the benefits of adopting electronic banking in their banking operations. The adoption of electronic banking by Zenith bank had led to improved customer services in terms of quick turn-around times, low down-times, 24/7service times, etc. Based on these findings, the researcher recommended, amongst other things, that management of Zenith bank should continue to adopt cutting-edge technology in her services delivery. Evidently, electronic banking is at the core of customers' satisfaction in the industry.

**CHAPTER ONE**

**INTRODUCTION**

**1.1 Background of the Study**

Since the history of human development, information has played a prominent role in our lives. The robust development in science & technology has immeasurably increased the role of information in every facet of human endeavor. The rapid expansion of a mass of diversified information has given birth to the term “information explosion” and a rise to the scientific approach in information management and in the interpretation of the concept of information.

The concept has been broadened to include information exchanges not only among men but also among machines as well as the exchange of signals in the animal and plant worlds. The pace of change brought by new technologies has had significant effect on the way people live, work, and play globally.

Today’s business environment is very dynamic and rapid changes as a result of creativity, innovation, technological changes, increased awareness and demands from customers. Business organizations, especially the banking industry of the 21st century operates in a complex and competitive environment characterized by these changing conditions and highly unpredictable economic climate with Information and Communication Technology (ICT) at the centre of this global change curve.

Laudon and Laudon (2014) contended that managers cannot ignore information systems because they play a critical role in any contemporary organization. They point out that the entire cash flow of most Fortune 500 companies is linked to information system. The application of information and communication technology concept, techniques, policies and implementation strategies to banking services has become a subject of fundamental importance and concerns to all banks and a prerequisite for local and global competitiveness. ICT directly affects the various management functions of planning, organizing and the nature of services offered in the banking industry. It has continuously changed the way banks organized their corporate relation worldwide with the variety of innovative devices available to enhance the speed and quality of services delivery.

Harold and Jeff (2015) contended that financial service providers should modify their traditional operating practice to remain viable in the 21st century and the decade beyond. Thus, ICT has emerged as a catalyst in the various industries of the world to aid the process and procedure required to ensure the realization of various organizational goals.

Indeed, the explosive growth in Information and Communication Technology (ICT) have narrowed digital divide and turned business sphere to electronic world (e-World). Specifically, technological innovations have led credence to global transformation of operational dimension of traditional banks over a decade ago. Internet technology has brought about a paradigm shift in banking operations to the extent that banks embrace internet technology to enhance effective and extensive delivery of wide range of value added products and services.

The adoption of ICT by banks has led to what is now generally known as electronic banking or e-banking. The role of electronic banking in service delivery became of interest to this study due to the significant role it plays in the economy by stimulating economic growth through the intermediation of funds to economic agents that need them for productive activities. This function is very vital for any economy that intends to experience meaningful growth because it provides arrangements that bring borrowers and lenders of financial resource together and more efficiently too than if they had to relate directly with one another (Ojo, 2007).

Consequently, Nigerian banks, especially the deposit money bank (DMBs), recognized electronic banking to be the most effective means of distinguishing themselves from other competitors by investing in sophisticated technology (Auta, 2010).

In the last few years, Nigerian banks have been witnessing tremendous success in the delivery of a wide range of value added products and services through e-banking and there have been evidences of increasingly acceptance of e-banking in Nigeria (Ayo, 2010). It has been observed that Nigerian banks have realized that the way in which they can gain competitive advantage over their competitors is through the use of technology (e-banking). Thus, there is growing rate of technology adoption in the Nigerian banking operations (Salawu and Salawu, 2014).

However, the fact that e-banking is fast gaining acceptance in Nigerian banking operation does not assuredly signifies improved performance nor would conspicuous use of internet as a delivery channels make it economically viable, productive or profitable. Whether progress is made in the use of internet technology (e-banking) or not, there should be a parameter to adequately measure performances of these banks over specific period of adoption.

No doubt, empirical studies exist on e-banking and its impact bank performance. However, there is a relative dearth of empirical studies that provide evidence on the impact of electronic banking on service delivery in Nigeria, despite its increasing rate of adoption by Nigerian banks.

**1.2 Statement of the Problem**

Electronic banking has become a very important aspect of today’s banking and financial services delivery in Nigeria in particular and the world at large. The competitive nature of banking business has necessitated the emphasis now placed on electronic banking. In the developed societies, ICT is generally believed to have dramatic influence and is seen as continually determining the competitive nature of virtually all business. Conversely, in the developing countries, ICT has brought a technological revolution whose use and production have been somewhat limited but holds a great promise in accelerating socio-economic development in these countries. In Nigeria, the application of electronic banking to banking operations has become a subject of concern to all banks operating in the country and indeed, a prerequisite for global competition and satisfaction.

As a basic prerequisite in the development of banking business, customer satisfaction holds the potential for increasing an organization’s customer base, increase in the use of more volatile customer mix and increase in firm’s reputation. The consolidation exercise in Nigerian banking sector has left customers with a wide range of choice for products and services.

Studies have shown significant and positive correlation between electronic banking and customer satisfaction and profitability. Although, the Nigerian banking industry is relatively slow in the adoption and utilization of electronic banking. In this wise, Nigerian banking industry is lagging behind its counterparts in Europe, Asia, and America in the adoption and application of electronic banking to its operations. But it should be noted that electronic banking has become the major tool that enables banks to present a more professional product offer and keep pace with innovative market place. It is also reasoned that, if Nigerian banks move towards a high-level of adopting electronic banking in their entire operations, it will impact positively on customers’ satisfaction that translate to high retention rate and higher profitability.

It is in view of the aforementioned fact that, this study seeks among other things to examine whether or not the application of electronic banking has improved the service delivery of Nigeria banks using Zenith Bank as case study.

**1.3 Objectives of the Study**

The broad objective of the study is to assess whether electronic banking has improved service delivery of Nigerian banks with focus on Zenith Bank Plc. Specific objectives include:

1. To assess the extent Zenith Bank has adopted electronic banking in their operations
2. To determine whether the adoption of electronic banking in Zenith Bank has led to improved customer services

**1.4 Research Questions**

The following research questions have been designed to elicit the desired response to achieve the objectives of the study:

1. To what extent has Zenith Bank adopted electronic banking in her operations?
2. Has the adoption of electronic banking in Zenith Bank improved customer services?

**1.5 Research Hypotheses**

The following hypotheses are formulated and tested in the study:

Ho: Zenith Bank has not significantly adopted electronic banking in her operations

H1A: Zenith Bank has significantly adopted electronic banking in her operations

Ho: The adoption of electronic banking has not significantly improved service delivery in Zenith Bank

H2A: The adoption of electronic banking has significantly improved service delivery in Zenith Bank

1.6 **Significance of the Study**

The study will be of immense benefit to several groups of people both in the Nigerian banking sector and the academics. First, the study will be of relevance to board members, bank management and staff in the banking sector in Nigeria espacially, for Zenith Bank. The aim of every bank is to achieve maximum level of returns on investment at the lowest possible cost and to secure a larger market share. The adoption of electronic banking is vital to the attainment of such goal.

Moreover, the product of this research will add to the knowledge base on electronic banking platforms and deployment to which managers in the banking sector can tap into to achieve their organization’s objectives.

Again, customers, shareholders, employees and other stakeholders in the banking sector will benefit from the result of the study, in the sense that if the banks deploy electronic banking in their operations, it will impact positively on the quality of services rendered by the banks and the rate of returns on investment.

Furthermore, the outcome of this research is also expected to be of significance to industry watchers and analyst. This group of people will utilize the platform of this study in their analysis on electronic banking in the Nigerian banking sector. Similarly, the general public, through the findings of this research, will be better informed on electronic banking in the Nigerian banking sector.

**1.7 Scope of the Study**

The study is limited to electronic banking and services delivery in the Nigerian banking sector. The study is also limited in geographic scope to Zenith Bank branches in Enugu metropolis. Zenith Bank has 5 branches in Enugu metropolis with a large customer base. The researcher focused on the staff and selected customers of the bank in Enugu metropolis.

**1.8 Limitation of the Study**

The researcher encountered some problems in the course of carrying out the research work. The first of these problems is lack of funds. This constraint limited the scope of the work. The researcher would have loved to involve more banks in the study but the funds to embark on such extensive work was lacking. Time too was a constraint as the researcher was combining the research with academic work both of which required a great of deal of time.

**1.9 Profile of Zenith Bank Plc**

Zenith Bank Plc as one of the foremost new generation’s banks in Nigeria has operated for over two decade. In other words, the bank has grown older and with maturity comes wisdom from which the bank makes decisions now largely influenced by customers’ best interest. Zenith Bank is reputed for its turnaround time in service delivery which the bank pursues with great passion, energy and enthusiasm. Zenith Bank has a pool of professionals that are constantly encouraged to display their creativity, which would translate into greater wealth creation for customers.

As Nigeria improves its Information Technology (IT) infrastructure (telecom modernization) and celebrates GSM roll-out, Zenith Bank leading edge in IT makes the bank one of the few that are well positioned to join the international bank community in the next generation of E-banking services. This is further enhanced by the bank’s sophisticated credit risk modeling and operational risk management system that seek to create a blend that not only grows customers’ business but strengthens it. The bank’s credit management system stresses rational procedures and transparency. Zenith Bank is one bank that sees technology as an enabler and as a generator of new opportunities while at the same time mindful of the disruptive power of digital revolution by its forward thinking and bench-marking of trends in technology with practical delivery on a highly automated platform that makes the bank unique.

In essence, Zenith Bank’s strength lies on its professional and highly dedicated workforce, its cutting IT infrastructure and quality of its management team. The bank’s leadership assets are manifested in the ability of its managers to combine strands of knowledge to create fast action value for the customers. The bank’s leadership combines vision with precision; using creativity, skills and ideas to expand their business reach into the lives of the customers by helping them fulfill their needs with speed and dedication.

The bank’s weakness lies in the external environment which is marked by unstable macro- economic environments, dearth of skilled manpower; uncertainty in political circles and insecurity of lives and properties. Threats to the bank comes from stifling competition from first generation and other emerging banks; the global financial crisis, the capital market crash which saw banks including Zenith lose some substantial sums in margin facilities and recently, the crisis in the Nigerian banking system which is assuming alarming and contagion effect even for healthy banks like Zenith.

However, Zenith Bank is leveraging on opportunities offered by expanded CBN corridor, the proposed deregulation of the downstream sector of the oil & gas which will see Zenith playing significant roles in downstream facilities and other consortia arrangements.

**CHAPTER TWO**

**REVIEW OF LITERATURE**

**2.1. Concept of Electronic Banking (E-Banking)**

The term e-banking is technically and intricately complex to define as it may be interpreted differently from different viewpoints. The versatility of e-banking as delivery multichannel increases the intricacy of being precisely defined in the literature. Nonetheless, several attempts have been made to offer succinct and all-inclusive meaning of e-banking.

Auta (2010) defined e-banking or internet banking as the employment of a remote delivery channel in performing banking services. Ovia (2001) viewed e-banking as automated delivery of new and conventional banking products and services directly to customers through electronic, interactive channels.

The emergence of e-banking has not relinquished traditional banking products and services but rather transformed traditional models to enhance quality service delivery, real time access, reduce operational cost and ultimately achieve maximum efficiency in banking operations. While e-banking serves as automated, interactive channels by which customers conveniently gratify their demands for bank transactions, elsewhere the term is observed to be a larger concept than users’ satisfactions (Ovia, 2001).

In addition, e-banking is viewed as the process by which a customer carries out banking transactions electronically without going to a brick-and-mortar institution. In this case, e-banking is defined from the state of branchless or virtual banking indicating that geographical location in banking sphere seems to be less important as banks continue to adopt e-banking (Simpson, 2012).

However, the most commonly accepted definition of e-banking is the one given by Basel Committee Report on Banking Supervision (1998). The committee defined e-banking as “the provision of retail and small value banking products and services through electronic channels”. In this work, e-banking is defined as the use of intelligent devices through internet to effect banking operations. Such intelligent devices may be mobile or immobile.

**2.1.2 E-banking vis-à-vis Traditional Banking in Nigeria**

Nigerian banks started adopting e-banking five years after US banks launched their electronic channels (Chiemeke, 2006). Before year 2000, all banks in Nigeria were virtually bricks and mortar banks. That is, they were operating manually and highly restricted to fundamental role of safekeeping. Hence, all commercial banks before this time were traditional banks. Customers went to their banking premises to effect transactions, though element of e-banking was present because customers used telephone to effect transactions. After this period, most of the commercial banks in Nigeria started adopting e-banking at almost the same time. Currently, all commercial banks in Nigeria are fully automated e-banking but the impact of e-banking on bank service delivery via-a-vis traditional banks is yet to be empirically validated.

**2.1.3 Electronic Banking Services**

Electronic banking in an offshoot of ICT, and it provides the classic and current means of banking. In other words, it is ICT that brought about electronic banking services that are conducted on the platform of mobile devices and wireless networks; also provision of banking and financial services with the help of mobile telecommunication devices. It has brought changes into the banking industry and is having major effects on banking relationships. It should be remarked that, almost all the 25 banks that survived the consolidation exercise of 2005 in Nigeria have adopted electronic banking in one form or another, although the adoption level was mostly at low or basic interactivity and functionality level.

There is abundant evidence that electronic banking system is expected to serve the purpose of decongesting banking hall, reducing waiting time, making customers more liquid and above all, ensuring a cashless society. The advent of electronic banking in Nigeria also brought in some products to make bank transaction easy and efficient, these products include amongst others Efficient Quick Service (EQS), electronic Payment System (e-PS), Telephone Banking (TeB), Electronic Purse Service (EPS), Smart Cards (SC), Automated Teller Machine (ATM), and Wireless Transfer (WT). However to ensure effective customer satisfaction; Nigerian banks must be willing to adopt latest technologies occasioned by advancement in ICT. Waiting for service is a fact of life; however excessive waiting can impair significant satisfaction thereby breeding a growing frustration associated with untimely delivery of services. With the current low rate of e-banking adoption, it is doubtful if Nigeria shall meet its set target of becoming a key player in ICT and e-banking by the year 2020. Be that as it may, customer satisfaction with banking services is affected by the perceived product/service quality and other related delivery process.

**2.1.4 Important of ICT in E-Banking Operations**

Managers cannot ignore Information Communication Technology (ICT) because they play a critical role in contemporary organization. The application of information and communication technology concepts, techniques, policies and implementation strategies to banking services has become a subject of fundamental importance and concerns to all banks and indeed a prerequisite for local and global competitiveness. ICT directly affects how managers decide, how they plan and what products and services are offered in the banking industry. It has continued to change the way banks and their corporate relationships are organized worldwide and the variety of innovative devices available to enhance the speed and quality of service delivery.

Information and Communication Technology (ICT) is the automation of processes, controls, and information production using computers, telecommunications, software’s and other gadgets that ensure smooth and efficient running of activities. It is a term that largely covers the coupling of electronic technology for the information needs of a business at all levels.

ICT has surpassed the role of support services or only electronic data processing; its fields of applications are slightly global and unlimited. Its devices especially the Internet and modern computer email facilities have further strengthened early modernizations like the telephone and fax. Other ICT devices include data recognition equipment, factory automation hardware and services, tele-computing and teleconferences using real time and online system (Adeoti, 2005).

It is a concept that is having a remarkable effect on almost entire aspects of the human endeavours. This implies that it involves the application of principles to engage physical component in achieving an intended goal. The merging of computer and telecommunication after about four decades of applying computers to routine data processing, mainly in information storage and retrieval, has created a new development where information has become the engine of growth around the world.

This development has created catch-up opportunities for developing countries such as Nigeria to attain desired levels of development without necessarily reinventing the wheels of economic growth. This new technology has brought far-reaching revolution in societies, which has tremendously transformed most business (banking) scenes (Ovia, 2005).

Ovia (2005) itemized some bank services that have been revolutionized through the use of ICT as including account opening, customer account mandate, and transaction processing and recording. Information and Communication Technology has provided self-service facilities (automated customer service machines) from where prospective customers can complete their account opening documents direct online. It assists customers to validate their account numbers and receive instruction on when and how to receive their cheque books, credit and debit cards. ICT products in use in the banking industry include Automated Teller Machine, Smart Cards, Telephone Banking, Electronic Funds Transfer, Electronic Data Interchange, Electronic Home and Office Banking.

Agboola (2006) discussed the dimensions in which automation in the banking industry manifest in Nigeria. They include: Bankers Automated Clearing Services: Automated Payment Systems, Automated Delivery Channels.

According to Ovia (2001), banking in Nigeria is increasingly depended on the deployment of Information Technology and that the IT budget for banking is by far larger than that of any other industry in Nigeria. He contended that On-line system has facilitated Internet banking in Nigeria as evidenced in some of them launching websites. He observed that banks now offer customers the flexibility of operating an account in any branch irrespective of which branch the account is domiciled.

Woherem (2013) revealed that Nigeria banks since 1980s have performed better in their investment profile and use of ICT systems, than the rest of industrial sector of the economy. An analysis of the study carried out by African Development Consulting Group Ltd. (ADCG) on IT diffusion in Nigeria shows that banks have invested more on IT, have more IT personnel, more installed base for PCs, LANs, and WANs and a better linkage to the Internet than other sectors of the Nigerian economy. The study, however pointed out that whilst most of the banks in the west and other parts of the world have at least one PC per staff, Nigerian banks are lagging seriously behind, with only a PC per capital ratio of 0.18.

Ovia (2005) opined that the revolution in ICT has made the banking sector changed from the traditional mode of operations to presumably better ways with technological innovation that improves efficiency. ICT can enhance efficiency via its use and in recent times banks have been encouraged by the rapid decline in the price of ICT gadgets. This has perhaps increased the bank level of ICT usage. The increase might have also been attributable to business environment that became relatively flexible to accommodate new forms of technological change as a result of reforms in the country.

Banks should incorporate ICT into their strategic plans for effective performance in payment and delivery systems. This calls for proper analysis to determine the type, nature and extent of ICT products required for effectiveness and efficiency. It is imperative for bank management to intensify investment in ICT product to facilitate speed, convenience and accurate service. Studies over the years have identified the benefits of applying Information and Communication Technology (ICT) to customer’s satisfaction in banking activities.

Given the role technology plays in the modernization of the banking sector, there is no doubt that the future of Nigerian banking industry lies heavily on its quick and fast adoption of ICT. Experiences from other countries revealed greater attention on the application of ICT to the activities of commercial banks and other financial institutions to facilitate their operations and bring about greater business advantages.

**2.2 Theoretical Review**

Several theories have been put forth to explain the increasing adoption of electronic platforms in banking services delivery. Among these theories are Diffusion of Innovation theory and Technology Acceptance theory. These two theories are reviewed briefly.

**2.2.1 Diffusion of Innovations (DOI) Theory**

Denning (2004) is reputed for introducing the theory of diffusion of innovations. He sees the theory as a transformation of practice in a community. It essentially is an idea, practice or object that is perceived to be new by a person or adopting entity. Innovation is transmitted through diffusion and adoption. Diffusion entails communicating or spreading of the news of the innovation to the group for which it is intended. Adoption however, is the commitment to and continued use of the innovation.

Diffusion of innovation theory postulate that diffusion of innovation occur as potential users become aware of the innovation, judge its relative value and make a decision based on their judgment, implement or reject the innovation, and seek confirmation of the adoption or rejection decision. The theory consists of three components: 'the innovation decision process, characteristics of an innovation and adopter characteristics (Bates, Manuel & Oppenheim, 2007).

The innovation decision process categorizes the steps an individual takes from awareness of an innovation, through the formulation of an attitude to the innovation, to the decision as to whether to implement. The characteristics of an innovation have an impact on the likelihood of acceptance and adoption, and also on the rate at which this process develops. These innovation characteristics can also be classified into five criteria: compatibility, complexity, observability, relative advantage and trialibility.

**2.2.2 Technology Acceptance Theory**

The Technology Acceptance Model (TAM) is similar to the diffusion of innovation theory but it places more emphasis on psychological predispositions and social influences such as belief, attitudes and intentions. Marcus's theoretical model of adoption highlights the importance of innovative behaviour and the phenomenon of others modeling themselves on this. Communication channels are a vital component in spreading this modeling behaviour to other potential adopters. The range of influential factors in the take-up of innovations include: the associated 'costs' (personal and institutional), the availability of necessary 'resources' (money, equipment, training, time, prior experience and relevant skills) and the 'value' of the innovation (Bates, Manuel & Oppenheim, 2007).

This study is anchored on the diffusion of innovations (DOI) theory. The adoption of electronic banking is a transformation of practice - a practice of moving from analogue or manual operations to that of machine or electronic enabled processes. Electronic banking is an innovation that is transmitted through diffusion and adoption.

**2.3 Empirical Review**

**2.3.1 Electronic Banking and Banking Services**

Several studies have been carried out in various countries on the effect of electronic banking on banking sector performance. Some of these works are reviewed here.

Hernado (2006) examined the impact of the adoption of a transactional web site on financial performance using a sample of 72 Spanish commercial banks over the period of 1994-2002 and. The study found a positive impact of transactional web on commercial banks profitability.

The result of Hernado was confirmed in a similar study by DeYoung (2007) who found that internet banks are more profitable than non-internet banks, though no specification were made as to time of significant reality.

Onay (2008) examined the impact of internet banking on banks’ profitability of Turkish over the period (1995-2005). They found that internet banking contribute to significant improvement in banks’ ROE with a time lag of two years confirming the findings of Hernando et al. (2007) while a negative impact was observed for one year lagged dummy.

Malhotra and Singh (2009) examined the impact of internet banking on performance and risk tracing the experience of Indian commercial banks during the periods 2006 - 2007 and found that that the profitability and offering of internet banking does not have any significant impact on banking sector performance.

Mohammad and Saad (2011) examined the impact of electronic banking on the performance of Jordanian banks over the period (2000- 2010) using OLS regression and found that electronic banking has a significant negative impact on banks performance.

Several studies have also been conducted on the adoption, customers’ acceptance and choice of banks, and state of e-banking in Nigeria (Chiemeke, 2006; Idowu,2002; Ezeoha, 2005 & 2006; Agboola, 2006; Salawu, 2007; Eyo, 2010).

Chiemeke (2006) examined the level of adoption of internet banking in Nigeria and found that internet banking was offered at the basic level of interactivity with most of the banks having mainly information sites and providing little internet transactional services.

Ayo (2010) reviewed the state of e-banking implementation in Nigeria and evaluated the influence of trust on the adoption of e-payment using an extended technology acceptance model (TAM). The study found that e-banking was increasingly adopted by Nigerian banks.

Auta (2010) empirically examined the impact of e-banking in Nigeria’s economy using Kaiser-Mayar-Olkin (KMO) approach and Barlett’s Test of Sphericity. The study found that customers of commercial banks in Nigeria had inadequate knowledge regarding e-banking services being offered. As far as Nigeria is concerned, e-banking is extensively gaining prominence and the implementation of cashless policy by Central Bank of Nigeria increases its rate of adoption.

**2.4 Summary of Empirical Reviews**

From the empirical reviews above, it is clear that there is mixed evidences on the impact of e-banking on banks performance in the literature. Besides, none of the empirical works focused strictly on services delivery; not even the studies in Nigeria. Thus, there is an empirical gap in the literature on the effect of e-banking on banking services delivery especially in Nigeria.

**CHAPTER THREE**

**RESEARCH METHODOLOGY**

* 1. **Introduction**

This chapter focused on the framework for the study. The framework include the research design, the nature and sources of data, population and sampling technique, method of data analysis, etc.

* 1. **Research Design**

The survey research method was used in the study. Exploratory research, according to Asika (2004), is concerned with identifying real nature of problems and formulating relevant hypothesis to be tested. This research design was chosen because of its merits, which include:

* 1. It gives summary of the main issue
  2. Sources of information could be gathered through literature search, i.e. secondary data comprising works of various experts on the subject
  3. It is possible to use experience survey, i.e. meeting knowledgeable employees of various level in the selected organization.
  4. **Sources of Data**
     1. **Primary Sources of Data**

The primary source of data for the work is the questionnaire. These were constructed using open and closed ended questions to elicit the desired answers from the respondents. The questionnaire was complemented by oral interviews with few respondents to validate some of the responses in the questionnaire.

* + 1. **Secondary Sources of Data**

Secondary sources of data were mainly through reviews of related literature in learned journals, internets, libraries and textbooks on ICT.

* 1. **Population of the Study**

The population of the study consists of the entire staff of the Six (06) Zenith Bank Branches in Enugu metropolis, Enugu State. The population also includes customers of the Bank within Enugu metropolis. Although it is technically possible to make use of the entire population of study, it might not be the ideal thing to do given the large number of the population and the cost in terms of time and resources that will be involved. Thus the researcher used a sample of the population for the study.

3.4 **Determination of Sample Size**

The population for the study was 135 members of staff of the bank. Since it will be costly for the researcher to reach the entire population, the Yaro Yamane formula was used to determine the sample size.

The Yaro Yamane has the formula given below:

n =

\_\_\_\_\_\_\_

1 + N(e)2

Where,

n = sample

N = Population = 135

e = error of tolerance (at 95% confidence level)

1 = statistical constant

n =

\_\_\_\_\_\_\_\_\_\_\_

1 + 135(0.05)2

n =

\_\_\_\_\_\_\_\_\_\_\_

1 + 0.3

n =

\_\_\_\_\_\_\_\_\_\_\_

1.3

n =

The sample size was subdivided into 40 management staff and 63 supervisors who were selected through simple random sampling technique.

**3.4.2 Sample Size for Bank Customers**

Because of the inherent problem associated with determining the exact size of the required sample, the researcher conducted a pilot survey to find out the proportion of bank account holders that have account with Zenith Bank randomly from selected groups. It was observed from the preliminary study that in every 10 bank account holders sampled, 3 (or 30%) agreed that they have Zenith Bank account while 7 (or 70%) did not have account with Zenith Bank.

Thus, the sample for Zenith Bank customers was derived using Topsman formula (Osuagwu, 2002):

n = Z2pq

e2

Where,

n = required sample size

Z = desired confidence level, 90% for the study (1.96)

p = probability of positive response (.30%)

q = probability of negative response (.70%)

e = limit of error allowable, 5% (or 0.05) for the study

Thus, n = (1.96)2 x (.30) x (.70)

(0.05) 2

n = (3.8416) (0.09)

0.0025

n = 0.345744

0.0025

n = 138.29

n ~ 138

**3.5 Sampling Technique**

Because of the nature of the study population which does not require any strict randomness, the researcher adopted the Convenience sampling technique. According to Asika (2004) the accidental or convenience sampling method is appropriate where the researcher is particularly interested in having a feeling or an idea of a phenomenon of interest without any guarantee of randomness. In other words, the elements of the population do not have the privilege of having equal chance or known probability of being selected in the sampling process. The non-probability does not however, invalidate the result of the sample.

The same convenience sampling technique was adopted in administering questionnaires to the respondents.

To collect the relevant data, 40 questionnaires were administered to top management staff of the bank, out of which 32 were properly completed and returned. Also, 63 questionnaires were administered to supervisors, out of which 51 was properly completed and returned. Again, 138 questionnaires were administered to Zenith Bank customers, out of which 75 were returned. The researcher used some research assistants to administer the questionnaire to the respondents.

**3.6 Instrument for Data Collection**

The research instrument used to collect the data was mainly the questionnaire. The questionnaire was constructed by using both open-ended and closed-ended questions.

**3.7 Questionnaire Allocation and Administration**

In order to administer the questionnaire to the bank customers, the researcher divided Enugu Metropolis into five major zones for administrative convenience only.

The various zones are:

Zone 1: Asata, Ogui New Layout

Zone 2: GRA, Abakpa, Trans Ekulu

Zone 3: New Haven, Independence Layout

Zone 4: Uwani, Achara Layout, Idaw River Layout, Awkunanaw

Zone 5: Coal Camp, Iva Valley

**3.8 Testing the Reliability and Validity of Data Collection Instrument**

To test the reliability and validity of the questionnaire as a data collection instrument, the researcher carried out a pilot survey of the population by administering structured questionnaire. The questionnaire was distributed among some respondents in the population to assess their degree of comprehension of the questions in the questionnaire. Thereafter, the researcher carried out an analysis of their responses in the pilot survey. Some of the ambiguities detected were clarified. This pilot test and the clarifications that followed assured the researcher that valid results would be obtained during the real survey.

**3.8 Method of Data Treatment and Analysis**

The researcher organized the data collected into tables, frequencies and percentages. In order to test the various hypotheses, chi-square (X2) was used at 5% level of significance. According to Asika (2008), the chi-square is applied in the following situations:

1. Where there are two variables drawn from independent samples each of which is categorized in two ways, e.g. Yes and No responses.
2. When the data are non-metric, i.e. when the data are expressed in frequencies.
3. When null hypothesis could be stated of the variables. That is, there is no relationship between the two variables – the two variables are independent of each other.

There are two types of X2 test – the chi-square (X2) test of independence and homogeneity and the chi-square goodness of fit test. In each case the test procedure involves comparing observed frequencies with some expected frequencies.

The researcher applied the chi-square test of independence and homogeneity with the following assumptions:

1. the data are drawn randomly from a population of interest
2. two criteria are used to cross-classify the observations and each observation must belong to one criterion.

The following formula is used in computing the chi-square value for the data:

X2 = ∑(Oij – Eij)

Eij

Where Oij = Observed frequency

Eij  = Expected frequency

**Decision Rule**

Reject the null hypothesis of independence at α = 0.05, if the computed value of the test statistic, X2 exceeds the critical (tabulated) value of X20.95 for (r-1) (c-1) degrees of freedom, where

r = number of rows

c = number of columns

**CHAPTER FOUR**

**PRESENTATION AND ANALYSIS OF DATA**

4.0 **Introduction**

Data collected through the questionnaire were analyzed in this section. The research hypotheses were also tested in this section.

**4.1 Return of Questionnaire**

The questionnaire distributed among the staff and customers of Zenith Bank were returned and data collated therein are presented in the tables below:

**Table 1**

**Return of Questionnaire by Zenith Bank Employees**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Unit | Senior | Percentage | Supervisors | Percentage |
| Customer Service | 4 | 12.5 | 8 | 15.7 |
| Funds Transfer | 6 | 18.6 | 5 | 9.8 |
| Treasury | 4 | 12.5 | 9 | 17.6 |
| Operations | 6 | 18.6 | 10 | 19.9 |
| Marketing | 6 | 18.6 | 9 | 17.6 |
| Cash & Teller | 4 | 12.5 | 7 | 13.5 |
| System Admin | 2 | 6.2 | 3 | 5.9 |
| Total | 32 | 100 | 51 | 100 |

Source: Field Survey, 2017

Table 1 showed that out of a total of 40 questionnaires administered to the management staff of Zenith Bank, 32 were returned while out of the 63 copies administered to the supervisory staff of the bank, 51 were returned by them.

**Table 2**

**Return of Questionnaire by Bank Customers**

|  |  |  |  |
| --- | --- | --- | --- |
| **Area/Zone** | **No. Distributed** | **No. Returned** | **Percentage** |
| **Zone1**: Asata, Ogui New Layout | 25 | 20 | 14.5 |
| **Zone 2**:GRA, Abakpa, Trans Ekulu | 20 | 15 | 10.9 |
| **Zone 3**:New Haven, Independence Layout | 30 | 15 | 10.9 |
| **Zone 4**:Uwani, Achara Layout, Idaw River Layout, Awkunanaw | 40 | 20 | 14.5 |
| **Zone 5**:Coal Camp, Iva Valley | 23 | 5 | 3.6 |
| Total | 138 | 75 | 54.4 |

Source: Field Survey, 2017

Table 2 shows that out of 138 questionnaires distributed to the customers of Zenith bank in Enugu metropolis, only 75 or 54.4 percent of them were returned. Therefore, 75 respondents’ data were used for presentation and analysis in the work.

**4.2 Presentation of Data Obtained from the Respondents**

**Questions 1: Are there sufficient technological capacities in Zenith Bank for the bank to exploit the benefits of electronic banking?**

To elicit the required data from this question, the researcher structured questions items 6, 7 and 8 for the employees, which sought to ascertain whether the bank has adequate technological capacities to exploit the benefits of ICT in the bank’s operations. The results of the data gathered from these questions are presented in tables below:

**Table 3**

**Are there sufficient technological capacities in Zenith Bank to exploit the benefits of electronic banking?**

|  |  |  |
| --- | --- | --- |
| Alternative Response | Frequency | Percentage |
| Yes | 80 | 96.4 |
| No | 3 | 3.6 |
| Total | 83 | 100 |

Source: Field Survey, 2017

Table 3 shows that 80 or 96.4 percent of the respondents who are employees of the bank agreed that the bank has sufficient technological capacities to exploit the benefits of ICT in the bank’s operations while 3 or 3.6 percent of the respondents were of the view that bank do not have sufficient technological capacities to exploit the benefits of ICT.

The data gathered from the customers of the bank on the same subject are presented in table 4 below. Question items 12 and 13 were used.

**Table 4**

**Are there sufficient technological capacities in Zenith Bank to exploit the benefits of electronic banking?**

|  |  |  |
| --- | --- | --- |
| Alternative Response | Frequency | Percentage |
| Yes | 73 | 97.3 |
| No | 2 | 2.7 |
| Total | 75 | 100 |

Source: Field Survey, 2017

Result from Table 4 shows that 73 or 97.3 percent of the customers surveyed agreed that there are sufficient technological capacities in Zenith bank to exploit the benefits of ICT. However, 2 or 2.7 percent of the customers surveyed believed the bank did not sufficient technological capacities to exploit the benefits of ICT.

**Questions 2: To what extent has Zenith bank adopted electronic banking in her banking operations?**

To gather data for this subject, questions 6 was designed for the customers while question 12 was designed for the employees of the bank.

**Table 5**

**Customers Assessment on the extent Zenith Bank adopted electronic banking in her operations?**

|  |  |  |
| --- | --- | --- |
| **Alternative Response** | **Frequency** | **Percentage** |
| To a large extent | 64 | 85.3 |
| To a less extent | 6 | 8.0 |
| Undecided | 5 | 6.7 |
| Total | 75 | 100 |

Source: Field Survey, 2017

Table 5 shows that out of a total of 75 customers surveyed 64 or 85.3 percent were of the view that the bank has deployed ICT to a large extent in her banking operations while 6 or 8 percent believed the bank has deployed ICT only to a less extent. However, 5 or 6.7 percent of the respondents were undecided on the subject.

The response of the employees on the subject is presented in Table 6 below.

**Table 6**

**Employees Assessment on the extent Zenith Bank has adopted electronic banking in her operations?**

|  |  |  |
| --- | --- | --- |
| **Alternative Response** | **Frequency** | **Percentage** |
| To a large extent | **80** | **96.4** |
| To a less extent | **3** | **3.6** |
| Undecided | **0** | **0** |
| Total | **83** | **100** |

Source: Field Survey, 2017

Results from Table 6 shows that 80 or 96.4 percent of the staff were of the opinion that the bank has deployed ICT to a large extent while 3 or 3.6 percent believed the bank has only deployed ICT to a less extent.

**Questions 3: Has the adoption of electronic banking in Zenith Bank led to improved customer service?**

To gather data for this subject, questions 13 was designed for the customers only; as the bank cannot be a good judge in her case. The question was designed to ascertain if the services of the bank has improved since the adoption of ICT in the bank’s operations.

**Table 7**

**Customers Assessment on the extent Zenith Bank’s adoption of electronic banking has led to improved customer service?**

|  |  |  |
| --- | --- | --- |
| **Alternative Response** | **Frequency** | **Percentage** |
| To a large extent | 70 | 93.3 |
| To a less extent | 3 | 4.0 |
| Undecided | 2 | 2.7 |
| Total | 75 | 100 |

Source: Field Survey, 2017

Table 7 shows that 70 or 93.3 percent of the total customers surveyed agreed that the services of the bank has improved to a great extent since the adoption of electronic banking while 3 or 4 percent of the customers did not think so. However, 2 or 2.7 percent of the customers were undecided.

**Questions 4: Are there structural problems that inhibit the adoption of electronic banking in the Nigerian banking sector?**

To gather data for this subject, questions 14 was designed for the customers and question 11 was designed for the bank employees. The question was designed to ascertain if there are structural problems that inhibit the banks in Nigeria in the adoption and deployment of electronic banking in their operations.

**Table 8**

**Customers Assessment on structural problems that inhibit the adoption of electronic banking by the banking sector in Nigeria**

|  |  |  |
| --- | --- | --- |
| **Alternative Response** | **Frequency** | **Percentage** |
| Yes | 68 | 90.6 |
| No | 4 | 5.3 |
| Undecided | 3 | 4.0 |
| Total | 75 | 100 |

Source: Field Survey, 2017

Result from table 8 shows that 68 or 90.6 percent of the customers surveyed agreed that there are structural problems that inhibit banks in Nigeria in adopting and deploying electronic banking in their operations. 4 or 5.3 percent of the customers however, did not agree that there are such structural problems that inhibit banks in adopting and deploying electronic banking in their operations while 3 or 4 percent were undecided.

The result of the employees’ assessment as to whether there are structural problems that inhibit banks from adopting and deploying electronic banking are presented in table 9 below.

**Table 9**

**Employees’ Assessment on structural problems that inhibit the adoption of electronic banking by the banking sector in Nigeria**

|  |  |  |
| --- | --- | --- |
| **Alternative Response** | **Frequency** | **Percentage** |
| Yes | 83 | 100 |
| No | 0 | 0 |
| Undecided | 0 | 0 |
| Total | 75 | 100 |

Source: Field Survey, 2017

Result from Table 9 shows that all the employees of Zenith Bank agreed that there are structural problems that inhibit banks in Nigeria from adopting and deploying electronic banking in their operations.

The researcher sought to find out what are these structural problems that inhibit banks in adopting and deploying electronic banking in their operations? The responses are presented in table 10 below.

**Table 10**

**Structural problems that inhibit the adoption of electronic banking by the banking sector in Nigeria**

|  |  |  |
| --- | --- | --- |
| **Alternative Response** | **Frequency** | **Percentage** |
| High cost of ICT Equipment | 43 | 33.5 |
| High Cost of Maintenance | 22 | 1.3 |
| Lack of Skilled/Technical Manpower | 26 | 16.4 |
| Frequent Power Outages | 30 | 18.9 |
| Low ICT Literacy of bank customers | 22 | 1.4 |
| Others | 15 | 9.5 |
| Total | 158 | 100 |

Source: Field Survey, 2017

The result from table 10 shows that a total of 43 respondents or 33.5 percent of the respondents comprising customers and bank employees were of the opinion that high cost of electronic banking equipment inhibits the adoption and deployment of ICT by banks in Nigeria. 26 of the respondents or 16.4 percent believed lack of skilled and technical manpower inhibits the adoption and deployment of electronic banking by the banking sector in Nigeria while 22 or 1.3 percent of the respondents believed that high cost of maintaining the electronic banking equipments inhibit the banks in adopting and deploying electronic banking in their operations. Moreover, 30 or 18.9 percent of the respondents cited frequent power outage which increases the operational costs inhibit banks in adopting and deploying electronic banking while 22 or 1.4 percent of the respondents were of the view that low ICT literacy among banks customers inhibits the adoption and deployment of electronic banking by banks in Nigeria.

* 1. **TESTING OF HYPOTHESES**

The research hypotheses are tested in this section.

**Hypothesis 1**:

Ho: Zenith Bank has not significantly adopted electronic banking in her operations

H1: Zenith Bank has significantly adopted electronic banking in her operations

The test statistic is X2 = ∑(O – E)

E

Level of significance used is 5% i.e. ∞ 0.05

The degrees of freedom is d.f = K – 1 = 3 – 1 = 2

The critical value is X2 = 5.9

Computation of the test statistic

**Table 11**

**Assessment of the extend Zenith Bank has adopted electronic banking in her operations**

|  |  |  |
| --- | --- | --- |
| **Alternative Options** | **O** | **E** |
| To a large extent | 92 | 35.6 |
| To a less extent | 8 | 35.6 |
| Undecided | 7 | 35.6 |
| Total | 107 | 107 |

X2 = ∑(O – E)

E

X2 = (92 – 35.6)2 + (8 – 35.6) 2 + (7 – 35.6) 2

35.6 35.6 35.6

X2 = 89.6 + 21.3 + 22.9

X2 = 133.8 > 5.9

**Decision**: Since the value of calculated X2 is greater than the table value of X2 (5.9), we therefore reject null hypothesis and accept alternate hypothesis. Thus, we conclude that Zenith bank has adopted electronic banking to a large extent.

**Hypothesis 2:**

Ho: The adoption of electronic banking has not significantly improved service delivery in Zenith Bank

H2A: The adoption of electronic banking has significantly improved service delivery in Zenith Bank

The degrees of freedom is d.f = K – 1 = 3 – 1 = 2

The critical value is X2 = 5.9

Computation of the test statistic

**Table 12**

**Assessment of the Zenith bank services since the adoption of electronic banking**

|  |  |  |
| --- | --- | --- |
| **Alternative Options** | **O** | **E** |
| Improved service delivery | 102 | 35.6 |
| Did not improve service delivery | 3 | 35.6 |
| Undecided | 2 | 35.6 |
| Total | 107 | 107 |

X2 = ∑(O – E)2

E

X2 = (102 – 35.6)2 + (3 – 35.6) 2 + (2 – 35.6) 2

35.6 35.6 35.6

X2 = 123 + 29.8 + 31.7

X2 = 184.5> 5.9

**Decision**: We can see that the value of calculated X2 is greater than the table value of X2 (5.9), we therefore reject null hypothesis and accept alternate hypothesis. Thus, we conclude that Zenith bank services have improved since the adoption of electronic banking.

**CHAPTER FIVE**

**SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS**

**5.1 Summary of Findings**

The following findings were made by the study:

* + 1. Zenith bank has adopted electronic banking in her banking operations as all operations are fully automated and state-of-the-art ICT equipments are in place in all business offices.
    2. The adoption of electronic banking in Zenith bank operations has led to improved customer services in terms of quick turn-around times, low down-times, 24/7 service times, etc.

**5.2 Conclusion**

The liberalization of the banking industry in Nigeria in the early 1990s led to a stiff competition among banks and the insatiable desire of customers for excellent banking services meant that it is only banks that can deliver the desired satisfaction driven by appropriate ICT that will stand the test of time. The study has shown that adoption of ICT led to improved customer services.

**5.3 Recommendations**

1. Managers of banks should ensure compliance with evolving ICT in the industry and further adopt the initiative of investing in areas of improving or inventing new technologies to ensure efficient delivery of services.

2. As the customer is the essence of organizational being, managers must ensure that they identify the needs of customers and develop appropriate product/services to meet such needs. This is so because this study has shown that there is a strong relationship between the level of electronic banking and customer satisfaction. That is, if perceived quality of ICT is high and efficient in delivering high quality services, customers are bound to be satisfied, have a positive word-of-mouth about the organization, make more referrals, which may culminate to more profit for the bank.

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