

# Adopting Ebanking Platforms At First National Bank (FNB) Zambia

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*Author: Bwalya Chungu*

[bwalyachungu84@yahoo.com](mailto:bwalyachungu84@yahoo.com)

School of Business/Humanities

Information and Communications University,

Lusaka, Zambia

*Advisor: Lusaya Saviour*

School of Business/Humanities

Information and Communications University,

Lusaka, Zambia

## ABSTRACT

This discourse was an attempt to access the use of E-Banking platforms at FNB Zambia. The Banking Industry is one of the areas of business that has been influenced the most by technology. Banking operations have evolved from the mere exchange of cash, cheques and other negotiable instruments to the application of Information and Communications Technology (ICT) to banking transactions. Through technology, banks are now able to offer convenience services to their customers.

The general objective of this study was to access the use of e-banking platforms at FNB Zambia. The study adopted a descriptive research design with a narrow focus of FNB Bank. Descriptive research describes current or existing conditions as well as attributes of particular subjects under study. The study is aimed at collecting information from respondents on their observation and opinion on what they know about E-Banking services accessibility by customers. A sample of 100 respondents was chosen for the research. The sampling technique employed in this study was non probability sampling of conveniently sampling technique. This is so because the required sample was relatively small and from the same organization. This sample size was selected conveniently due to time and financial constraints. Under specific objectives the researcher tried to establish the extent of willingness of use e-banking

platforms by the customer, based on the results it was established after the analysis of the responses obtained indicated that 48% of respondents were agreeable to the usage of electronic banking with 41% strongly agreeing, disagree and non-responsive are both at 4% respectively with neutral at 2%.

In conclusion Electronic banking has seemingly improved bank services to customers. However, banks need to improve their services in some key areas that stand as gaps or in relation to some factors preventing customers from using electronic banking effectively. As stated earlier in the research objectives, to identify the factors hindering the adoption of Electronic banking services by FNB customers, to ascertain the benefits FNB Bank and its customers derive from e-banking, to determine the critical success factors for the introduction of e-banking by FNB Bank.

It was also recommended that,

FNB should devise and implement strategies that will increase customers' trust in the electronic banking systems. It is expected that this will lead to the rapid and widespread adoption of electronic banking services amongst FNB customers

To the Bank, the use of electronic-banking has helped to reduce cost of handling the transactions including reduced cost of back room staff.

**Key word:** Digital Banking

## **CHAPTER ONE: INTRODUCTION**

### **1.0. Overview**

Technological advancement has not only altered the manner in which we interact but also the manner in which we conduct business, access the product or service and manage our available resources. Thus, technological development has affected all areas of consumer and producer life, technology has moved from being a product or service to been an integral tool in the day to day running of business in almost all the industries. The Banking Industry is one of the areas of business that has been influenced the most by technology. Banking operations have evolved from the mere exchange of cash, cheques and other negotiable instruments to the application of Information and Communications Technology (ICT) to banking transactions. Through technology, banks are now able to offer convenience services to their customers. Information and Communications Technologies (ICTs) have changed the way of conducting business transactions and meeting the growing demands of customers for most organizations. The promise of ICTs in the banking sector has been seen in terms of its potential to increase customer base, reduce transaction costs, improve the quality and timeliness of response, enhance opportunities for advertising and branding, facilitate self-service and service customization, and improve customer communication and relationship.

ICT has brought about business via the internet or electronic commerce which is providing a competitive advantage for business including Banks by lowering operational cost and providing best satisfaction of customer needs. Electronic Banking according to Tan and Teo as cited in Lusaya & Kalumba (2018), has recently become the way for the development of banking system, and the role of electronic banking is increasing in many countries as it offers opportunities to create services processes that demand few internal resources, and

therefore, lower cost and provides wider availability and possibility to reach more customers.

And Orr (1999) adds that in the world of electronic commerce, it is very important that banks should provide electronic banking services in order to have the long-term survival. Consequently, most banks in developed and some in developing parts of the world are now offering electronic banking services with various levels of sophistication. It is expected that banks that do not offer electronic banking services may lose their customers to their competitors (Orr, 1999). Parisa (2006) defines Electronic banking as the automated delivery of new and traditional banking products and services directly to customers through electronic medium. This system allows customers to access their accounts, transact business, make enquiries and have prompt responses from banks (Parisa, 2006). Among the tools of electronic Banking are; Automated Teller Machines (ATMs), telephone banking, internet banking, mobile banking, debit cards, credit cards, online bill payment and many others are examples of how technology is changing traditional banking.

With the help of the internet, banks are providing benefits to their customers. From the customer's point of view, electronic banking is providing convenient and valuable source to deal with funding because it provides convenience to access account 24/7. Customers can use these services anywhere that is homes, offices and so on and anytime without visiting the banks (Ackah & Agboyi, 2014). Through this technology, the banks can use the electronic commerce technology for meeting the competitive advantage and gaining the best level of profitability while providing best services to its customers. This is important because electronic transactions will continue to grow and only countries that make a move towards embracing electronic business will participate in this revenue generation (Akoh, 2001).

Although many countries especially the developed economies have extensively adopted e-banking, the level of adoption mainly in developing countries remain low. It is therefore important that this phenomenon is investigated.

## Background of the Study

Technological advancement has given rise to a number of developments especially in customer services including in the Banking sector. This section looks at overview of the banking sector and the evolution of e-banking at global perspective and later coming to Zambia.

## Overview of the Banking Sector in Zambia

*Zambia's economic sector was shaped by the Mulungushi declaration of 1968. According to Brownbridge (1996), the financial system in the mid 1960s was dominated by foreign commercial banks mainly serving the credit needs of foreign and expatriate businesses. During the colonial period three major foreign banks namely; Barclays, Standard and ANZ Grindlays, operated in Zambia and dominated the banking system at independence with standard chartered Bank being the first bank to set its operations in Zambia.*

*The first indigenous bank to be established in Zambia was the Zambia National Commercial Bank (ZANACO) whose objective was to provide credit needs of indigenous Zambians who had difficulty accessing loans from the foreign banks and of extending banking into the rural areas. Harvey & Jenkins (1995) observed that in the early operations, ZANACO was consistently profitable, with pre-tax operating profits during 1981-89 averaging more than 50 per cent of its capital and reserves and around 2.5 per cent of total assets. And that it also had a good reputation among bankers and was further regarded as well managed with bad debts believed to be a small share of total loans (Harvey & Jenkins, 1995). By 1984, another private bank by the name of Meridien Bank entered*

*the industry. According to Brownbridge (1996), by mid 1995 there were around 13 banks owned by local private sector investors (local banks) in operation in Zambia with most of them only beginning their operations during the first half of the 1990s the period when most sectors of the economy were suffering from recession, the banking sector experienced remarkable growth. According to Simpasa (2013) by 2006 there were 13 commercial banks. Out of these, seven were subsidiaries of foreign banks; one joint venture with majority foreign ownership, four domestic private banks and a public sector bank and by end of 2011 there were a total number of 14 foreign banks a total of 19 commercial banks for the whole industry was recorded (Simpasa, 2013).*

## Evolution of E-Banking

Electronic Banking traces its origin as the as far back as the immediate post World War II. Seokumar (2019) inscribes that electronic banking started after Second World War with the use of proprietary software and private networks. However, notable evolution in the banking system was seen in the 1970s with its root stemming from the Bank of America. Bank of America (2019) adds that with mainframe terminals, bank tellers could access customer account information in real time and perform actions such account openings, stop payment orders and fund transfers and that by 1982, Bank of America had approximately 2,000 internal terminals, allowing employees to access the bank's network. This enabled the bankers to work more efficiently for customers and communicate quickly via the then new electronic mail program, later to become known as email (Bank of America, 2019). And according to Shannack (2013), modern e-banking first appeared in New York in the early 1980's, where it was offered by major banks in that city, such as Citibank and Chase Manhattan. The United Kingdom banks started to adopt the concept in 1983 where the Bank of Scotland was the first to introduce it. Back then it required a computer

terminal, a monitor, and a telephone line. It was also offered through a numeric keypad on a telephone enabling sending messages to the bank. The early services were very basic ones such as viewing your bank statements and paying your bills online. It was not a full transaction banking service; however, it paved the way for the more comprehensive and sophisticated e-banking services which are around today.

According to Bank of America (2019), during the 1980s, when personal computers came into more homes, the Bank of America saw an opportunity to allow people to access their accounts remotely and in 1983, the Bank introduced its first Home Banking product through which customers could access their account balances and perform basic banking services. This service offered customers access to their accounts seven days a week between the hours of 6:00 a.m. and midnight and in the following decade, Bank of America launched its first presence on the Internet around 1994, with no longer needing special bank software, customers were able to instantly access the bank's website 24 hours a day. As use of the Internet exploded, so did use of the bank's services (Bank of America, 2019). According to Seokumar (2019), in 1980's e-Banking got a new dimension by the use of credit cards, Automated Teller Machines (ATM) and telephone banking. This was the revolutionary period in e-Banking. Now whole Commerce seems to be shouldering on these electronic systems. In the 1990's, the use of internet evolved when more people owned computers and were connected to the dial-up home internet. The first bank to offer the most comprehensive e- Banking services was the Stanford Federal Credit Union bank in 1994.

Mia et al., (2007) orates that E-Banking is the product of different generations of electronic transactions where the current web-based internet or E-Banking is the latest of several generations of systems that include: Automated Teller machine

(ATMs), Phone Banking, PC or House Banking among others. They add that the ATMs were the first well-known machines to provide electronic access to customers where as in phone banking, users would call their bank's computer system on their ordinary phone and use the phone keypad to perform banking transactions. On the other hand, PC banking superseded phone banking and allowed users to interact with their bank by means of a computer with a dial-up modem connection to the phone network. Thus, Phone and PC banking entailed maintenance costs associated with keeping up to date with diverse modems and with avoiding prohibitively complex installation procedures (Mia et al., 2007).

According to Sunsato and Zo (2011), following the growth of electronic devices and Internet, e-banking use and adoption has been flourishingly developing with, notably the widespread of utilizing the World Wide Web. Such growth was also triggered off by the wide utilization of Electronic Fund Transfer (EFT) extension such as ATMs to mediate consumers' financial needs and credit cards usage as the most acceptable payment method through the Internet. However, there are still an abundant number of the people who have bank accounts and actively access the E-banking are still unwilling to use E-banking and strongly tend to use non-Internet banking service such as ATMs, due to lack of trust, uncertainty, security, and privacy concern.

Introna and Whittaker (2005) observed that Barclays Bank of the UK were the first one to introduce the Automated Teller Machine technology. The ATMs allow customers to deposit money, withdraw cash, request a balance and pay bills at any time. These services not only provide convenience for customers, but also decrease operating costs for the bank. The ATM had the limitation of personalised services and the ability to sell the peripheral services such as mortgage plan.

Beyond 1990s, the uses of ATM became so synonymous with e-banking in most developing countries.

This technological evolution and the spread of home internet usage meant customers enjoyed 24/7 e- Banking services. On the other hand, many customers during the 1990's didn't trust the concept enough to make serious and substantial monetary transactions and did not think the internet banking is safe enough. This triggered a massive effort and investment by the offering banks to develop more security features for their online banking services and promoting them in the market.

Shannack (2013) adds that the first bank to reach three million online banking customers was the Bank of America in 2001. Throughout the 2000's on-line banking started to grow and become more acceptable by customers. It covered most of the banking services range. We also had our first "on-line only" banking firms that offered better interest rates and more features to their clients taking advantage of the cost savings achieved by the "Digital Firm" business model.

According to Hernado and Nieto (2007), from the viewpoint of the banks, Internet banking helps banks to maintain profitable growth through reducing the operation and fixed costs as Jayawardhena and Foley (2000) observed that a simple transaction cost for a non-cash payment at a branch is likely to cost a bank as much as 11 times more than over the Internet based on a sample of New Zealand banks. In comparing costs, Chung and Paynter in Du (2011) noted that an Internet transaction only costs a bank \$0.05 while a paper transaction at a branch cost approximately \$1. In addition, Internet banking enhances marketing and communication, as it serves 24 hours a day and a customer can be guided through a catalogue of products and services

Following financial sector reforms, innovation in Zambia's banks meant adoption of most form of reliable banking services to the consumer. By mid-1990, the number of privately owned banks increased to take up the challenge of the financial sector reforms. The reduced barriers to entry and inefficiency in the service provision of the existing banks necessitated the entry. The increased number of banks increased competition among the banks and this called for efficient and effective service delivery. E-banking in Zambia was first introduced by ZANACO through the ATM service called ZANACO 24 in the late 1990s. According to Mushabati (2008), this service enabled customers to have 24hr access to their account resulting in improved customer satisfaction.

By 2010 according to BOZ (2011), the number of banks offering e-banking had increased. The banks included Finance bank, investrust and the first Alliance bank which shared the ATM through Zamlink. Others are Barclays Bank, Standard Chartered Bank, Stanbic Bank and Indo-Zambia with a Visa card system.

ZICTA (2015) noted that there was a marked improvement in the proportion of people in the country aware of the existence of digital financial services from 26.4 percent of the population aged above 10 years recorded in 2013 to 45.9 percent in 2015. The majority of individuals aware of the existence of digital financial services are in urban areas constituting 58.1 percent of all the people aware of the existence of digital financial services while only 41.9 percent of the individuals aware of the existence of the services are found in rural areas. However, only 30 percent of the individuals aware of the existence of digital financial services have used the service to pay for goods and services or transfer funds. It was however found that the proportion of people using the digital service is small.

The financial sector reforms did not only bring opportunities to enhance banking but also placed challenges on the financial sector to cope with such reforms. While the financial sector reforms brought about downsizing, it created opportunities in the ICT sector as it demanded more innovation. Mushabati (2008) noted that ZANACO was the first bank to implement the e-banking in Zambia through its ZANACO-24 ATM. This service enabled customers to have 24hr access to their account resulting in improved customer satisfaction. By mid 1990, the number of privately owned banks increased to take up the challenge of the financial sector reforms. The reduced barriers to entry and inefficiency in the service provision of the existing banks necessitated the entry. The increased number of banks increased competition among the banks and this called for efficient and effective service delivery.

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There were over 250 ATMs around the country and about 500 customers had access to e-banking tools such as internet banking and mobile banking by end of 2010 according to BOZ (2011).

First National Bank Zambia Limited provides banking services. It offers personal cheque, investment, savings, and future accounts; personal and student loans; and mortgages. The company also provides online and mobile banking services. In addition, it offers foreign exchange, foreign notes, trade, import and export, and guarantee services, as well as telegraphic transfers and forward exchange contracts for businesses. The company was founded in 2009 and is based in Lusaka, Zambia with operations in Swaziland,

Botswana, Namibia, and Zambia. First National Bank Zambia Limited operates as a subsidiary of First Rand EMA Holdings Limited.

## 1.1. Statement of the Problem

The banking industry in Zambia has undergone a lot of structured transformation from the time when there were a few financial institutions owned by the government and relying mostly on brick and mortar banks to where almost currently all the 19 banking institutions are employing some sort of technology to do their business (Bank of Zambia, 2013).

Competition and limitation of resources has placed banks under pressure to lower their transactional cost and improve their services and maintain quality of service. Implementation of information technology and communication networking has brought about a revolution in the functioning of the banks and the financial institutions. The transition to electronic banking has therefore become a necessity for banks as it offers major opportunities in terms of competitive advantage and it also allows banks to develop a stronger and more durable business relationship with its customers. Banks uses its expertise and knowledge in the financial services industry to provide its customers with world class value-adding financial services such as Cell phone banking, banking apps as well as online banking, thereby making their banking easy.

While technology has been rolled in all the sectors of the economy, adoption of e-banking still remains very low in many Banks. This is supported by Nuwagaba & Ngoma (2014) who noted that the banked population in Zambia has not fully embraced technology as an alternative cheap form of banking and Lusaya & Kalumba (2018) who found that there a number of challenges in adopting e-banking by the customers that included non-availability of information on e-banking, education level and the cost associated with e-banking as significantly influencing the adoption and use of e-

banking by customers. FNB as being the Bank that has promoted e-banking including e-taxes, e-wallet and e-payment among others, however, the extent of use of these services by the customers remain unknown as the bank continues to record long queues inside the banking premises. It is against this background that the researcher sought to understand the acceptance of e-banking platforms at FNB Zambia.

## 1.2. Research Objectives

**The research objectives were categorised into general and specific objectives as stated below**

### General Objective

The main objective of this study was to assess the use of e-banking platforms at FNB Zambia

### Specific Objective

*Achieve the main objective was made possible through a set of specific objectives that include;*

- i. To establish the extent of willingness of use e-banking platforms by the customer
- ii. To ascertain the benefits of using the e-banking platforms
- iii. To assess the availability of e-banking facilities to the customer.
- iv. To identify the challenges encountered in the adoption of e-banking by FNB Bank customers.

## 1.3. Research Question

The study was further guided by the following research questions

- i. To what extent are customers willing to use e-banking platforms?
- ii. What are the benefits FNB Bank and its customers derive from e-banking?
- iii. To what extent are e-banking facilities available to the customer?

- iv. What are the challenges encountered in the adoption of e-banking by FNB Bank customers?

## 1.4. Significance of the Study

It is believed that the coming of e-banking will help overcome the crowding that comes with accessing banking services especially during the pay days as the case is with most Banks including FNB. People line to get their pay, transfer funds, make deposits and request for bank statement over the counter. Those who happen to get the money over the counter go again to line up to pay for the purchase of the goods and services. Whereas this hustle has been resolved by the use e-banking, many customers today have not adopted the e-banking. This paradox has been attributed to the theory of Technological acceptance and the theory of reasoned action among others that rest on the premise of attitude, beliefs and behaviour. In explaining why the use of e-banking still remains a challenge to the developing countries and Zambia included, El-Smadi (2012) and Lusaya & Kalumba (2018) observed that most customers have been reluctant to adopt e-banking based on factors such as perceived risk and cost, knowledge of the use of the e-banking tools such as internet, e-wallet and cost of e-banking among others. ZICTA (2015) has also observed whereas about 16.8% of the population has access to internet and 51% of the population above 10 years have access or own the mobile phones, the use of digital financial services in Zambia is still very low. On account of this, it is imperative that an empirical investigation is conducted to investigate the underutilisation of e-banking by the customers.

Thus, this study is significant as it will establish the extent of use of e-banking by FNB customers. The study will also help customers to learn about the importance of e-banking and the benefits that come with e-banking. The study will also help the banking sectors to be well positioned in dealing

with factors that impede the use of the service. This will not only help the bank to focus on such factors but also deal with such concerns as may be highlighted by the customers.

Overall, the study will contribute massively to the existing knowledge in retail banking. Through the investigation and recommendation thereof, this study will form the basis for further research.

## 1.5. Scope of the Study

This research study was focus on describing the status of electronic banking adoption by FNB customers in Lusaka district as a means of identifying the benefits, challenges and critical success factors for the introduction of e-banking in Zambia by FNB bank. The study is also centred on the various types of e-banking products that have been released onto the Zambian market.

## 1.6. Summary of the chapter

This chapter has introduced the topic under research. It started by giving a brief background of the research problem identified and further stated why this is a problem. The chapter has also laid down the objectives of the research conducted and the questions that guided the research and the hypotheses. The chapter further gave a justification as to why the study is imperative as well as the scope of the research to be conducted and lastly outlined the proposed structure of the research report.

## **CHAPTER TWO: LITERATURE REVIEW AND THEORETICAL FRAMEWORK**

### 2.0. Overview

This chapter appraises previous research by various scholars and researchers. A literature review is a body of text that aims to review the critical points of current knowledge on a particular topic. Its ultimate goal is to bring the reader up to date with current literature on the topic and forms the basis for another goal, such as the justification for future research in the area. Arlene (2014), inscribes that literature review aims at surveying books, scholarly articles and any other sources relevant to a particular area of research or theory and by so doing, provides a description, summary, and critical evaluation of these works in relation to the research problem being investigated. According to him, literature reviews are designed to provide an overview of sources you have explored while researching a particular topic and to demonstrate to your readers how your research fits within a larger field of study (Arlene, 2014).

The chapter starts with a definition electronic banking, its adoption, the different E-banking service delivery channels, E-banking benefits, its challenges and Critical Success Factors.

### 2.1. Theoretical Literature Review

**This section review literature of theory in nature by tackling how various scholars have defined electronic banking, the various components of e-banking, theoretical behaviour pointing to adoption of e-banking and factors influencing the use of e-banking among many other theoretical reviews**

#### 2.1.1. Definition of E-Banking

E-banking has been defined differently by different authors. However, it has been found that though defined differently, it mean the same thing world over for instance; E – Banking is also defined

according to Gio (2005) as the automated delivery of new and traditional banking products and services directly to customers through electronic, interactive communication channels. Definition is at resonance with the definition by Daniel (1999) who described electronic banking as the provision of banking services to customers through internet technology. Other related definitions include the one by Karjaluoto (2002) who said that “Electronic banking can be defined as the provision of information or services by a bank to its customers, described as an electronic connection between bank and its customers in order to prepare, manage and control financial transactions”.

The definition by Partnov and Estier (2013) is seen as the more comprehensive one. According to them, e-banking is an externalisation of front-office processes and bank services toward clients using information technologies. It is a virtual front office (counter) with no human actors on the Bank side participating in the interaction. Using standard web browser, client can be in contact with his bank from everywhere. This makes access to E-Banking channel like any other E-Commerce universal. E-banking in contrast to the traditional banking brings the service with a new quality and features. The banker is replaced by the piece of software. This way of interaction with clients is usually mixed with the traditional Banking using the physical counter (represents only one of the existing distribution channels for a bank).

E-banking as a distance banking that not only handles the flow of information between customers living spaces such homes and offices and the physical facilities of the bank, but also deals with solicitation, sales, distribution and access to services, all without requiring the customer and the financial institution representative to be in the same physical place at the same time.

Electronic banking is the automated delivery of new and traditional banking products and services directly to customers through electronic medium.

This system allows customers to access their accounts, transact business, make enquiries and have prompt responses from banks (Mols, 1998).

Electronic banking provides banking services to customers through Internet technology. Banks have the choice to offer their banking services through various electronic distribution channels technologies such as Internet technology, video banking technology, telephone banking technology, and Wireless Application Protocol technology (WAP). Internet technology is the main electronic distribution channel in the banking industry. In more detail the author described E-banking as an online banking that involves the provision of banking services such as accessing accounts, transferring funds between accounts, and offering an online financial service. Most electronic business specialists agree that E-banking ensures 24-hours-a-day, seven-days-a-week accessibility, through any type of advanced information system (Automated Teller Machines, Personal Computers, Internet, mobile phones etc).

## *2.1.2. Theories of Individual Behaviour in Adopting E-Banking*

Since the late 1980s, technology adoption research focused on exploring the determinants of users' intentions to use new technologies. Many theories have been developed to study Information Technology (IT) adoption issues, including the theory of reasoned action (TRA) (Fishbein&Ajzen, 1975), the technology acceptance model (TAM) (Davis, 1989), the extended technology acceptance model (TAM2) (Venkatesh & Davis, 2000), the theory of planned behaviour (TPB) by Ajzen (1991), the innovation diffusion theory (Rogers, 1995) and the unified technology acceptance user technology (UTAUT) (Venkatesh, Morris, Davis & Davis, 2003). TAM suggests that perceived usefulness (PU) and perceived ease of use (PEOU) are the two most important factors in explaining

individual users' adoption intentions and actual usage (Davis, 1989). Davis (1989) defines PU as the degree to which a person believes that using a particular system will enhance his or her job performance. In addition, PEOU refers to the degree to which the person believes that using the system will be free of effort (Davis, 1989). TAM has been extensively tested and validated and is a widely accepted model, which can be modified or extended using other theories or constructs (Taylor & Todd, 1995; Davis & Venkatesh, 2000; Wu & Wang, 2005; Luarn & Lin, 2005; Zhang, Gou & Cheng, 2008; Yen, Wu, Cheng & Huang, 2010).

*Herein, the review covers the above stated theories in details which try to explain the behaviour pertaining to use of a product or tool*

### 2.1.2.1. Theory of Reasoned Action (TRA)

This theory seeks to explain the relationship between attitude and behaviour of customers. Ajzen and Fishbein (1993) stated that the theory of reasoned action is based on the assumption that human beings are rational and make systematic use of available information. People consider the implications of their actions before they decide whether or not to perform a given behaviour. The theory of reasoned action attempts to explain the relationship between *beliefs, attitudes, intentions* and *behaviour*. This theory proposes that the most immediate determinant of behaviour is behavioural *intention*. The direct determinants of people's behavioural intentions are their *attitudes* towards performing the behaviour and the *subjective norm* associated with the behaviour. Sadeghi and Farokhian (2011) added that Subjective norm is beliefs about what others will think about the behaviour; in other words, the perceived influences of social pressure on an individual to perform or not perform the behaviour. "The person's belief that specific individual or groups think he should or should not perform the behaviour and his motivation to comply with the specific referents. The result of this theory is that the adoption of e-

banking does not only depend on the individual desire to use the product or service but also on other people's attitude towards the use of such services.

Lusaya & Kalumba (2018) explains that TRA attempts to explain the relationship between beliefs, attitudes, intentions and behaviour. The theory proposes that the most immediate determinant of behaviour is behavioural intention. Thus, attitudes towards performing the behaviour and the subjective norm are the direct determinants of people's behavioural intentions.

### 2.1.2.2. The Technological Acceptance Model (TAM)

This theory has been used to help predict and make sense of user acceptance and use of information technologies. This theory is widely applied in studying the challenges faced in having a certain product or service emanating from technological advancement to be acceptable and accessible by many. Authors such as Davis et al (1989) and Al-Smadi (2012) have stated the importance of this model in explaining behaviour. Al-Smadi (2012) propounded that the TAM supposes that, other thing being equal, perceived usefulness is influenced by the perceived ease of use because the easier a technology to use, the more useful it can be.

In addition, Davis et al (1989) stated that Perceived usefulness (PU) is defined as the degree to which a person believes that using a particular system would enhance his or her job performance. Perceived ease of use (PEU) refers to the degree to which a person believes that using the system will be free of effort. Attitude (ATT) explains a person's favourable or unfavourable assessment regarding the behaviour in question. Intention (INT) is a measure of the strength of a person's willingness to use effort while performing certain behaviour. The external variables in the model refer to a set of variables that can influence information system adoption indirectly through perceived ease of use and perceived usefulness. They added that using an information system is directly determined by the

behavioural intention to use it, which is in turn influenced by the users' attitudes toward using the system and the perceived usefulness of the system. Attitude and perceived usefulness are also affected by the perceived ease of use. According to TAM, greater perceived usefulness and the perceived ease of use of an information system will positively influence the attitude toward this system. The attitude, in turn leads to a greater intention to use the system, which positively affects one's actual use of the system.

### 2.1.2.3. *The Theory of Planned Behaviour (TPB)*

The theory of planned behaviour is said to be a follow up theory on the theory of reasoned action. However, in the case of TPB, the central factor is the individual's intention to perform a given behaviour where the intentions are assumed to capture the motivational factors that influence a behaviour and are indications of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behaviour (Ajzen, 1991). According to this theory, human action is guided by three considerations namely; behavioural beliefs, normative beliefs and control beliefs. Ajzen (1991) urges that it should be clear, however, that a behavioural intention can find expression in behaviour only if the behaviour in question is under volitional control this may mean that the person can decide at will to perform or not perform the behaviour. He further adds that although some behaviours may in fact meet this requirement quite well, the performance of most depends at least to some degree on such non-motivational factors as availability of requisite opportunities and resources (Ajzen, 1991). According to Eagly & Chaiken (1993), TPB posits that individual behaviour is driven by behavioural intentions where behavioural intentions are a function of an individual's attitude toward the behaviour, the subjective norms surrounding the performance of the behaviour, and the individual's

perception of the ease with which the behaviour can be performed (behavioural control). Attitude toward the behaviour is defined as the individual's positive or negative feelings about performing a behaviour. It is determined through an assessment of one's beliefs regarding the consequences arising from a behaviour and an evaluation of the desirability of these consequences (Eagly & Chaiken, 1993).

### 2.1.2.4. *The Decomposed Theory of Planned Behaviour*

This theory has been used to explain the customer behaviour in adopting e-banking. Through the theory of planned behaviour, the consumers' adoption of e-banking takes into consideration the ease with which to use and the expected benefits from the use of the e-banking service. According to Taylor and Todd (1995), a better understanding of relationship between beliefs structure and antecedents of intentions requires the decomposition of attitudinal beliefs. This theory is thus, broken down into; related advantage (refers to the degree to which an innovation provides benefits which supersede those of its precursor and may incorporate factors such as economic benefits, image, satisfaction and convenience), complexity (the degree to which innovation is perceived difficult to understand, learn or operate) and compatibility (the degree to which innovation fits the potential adaptors existing values, previous experience and current needs).

### 2.1.3. *The UTAUT*

UTAUT was proposed by Venkatesh et al. (2003) after reviewing the following eight IT adoption theories: TRA, TAM, the motivational model, TPB, the PC utilisation model (PCUM), IDT, the social cognitive theory (SCT), and the integrated model of technology acceptance and planned behaviour. In UTAUT, the factors influencing the adoption and usage of information technology includes:

performance expectancy, effort expectancy, social influence and facilitating conditions (Venkatesh et al., 2003). Venkatesh et al. (2003) defines the factors as follows:

Performance expectancy refers to the extent to which an individual believes that using the system will help him or her achieve better results on the task (Venkatesh et al., 2003; Wang & Wang, 2010).

Effort expectancy refers to the extent of ease associated with the use of the system;

Social influence refers to the extent to which an individual perceives that important others believe he or she should use the new system

Facilitating conditions refers to the extent to which an individual believes that an organisational and technical infrastructure exists to support use of the system

UTAUT is considered to be the most important theory for IT adoption research in Information Systems (IS) fields in the future. The model has been empirically examined and found to outperform the other eight individual models, including the TAM model (Carlsson, Hyvonen, Puhakainen & Walden, 2006). However, UTAUT is not perfect. To apply UTAUT in certain special IT applications such as mobile banking, modification and revision is needed as recommended by Venkatesh et al. (2003). The UTAUT model has also been revised to study mobile commerce acceptance, where additional determinants such as trust, privacy, convenience and cost were shown to affect the behavioural intention (Min, Ji & Qu, 2008). The effort expectancy from UTAUT, PEOU from TAM and complexity from IDT are regarded as similar (Venkatesh et al., 2003). Similarly, the relative advantage of IDT and performance expectancy of UTAUT are analogous to PU from TAM (Taylor & Todd, 1995; Venkatesh et al., 2003). For this study, the terms POEU and PU are adopted as independent variables on the research model.

## Factors Affecting the Use of E-Banking

A number of studies have described a number of factors that influence the use of e-banking. These include availability of information, familiarity, security, benefits and costs etc.

## Customer's Perceived Risk

Perceived risk has been defined according to Cox and Rich in Yosuff et al (2014) as the nature and the amount of the uncertainty faced by the consumer in his effort to make use of a particular product or service. According to Yusoff et al (2014), the predictive power of risk on the consumer behaviour could be better understood through examining the various categories of risks and how they relate to the particular product and or service intended by a consumer. Low perceived risk increases the chance of customers' acceptance of a particular product and service while high perceived risk reduces the chance of the acceptance and this formed the rational of established link between the perceived risk and adoption of a product or service. Also, Cox in Du (2011) added that the amount of risk involved in any behavioural act is a function of two factors: the amount that would be lost if the consequences of the act are not favourable and the individual 's subjective feeling or degree of certainty that the consequences will be unfavourable. Risk is often present in a choice situation as consumers cannot always be certain that a planned purchase will achieve satisfactory goals. The uncertainty may result from factors inherent in the product, the place of purchase and the mode of purchase. Thus the use of e-banking may be influenced by consumer perceived risks with high perceived risk implying low usage of e-banking.

## Technology Complexity

The concept of perceived complexity is related to that of familiarity. Complexity is defined as the extent to which an innovation is considered by its users as difficult to understand and Use (Rodgers in Yosuff et al 2014). Some innovation tend to be

clearly understandable in such a way that the potential adopters find it easy to use while some turn to be difficult and the potential adopter rule it as complex and hence affect its usage in a negative direction. Arts et al (2011) argued that complexity had a positive effect in the initial stage as the adopters' intent to adopt a certain innovation but the effect suddenly reverse to a negative one on the actual usage. Indeed, the more complex the technology is, the more difficulty it is for people to accept such technology.

### **Security Concern**

Security is one of the very important factors in determining the decision of consumers to use Electronic banking (Aliyu et al, 2012). According to Cooper (1997) the level of risk is an important characteristic from a consumer's perspective in the adoption of innovation. Coopers view was supported by a study ABF (1997) that found that security concerns are keeping both consumers and bankers away from Electronic banking. Aliyu et al (2012) further stated that security concern among customers was the top ranking obstacle for non-adoption of Electronic banking in many countries and to date, e-banking adoption still face challenge in Nigeria unless it is considered safe and secure by the customers (Aliyu, 2012).

### **Customer Accessibility**

Aliyu et al (2012) have pointed out how customer accessibility affects the use of e-banking. In their study, they observed that one of the major factors for adopting Electronic banking is the availability of access to computers and Internet. They added that as the Internet becomes more widely accessible households will conduct their financial transactions over the Internet" this means that, the more widespread the access to computer/Internet the greater the possibility of use of Electronic banking adoption. This view was supported by O'Connell (1996) who stated that lack of access to computers as one of the reason for slow adoption of Internet

banking. There for, lack of access to computers or Internet might be one of the major hindrances of adopting Electronic Banking in Nigeria.

### **Perceived Benefits**

E-banking offers new value to customers. According to Baraghani (2007), the emergence of the internet has had a significant impact on the diffusion of electronic banking. He added that with the help of the internet, banking is no longer bound to time or geography. Consumers all over the world have relative easy access to their accounts 24 hours a day. Thus e-banking makes available to customers a full range of services including some services not offered at the branches. Baraghani (2007) observed also that the greatest benefit of internet banking is that it is cheap or even free to customers. Thus, the adoption of e-banking by the customers will be influenced by the customers' perceived benefit from the use of the service.

### **Customer Familiarity**

Luhmann in Du (2011) has argued that familiarity is the knowledge people have of a product or service, based on their experience and previous contacts. Familiarity, related to experience, has a positive effect on the degree of consumer skill and favours an increase in the individual trust in one 's own abilities. Alba and Hutchinson in Du (2011) noted that an increase in product familiarity results in an increase in consumers 'ability to perform product-related tasks successfully. More specifically, familiarity reduces the cognitive efforts required to perform the tasks as well as improving consumers' ability to analyse information, to elaborate on given information, and to remember product information. Familiarity affects consumer decision making and is considered to be a central construct with which to explain consumer choice processes. Thus a person's use of e-banking tool is dependent on how familiar s/he is with the e-banking tools.

## Electronic Banking in Zambia

The Bank of Zambia in Nuwagaba & Ngoma (2014) states that in Zambia, the central bank has introduced an e-cheque truncating system which uses cheques imagery for clearing purposes. It adds that this can help in clearing cheques on time hence shorting clearance time and more so this would facilitate service delivery for cheques coming from upcountry financial institutions (Bank of Zambia, 2013). And Finance Bank Zambia (2013) observes that Financial institutions are always on the move to innovate for new e-banking products and some banks are now going into cloud banking to facilitate internet and mobile banking as the next generation of cloud banking. The use of Cloud banking however has its own challenges. According to Bose et al., (2013), Lombardi & Pietro (2011) and Coleman (2011), clouding banking makes customer information susceptible attacks by hackers since information is kept in the virtual open environment. They thus urge that it could be a good technology, but it needs to be made safer to gain trust and confidence of customers.

And Nuwagaba & Ngoma (2014) observes that for banks like FNZ in Zambia that have ventured into cloud banking, it could be a good service offer to its clients if it does not compromise the security of customers' accounts and other vital information. Kirakosyan & Dănăiață (2013) notes that customers are happy with banks that are part of the digital age though what is needed is clear communication between the banks and financial institutions especially on the pricing of e-products, security of the e-banking platforms, etc, this will improve customer satisfaction rate as an estimated 22 percent of the banking customers globally will be satisfied if their banks provides clear prices without hidden costs and 12 percent would want to see their banks provide bank online services (Morgan et al., 2012; Ernst & Young, 2012).

Despite the desire to go digital, Hamidi et al., (2013) urges that Security protocols development

would help in safe guarding customer information and should be made sophisticated for the hackers and personalized to each user of the e-banking facilities and tough penalties should be imposed on the wrong does who would want to misuse technology to still customer information (Hamidi et al., 2013). This means for instance that communication inform of e-mails from banks should be sent through secure lines, SMS, phone calls, alerts etc. and some of these security issues can be enforced through Flask architecture and Nuwagaba & Ngoma (2014) adds that this has to be concerted efforts by the stake holders to combat these online crimes and these can be achieved that all the involved stakeholders unite for a common cause and invest in the required resources to develop safe online infrastructure and also to lobby the government to pass a tough legislation on online crimes (Nuwagaba & Ngoma, 2014) .

## FNB e-Banking

Like many commercial Banks in Zambia and around the globe, FNB has embraced the electronic age by development and implementation of e-banking. Ismail & Masinge (2011) observes that one of the platforms for e-banking FNB has implemented is cell phone banking based on the WAP and USSD technology available to all FNB account holders. They added that in addition, FNB has introduced eWallet, which is a money transfer service; as well as Pay Wallet which enables FNB Corporate, Commercial and Public Sector clients to electronically pay their unbanked recipients directly to their cell phones. This system allows the recipients to have immediate access to their funds at any full service FNB ATM without the need of a bank card (Ismail & Masinge, 2011). From the above examples we can see that several mobile banking solutions exist in Zambia. The penetration of these products into the lower income segments is, however, limited. A clearer understanding of the factors which would enhance adoption would be

beneficial in order to build scale in the mobile financial services sector.

## **Benefits and Problems of e-banking**

*The evolution of e-banking has been seen to be beneficial both from the perspective of the consumer to that of the service provider. Peter (2015) notes that e-banking, which include internet banking has the following benefits;*

**Convenience:** Unlike the traditional banking systems whereby customers have to be physically present to conduct transactions, internet banking channels are always available to customers at any time day or night. This helps customers to carry out transactions at convenient time and from anywhere with internet access.

**Transaction speed/cost reduction:** e-banking speed up transactions. It is quicker when compare to branch banking. E-banking is also less costly because cost of transportation to and from the bank is eliminated as compared to traditional banking system.

**Effectiveness:** With e-banking there is no hurry for rushing to the bank for carrying out transactions. One can manipulate your account at any time and the customer can manage their money and accounts and investments much more swiftly. At the same time, it is easier to pay bills online, to receive statements and to transfer money.

**Efficiency:** e-banking is efficient due to the fact that it allows free access, to manage and control all financial transactions without wasting much time. He further highlights the main setbacks associated with e-banking including internet banking as states as follows;

**Security issue:** is seen as one of the major issues affecting the use of e-banking platforms that include internet. In spite of many sophisticated encryption software that have been designed to protect accounts, there is always a possibility of hacking by smart elements in the cyber world.

**Changes in banks websites:** in the case of internet banking, Banks have to upgrade their websites by adding new features in unfamiliar places on their screen menus. In some cases, customers will probably need to re-enter their account details and search to locate the exact point of transactions.

**Service issues:** Some special services offer to customers is not possible online. Comprehensive financial services, such as brokerage accounts and insurance that traditional banks offer directly to customers cannot be offered online. Sometimes, traditional banks offer special services to loyal customers, such as preferred rates and investment advice at no extra charge, cases which require a customer's presence which cannot be accessed via e-banking. Saunders (2008) notes that, from time to time customers are no longer convenient to have money in possession or/and check-books but look for more convenient ways of cashing money when in need. Although internet banking network channel helps to reduce cost of transactions, other forms of transactions may be required at a particular point of time and need.

## **2.2. Empirical Literature Review**

This section covers a number of empirical studies related to the adoption and use of electronic bank from the global perspective to those specific to Zambia.

In analysing the factors that affected adaptation of E-Banking in Jordan, Al-Smadi (2012) modeled his study by the use of technology acceptance model and the planned behaviour model. This study was aimed at identifying and understanding factors that affect bank customers' use of electronic banking services. The study integrated technology acceptance model (TAM) with the theory of planned behaviour model (TPB) and incorporated five cultural dimensions and perceived risk to propose a theoretical model. The primary data were collected from 387 valid questionnaires which were distributed to random banking customers in all 26

licensed banks in Jordan. Multiple regression analysis was employed to test the hypotheses. The main findings of the study are: uncertainty avoidance has a positive and significant impact on perceived ease of use and perceived usefulness. Perceived risk has the stronger impact on customers' attitude, which in turn influences customers' intention to use electronic banking services.

In a related study by Aliyu et al (2012) on the adaptation of e-banking in Nigeria, empirical data for the study were collected from a questionnaire survey in northern Nigeria. Their study examined the relationship between Electronic banking adoption and the determining factors for critical success of Electronic Banking in Nigeria. Hence, the results showed that the relevant factors determined the adoption of Electronic banking in Nigeria included the level of its six factors, namely awareness, ease of use, security, cost, reluctance to change and accessibility. The results of this study showed that four factors examined are significantly important to the adoption of Internet banking in Nigeria. However, perceive ease of use and reluctant to change were found to be insignificant in determining its adoption. These results were consisted with the study by Al-Smadi (2012).

In exploring the information seeking behaviour of Self Service Banking Technology (SSBT) users by trying to understand their information needs, the use of the SSBTs and also by identifying some of their information sources and problems they face in accessing self-service banking information, Simuchimba (2011) collected data using questionnaires and interviews. The findings of his study revealed that most of the SSBTs users used ATMs in preference to Mobile and Internet banking. Some of the information needs of SSBTs users identified in the study were information on the location of ATMs and technological information. He added that SSBTs users also need information

on how much banks charged for using SSBTs. The findings also revealed that SSBT users need to be availed more information in an appropriate format in order for them to effectively use the banking services. The findings of this study showed that the use of ATM was very common among the SSBT users and that lack of information was the main factors that inhibited the use of e-banking.

In analysing the use of internet banking in New Zealand, Du (2011) conducted an empirical analysis. The findings of his study revealed that User-friendly Website, Marketing Communications, Perceived Risks, Price, and Internet Access/Internet Familiarity have an impact on customers' decisions to adopt Internet banking. The results also reveal that the Young Age and the High Income Groups are more likely to adopt Internet banking. This result is consistent with the findings of Padachi et al. (2007).

In Zambia, Mushabati (2008) conducted a study on the effectiveness of Automated Teller Machines on financial service delivery by commercial banks in Kitwe. He study found that the ATM has benefited both the Bank and the consumers, he however noted that there were still challenges that remained unresolved. These included fault ATMs, long queues and delayed ATM queries which seemed to threaten the use of ATMs.

Further studies on the adoption of e-banking in Zambia were by Lusaya and Kalumba (2018) who investigated the challenges in the adoption of e-banking. Using a descriptive study with a sample size of 50 drawn randomly from banking customers in Kasama, the study rejected the null hypothesis that there is no association between e-bank usage and availability of e-banking information. Thus, the study found that there is dependence of e-banking usage on availability of e-banking information. On Education levels influence e-banking usage, their study found that since the p-value (0.002) was significantly lower than 0.05, the null hypothesis of

no dependence was rejected, and thus, education level significantly influenced the use of e-banking. Their further results on E-banking usage and concern for personal security found that at 0.689 p-value, the null hypothesis cannot be rejected at 5%, thus, E-Banking usage is not dependent on concern for personal security. Their results lead to a conclusion that availability of information is of great importance in the adoption of e-banking service. This is because in line with the theory of reasoned action, customer can only adopt a service or product if he has full information regarding its use. They further concluded that the only challenges to the use of e-banking are availability of information, education level and the cost of the service.

Also, Mwiya, et al., (2017) on Examining Factors Influencing E-Banking Adoption through an examination of TAM, used a regression analysis technique and correlation on a sample of 222 respondents. The study found that all the three antecedents, namely, perceived ease of use of e-banking services, perceived useful of e-banking services and perceived trust worthiness and safety of e-banking systems were significant and positively associated with attitude towards e-banking use. This means that an individuals' attitude to embrace the use of E-banking services can be improved by increasing his/her perception that e-banking services are useful, ease to use and trustworthy and safe. They further observed that attitudes towards e-banking use significantly help to increase the intention for individuals to adopt e-banking services which intentions ultimately leads to eventual actual adoption of e-banking. They concluded that the easier it is to use e-banking services, the more customers are likely to want to adopt e-banking and that when current and potential customers trust the e-banking systems and feel that their assets are secure, they will tend to use them more (Mwiya, et al., 2017).

A study to evaluate the quality of banking services and customer satisfaction, Gabriel et al. (2005) conducted a survey of 11936 customers of Brazilian banks. They explored five factors for assessing the services of these banks that included; relationship with the customer, Business and financial transactions, Information technology, Brand and Image of the bank. Out of these five factors, the researchers found that the first two factors have significantly higher impact on customer satisfaction. The authors highlighted that as information technology changes very fast, so utmost care should be given while providing quality service to customer. Further, with the advent of information technology, banks should diversify the portfolio of services so that the customers could not move to another bank.

A study by Kassim (2005) explored the growing needs and expectations of the consumers in Qatar. Due to competition, the banks had to offer a broader range of products and services at more competitive prices through more efficient and convenient channels. The study investigated the discrepancy between customer expectation and perception toward E-banking services. The author compared the expected and perceived value of E-banking services through mean responses which showed that largest discrepancies were found in the availability of instructions and personnel assistance on how to use E-banking services and functionality. The author concluded that to increase overall service quality of E-banking, management and employees should find out what customers expect in terms of procedure handling, efficiency, accessibility and updated information about products and services.

Also, Arora (2003) made an attempt to prove that technology had a definitive role in facilitating transactions in the banking sector; and found that the impact of technology had resulted into the introduction of new products and services by various banks in India. The author discussed

various initiatives taken by the banks to manage transformation and these initiatives had brought customers the convenience of anywhere, anytime banking. The author concluded that technology was a facilitator for advancement in the core business of banking and not an end in itself.

In his study aimed at examining the evolution of E-banking in Malaysia, Krishnan (2001) examined the evolution of and analyzed the various electronic delivery channels used by local banks to assess the consumer reaction to these delivery channels. The objective of the study was to present progressive development of e-banking, electronic delivery channels and some pertinent issues for successful implementation of E-banking. The study was based on a sample of 300 bank customers, and revealed that 90 per cent of respondents visit their bank branches at least once every month, 63.3 per cent customers indicated four or more visits to ATMs every month, 20 per cent of the respondents were using tele-banking services. Only 6.7 per cent customers indicated that they would not be interested at all using these services. The results showed that among different channels of e-banking like mobile banking, internet banking, ATM's, PC banking; ATMs were widely accepted by the people. The researcher also found that bank branches and interaction with human tellers were still important. 60 per cent of the respondents had internet access at home and it presents a positive indication of PC banking in future. The author concluded that for successful implementation of e-banking, the major pre-requisites were legal and physical infrastructure because e-banking requires a lot of tangible and technological changes in banks.

The question of why consumers decide to use e-banking was addressed by the study which was conducted by Mantel (2000). In his study, he proposed a framework for describing why consumers use electronic banking products such as electronic bill payment, credit cards, debit cards,

stored value and e-cash for their banking needs. The author explained that consumer behaviour was consistent with their preference, which includes convenience, incentives, control, privacy, security and personnel involvement. The paper suggested that consumers make rational decisions regarding the use of alternative of E-payment instruments rather than irrationally resistant to change. Migration towards electronic banking products was more dependent on establishing business cases rather than overcoming consumer reluctance. Further, the study provided that greater control, convenience and communication power were some of the reasons which made the consumers shift to electronic payment products.

A study on e-commerce by Wenninger (2000) evaluated the emerging role of electronic commerce in banks. His main objective of the study was to understand the changes that had taken place with the introduction of electronic commerce. He found out that the Development of e-banking products such as electronic billing, establishing internet portals, electronic checks and ATM. had provided additional services to customers'. The author also emphasized upon the strategic and operational risks which arise in banking sector. These could be minimized with a cost efficient electronic process.

Joseph et al. (1999) evaluated the impact of electronic banking on the service delivery by the banks to its customers. These researchers reviewed that when customers were in direct contact with the technology (such as internet banking), they can exercise better control, whereas when there was absence of direct contact (such as telephone banking), lesser control was perceived. A sample of 440 electronic banking customers was taken, and 300 usable questionnaires were analyzed. Six factors model was used to adequately represent the data and the factors chosen were convenience, accuracy, efficiency, queue management, accessibility and customization. The study examined customers' perception for electronic

banking services, attributes of electronic banking services and consumer perception of e-banking. The study suggested that banks should provide statements of all transactions; customers should be provided toll free numbers; and banks should also develop electronic banking facilities to meet the needs of elderly and disabled people.

A study by Mols, (1998) in Denmark found that internet banking might be useful for strengthening cross-selling and price differentiation. While Kamel (2005) adds that online banking is very useful and powerful means which leads banking industry towards development, growth. It helps to enhance the competitiveness of institutions.

Though e-banking has generally been accepted in most countries with developed economic, telecommunication, political and social systems, it is still a challenge in Sub-Saharan countries which includes Zambia among others (Masrek et al., 2013; Bank Negara Malaysia, 2012; Zhou, Lu, and Wang, 2010). The adoption of e-banking and acceptance depends mostly on security and trust of for example banks' website security features, safety and reliability of networks, phone trust etc. If these are assured, then customer acceptance of e-banking and e-commerce generally expected.

Rogers (1995) in a study on investigating the drivers of mobile commerce adopted the PU and PEOU constructs from the TAM2 model which were combined with perceived risk and cost constructs. He defines diffusion as the process by which innovation or perceived new technology is communicated through certain channels over time among members of a social system. He further proposed and defined the five attributes determining the rate of adoption of new technology which he stipulated as follows:

**Relative advantage:** is the extent to which the innovation is perceived as better than the technology it replaces, including technical performance, cost, risk, or other attributes

**Compatibility:** is the extent to which an innovation is perceived as being consistent with the existing values, past experiences and needs of potential users

**Complexity:** is the level of difficulty in understanding and using the technology

**Observability:** is the extent to which the results of a new technology can be observed or visible to others

**Trialability:** is the ability to try or experiment with the performance of new technology on a limited basis.

Luarn and Lin (2005) conducted a study in Taiwan, where TAM and the theory of planned behaviour (TPB) by Ajzen (1991) were combined. The study investigated the possible factors affecting mobile banking users' behavioural intentions. These factors include perceived usefulness (PU), perceived ease of use (PEOU), perceived credibility, self-efficacy, and perceived financial cost (Luarn & Lin, 2005).

In a study by Lee (2009) in Taiwan which investigated the factors influencing the adoption of internet banking, the TAM and TPB were integrated with perceived risk and perceived benefit constructs were added to the research model. In a study by Lee (2009), the following five antecedents of perceived risk were discussed: performance risk, social risk, financial risk, time risk and security risk.

In a study by Carlsson et al. (2006) using the UTAUT in Finland, performance expectancy and effort expectancy are found to be the main determinants of behavioural intention in using mobile services (Carlsson et al., 2006).

### 2.3. Summary Literature

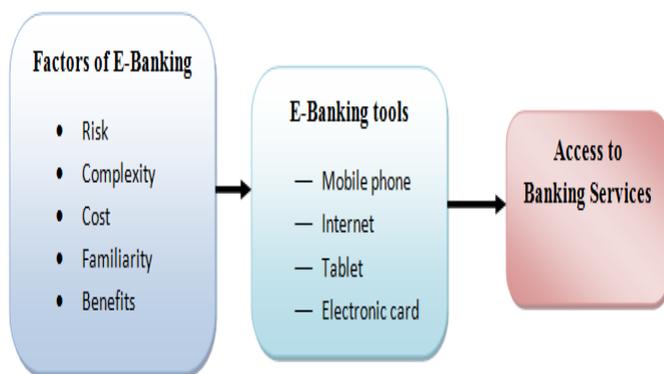
Electronic banking enhances the development of the banking system, and it is considered as a strategic weapon for banks. Although it provides various benefits for both banks and customers, low level of customers' adoption of electronic banking services is noted. However, electronic banking services cannot achieve expected benefits if it is not used by banking customers.

From the literature reviewed, it has been found that majority of the studies focused where focused on other countries with only a few focusing on Zambia. However, those focusing on Zambia have either focused on challenges or testing the validity of the theory pertaining to technology acceptance. It cannot be argued that while the customer may accept a certain technology, the use of such technology may be influenced by a number of factors leading to underutilisation of the platform. Thus, this study has seen the need to further assess the extent of use of e-banking by FNB customers has FNB has a narrower physical banking network as compared to most banks that have been in existence in Zambia for some time.

## 2.4. Conceptual Framework

Having reviewed both theoretical and empirical studies, a conceptual framework has been developed which is a combination of theories and the results of the empirical investigations.

Figure 1: Conceptual Framework



Source: Own Conceptual Framework

From the above theoretical framework, it can be seen that accessing or use of E-Banking is dependent on factors such as risk, complexity, familiarity, cost and benefits. Upon evaluation of such factors, the consumer decides on the e-banking tools to use in order to have easy access to the available baking services. Thus factors of e-banking are the challenges for the adaptation of e-banking by the consumer.

## CHAPTER THREE: RESEARCH METHODOLOGY

### 3.0. Introduction

This chapter outlines the overall methodology that the researcher used to carry out the study. It focuses on how the research was carried out to provide possible answers to the research questions. It discusses the approaches to be used in gathering and compiling data in order to arrive at the purpose of study. The tool to be used in the data captured the survey method which involved administering of questionnaires to selected employees FNB Zambia Headquarters.

### 3.1. Research Design

The study adopted a descriptive research design with a narrow focus of FNB Bank. According to McCombes (2019), Descriptive research design is aimed at accurately and systematically describing a population, situation or phenomenon and can answer *what*, *when*, *where*, *when* and *how* questions but of course not the *why* questions. Kowalczyk (2015) adds that is a study designed to depict the participants in an accurate way. More simply put, descriptive research is all about describing people who take part in the study. It further describes three ways a researcher can go about doing a descriptive research which are as follows; Observational (defined as a method of viewing and recording the participants), Case study (defined as an in-depth study of an individual or group of individuals) and Survey (defined as a brief interview or discussion with an individual about a specific topic).

Descriptive research describes current or existing conditions as well as attributes of particular subjects under study. The study is aimed at collecting information from respondents on their observation and opinion on what they know about E-Banking services accessibility by customers. This survey design enabled the researcher to collect information

from respondents without having to deal with the whole population. It's less expensive but still efficient.

### 3.2. Research Approach

The research approach used in this study was a Mixed Method. Mixed method is ideal in the case where the researcher intends to use both qualitative and quantitative data in order to help in analysis and triangulation of the data.

### 3.3. Target Population

The population of interest in this study consisted of employees from First National Bank (FNB) headquarters in Lusaka Province. The target group includes head of departments and general employees of the Bank.

### 3.4. Sample Size

The basic idea of sampling is that by selecting some elements in a population, the researcher may draw a conclusion about the entire population (Cooper and Schindler, 2006). Sampling refers to the target groups of the whole population to be interviewed. From the total population of over 100 employees at the Head office, a sample of 100 respondents was chosen for the research using the non-probability sampling method. This sample size is selected conveniently due to time and financial constraints.

### 3.5. Sampling Technique

The sampling technique employed in this study was non probability sampling of conveniently sampling technique. This is so because the required sample was relatively small and from the same organisations. As the sample elements were not spread apart, it was very convenient for the researcher to obtain data within the organisation.

### 3.6. Data Collection Instruments

Primary and Secondary data was collected and used in this research in order to meet the objectives of the study.

#### 3.6.1. Primary Data

The researcher collected primary data by use of a structured questionnaire which will contain closed ended questions. The questionnaires were structured into two sections, section A on demographic data, section B was consisting of questions based on the objectives. The questionnaire was administered through and picked later at an agreed time with the researcher and through email.

#### 3.6.2. Secondary Data

Secondary data was collected from sources such as newsletters, journals, training manuals and other E-banking published books and articles.

### 3.7. Methods of Data Analysis

The questionnaire generated quantitative data was coded and entries were made. The data was analyzed using SPSS. Data collected is interpreted for the purpose of drawing conclusions that reflect on the interests, ideas and theories that initiated the inquiry (Babbie and Mouton, 2004). Data analysis was performed using a mix of qualitative and quantitative methods.

### 3.8. Ethical Considerations

The researcher put in place all the necessary measures to promote ethical behaviour throughout the research. This was also observed in questionnaire design and administering with emphasis on confidentiality and protecting the integrity and privacy of the respondents. Concerns of confidentiality harm to participants, anonymity and voluntary participation was dealt with in the course of data collection.

### 3.9. Summary

This chapter outlined the methodology that was used to provide answers to the research questions in line with the research objectives. It starts with the target population and how the sampling was done. It also outlines the methods that were used to gather information.

## CHAPTER FOUR: DATA ANALYSIS AND DISCUSSIONS

### 4.0. Introduction

The data from the questionnaires was collected and coded using Statistical Package for Social Science (SPSS) and Excel; it was then checked for uniformity, consistency and accuracy. This chapter presents data in form of tables and figures as collected from the respondents. The questions conducted were designed using TAM model (which focus on user technology acceptance framework) as outlined in Literature Review in Chapter Two.

The chapter seeks to highlight the demographic profile of respondents targeted for the study. To facilitate meaningful data analysis and interpretation of the findings, information on bio data of respondents has been included. The report sheds participatory study into the adoption of digital banking platforms at FNB Zambia

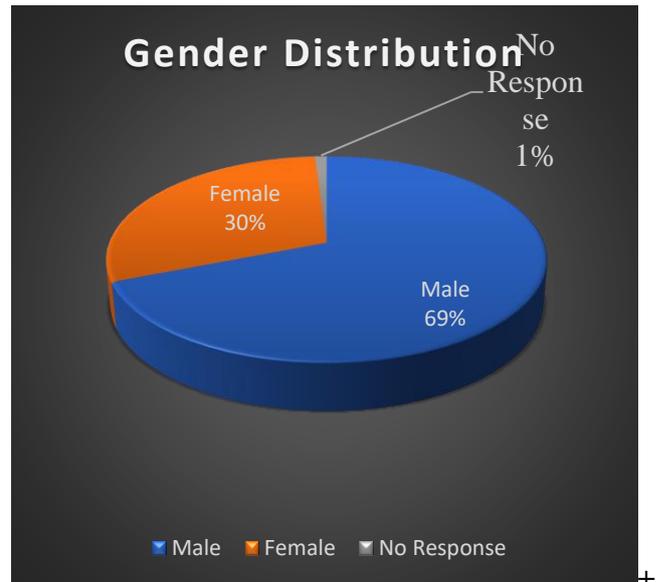
### 4.1. Respondent's Characteristics and Classification

The data from the questionnaire sought general information about the respondents. The information under this section provides a brief summary of the profile of respondents with their duration of work and departments of attachment and level of education.

#### 4.1.1. Gender Distribution of the Respondents

*The study sought to establish the gender proportional presentation of the respondents. The figure below gives the results of the study.*

Figure 2: Gender Distribution of the Respondents



Source: Own Computation from field data

The above figure shows 69% male representation, 30% female representation while 1% depicts the non-disclosure of gender representation across the three Departments researched during the administration of the questionnaire.

#### 4.1.2. Respondent's Age

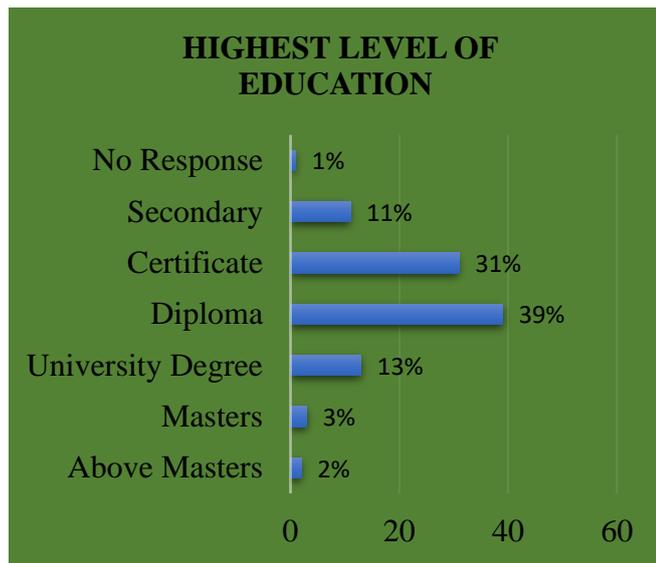
*The study further investigated the age distribution of the respondents to help understand the age range of the respondents as age may influence responses given by the respondents. The results are presented as below;*

The data below depict the age group of respondents that were researched and responded to the questionnaires that were administered to them. The highest age group was between the ranges of 26 to 35 years of age that accounted 48% of the respondents with the lowest age range being from 46 to 55 years of age at 12%. Important to note is also a single person with a representation of 1% that did not give their age. Age was an important factor during the course of the study because age factor has an effect of a person's internet usage.

### 4.1.3. Education Level

Education has an impact on the adaptability and ease of transition to personnel using new technologies and innovations. Personnel should have the general education to be able to use the platform. Thus, this study sought to establish the education levels of the respondents and the results are as reported in chart below

Figure 3: Education Level of the Respondents



Source: Own Computation from field data

The study indicated that majority of the respondents were Diploma holders at 39%, followed by Certificate holders at 31% with least being 2% of respondents with above master degree qualification. There was 1 respondent that did not give feedback on their level of education which translated to 1% respectively

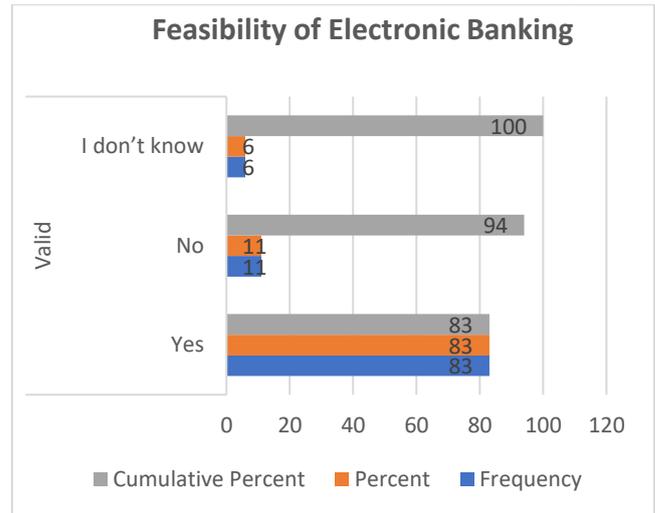
## 4.2. Readiness to Use

This section presents information on the perceived readiness of use of the e-banking platform

### 4.2.1. Feasibility of Electronic Banking

The study investigated the feasibility of electronic banking in the current setup and the results are presented as in the Chart below

Chart 1: Feasibility of Electronic Banking



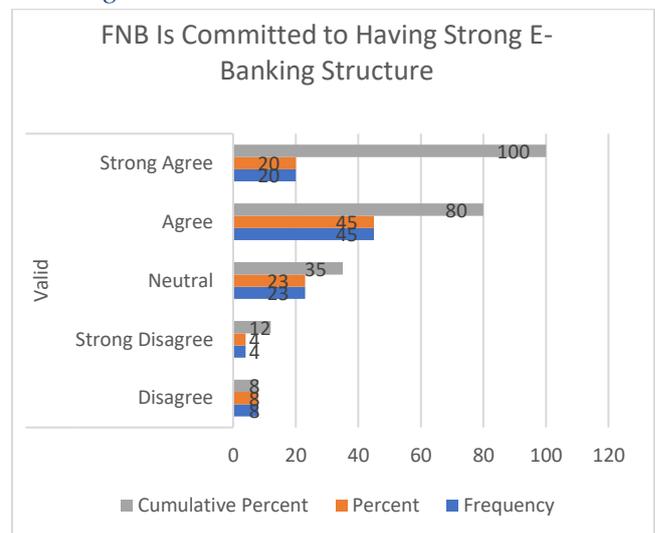
Source: Own Computation from the field Data

From the information obtained from the respondents as indicated in Chart 1 above, the research findings indicate that 83% of respondents answered in the affirmative that it was feasible to use E-Banking 11% stated that it was not possible while 6% of respondents did not know whether it was feasible or not.

### 4.2.2. Whether FNB is Committed to Having Strong E-Banking Structure

The study wanted to find out whether the bank was committed to a strong e-banking setup. The results were reported as in the Chart below.

Chart 2: FNB Is Committed to Having Strong E-Banking Structure



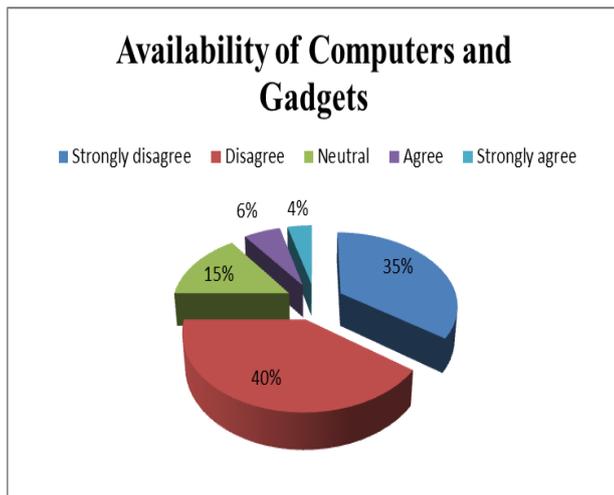
Sources: Own Computation from Field Data

The findings revealed the FNB management commitment in ensuring customers have easy access to electronic banking at FNB as indicated in Chart 2 below. 8% disagreed. Those that strongly disagreed were 4%, neutral at 23%. But the majority agreed at 44% and 20% strongly agreed that FNB management is committed to have a strong E-banking. 3% of the respondents were non-responsive. There were more people in agreement than the converse.

### 4.2.3. Availability of Facilities

The study further went on to establish the availability facilities to enable the implementation and support of e-banking. The results are presented as in the chart below

**Figure 4: Availability of Facilities**



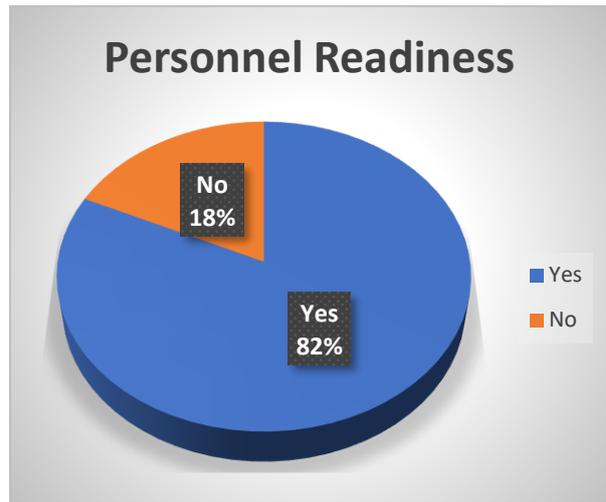
Source: Own Computation from Field Data

From the chart above, the study findings revealed that some the basic prerequisite for electronic banking implementation were not available as can be seen by the responses indicated in the.

### 4.2.4. Personnel Readiness

The study investigated the readiness of individuals in the implementation and use of e-banking facilities. The results are presented as below

*Chart 3: Personnel Readiness*



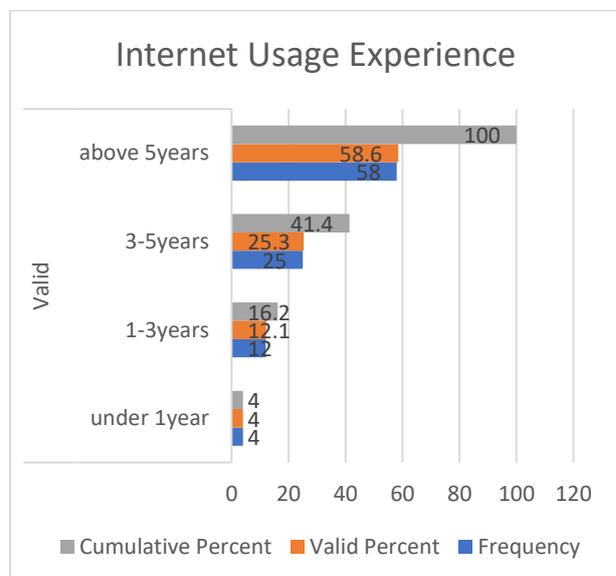
Sources: Own Computation from Field Data

After collection and analysis of data about personnel readiness in embracing E-banking, 82.0% (41) of the respondents indicated in the yes, 18% (9) stated that they were not ready to embrace E-banking.

### 4.2.5. Internet Usage Experience

The study wanted to find out the respondents experience in the use internet. The results are as reported in the figure below

**Chart 4: Internet Usage Experience**



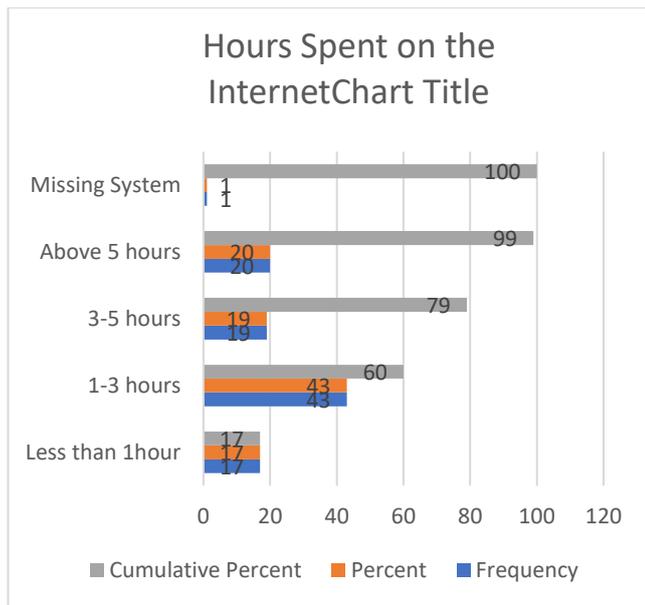
Source: Own Computation from Field Data

Data obtained and analyzed from the questionnaires indicated that 58% of respondents have been using internet for over 5 years with a representation of 58% and the least usage is under one year at 4%.

#### 4.2.5.1. Hourly Daily Internet Usage

The study investigated the hourly usage of internet and the results are reported as in the Chart below

Chart 5: Hours Spent on the Internet

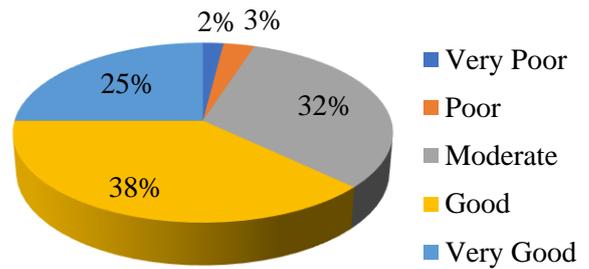


Source: Own Computation from field Data

The Chart above indicate that the majority of respondents (43%) spend an average of 1 to 3 hours on the internet daily with the least percentage (17%) using internet for less than 1 hour. 3 to 5 hours internet usage had a representation of 19% while above 5 hours daily usage was at 20%. One respondent however, did not provide their internet usage.

#### 4.2.6. General Computer Knowledge

The study went on find out the knowledge levels pertaining to e-banking. The results were presented as below:



On average the general computer knowledge ranges between good (38%) and moderate (32%), while good computer knowledge is 25%, poor 3% and very poor at 2%.

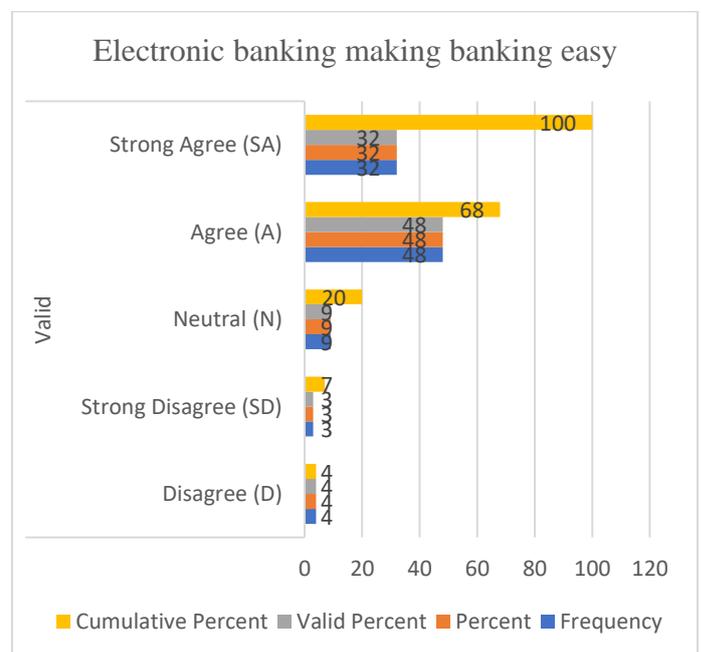
#### 4.2.7. Perceived Usefulness and Ease of Use

The researcher obtained information from the questionnaires on the perceived usefulness and ease of use of electronic banking by customers.

##### 4.4.1 Electronic Banking can makes Banking ease and faster

The Chart and Figure below indicate the responses on electronic procurement enhancing job performance.

Chart 6: Electronic banking making banking easy

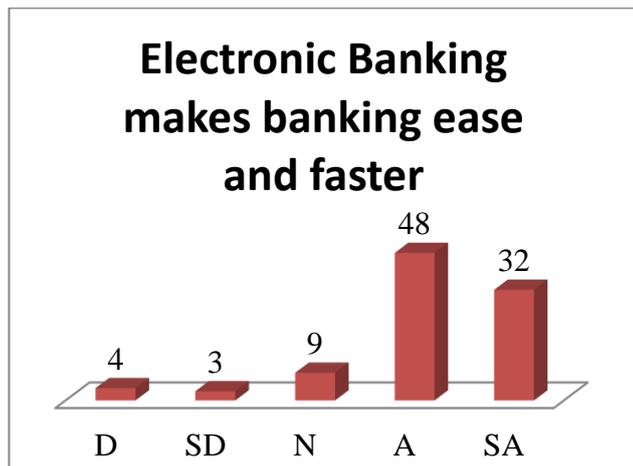


Source: Own Computation from field Data

The study findings on whether electronic banking makes banking ease and faster, the respondents revealed the following outcome; 32% strongly agreed, 48% agreed, 9% were neutral, 3% strongly disagreed, and 4% disagreed.

The results were further reported in histogram as below

Chart 7: Electronic banking makes banking ease and faster



Source: Own Computation from Field Data

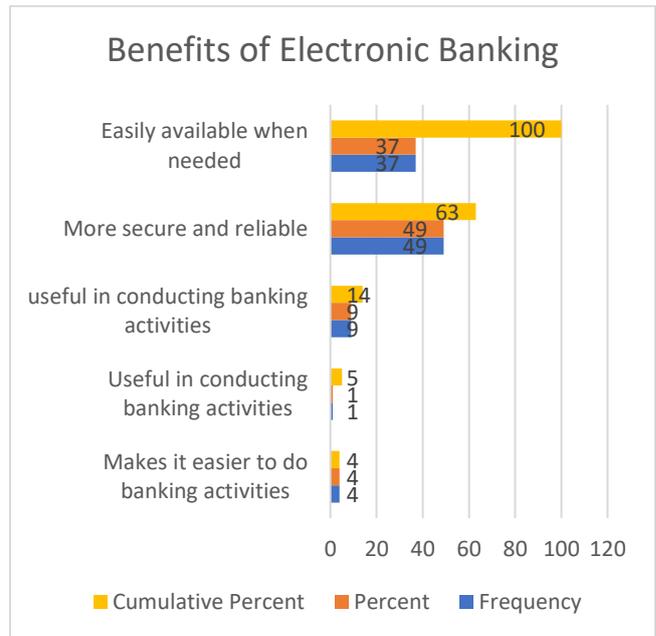
#### 4.2.8. Electronic Banking is Secure

On electronic banking makes it easier to do banking activities and is secure outcome was as follow; of the 100 questioned 8% disagreed. Those that strongly disagreed were 4%, neutral at 23%. But the majority agreed at 44% and 20% strongly agreed that electronic banking makes it easier to do banking activities and is secure.3% of the respondents were non-responsive. There were more people in agreement than the converse.

#### 4.2.9. Benefits of Electronic Banking

The study sought to find out the perceived benefits of e-banking and the results are reported as below

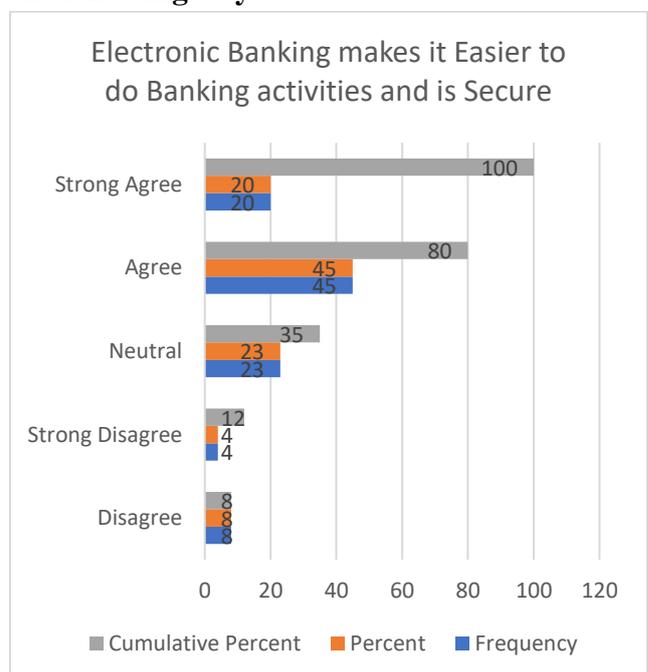
Chart 8: Benefits of Electronic Banking



Source: Own Computation from the Field Data

On electronic banking is beneficial to customer in the following ways; of the 100 questioned 4.0% said makes it easier to do banking activities, 1.0% said useful in conducting, 9.0% said useful in conducting banking activities, 49.0% said more secure and reliable and 37% indicated easily available when needed.

#### Electronic banking is beneficial to customer in the following ways



On ease of electronic banking makes it easier to do banking activities and is secure; of the 100 questioned 8% disagreed. Those that strongly disagreed were 4%, neutral at 23%. But the majority agreed at 44% and 20% strongly agreed that E-Banking would be easily implemented.

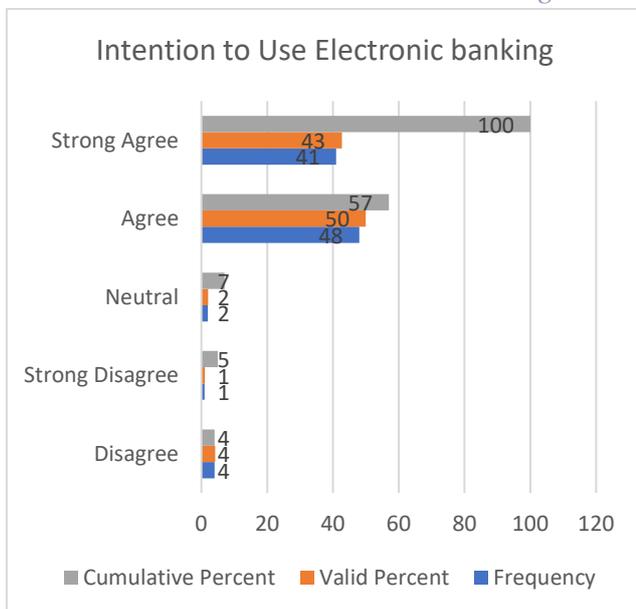
#### 4.2.10. Intention to Use

This aspect of the Technology Acceptance Model looks at the willingness of respondents to use. Customer's intention to use E-banking is influenced by use of various variables identified in the conceptual framework in Chapter Two under Literature Review.

#### 4.5.1 Intention to Use Electronic Banking

Analysis of the responses obtained indicated that 48% of respondents were agreeable to the usage of electronic banking with 41% strongly agreeing, disagree and non-responsive are both at 4% respectively with neutral at 2%. Majority of respondents, as illustrated diagrammatically, are positive on the intention to use the E-banking system. This a good go ahead from the end user as they present a lot enthusiasm towards customer's intention to use electronic banking

Chart 9: Intention to Use Electronic banking



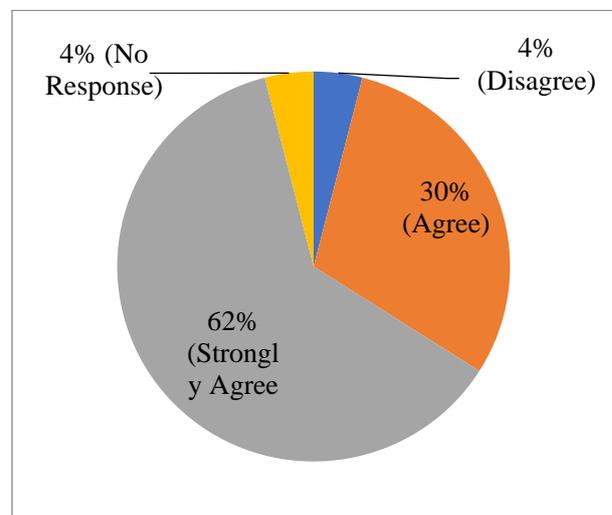
Source: Own Computation from Field Data

#### 4.2.11. Customer Need for Further Training

Research findings indicate that majority of respondents strongly (62%) agreed that there was need for further training for personnel to enhance their computer skills as well as keeping them abreast with the latest technology advancements, 30% of respondents were also in agreement with those in disagreement and non-responses accounting for 4% each respectively. Skill training and knowledge enhancement is paramount in fostering development and so easy adaptability to change.

The results are presents as in the figure below

Chart 10: Need for training in IT



Source: Own Computation from Field Data

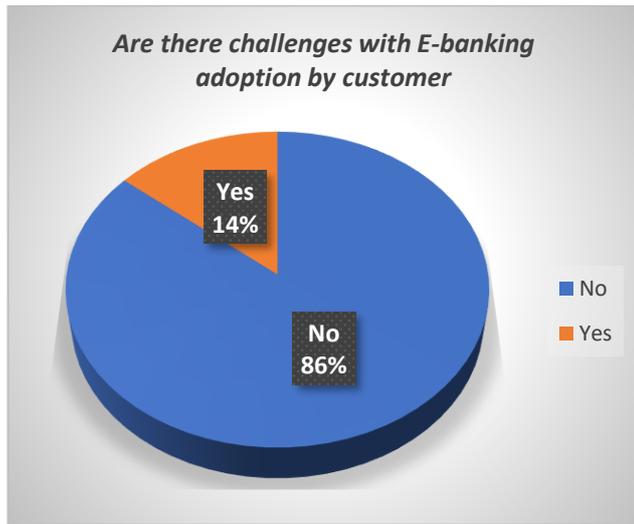
### 4.3. Challenges

The Chart below shows challenges of electronic banking adoption by customers depicts 86.0% of the respondents said yes and 14.0% said no.

Chart 11: Are there challenges with E-banking adoption by customer

The results were further presented as in the chart below

Are there challenges with E-banking adoption by customer?



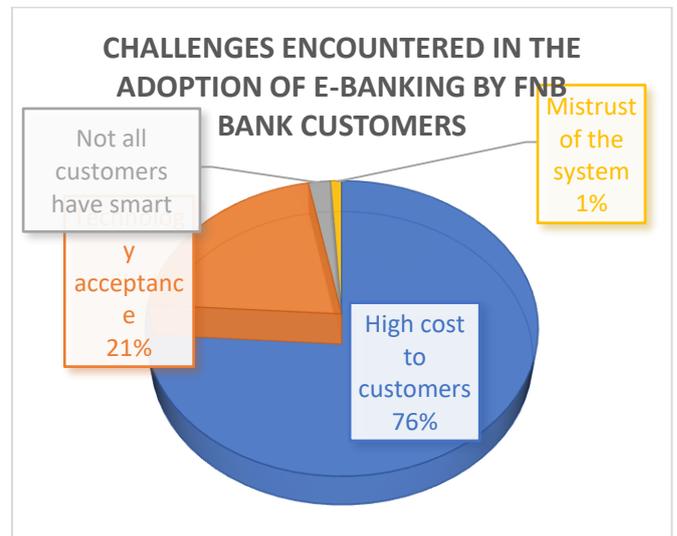
Source: Own Computation from Field Data

#### 4.3.1. Challenges encountered by customers

The Chart below shows challenges encountered in the adoption of e-banking by FNB Bank, 76.0% of the respondents said high cost to customers, 21% technology acceptance, 2.0% indicated not all

customers have smart phones and 1% indicated mistrust of the system. The results were further presented in the chart shown below

Chart 12: Challenges encountered in the adoption of e-banking by FNB Bank customers



Source: Own Computations from Field Work

## Regression Model

| Model  | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. | Correlations |         |       |
|--|-----------------------------|------------|---------------------------|--------|------|--------------|---------|-------|
|  | B                           | Std. Error | Beta                      |        |      | Zero-order   | Partial | Part  |
| 1 (Constant)   | 3.227                       | .528       |                           | 6.106  | .000 |              |         |       |
| Electronic banking is beneficial to customer in the following ways             | .012                        | .106       | .014                      | .113   | .910 | -.133        | .012    | .011  |
| Need for further training in IT to aid with                                    | -.109                       | .109       | -.122                     | -1.000 | .320 | -.159        | -.104   | -.100 |
| Would electronic help customers make money transfers without going to the bank | -.212                       | .098       | -.230                     | -2.161 | .033 | -.250        | -.220   | -.217 |

a. Dependent Variable: Personal readiness to use electronic banking

In the initial stage of the model, t-ratios are given to see if parameters are statistically significant.

$Y = 3.227 - 0.12 (\text{personal readiness}) - 2161(\text{ease of use}) - 1.066 (\text{usefulness}) - 1.000 (\text{intention to use}) - 0.066$

Above table reveals assessment of regression model coefficients with their t-ratios. As it is given in the results, t-value of personnel readiness and probability is statistically significant for customer satisfaction. There is relationship between intention to use factor and customer readiness. This means that customers having knowledge about internet banking transactions are statistically distinct from those customers who do not have knowledge in terms of their customer satisfaction. Therefore, Hypothesis is invalid.

The result in table 5 revealed that ease of use, accessibility, and security variables of the t-values are bigger than 2. This means that we are 95 % sure that an important relationship exist among the three factors.

Ease of use, intention to use, and usefulness explain 53 % of the variance in the dependent variable or customer satisfaction. The residual percentage of the variance can be clarified by three factors other than awareness factor. Additionally, F ratio (53.142) is statistically significant at 0.01 level.

Moreover table 10 shows the regression coefficients, together with their t-ratios and probability values. According to regression analysis results we can say that perceptions on ease of use, intention to use factors are statistically significant and have a positive influence on customer satisfaction.

## 4.4. Correlation Coefficient and P-Values

**Table 9 Correlations**

|  | Customers ready to embrace electronic banking | Electronic banking is beneficial to customer in the following ways | Would electronic help customers make money transfers without going to the bank |
|--|---|--|--|
| Customers ready to embrace electronic banking                                  | Pearson Correlation<br>Sig. (2-tailed)<br>N   | 1<br>-.020<br>100  | -.171<br>.842<br>100   |
| Electronic banking is beneficial to customer in the following ways             | Pearson Correlation<br>Sig. (2-tailed)<br>N   | -.020<br>.842<br>100   | 1<br>.338**<br>96  |
| Would electronic help customers make money transfers without going to the bank | Pearson Correlation<br>Sig. (2-tailed)<br>N   | -.171<br>.095<br>96  | .338**<br>.001<br>96   |

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

Correlation and P-Values test were analysis through the use of the Technology Acceptance Model. Correlation analysis is used to establish if there exists relationship between two or more variables which lies between strong negative correlation and perfect positive correlation. Correlation coefficient was tested on perceived ease of use, intention to use and usefulness of electronic banking.

The variables above on customers ready to embrace electronic banking (implementation readiness), electronic banking is beneficial to customers various ways and (intention to use) have a significant value of greater than 0.05 which means the alternative hypothesis is rejected as the ( $P=0.095289 < 0.05$ ) Therefore, there is no relationship between perceived usefulness and intention as they do not affect customer's intention to use electronic banking.

Furthermore, the correlation between electronic Would electronic help customers make money transfers without going to the bank & electronic banking can easily be used found a significant value is less than 0.05. Which means the null hypothesis was rejected. This showed that perceived usefulness and intention to use have a strong association with perceived usefulness of electronic banking

## **CHAPTER FIVE: SUMMARY CONCLUSION AND RECOMMENDATION**

### **5.0. Introduction**

This chapter presents the discussion of the findings, conclusion based on the findings and the recommendations according to the findings of the study.

### **5.1. Summary**

This research carried a participatory study into the adoption of digital banking platforms at FNB Zambia.

From the data collected and analyzed of the 100 respondents, it is evident that the E-banking system is more than welcome. The responses received from respondents are positive towards its introduction. Majority of the respondents agreed to the positive impact it will have on their operations as customers. Electronic banking improves bank transaction such as transfers and makes accessibility easier. Most of the respondents believed electronic banking was relevant to their job description, while this might be a threat it also presents an opportunity to teach the respondents on its importance and assure them on the efficiency gains it comes with rather the perceived impact, similar to that that most people perceive automation will do to their jobs, which is job loss.

Furthermore, most respondents prefer a customized operating system for their day-to-day operation of electronic banking. Change management has to be well implemented to enable a smooth transition. There is also need for further training for all customers to be using the system, as is with any other introduction of new software. And majority of the respondents agreed to use the electronic banking because of the benefits to customer in the following ways; it easier to do banking activities, useful in conducting, useful in conducting banking activities, more secure and reliable and easily available when needed.

However, while there is optimism and enthusiasm from the end users if management does not provide the necessary resources and infrastructure needs it will be impossible to implement the system from the onset.

Electronic banking has seemingly improved bank services to customers. However, banks need to improve their services in some key areas that stand as gaps or in relation to some factors preventing customers from using electronic banking effectively. As stated earlier in the research objectives, to identify the factors hindering the adoption of Electronic banking services by FNB customers, to ascertain the benefits FNB Bank and its customers derive from e-banking, to determine the critical success factors for the introduction of e-banking by FNB Bank.

There was a relatively positive relationship between intention to use and personal readiness to use electronic banking of internet as this is still relatively new and it based on one's values and its adoption, except low positive correlation of ability to fits well with the way like to manage finances. It viewed that the perceived usefulness and intention to have a positive influence on the adoption of the innovation. In other words, even internet users who feel that using electronic banking helps them make transactions fast and its secure.

Using the regression linear analysis results, the study found that electronic-banking usage depends on the availability of e-banking information. This means that there is increased publicity on e-banking, it is expected that if many customers would use the service. The availability of electronic-banking information includes available information on the benefits, risk, costs and easy to use process. This is in line with the complexity and familiarity hypothesis discussed in the literature. The results of this study are consistent with the findings of the study by Kassim but were not consistent with the findings by Aliyu et al.

After investigating the factors influencing the use of e-banking, this study concludes that the biggest challenge in the adoption and use of e-banking is the availability of information on e-banking. The research established that those who never used the service had no available information on the availability of the service, benefits, how to use the service among others. This is in line with the decomposed theory of planned behaviour that posts that consumer use of the service of product is influenced by the ease with which to use the service, benefits of the service or product, cost and how complex the service or product is.

The other challenge of not adopting the use of electronic-banking by most customers is the cost associated with the service. The cost may include charges per usage, incomplete transactions, and defective service among others. Customers may fear that at any time, the transaction may not be completed but may be charged for the service which becomes costly. Other challenges found to be significant is the education level where in this study it was found that respondent with lower education were the ones who never used the service.

This is so because with advancement in education levels, the individual tends to acquaint themselves with more and more information about products and services whereas people of lower education level had a tendency of not accepting technology with ease.

## 5.2. Conclusion

In order for banks to increase returns on their investment in e-banking for their customers, it is important that they understand the factors that influence the adoption of Internet and cell phone banking services within their environmental context, challenges facing customers to adopt electronic banking. For instance, perceived usefulness and ease of use are variables generally believed to influence the adoption of new

technology, including electronic banking technologies.

In this study however, trust in the e-banking system emerged as the most significant factor that impacts on the adoption of electronic banking services by FNB customers. It can therefore be concluded that the availability of information is of great importance in the adoption of electronic-banking service. This is because customers need to be informed of the benefits and risks regarding electronic banking, therefore, customer can only adopt a service or product if he has full information regarding its use and also concluded that familiarity is very important in the use of electronic-banking as technological acceptance is based on the familiarity and complexity of the service.

However, it can be concluded that as much as other theories emphasis on the concern for security, security is not a challenge in the adoption and use of e-banking. The only challenges to the use of e-banking are availability of information, education level and the cost of the service.

## 5.3. Recommendations

Having carried out this study, the following are recommendations;

FNB should devise and implement strategies that will increase customers' trust in the electronic banking systems. It is expected that this will lead to the rapid and widespread adoption of electronic banking services amongst FNB customers.

FNB and other banks should make information on the benefits, costs, how to use etc available to the all customers and merchants. The use of electronic-banking has been found to be very beneficial to both the customer and the bank because the customer believes the service reduces transaction time; it is convenient and reduces the amount of cash to be

carried in order to do a transaction which reduces the risk of losing cash.

To the Bank, the use of electronic-banking has helped to reduce cost of handling the transactions including reduced cost of back room staff. Although Security concern was found to insignificantly affect usage of electronic-banking, it is recommended that further studies are undertaken to access security of customer accounts and any factor relating to reluctance in the adoption of the service.

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