UNIVERSITY OF KWAZULU-NATAL

Customer Satisfaction with the Electronic Banking Services in Zimbabwe: A Case of Mashonaland West Province, Zimbabwe

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A thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy

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DEDICATIONS

I dedicate this thesis to my wife, Lorraine, and to my children, Ruvarashe and Junior.

ACRONYMS AND ABBREVIATIONS

AES- Advanced Encryption Standard

ATM – Automated Teller Machine

BCCI- Bank of Credit and Commercial International

CABS-Central Building Society

CBZ-Commercial Bank of Zimbabwe

CDMA-Code-Division of Multiple Access

CIO- Chief Information Officers

CPUs- Central processing Units

CTO-Chief Technology Officers

E-Banking – Electronic Banking

ECC- Error-Correcting Code

ECC-Elliptic Curve Cryptographic

ECC-Error Correction Code

EFTPoS – Electronic Funds Transfer at Point of Sale

E-managing- Electronic managing

EMV- Europay MasterCard Visa

ERMA-Electronic Recording Method of Accounts

E-saving- Electronic Saving

e-SQ -Electronic Service Quality

FBC-First Banking Corporation

FDIC- Federal Deposit Insurance Corporation

FFIEC-Federal Financial Institutions Examination Council

FMCG- Fast Moving Consumer Goods

GDP-Gross Domestic Product

GSM – Global System for Mobile Communication

HTTPS- Hyper Text Transfer Protocol Secure

IBU – Internet Banking Usage

ICT – Information and Computer Technologies

m-Banking- Mobile Banking

MICR- Magnetic Ink Character recognition

Micro SD- Micro Secure Digital

MMT- Mobile Money Transfer

OTP-One Time Password

PDA- Personal Digital Assistant

PIMS- Profit Impact on Marketing Strategy

PKI- Public Key Infrastructure

POS-Point Of Sale

POTRAZ-Postal and Telecommunications Regulatory Authority Of Zimbabwe

RBZ- Reserve Bank of Zimbabwe

SERVQUAL- Service quality

SIM – Subscriber Identity Module

SMS-Short message service

SPSS – Statistical Package for the Social Sciences

SSL- Secure Socket Layer

TAM – Technology Acceptance Model

TMP- Text My Phone

TM-Thomas Miekles

TPB – Theory of Planned Behaviour

TRA-Theory of Reasoned Action

UK- United Kingdom

UNCTAD- – United Nations Conference on Trade and Development

URL- Uniform Resource Locator

USA- United States of America

VOIP- Voice Over the Internet Protocol

VPN – Virtual Private Network

WAE-Wide Area Ethernet

WAP – Wireless Application Protocol

WDP-Wireless Data Protocol

WIM-Wireless Identity Module

WML- Wireless Markup Language

WSP-Wireless Session Protocol

WTLS-Wireless Transaction Layer Security

WTLS-Wireless Transport Layer Security

WTP- Wireless Transaction Protocol

ZB -Zimbabwe Bank

ABSTRACT

With the constant advances in technology, it is expected that life should become easier in various way, one of these being that people would no longer have to wait in queues in banks as technology allows people to do most of their transactions by computer or cell phone. This research sought to gather information on customer satisfaction with the electronic banking (e-banking) facilities and services in Zimbabwe. The problem which was identified is that people spend a lot of time waiting in queues for services they could access much more quickly on e-banking platforms. Three e-banking platforms were examined, these being automated teller machines (ATMs), internet banking, and mobile banking (m-banking). The research took the form of a descriptive case study design. It also took a mixed method approach where both quantitative and qualitative data was used. Mashonaland West Province in Zimbabwe was the location for the study. Questionnaires were distributed in all seven districts of this province, on a pro rata basis depending on population size. According to the 2012 census survey in Zimbabwe, the total population of economically active people, between the ages of 15 and 64 years living in the province was 825 911 people. The researcher used Kredjice and Morgan's table to calculate the sample size of 384 people. Two hundred and eighty-three (283) questionnaires were returned out of the three Hundred and eighty-four (384) questionnaires which were distributed, thus the response rate was 73.7%. The Statistical Package for the Social Sciences (version 20) was used to analyze the data. Results showed that e-banking services in Zimbabwe are satisfactory as there was not a single attribute of banking where the majority of people showed dissatisfaction. However, there is a need for Zimbabwean banks to continue to educate citizens on how to use e-banking facilities effectively. Internet banking had the lowest levels of reported user satisfaction with the problem emanating from a lack of internet access by the majority of citizens. There was also no significant gap realized between bank sector managers' perceptions of customers' needs and wants and the actual needs of customers. A model for adoption of electronic banking in Zimbabwe has been developed by the researcher and is made up of five key factors which determine the adoption of electronic banking in Zimbabwe, these are: education, accessibility, ease of use, friendliness, and security. These key factors determine the success of electronic banking in Zimbabwe. If this model is adopted it can assist Zimbabwe banks in new products development, improving service quality and therefore establish sustainable competitive advantage

Key words: electronic banking, customer satisfaction, internet banking, mobile banking.

CHAPTER ONE

NATURE AND SCOPE OF THE STUDY

1.0 Introduction

The banking sector has seen great technological advances in the past decades. In banking, electronic banking is a technological development that is meant to improve efficiency. This study explores the various challenges associated with the adoption of e-banking. This chapter sets the tone of the research by looking at the background of this study which details on customer satisfaction with the e-banking platforms in Mashonaland West Province, Zimbabwe.

1.1 Background to the Study

Customer satisfaction is an abstract and confusing notion. Real expression of the state of fulfilment will differ from service-to-service, product-to-product and person-to-person. The state of satisfaction depends on economic, physical, and psychological factors. Customer satisfaction is determined essentially by the perceived quality of the service. Kumbhar (2011) states that service quality can be improved by using innovative information and communication technology (ICT) techniques.

Currently, the majority of the banks have adopted ICT as a medium for providing high quality services. The provision of customised ICT-based e-services to customers, called ICT-based banking are referred to as e-banking, internet banking, or online banking is constantly increasing. Kumbhar (2011) highlighted that the use of ICT in service provision brings customer-centricity, enhanced service quality, convenience, and cost effectiveness into the banking sector and targets increasing levels of customer satisfaction. Subsorn and Limwiriyakul (2012) postulated that internet technology has affected everyday life, because of its competence to promote and enlarge managerial and operational performance, in both business and non-business industries.

According to Gunasekaran and Love (1999), the growth of e-channels has intensely reformed the rules and procedure in the banking industry. Gonzalez et al. (2004) postulated that in the meantime, the industry has stirred quickly to arrange and to provide novel banking services through e-channels for clients and subsequently, e-banking services have increased (Aladwani, 2001).

Several financial institutions attempt to highlight customer-driven services. According to Gonzalez, Quesada, Picado and Eckelman (2004), for this to be successful, it is vital to devise innovative banking

services to assist in developing and maintaining relations with customers, particularly with business clients, since they are key to main profits (Tyler and Stanley, 1999; Zineldin, 1995). Kandampully and Duddy (1999) contended that in the banking sector, the customer relationship is a key matter, especially in bank-to-corporate relationships, as banks aim to attain, and retain a competitive edge in the market place. The connection amongst banks and business customers is the most significant factor in the successful development of new financial services (Easingwood and Storey, 1993). Thus, establishing a competitive predominance hinges mainly on the satisfaction of customers with the available banking services. It has been proven that banks obtaining high levels of customer satisfaction will result in it having a visible marketing dominance because it is related to augmented cross-sell ratios, more revenue, greater customer retention (Gonzalez, Quesada, Picado and Eckelman, 2004; Nilsson and Johnson, 2001), and better market share (Bowen and Hedges, 1993).

Competition in the market place has increased due to globalisation. This increased rivalry, in turn, stresses that businesses should unceasingly upsurge their production and reduce their costs. In order to decrease these costs and improve productivity, there is a need for improvements in Information and Computer Technology (ICT). Developments in technology have altered the requirements for service provision intensely in current years, and these have influenced self-service choices and on service sustenance. Blumberg (1994) suggested that technology is engaged by service providers at various phases in the service provision process as well as in the service provision operations to increase superiority and productivity in their outputs. These technology-enabled variations are altering the methods by which service suppliers and their clients interrelate with each other (Dabholkar, 1994). An example of an influential method of technology-based self-service is electronic banking through internet technology, which will be referred to as 'e-banking' in the remainder of this thesis.

Lovelock and Young (1979) emphasized that an unnoticed method of increasing yield in service businesses is to alter the methods which clients use to interrelate with service provider firms. According to Tansik (1983) in a bid to curb the limitation of the provision of service systems, service executives can upsurge output by varying techniques at the point of provision, such as substituting a bank teller with a computer. Service industries usually involve the customer in the manufacturing process, changing procedures at the point of service provision directly affects customers. Lovelock and Young (1979:172), however, pointed out that, "a lack of thoughtfulness to consumer needs and worries all too frequently suggests a low customer recognition level:"

> The greatest success in introducing ATMs is enjoyed by banks that invest time and
> effort to develop carefully thought-out introductory programs. Typically, these

programs emphasize deployment of specially trained staff to help customers learn how to use the machines and assist them if they have any problem Lovelock and Young (1979)

White and Nteli (2004) defined e-banking as the computerized provision of innovative and traditional banking products and services straight to clients through automated, interactive communication channels. E-banking encompasses the delivery of banking facilities and products by financial institutions to their clients over an automated medium. This definition similarly encompasses the use of information and communication technology (ICT) by financial institutions to deliver services and foster customer relationships more quickly and most satisfactorily. Banking includes the systems that enable customers, financial institutions, businesses and individuals to transact business, obtain information on financial products, access accounts, and services via a system that includes the internet (Rotchanakitumnuai and Speece 2003). Customers get e-banking services access using an intellectual electronic gadget, such as a phone, personal computer, or an ATM. Sharma and Ojha (2004) suggested the following five basic services are associated with online banking: paying bills, transferring funds between accounts, viewing account balances and transaction histories, requesting credit card advances and ordering cheques for quicker services that can be provided by home and foreign banks.

E-banking includes computer and telephone banking and to many financial institutions, proclivity to e-banking services increases customer services quality while closely linking customers to the bank. The implementation of e-banking is furthermore understood as a new method of growing the clientele base. E-banking permits clients to gather information and carry out most banking services such as bill payments, account balance enquiries, and transfers to other accounts through the internet. E-banking, thus, comprises structures that enable customers, financial institutions, individuals and businesses transacting with businesses, to access accounts, obtain information on financial goods and services via public or private networks. Some closed or private networks limit access to members (merchants, customers, financial institutions, customers, and third party service providers) guaranteed by contract on the terms of affiliation. Open or public networks have no such affiliation requirements.

Robinson (2000) argued that e-banking is an ICT system where the banking services are provided by way of a computer-controlled system. E-banking systems involve direct interface with the clients. The clients are not obliged to visit the bank's buildings. Park and Chen (2003) postulated that internet banking permits clients to perform a varied range of banking dealings electronically through the bank's website. Kimery and McCord (2002) suggested that when it was first introduced, internet banking was used mostly as an information exhibition medium in which banks advertised their products and services on their

websites. With the growth of asynchronous mechanisms and protected electronic transaction technologies, more banks in third world countries like Zimbabwe are now using internet banking both as a transactional and an informational medium.

Current growth in technology as well as innovation has fast-tracked the desire by customers for exceptional banking services to meet the current pattern of technological advancement. Contemporary studies on e-banking recognise that the most influential factors that drive customer fulfillment and satisfaction are trust, security, availability, design, reliability, and convenience. This study focuses on e-banking availability, reliability and convenience and their effect on customer satisfaction (Dube et al, 2009).

Convenience is a facet of e-banking that allows clients to have access to e-banking services anywhere and at any time. E-banking enables customers to have bank access twenty-four (24) hours a day, seven (7) days a week. E-banking customers are able to pay their bills, check their account balances, apply for loans, and conduct other financial transactions. Patrons become content when they are able to do their banking dealings at any time and location convenient for them. Preceding studies have also acknowledged an affirmative relationship between e-banking convenience and customer satisfaction and have also enlightened convenience as an acute dimension of e-banking.

Seyed and Sagatchi (2006) suggest that e-banking has been broadly used in the previous decades and has highly changed the state of the way business is done. It has also produced millions of new job opportunities, reduced costs for small businesses and improved performance while saving time. Referring to the Basel Committee Report on Banking Supervision (2003), as quoted by Ndlovu and Sigola (2013), banks today are changing to the multi-channel delivery of financial services with mixed techniques, where previously financial services were provided through "brick and mortar" outlets. The services provided through e-banking may include lending, account management, deposit-taking, electronic bill payment, the provision of other electronic payment products and the provision of financial guidance and services such as electronic money transfer. E-banking is a method that was introduced to individual customers and business organizations in order to provide easy and limitless access to their money and this is corroborated by Ganesan and Vivekanandan (2009). Online facilities by banks is gradually becoming an essential service (Ganesan and Vivekanandan, 2009)

Dube et al. (2009) highlighted that in Zimbabwe, the history of online banking stretches back to the 1990s when the first automated teller machine was developed and installed by Standard Chartered Bank and Central Africa Building Society (CABS).More banks such as First Banking Corporation (FBC), Zimbabwe Bank (ZB), The Commercial Bank of Zimbabwe (CBZ), and Zimbabwe Bank (ZB) joined in,

offering ATM services to their customers. Although the introduction of e-banking services brought convenience to individuals, when it came to withdrawing physical cash, banking was still conventional in that money could only be accessed from the banking hall, or the ATMs or on Zimswitch point of sale (POS) devices as cash-back after purchasing some goods. In-store banking was then introduced to further improve convenience (Dube et al, 2009).

The researcher observed that traditional banking put a strain on employees as after pay day employees could not concentrate fully on their jobs as they would constantly be looking for opportunities to go to the bank to withdraw their funds for usage in and form of utility bill payments for their homes such as rent payments, and groceries. Pay days, especially at the end of the month, were challenging for everyone from employers, employees, banks, utility bill payment departments and individuals sent to make payments in the event that the financer could not do so personally due to the need to be at work. A person would have to wake up very early so they could be first in the queue to avoid arriving at work unreasonably late, but, in most cases, the individual would find a long queue despite, regardless of arriving very early. Despite having woken up very early and being in the queue on time, one would then have to wait anxiously for 8am when the bank would open. They would wait for a long time before getting served and be very late for work which, if they were caught, could yield a warning from their employer and compromise their position in the firm. Once the individual had their cash, they would then send someone to pay their bills, these would be mainly electricity and other utilities and that person would spend an average of six to eight hours just to pay bills at the Zimbabwe Electricity Supplier Authority (ZESA) and their respective city/ town councils.

1.2 Overview of the Electronic Banking (e-banking) Industry

This research targets the banking industry. Banks fall in the services industries where the main activity is offering intangibles. Their main function is to safeguard people's money and also to offer loans and relevant financial advice to clients. In Zimbabwe, the industry is growing fast. Although adoption of e-banking is happening rather slowly, it is noticeable that more and more individuals have begun to use this and more people are now moving, from conventional banking to this new model of banking.

1.3 Motivation of the Study

This study was motivated by the fact that the researcher is interested in service marketing and has a passion to see services improving. The researcher observed long queues in banking halls for services that people could have received in the comfort of their homes. Many institutions and the government are

encouraging the use of e-banking in order to reduce pressure on cashiers, but it seems there is still a gap between what the government expects and what is really happening on the ground. The researcher mainly wants to discover why there is still poor adoption of e-banking as well as to discover possible areas for improvements.

1.4 Problem Statement

The majority of Zimbabweans prefer to queue inside banking halls to get services from bank tellers instead of using electronic means for transacting such as using ATMs or internet banking that reduce pressure on bank tellers. This has a bearing on service quality inside banking and utility payment points. This research aims at exploring the various strategies business organizations can use to ensure their clients use electronic means of transacting such as the ATM, internet and mobile means. It is imperative because, whenever there are queues for a teller, this is evidence of a crisis in that there is a lot of valuable time wasted by people waiting to be served, as they are queuing during working hours, so it takes up part of their working day. If this problem is not addressed, Zimbabwean living standards will continue to deteriorate as they continue wasting valuable time in queues when this could have been used more productively. Furthermore, they will continue to increase the workloads of tellers who are forced to work overtime to clear queues.

Therefore, the study problem statement is as follows:-

E-banking was meant to ease pressure on bank tellers but however adoption is still low as compared to the expectations by the industry. Marumbwa and Mutsikiwa (2013) confirm that adoption of e-banking in Zimbabwe is still low. E-banking can help to improve the efficiency of operations in banks and reduce time wastage by customers during peak periods in Zimbabwe.

1.5 Research Gap

Most of the studies (Thulani et al., 2009; Azouzi, 2009; Qureshi et al., 2008) have focused on the extent of adoption of e-banking, but they did not provide the reasons for its low adoption in developing countries like Zimbabwe. Some studies have focused on the dimensions of service quality (Lee and Lin, 2005; Siu and Mou, 2005; Yoo and Donthu, 2001), but no studies have been carried out to discover which exact service is attributed to low adoption of electronic banking in Zimbabwe specifically. Some have focused on measuring the impact of e-banking on customer satisfaction (Ma, 2012; Singh and Kaur, 2011) and they conclude that this has had a positive impact. Yet, most customers in Zimbabwe decline the use of e-banking services.

1.6 Research aim

The study aims to fill the research gaps by studying the reasons behind the customers' reluctance to adopt e-banking regardless of its existence in Zimbabwe. It intends to discover how Zimbabweans perceive e-banking and whether their perception of e-banking is the reason why they prefer the traditional physical banking platforms regardless of the presence of the more convenient alternatives. Similar studies have been conducted in other countries such as Ayan (2014) in Ethiopia, Allan and Hassen (2011) in Jordan, Alan and Magboul (2011) in Sudan, Azouzi (2009) in Tunisia. In Zimbabwe, the reasons for this Scenario are still not clear and will therefore be elucidated by this study. Customers continue to queue in banks despite e-banking being available where they can get the same services that a teller provides them. The following questions beg to be answered: Is it that the perceptions of customer-expectations by management are different from their actual expectations? Or are e-banking standards not meeting the actual needs and wants of the customers so that they choose to do traditional physical banking instead? This behaviour by consumers represents regress rather than progress towards successful adoption of e-banking.

1.7 Research Objectives

The research objectives of this study are as follows:

1 To examine the perceptions of Zimbabweans towards electronic banking;

2 To find out why some people shun electronic banking;

3 To identify a gap between customer expectations of e-banking facilities and management perceptions of customer expectations;

4 To propose a model that can be used by bankers for the adoption of electronic banking; and

5 To find out ways of improving service quality through e-banking.

1.8 Research Questions

The research questions on which this study is based, are as follows:

1 What are the perceptions of Zimbabwean clients towards electronic banking?

2 What are some of the reasons why some people do not use e-banking?

3 What is the gap between customer expectations of e-banking facilities and management perceptions of customer expectations?

4 What model can be used to change customer attitudes towards e-banking?

5 How can service quality be improved through e-banking?

1.9 Justification of the Study

Uptake of e-banking is low in Zimbabwe as compared to other countries in the region, so there is a need to examine and to ascertain the causes of this. Policy-makers and development agencies are seeking measures to increase access to financial services, and mobile banking promises the solution (Bankable Frontier Associates, 2010). If not carried out, the 'unbanked' may continue to remain 'unbanked' and they will continue to have their right to economic participation denied.

1.10 Significance of the Study

This research topic was chosen after carefully considering the following stakeholders and how they could benefit from this research:

1.10.1 Banks

Banks would want service quality to improve and to use e-banking so that unnecessarily large numbers of clients do not queue inside the banking hall. This research was chosen after realizing that some consumers visit the bank to do very simple transactions which they could have done in the comfort of their homes, such as a balance enquiry. Findings from this research could be used by banks to improve service quality through strategies and models that will to help in improving the adoption of e-banking in Zimbabwe.

1.10.2 Zimbabwean government and bank clients

The major aim of any government of a country is to improve the living standards of its citizens. This research intends to develop a model to improve e-banking adoption which will reduce queues (and waiting times) in banking halls. In some instances, when a bank lacks air conditioning, it can lead to some people fainting in queues, something which could be avoided through transacting using electronic means. When e-banking is fully adopted, living standards should also improve and this will create more free time for both consumers and bank employees.

1.10.3 Retail and other business organizations

The use of e-banking can help to push sales for retail and other business organizations as people will be

able to make purchases whether they have hard cash or not. Traditionally people wait till they get cash from banks and then make purchases. Sometimes they cannot buy from certain retail outlets due to the deterrent effect of distance between themselves and the outlet. The research unearths the importance of e-banking in bringing convenience. It is also important to note the issue of ubiquity, where e-banking also has an additional benefit in the sense that a person can transact at any time, as long as networks are available.

1.10.4 The researcher

This research will benefit the researcher who will have acquired more knowledge regarding the service quality of e-banking. The researcher should later become a point of reference and a consultant in so far as e-banking and service quality issues are concerned. This will help the researcher to grow in credibility.

1.11 Delimitations of the Study

1.11.1 Geographical delimitations

The study was restricted to Mashonaland, West Province which is in Zimbabwe in the southern region of Africa. Data was collected from people who resided in the seven districts of the province and were within the age range of 15 to 65 years and who were believed to be economically active.

1.11.2 Time delimitations

The research was also restricted to events that happened between 2009 and 2017. The reference point for this research is those years.

1.11.3 Theoretical delimitations

The researcher was informed by literature on electronic banking and service quality. Marketing and electronic marketing textbooks and journals, especially those that have to do with service quality and e-banking, also informed the research.

1.12 Definition of Terms

1.12.1 e-banking

According to Ndlovu and Sigola (2013), e-banking refers to the provision of retail and small value banking products and services through electronic channels that include the internet, mobile phones, ATMs and point of sale (POS) devices through swiping or tapping of the client's debit or credit card.

1.12.2 Service quality

According to Kotler and Keller (2012; 131, "Quality is the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs."

1.13 Organisation of the Thesis

The thesis is organised as follows:

Chapter One: Introduction

This chapter sets the tone of the research by introducing the research problem and its origins. It also looks at the objectives of the study, research questions, research limitations, and assumptions underlying the research.

Chapter Two: Literature review

The chapter looks at major literature published that concerns issues to do with the satisfaction of customers and the adoption challenges of e-banking. It also looks into already published articles on customer service and e-service quality. The chapter reveals previous research studies that were published on e-banking and the satisfaction of customers.

Chapter Three: Background of e-banking in Zimbabwe

The chapter looks at the origins of banking worldwide, then goes on to look at the history of banking in Zimbabwe. It then looks at how each e-banking platform developed first in the developed countries, then in Zimbabwe. The e-banking platforms discussed are ATMs, internet banking and then, mobile banking.

Chapter Four: Theories that underpin the study

The conceptual framework looks at the e-banking adoption models that were developed. Finally, the researcher chose a model that was deemed closest to reality and used it in the formulation of research questions so that the model could be put to the test.

Chapter Five: Methodology

The chapter looks at the research methods that were utilized in the research. It provides detail as to how the research was done. It explains and justifies the research design used and also the population, sample, and the sampling techniques that were used.

Chapter Six: Research findings

The chapter looks at the research findings from both the questionnaire and interviews. The findings are presented using pie charts, histograms, and line graphs. The results are analysed using descriptive and inferential statistics.

Chapter Seven: Conclusions and recommendations

This chapter looks at the conclusions of the study by looking at each objective's findings, then finally to presents recommendations to various stakeholders. The chapter also opens opportunities for more research. The chapter starts with an introduction of the chapter and then gives a short conclusion from each chapter followed by recommendations, contributions to knowledge gained and any limitations, value of the study, areas for future research and, finally, a concluding paragraph of the whole thesis.

1.14 Chapter Summary

This chapter highlighted the problem, scrutinized it and developed the research objectives, significance of the study, limitations, and delimitations of the study. The next chapter will look at the background of e-banking in Zimbabwe. The chapter will look at the origins and development of e-banking in Zimbabwe and also the current state of e-banking internationally.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter explores the background of e-banking as well as identifying gaps that former researchers missed in their studies on electronic banking. Initially this chapter will discuss banking in general before moving on to look specifically at e-banking. The researcher will take time to review related studies done by other scholars as a means to identify gaps in the literature in relation to the objectives and research question of this study. The chapter further discusses the various types of e-banking according to various authors. In addition, the chapter explores service quality issues where the various issues pertaining to customer satisfaction are discussed. This research looks at both adoption of e-banking and customer satisfaction where the assumption is that e-banking adoption is dependent on customer satisfaction with e-banking. Various models of customer satisfaction and adoption are also discussed in this chapter. Both a theoretical and empirical review of literature will be undertaken.

2.1 Consumer Banking

According to Weiss and Dowd (2000) retail banking, also known as consumer banking, is the provision of services by a bank to individual consumers, rather than to companies, corporations or other banks. Services offered include savings and transactional accounts, mortgages, personal loans, debit cards, and credit cards.

Furthermore, Marshall (1998) notes that consumer banks perform two crucial functions for customers, firstly, they enable customers to bank their money securely, access it easily, and conduct transactions. Secondly, they provide access to additional money to fund large purchases such as buying a home in return for holding customers' funds, which they can then invest. Banks pay customers interest.

Traditionally, retail banks have provided these services directly to the customer via branches. While many still do this, retail banks now offer their services by telephone and the internet as well. Some operate solely via the internet and do not have facilities to serve customers at physical outlets. Other organizations, such as supermarkets, have now entered the banking sector and also offer a wide range of banking services as observed by the researcher.

Pikkarainen et al (2004) argued that, it has become more difficult to identify the traditional retail bank, that is, a bank that funds itself through customer deposits and lending, because retail banks now often combine retail and wholesale banking. It is more relevant in today's banking structure to regard retail banking as a series of processes rather than as an institution.

The intermediation services offered by retail banks, such as looking after customers' money and offering loans, and the payment services (allowing customers to make transactions using debit cards, cheques, etc.) mean that they need to make funds available to customers at very short or at immediate notice. This inevitably means that a retail bank has to manage the risk that more money will be requested by customers than it has available and of customers defaulting on loans. Banks do this by holding stocks of liquid assets, maintaining a cushion of capital, lending to different types of borrowers, adjusting interest rates, and screening potential borrowers (credit scoring).

2.1.1 Advantages of banking

The following are advantages that consumers can enjoy from banking:

a.   One's money is much more secure than in a box under their bed, one can buy goods, be paid, and sell things without cash changing hands.

b.   The bank one is familiar with and which knows them can also offer them a wide range of other services, such as mortgages and insurance. One's bank may be able to offer them competitive deals in return for their loyalty as a customer.

c.   Retail banks offer a variety of ways a customer can access their account and manage their money, most notably via internet banking. This means that one can keep a close eye on their finances and avert many potential problems.

2.1.2 Disadvantages of banking

According to Johne and Harborne (2003), banks are a business, and they need to make money from looking after that of a customer. If the bank decides to apply charges for a customer's account account (within the terms of the account), one may only find out about it afterwards, for example if one accidentally goes into overdraft without permission. If one is disagreed with a charge, they will need to contest it to recover the money.

2.2 Types of Banks

The following are types of banks that are found in Zimbabwe:

2.2.1 Commercial bank

According to the Zimbabwe Banking Act of 2001, a commercial bank means a banking institution that conducts banking business in Zimbabwe and whose business mainly consists of the acceptance of deposits that can be withdrawn by cheque or otherwise. The traditional commercial bank is a brick and mortar institution with tellers, safe deposit boxes, vaults and ATMs. However, some commercial banks do not have any physical branches and require consumers to complete all transactions by phone or the internet. Shekhar (2009) argues that commercial banks exist primarily to borrow and lend money.

2.2.2 Virtual banking

Shekhar (2009) defines virtual banking as denoting the provision of banking and related services through extensive use of ICT without direct recourse to the bank by the customer. The author also argued that the origin of virtual banking in developed countries can be traced back to the 1970s when ATMs were first installed. The forms of virtual banking mentioned by Shekhar (2009) include ATMs, shared ATM networks, Electronic Funds Transfer at Point of Sale (EFTPoS), smart cards, stored value cards, phone banking, and internet banking. The distinctive feature of these services is that they rely heavily on ICT and the absence of physical bank branches to deliver these services to the customers. The author also equates virtual banking to e-banking. The advent of virtual banking was meant to strengthen customer relationships and to move away from traditional branch banking in the search for the convenience of remote e-banking.

2.3 Service quality determinants in banks

Service quality assesses the performance of products and services from the customer's perspective, Manjunatha and Shivalingaiah (2004), Parasuraman, Zeithaml and Berry (1994), Zeithaml, Bitner and Gremler (2010) all agree that service quality, as perceived by customers, involves a comparison between what they feel the service should be, (expectation) and the service that is actually received, (perception). According to a study by Appannan, Doraisamy and Hui (2013), service quality can be improved by attentiveness, flexibility, communication, friendliness, and responsiveness. The most important factor according to them is responsiveness. The researcher intended to find out whether or not e-banking platforms meet all the conditions set by Appannan et al. (2013).

Linking new technology to service quality, Zeithaml, Bitner and Gremler (2006) argued that technology is

providing vehicles for delivering existing services in more accessible, convenient and productive ways. It therefore means that e-banking should actually improve rather than reduce service quality. They also argued that through self-service technologies, customers can serve themselves more effectively. Zeithaml et al. (2006) argued that via online banking, customers can access their accounts, check balances, apply for loans, shift money among consumers and take care of just about any banking need they might have-all without the assistance of the bank's employees. According to Jim Smith (n.d), Wells Fargo, the first bank to offer online services in the United States of America, has found that its online customers are its most satisfied customers. Studies in Zimbabwe have shown that the adoption rate of e-banking is still very low, despite all its advantages (Thulani et al, 2009; Thulani et al; 2011). The researcher sought to find out whether the results were still the same in 2017 as there were no recent studies in Zimbabwe on e-banking adoption.

2.3 Strategic Tool

Strategy is thought to be the art of engaging the enemy in battle on terms that are disadvantageous to him (Encyclopedia Britanica). The term 'strategy' was first used in European military literature where the term was derived from Greek and it literally means "the art of the leader or General." Ackoff (1974) defined strategy as the practical adaptation of the means placed at the general's disposal to the attainment of the object in view. Strategies are basic approaches that management selects for designing the action to solve a problem or to accomplish a goal (Sawyer, 1986). According to Thompson et al. (2010, p.6), "a company's strategy consists of the competitive moves and business approaches that managers are employing to grow the business in the areas that attract and please customers to compete successfully, to conduct operations, and to achieve the targeted levels of organizational performance." Thompson et al (2010) highlighted that a company's strategy is all about how management intends to grow the business, how it will build a loyal clientele and outcompete rivals, how each functional piece of business (research and development, supply chain activities, production, sales and marketing, distribution, finance, and human resources) will be operated and how performance will be boosted. According to Ackoff (1974), a strategic tool is therefore a functional piece of business and, in this research, the strategic tool can be regarded as an electronic banking platform that an organization can use to build loyal clientele and outcompete rivals.

2.4 Electronic Banking (e-banking)

The idea of the electronic keeping of money has been characterized from numerous points of view. Daniel (1999) characterizes electronically managing an account as the conveyance of banks' data and administrations by banks to clients by means of various conveyance platforms that can be utilized with

various terminal gadgets, for example, PCs and cell phone with program or desktop programming, phone or advanced TV.

According to Abid and Noreen, (2006) the electronic managing of an account is characterized as any utilization of data and correspondence innovation and electronic means by a bank to direct exchanges and have association with partners.

Stan (1997) additionally characterizes electronic installment as an arrangement of installment whereby exchange happens electronically without the utilization of money. Magembe and Shemi (2002) characterized the electronic managing of an account (e-saving money) is only e-business in money keeping industry. E-managing an account is a basic term for the conveyance of money, the keeping of money, all the administrations and items that are used through electronic stations, for example, the phone, the web, the PDA, and so on. The idea and extent of e-managing an account is, as yet, developing. It encourages a compelling installment and bookkeeping framework, and in this way improves the speed of conveyance of managing an account benefits significantly. Uppal and RimpiJatana (2007) and Ovia (2001) contended that the electronic managing of an account is a result of web-based business in the field of money keeping and budgetary administrations.

Ndlovu and Sigola (2013) refer to e-banking as the provision of retail and small value banking products and services through electronic channels. According to the same authors, extending from this definition and taking into account the numerous methods that are now available as an extension of the internet service, e-banking may be said to include the use of any electronic means, that is, the internet, mobile phones, ATMs as well as point of sale (POS.

Electronic banking is the distribution of information and services by banks to customers via different delivery platforms and can be used with a personal computer or other intelligent devices (Daniel, 1999), as quoted by Driga and Isac, 2014). According to Allen et al. (2001, as quoted by Emola and Claudia, 2014), e-banking refers to the supply of information or services by a bank to its customers, via a computer or television. Keivani et al. (2012: 211) describe electronic banking as "an umbrella term for the process by which a customer may perform banking transactions electronically without visiting a brick-and-mortar institution". E-banking, therefore, involves transactions that allow clients to have access to their accounts without them having to visit the bank and customers can have this access 24 hours a day, seven days a week.

Emola and Claudia (2014) also argued that e-banking is a term used for a new-age banking system which represents an automated delivery of new and traditional banking products and services directly to

customers through electronic, interactive communication channels. They also argue that there are several terms used in the literature all referring to one form or another, of electronic banking: personal computer (PC) banking, internet banking, virtual banking, online banking, web banking, home banking, phone banking, remote electronic banking, mobile banking etc, but they are often used interchangeably.

The Basel Committee on banking supervision (2003) stated that e-banking is defined to include the provision of retail and small value banking products and services through electronic channels as well as large value electronic payments and other wholesale banking services delivered electronically (Al-Smadi and Al-Wabel, 2011).

Xu and Zhao (2000) pointed out that the provision of online banking facilities to customers is now incumbent upon banks who also recognize that applying online banking is an improvement to traditional banking. This has been done through integrating branches, ATMs, call centres and online services into an entire system. This means that customers using e-banking can access delivery of the full range of services. Another variation is known as a 'direct bank', 'virtual bank' or 'internet primary bank' with no division offices. By using internet, telecommunication network and wireless networking to deliver banking services, e-banking can be regarded as an electronic payment system that allows the customers of a bank or other financial system to access a range of financial transactions.

2.5 Importance of Electronic Banking (e-banking)

Linking new technology to service quality, Zeithaml, Bitner and Gremler (2006) argue that technology is providing a vehicle for delivering existing services in more accessible, convenient, and productive ways. E-banking tools help to make sure money is accessed and transferred conveniently. In remote areas in Zimbabwe, banks are employing agents so that people do not incur travelling costs to access their cash. Most banks installed Automated Teller Machines (ATMs) but people still prefer conducting their business in banking halls even for the same transactions they could have done using ATMs, by agents or using their mobile phones.

Shekhar (2009) argued that e-banking has the advantage of having lower handling costs compared to the cost of handling transactions via the bank branch. In addition, the increased speed of response to customer requirements in e-banking when compared to traditional branch banking can enhance customer satisfaction, and where circumstances remain the same, it can lead to higher profits via handling a large number of customer accounts efficiently. There is also the possibility of access to a greater number of potential customers for the bank without the concomitant costs of physically opening the branch. E-banking allows the possibility of improved quality and an enlarged range of services being made available

to the customer more rapidly and accurately and at the convenience of the customer (Shekhar, 2009). Banks provide e-banking services in order to remain competitive, to keep track of technological developments and to benefit from the lower cost of e-banking transactions (Angelakopoulos and Mihiotis, 2011).

Thulani et al (2009) carried out an exploratory study on the adoption and use of internet banking in Zimbabwe and discovered that the majority (67%) of the banks indicate that they used less than 20% of service capacity while 16% of the banks used between 20% and 75% of their service capacity. This shows under-utilization of internet banking facilities. This research focuses on electronic-banking adoption challenges which are much broader when compared to internet banking, though some aspects of internet banking aspects are also included. Furthermore, there is a need to find out whether or not the study results by Thulani et al (2009) are still relevant and if the adoption rate of internet banking has improved.

In straightforward words, e-saving money infers arrangement of saving money items and administrations through electronic conveyance channels. Electronic money-keeping has been around for a long while as programmed teller machines (ATMs) and phone exchanges. In later circumstances, it has been changed by the web – another conveyance channel that has encouraged money saving exchanges for the two clients and banks (Nitsure, 2003).

2.6 Pros of Electronic-Banking (e-banking) for Customers

The following are the advantages of e-banking in general:

2.6.1 Customers' convenience

Consideration of convenience for customers is a long-standing requirement, particularly noted in retailing and consumer behaviour literature (Anderson, 1972; Kelley, 1958). Equally, there is an acknowledgement of a growing consumer demand for convenience brought about by socio-economic change, technological progress and intensifying competition in the business environments (Berry, 2002; Seiders et al, 2000; Seiders et al., 2007). Virtual banks are open for business anywhere and anytime, provided the client has an internet or mobile network connection. They are open 24 hours a day, 365 days a year, although if internet service is not available, the internet banking service might be disrupted. Real-time account balances and information are obtainable at the touch of a few buttons thus making banking faster, easier and more efficient. Moreso, updating and maintaining an e-banking account is easy since it takes only a few minutes to change the mailing address, order additional cheques and be informed of market interest rates. Through e-banking platforms, customers can do cash transfers to other banks, pay their accounts using debit cards, enquire about their balances via mobile phones, and can also recharge their cell phones

with airtime.

2.6.2 Privacy

Clarke (1999) defines privacy as the individual's right to be alone and he considers several dimensions of the notion like privacy of the individual's body, behaviour, communications and personal data. Where the internet is concerned, privacy affects aspects such as the obtaining, distribution or the non-authorised use of personal information (Wang et al., 2003). The growing capacity of new technology for information processing, plus its complexity has made privacy an increasingly important issue. This fact is increasing consumer distrust as to how personal data is being gathered and processed in online transactions and, as a consequence, it is becoming a major obstacle to the spread of e-commerce (Flavián and Guinalíu, 2006), due basically to the loss of control perceived by the user over the use of personal information supplied to the seller.

2.6.3 High quality services

Services include all economic activities whose output is not a physical product or construction and is generally consumed at the time it is produced, and provides added value in forms (such as convenience, amusement, timeliness, comfort or health) that are essentially intangible concerns of its first purchaser (Quinn et al., 1987). Zeithmal et al. (2009), define services as deeds, processes, and performances provided and/or coproduced for its customers. Virtual banks usually have more robust websites that propose a comprehensive set of features that may not be initiated on the websites of traditional banks. These include efficient budgeting and forecasting tools, financial planning competences, investment analysis tools, loan calculators and equity trading platforms. In addition, they offer free online bill payments, online tax forms and tax preparation. Such services offered by e-banking may be helpful to customers in Zimbabwe.

This is because the service is fast and easier to use than having to waking up early in the morning every day for a week to collect fifty dollars per day. Instead, a person can simply go to a retail shop like Fleximart, use the phone or swipe a card and even ask for cash back and the teller will not hesitate to give the money. Electronic banking (e-banking) offers customer service and satisfaction because banking on the internet not only allows the client to have a full range of services available to them, but it also allows them some services not offered at all of the branches. One does not have to go to a branch where that package may or may not be offered. A customer can print information, forms, and applications via the internet and be able to examine his or her information efficiently, instead of waiting in line and asking a teller. With these improved and faster options, a bank will surely be able to generate better customer

relations and satisfaction.

2.6.4 Reduced purchasing charges

An example of an e-banking facility is called My Cash account that can be opened in any Thomas Meikles (TM) supermarket, picknpaymycash.co.zw. This does not charge for purchasing or swiping in TM supermarkets and it charges insignificant amounts when making purchases in other supermarkets like Fleximart. More so, Ecocash and Telecash do the same with their charges when purchasing to the benefit of customers, www.ecocash.co.zw and www.telecash.co.zw although there are some charges when withdrawing in a shop or being given cash back, there is no limit. Banks like CABS place a limit on the number of withdrawals that people can make, but in retail shops a customer can purchase even a thousand dollars' worth of goods using the cards and no limit will be imposed (Mlilo, 2017).

2.6.5 Ease of use

Wang et al. (2003) says online accounts are very easy to set up and need no more information than a traditional bank account. Several banks offer the option of inputting the customer's data online or downloading the forms and mailing them in. If the client encounters difficulties, he/she has the choice of calling or e-mailing the bank directly. Internet banking is also environmentally friendly. Electronic transmissions need no paper, reduce vehicle traffic and are virtually pollution-free. They also eliminate the need for buildings and office equipment; that is why e-banking facilities can be obtained everywhere in the country, including rural areas.

2.7 Disadvantages of using Electronic Banking (e-banking)

2.7.1 Identity authentication can be annoying.

Shannak (2013) argues that when using e-banking, identity authentication can be aggravating and customers might not like them. Niranjanamurthy (2013) also argues the identity can also be stolen and this can add to frustration of consumers. There are possibilities of phishing and other fraud activities. However, these issues can be dealt with but require the consumer to be very careful when using any form of e-banking. Customers need to be extra cautious to make sure they do not divulge their PINS to anyone. However, the issue of authentication that annoys customers.

2.7.2 Lack of human touch

Shannak (2013) argue that one of the disadvantages of e-banking is the lack of human touch. Some people feel very uncomfortable being served by a computer which cannot answer some complicated questions. Furthermore, Shannak (2013) argue that poorly designed e-banking services can be time consuming and slow. Traditional banking that uses human beings to serve clients can thus be more preferable.

2.7.3 Difficult to start up

Shannak (2013) argue that e-banking might require too much paper work to start up. This might include the procedures for registration and start-up. Customers after filling in lengthy account opening forms might find it tiresome to fill in a new set of e-banking forms requiring almost the same information as the account opening forms. The information required might be beyond that required in traditional banking (Shannak, 2013).

2.7.4 Security and trust

Bargh and McKenna (2004) state that purchasing through the internet requires consumer trust, since consumers have to provide their credit card numbers and other personal information. There exits a level of distrust, which is a consequence of the particular characteristics of the internet when compared to transactions carried out through traditional channels (e.g. lack of physical interaction with the seller, payment by credit card prior to the delivery of goods). Thus, consumers perceive a greater uncertainty when a transaction is carried out by the internet (Harris and Goode, 2004) and they are still very concerned about the use, treatment and potential transfer of their private data; as well as security in the online context (Flavián and Guinalíu, 2006).

Customers are always concerned about their protection and security or accuracy. There is always a question of whether or not something fraudulent has taken place. Banks should explain the terms and conditions of using online banking to customers, especially the issue of security. This is because most customers are still traditionally-minded and they do not want to change to these new facilities of e-banking like mobile banking (Ecocash) and swipe machines. The issue of security makes them afraid that their money may be stolen or lost. Implementing educational campaigns about these issues might reduce the queues for bank tellers each and every day, as more members of the public resort to e-banking.

Service is an act or performance that one party offers to another which is essentially intangible and does not result in the ownership of anything Kotler (2012). Because of the service feature of intangibility, consumers are often faced with the problem of not knowing what to expect of a service until they use it and hence perceive service as risky (Coulter and Coulter, 2002). Thus, the need for trust arises as it is the

management of risk, uncertainty and vulnerability and includes reliability, honesty, predictability, mutuality, expectation where a partner is equally committed (Tayler and Stanley, 2007). The internet is a competitive and technologically developed market presenting enormous challenges to the banks for maintaining relations with their clients. Trust and security received special attention in the marketing literature due to the notable influence that it has on the attainment of long-lasting and profitable relationships (Morgan and Hunt, 1994). It is also a very important aspect in the provision of electronic services for e-commerce environments, especially those involving directly the user's activities like e-banking (Furnell and Karweni, 1999). Thus, customers perceive trust as a great challenge to internet banking and other electronic commerce forms that include sensitive information. Trust is a very complex and multidimensional phenomenon. Traditionally it is defined as a group of beliefs held by a person derived from his perceptions about certain attributes. Trust is habitually related to security and risk avoidance (Stewart, 1999)

2.7.5 E-banking security and threats

Ganesan and Vivekanandan, (2009) postulated that the internet has continued to provide services to customers in a convenient manner, through a multipurpose platform for business. They went on to say that internet-based solutions have transformed the revolutionary approach to how business is done electronically. Furthermore, they discovered that electronic banking has enabled banks to improve profitability through their adoption of ICT. However, they note that this success has also come with challenges. Furthermore, other scholars, who include Egwali (2008) confirm that several threats come from spoofing, identity theft, phishing scams and larceny. They added that to disclose confidential information techniques such as an amalgamation of social engineering and web-site spoofing can be used to hoax a user into revealing personal details.

Landwehr (2001) agreed that all commercial operating systems have weaknesses in their computer systems. They added that information stored on commercial operating systems can create opportunities for possible threats such as the theft of the bank's transaction records. Loch et al. (2003) noted that these security threats pose a greater risk than external threats such as hackers and cyber criminals. Moreover, Darcy et al. (2009) reported that between 50% and 70% of all security-related incidents come from within the organization and those that come from outside pose fewer issues. Leach (2003) emphasised that threats comprise both non-deliberate and deliberate acts by the users. He postulated that security awareness and training is usually used by managers to address deliberate and non-deliberate acts by users. In addition to that, he suggested that employees have a tendency of not following security policies and procedures that are in place. Kajava (1998) suggested that people respond both positively and negatively

to set policies and procedures with some co-operating and others resisting. Leach (2003) argued that users with bad behaviour can greatly affect the security of e-banking. Therefore, the suggestion is that security audits should be performed regularly to ensure that employees are following proper policies and procedures.

Oppliger (2003) stressed that while effective external threats are as common as internal threats, they do pose a significantly different challenge. Moreover, security measures must be accounted for even though natural disasters might seem insignificant. He raised the issue that the organization needs to have a disaster site where, in the event that a natural disaster was to occur, it would recover any lost data. He further argued that a company's image can be damaged by negative media coverage resulting from accidental leaks of information. He suggested that, when identifying likely threats, the first step must be towards safeguarding the organization's information. Therefore, once an investigation of a threat has been completed, the organization can set its goal to develop counter measures against the threats. He pointed out that ways to combat threats exist and these are functions that eliminate weaknesses in the system (Oppliger, 2003). The next section discusses these counter measures and gives more information on security strategies that are deployed to ensure confidentiality, integrity and availability of information.

2.7.6 Lack of knowledge

Sathye (1999) quantifies the factors affecting the adoption of internet banking by Australian consumers. The sample for this survey on the factors affecting adoption of internet banking by Australian consumers was drawn from individual residents and business firms in Australia (Sathye, 1999). It was shown that security concerns and lack of awareness about internet banking and its benefits are the obstacles in the adoption of internet banking in Australia. Furthermore suggestions were made concerning the delivery of financial services over the internet that should be a part of overall customer service and distribution strategy. These measures could help in the rapid migration of customers to internet banking, resulting in considerable savings in operating costs, for banks.

2.7.7 Application distribution

Due to the nature of the connectivity between bank and its customers, it would be impractical to expect customers to regularly visit banks or connect to a web site for regular upgrade of their mobile banking application. It will be expected that the mobile application itself check the upgrades and updates and download necessary patches.

The growth of internet banking has enlarged the competition of the banking business. Since both internet and "brick-and-mortar" banks offer unique assistance and disadvantages, it may be unwise for a possible

future banking client to do banking exclusively with either option. Though it is not possible for everyone, the best thing may be to distinguish between both in-store banking and online services and enjoy the conveniences and savings of internet banking, while still keeping the customer service and personal relationships that a physical branch can provide. Though the benefits of internet banking are indisputable, there are some inconveniences and concerns of which customers should be aware. Countless customers have difficulty relying on the security of online connections, fearing the very real possibility of identity theft. Identify theft is indeed an important concern, but some online banks take this risk more seriously than others. Before opening an online account, it is advisable for the customer to investigate the bank's security policies and protections to ensure they meet their expectations (Cronin, 1997).

The Deutsche Bank Research Report (2006) clearly states that the choice of whether or not to bank over the internet rests on numerous variables. Even if a consumer can see advantages, they may be unwilling if they do not trust or have much knowledge of the internet. At the other end of the spectrum, people may sign up for incomplete services like account viewing. This will save them from safety anxieties but will give them day-to-day access to account activity. If the customer decides that internet banking is right for them, they have the right to review other offers from several banks. Each bank has different fees and advantages that can make a big change in how much internet banking costs. By associating deals and being educated, a customer can find an internet banking service that suits their needs.

2.8 Electronic Banking (e-banking) security strategies

Hawkins et al. (2000) highlight that the Security Socket Layer (SSL) encryption of data, digital certificates and passwords are used by most financial institutions and banks for safe e-banking. However, new measures are introduced regularly with the aim of jettisoning e-banking fraud.. The common use of the same passwords for authentication increases the exposure whenever such information is stolen. In the same vein, new measures to confirm identity are required (Robert Moskovitch et al., 2009). Vandommele (2010) points out that in order to improve security, biometric technology can be used. This helps to strengthen or enhance security of e-banking as no two persons have the same finger prints.

Ally and Toleman (2005) indicated that each security mechanism implemented strives to achieve security goals such as confidentiality and integrity. The SSL is just one of the mechanisms used for e-banking security. In addition, Claessens et al. (2002) pointed out that in order to improve the overall security of the electronic banking systems, mechanisms such as passwords must be implemented to ensure safety. Researchers like Aburrous et al. (2000) also stress that the SSL is only one security mechanism that is used for the electronic banking security. Moreover, Ganesan and Vivekanandan (2009) proposed a secured hybrid architecture model for electronic banking using a hyper elliptic curve cryptosystem and

MD5, apart from implementing the foregoing security strategies. Several security strategies that include virtual keyboards, device registering and transaction monitoring were discussed in a study in Brazil carried out by Peotta et al. (2011).

2.8.1 Banking security measures

Sensitive corporate information, which includes customer data, financial information and corporate strategy, can be protected through precautionary measures. (Barlas et al., 2007). Oppliger (2003) discussed security policy, host security, network security, organizational security and legal security as aspects that should be considered. He argued that security aspects must be managed collectively rather than individually.

2.8.2 Network security

Network security refers to the incorporation of security techniques such as security policies, host security, organizational security and legal security. Oppliger (2007) argues that a security policy is very complex and is meant to govern data access, web-browsing habits, encryption and more. Hiring hackers, changing passwords often, keeping the network free from viruses and deploying patches have been recommended by Newhouse (2007) as some of the requirements to build a secured network. Similarly, Green et al. (2007) also recommended the hiring of hackers as being very useful, as they use creative techniques to infiltrate the system, since no system is completely hack-proof. He further encouraged the use of strong passwords, deploying patches and updates as other actions that could be considered in increasing security of networks as these are pro-active (ensuring that weaknesses are encountered as they are discovered).

2.8.3 Organizational security

Winkler and Dealy (1995) highlight that organizations should consider training users to make them aware of policies and procedures, to combat possible threats to e-banking. They pointed out that users are the biggest threats to e-banking. Given that security awareness is the weakest link in information security, factors such as organizational, socio-political, institutional education and computer ethics have been identified by Siponen (2001) as dimensions of security. The socio-political dimension involves security awareness training that is required by the law. The general public dimension involves all users outside of the Information Technology Department. The organizational dimension consists of various groups of people within the organization that security awareness training should target.

2.8.4 Legal security

It is important to ensure that those who breach the e-banking security, for example, hackers, are

prosecuted so that threats are minimized. It is further argued that an organization can reduce potential threats by putting penalty systems in place. Moreover, this legal security should be derived from the security policy that is implemented within the organization, addressing all the aspects of security. Therefore, all stakeholders associated with the organization, should be made aware of security policies and consequences.

2.9 Electronic Banking (e-banking) Security Implementation Issues

The Economist (1999, p.2) records that e-banking potentially exposes hitherto isolated systems to open and risky environments. In addition, security breaches have serious financial, legal and reputational implications that fundamentally fall into three categories: breaches with serious criminal intent; breaches by hackers; and flaws in system designs. Other challenges in implementation involve technology selection, adoption, and lack of knowledge. In addition to that, Earl (2000) identified that managers often lack employees with the experience and skills necessary to adopt software technologies and who are able to educate customers accordingly, although they have a high-level understanding of their business and operational processes.

2.9.1 Infrastructure

Taddesse and Kidan (2005) proposed that infrastructure is necessary for the successful implementation of security strategies. It is a prerequisite to have components such as the internet and hardware specifications that are up to date and operational.

2.9.2 Regulatory and legal issues

National, regional or international sets of laws, rules and other regulations are important requirements for the successful implementation of e-banking security schemes.

2.9.3 Socio-cultural challenges

According to Taddesse and Kidan (2005), the difference in the degree of the required security and efficiency among people of different cultures and levels of development aggravates the problem. Consumer confidence and trust in the traditional payments system has made customers less likely to adopt new technologies. With the lack of knowledge and skills, companies often face challenges of implementing up-to-date security strategies, as a result of employees who do not have the necessary skills and knowledge, prompting the institutions to outsource where necessary, to those who do have these skills.

2.10 Customer support

According to Kotler (2000), a customer is the boss, as the customer pays the salary of the salesperson. Customer support is required in every corporation, whether small or large, formal or informal. The customer is the person who pays everyone's salary and who decides whether a business is going to succeed or fail. In fact, the customer can fire everybody in the company from the chairman (CEO) on down, and he can do it simply by spending his money somewhere else. "Literally everything we do, every concept perceived, every technology developed and associate employed, is directed with this one objective clearly in mind – pleasing the customer" says Sam Walton, the co-owner and CEO of Wal-Mart – an international chain of department stores and considered by many to be the most successful retail company in the world. Levy and Weitz (2012)

Most customers want support in registering mobile banking and that is why supermarkets like Fleximart Supermarket are available to assist customers with everything they need. Banks will have to create an entirely new customer relations department in order to assist customers. Banks have to make sure that the consumers receive support quickly if the need arises. Any major problems or disasters can destroy a bank's reputation quickly and easily. By informing the customer that the internet is reliable, you are able to get the customer to trust online banking more and more. Resolving the issue of customer support will make more customers willing to use online banking.

2.11 Service Quality Dimensions

Gilligan and Wilson (2009:427) quote the service quality dimensions by Zeithmal (1990) who argued that the 10 SERVQUAL dimensions by Parasuraman et al. (1985) can be grouped into five variables:

(i)   The Tangibles refer to the outlook of the physical facilities, equipment personnel, and communication materials. The physical facilities should be pleasing to the consumer and indicative of the quality of the service that an organization has.

(ii)   Reliability refers to the dependability and accuracy by which organizations deliver the promised service. The question to ask is, "Is the service safe?"

(iii)   Responsiveness refers to the willingness to assist customers and provision of prompt service; This can be measured by looking at the time spent by an organization to respond to queries by customers.

(iv) Assurance refers to the knowledge and courtesy of service personnel and also their ability to convey

trust and confidence in people.

(v) Empathy refers to how caring and how individualized customer services are, as provided by the firm to clients. Service providers should put themselves in the position of the clients.

The provision of e-banking must try to make sure the services meet some of the variables above. The e-SERVQUAL model was developed to take care of the inadequacies of the SERVQUAL model by Parasuraman et al. (1985) as it failed to address electronic services.

Gilligan and Wilson (2009) also highlighted that gaps exist in many companies because they have a tendency to over-promise and are incapable of producing high quality products or rendering high quality services. In fact, according to Cullum (2006), as is in Gilligan and Wilson (2009; 428), in a report published by the National Consumer Council (NCC), the phrase was coined, 'The Stupid company''- because of issues of being unable to close Service quality gaps. According to Gilligan and Wilson (2009), results from the NCC indicate that about eight hundred thousand (800 000) people in the United Kingdom make complaints to trading departments via call centers. Missed appointments, poor after sales services and financial services were among the sectors that received many complaints.

Amongst the factors that contribute to poor service are found high staff turnover, poorly trained staff, and faulty software. The challenge, according to Gilligan and Wilson (2006, p. 425), is that management often disregards customer complaints and regards these customers as over-demanding and are deemed to be a nuisance.

Gilligan and Wilson (2006) encouraged organizational marketing planners to view complaints strategically as they are a way to build competitive advantage and also loyalty. E-banking can work to reduce staff-related problems. However, these must be such that the five dimensions by Zeithmal (1990), highlighted above, are not violated so that quality is maintained.

Service excellence, according to Zeithmal (1990), as in Gilligan and Wilson (2009, p. 425), is key to the success of businesses and the following is a well-known quote by Zeithmal (1990, p. 135), as quoted by Gilligan and Wilson (2009, p. 435):

> Service with a smile, not by a smile. The message of commercials is 'We want you!'
> The message of the service is 'We want you unless we have to be creative or
> courteous or better than barely adequate. In that case get lost.'

The quotation highlights that, in many cases, there is a service gap as service expectations and perceptions do not match.

The reason for quality service is therefore to have a good relationship with customers and to retain them. Collin and Gilligan (2006) argued that it costs five times more to acquire a new customer than to retain an existing one. Reducing customer defections boosts profits by at least 25% to 150%. Also, the return on investment when marketing to existing customers is approximately seven times more than to prospective customers and there is almost a 100% probability that a satisfied customer will refer others to the organization.

Results from the Profit Impact on Marketing Strategy (PIMS) research, as highlighted by Gilligan and Wilson (2006; 426), suggested that organizations with a high service level charged about 9% more for their goods and grew twice as fast. Facts gathered from the PIMS research also revealed that the cost of a superior service is often only a little more than inferior service. Since service is critical for business performance, it is therefore important for banks to make sure e-service quality is enhanced so as to retain customers and to create a strong base of loyal customers.

2.12 Consumer Behaviour

Consumer behavior can be described as a process in which individuals or groups purchase a tangible or intangible product to satisfy needs or preferences (Perner, 2008). In times of recession, consumers have a pronounced tendency to modify their buying behavior, due to financial constraints. They become more selective and focus only on what they think is essential in order to survive. Behaviour can also be molded by available selection even when the economy is good. This research tries to explore the behaviour of customers even when the economy is booming. This behaviour concerns the use of technological gadgets.

Zurawicki and Braidot (2005) discussed changes in the lifestyle of the consumers, which can be, in many cases, permanent. That is why companies should reassess their marketing strategies in order to be able to conquest the new market. The recession might be a good opportunity for companies to reinvent themselves, to respond to the new needs and expectations. Understanding consumer reactions can be very helpful in predicting the changes related to certain expenses they will have. Reeves and Deimler (2004) advanced some basic pieces of advice to be taken in consideration by companies and these included; introducing new types of services, adopting new price strategies, entering new markets and searching for the best ways to gain competitive advantage.

2.13 Classification of Electronic Banking (e-Banking)

According to Ndlovu and Sigola (2013), some authors use the following terms interchangeably when referring to electronic banking; PC banking, internet banking, cell phone banking, online banking and virtual banking. Dube et al. (2009) as cited by Ndlovu and Sigola (2013:1) define internet banking as referring to systems that enable bank customers to get access to their accounts and to the general information on bank products and services through the use of the bank's website, without the intervention or inconvenience of sending letters, faxes, original signatures and telephone confirmations.

Ndlovu and Sigola (2013) argued that the term e-banking is very broad and covers a wide range of services. As previously defined, e-banking is basically the performance of banking transactions of whatever nature via the use of electronic gadgets such as automated teller machines (ATMs), point of sale devices (POS), mobile phones and any other means that do not involve an individual physically entering the banking hall for such services (Ndlovu and Sigola, 2013).

There are many electronic banking delivery channels to provide banking service to customers. Among them ATM, POS, mobile banking and internet banking are the most widely used and discussed below (nelson and Richmond, 2007; Robinson, 2000; Nasri, 2011).

2.13.1 "Online banking"

Online banking may also be referred to as internet banking. Nelson and Richmond (2007) defined internet banking as a transaction-oriented system that enables a bank's customers to engage in banking activities online. It extends the relationship with the customers through providing financial services right into the home or office of customers (Robinson, 2000). This was the first form of electronic banking that preceded mobile banking and it is the most general type of electronic banking as indicated by Nasri (2011). The services available for online banking vary from bank to bank. They allow consumers to check the balances in their accounts, transfer funds and order electronic bill payments. Some online banking systems allow customers to apply for loans, trade stocks or mutual funds, and even view actual images of their cheques or deposit slips (Nasri, 2011).

The main benefits of e-banking to banks are cost savings, reaching new segments of the population, efficiency, enhancement of the bank's reputation and better customer service and satisfaction (Jayawardhena and Foley, 2000). With the help of the internet, banking is no longer bound to time or to place, so long as there is internet reception. It allows for consumers all over the world to have relatively easy access to their accounts at any time, at the same time making available to customers a full range of services, including some services not offered at branches.

Online banking has the advantage that the customer avoids travelling to and from a bank branch and it is in this way that online banking saves time and money; is convenient and accessible (Karjauloto, 2003). Customers can manage their banking affairs when they want, and they can enjoy more privacy while interacting with their bank. Mols (1998) maintained that online banking offers the customer more benefits at a lower cost. This is supported by Turban, Lee, King, and Chung (2000) who indicated that it is beneficial to customers due to the savings in cost, its accessibility and convenience, its quick response to complaints, and its delivery of improved services, all of which make for easier banking. Al-Sukkar (2005) asserted that the most important factors encouraging consumers to use online banking are lower fees followed by reduced paper work and reduced risk of human error. If it is fully embraced, electronic banking can lead to the improvement of service quality. This research intends to find out why some clients still opt for traditional banking, despite all the advantages of online banking.

Clients log on to the appropriate website according to the respective bank, where they may access a menu of options of various transactions that they can perform. The client then selects whichever option they desire and all this is done from wherever they are, as long as they have a computer with an internet connection. Common transactions that are available with online banking are balance enquiries, transfer of funds, payment options and the ability to view one's bank statement for whichever period one desires. Usually the client is required to provide a passcode or PIN when they log on to the website for security purposes and, at times, they are also required to confirm a transaction before it is processed by means of entering their PIN once more (Al-Sukkar, 2005). Some banks also transmit an OTP (one-time password) to confirm a transaction.

2.13.2 Mobile banking (m-banking)

Mobile banking is also referred to as m-banking, and this may be defined as a way of providing financial business services for consumers through the use of mobile communication technology and equipment to provide various banking and financial services (Xie, Lin and Guo, 2009). Yao and Zhong (2011) state that, through the combination of the mobile communication technology and the financial services in banks, mobile banking makes users feel that this is more convenient because they can enjoy a variety of financial services provided by banks almost anywhere and at any time, as long as they have mobile phone reception, or network as it is commonly referred to in Zimbabwe.

Huili and Zhong (2011) believe that it is due to the growing number of mobile phone users that mobile banking has become the focus of enterprises and consumers, while Khraim, Shoubaki, and Khraim (2011) believe that the shift of banks from their traditional brick-and-mortar way to mobile banking is the reason why there has been a tremendous growth in mobile penetration in many countries. Huili and Zhong

(2011) conducted a study aimed at understanding the main factors which influence the promotion of mobile banking from the perspective of consumers since they had observed that some banks had provided mobile banking service for many years after the year 2000, but the number of mobile banking users was still very small (Huili and Zhong, 2011). There was a very rapid growth in the number of mobile phone subscribers across the globe. In 2002 global subscriptions to cellular phone services surpassed 1 billion, but the number increased to an astounding 5 billion in 2010 and it was estimated that by 2012 "mobile devices of all kinds would outnumber human beings" (Castells et al., 2007, as cited by Huili and Zhong (2011). Therefore, it is evident that the reasons for slow adoption of mobile banking is due to factors other than ownership of mobile phones. One of the main disadvantages of mobile banking is that the client can only perform virtual transactions and is not be able to access physical cash. There are various ways in which the transactions may be done and they are dependent on the system that the responsible bank uses.

While both internet banking and m-banking are considered electronic banking, they are two alternative channels for banks to deliver their services and for customers to acquire services (Scornavacca and Hoehle, 2013). Internet banking is conducted via the use of computers connected to the internet, while mobile banking is done through wireless devices (Riquelme and Rios, 2010). Yu (2012) summarizes the difference between the two banking contexts by stating that m-banking was preferred for its mobility function as well as its 'always-on' functionality, while online banking was appreciated for its usefulness and purpose and it was also considered the cheaper of the two options.

2.13.3 PC banking

In this type of e-banking, customers use their personal computers to connect to their bank accounts. PC banking requires special software to be installed on the customer's computer which interacts with the bank's servers. This type of e-banking differs from internet banking in that customers need special software to access their accounts (The Huntington National Bank, 2011).

2.13.4 TV-based banking

Karjauloto (2001) explained another type of e-banking through the use of satellite or cables to deliver account information to customers' TV's. In this type there could be a connection to internet infrastructure (Karjauloto, 2001). This type of e-banking, however, is not yet widespread in Zimbabwe. Most customers' televisions have not yet been connected to the internet, therefore there is a limited practice of e-banking services using this channel.

2.13.5 Telephone banking

This technology helps customers to access their accounts any time by calling a specific number, and then entering their usernames and passwords to perform their financial transactions. Customers can listen to the automated answering machine and follow prompts to access and perform their financial transactions (Andam, 2003). This is different from mobile banking where there is no need for calling.

2.13.6 In-store banking

This is achieved when a client enters a store (usually retail outlets) where they are able to swipe their debit or credit card either to make a payment or to conduct other banking transactions. This action is usually done on the ATMs that are positioned in department stores and major supermarkets.

2.13.7 Automated Teller Machine (ATM)

Automated Teller Machine (ATM) is where money withdrawal can be made over the machine without going in to the banking hall, Fenuga (2010). Additionally, according to Fenuga (20101), ATMS sell recharge cards and transfer funds and can be accessed 24 hours/seven days a week. Fenuga (2010) indicated that an ATM enables customers to withdraw and to deposit money, and make enquiries concerning accounts without needing to interact with banks' employees. ATMs are usually found near branches or in malls. An ATM is connected to the banks' servers by several networks like VPN (Virtual Private Network) and leased line. Customers can access an ATM anytime by having special cards and PINs (Olatokun et al., 2009).

2.13.8 Smart Cards

Smart cards are plastic cards containing microchips which enable data to be saved on them. Smart cards are used for several activities such as purchases through the internet, purchasing products and services from markets, withdrawals or to deposit cash money, etc. There are several types of smart cards like Visa, Visa Electron, Master Card and Union cards for example (IT bankers, 2011).

The following figure summaries e-banking tools that are mentioned above:
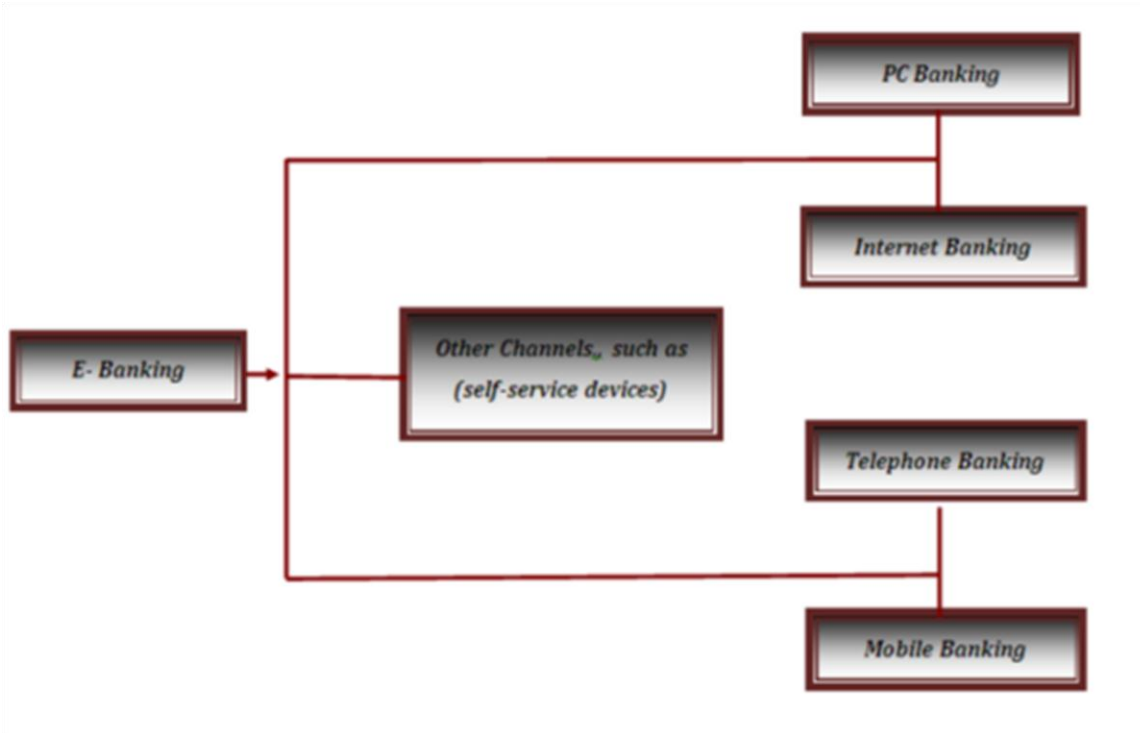
Figure 2.1: E-banking types

Source: Adapted from IT Bankers, 2011

Each type of e-banking performed has specific transactions, which vary from balance enquiries to transfer of funds, withdrawals, and deposits (Figure 2.1). The following table shows several types of e-banking and the functions of each type:

Table 2.1: Features of different banking types

Features	Telephone banking	Self Service terminal	ATMs	Internet banking
Withdrawals			✓	
Deposits			✓	
Balance enquires	✓	✓	✓	✓
Interim Statement	✓	✓		✓
Transfer funds	✓	✓	✓	✓
Cheque book orders	✓			✓
Change ATM card PIN		✓	✓	✓
Stop payment of cheques	✓	✓		✓
Rates	✓	✓		✓
Stop orders	✓			✓

Source: FNB Brochure, 2001

From table 2.1 above, it can be seen that deposits and withdrawals are mainly done at ATMs. E-banking platforms like the internet and mobile banking facilities do not accommodate such services. This might be the reason why e-banking has failed to clear out the queues in physical bank branches. People need hard cash for the purchase of some smaller products.

2.13.9 Web management of an account

Alabar (2012) argues that Web managing an account enables clients of a monetary establishment to lead money related exchanges on a safe site run by the organization, which can be a retail or virtual bank, credit union or society. It might incorporate any exchanges identified with online use. Banks progressively work sites through which clients are capable of asking about record adjustments, and premium and trade rates. Unfortunately, information on Internet managing an account is rare, and contrasts in definitions make cross-country examinations troublesome (Alabar, 2012).

2.13.10 Point Of Sale (POS)

Shittu (2015) purports that the purpose of offer is sometimes regarded as Purpose Of Procurement (POP) or checkout is where an exchange happens. A "checkout" refers to a POS terminal or to the equipment and programming utilized for checkouts. A similar framework permits the creation and printing of the receipt. Due to the cost required for a POS framework, the eBay control suggests that if yearly income surpasses the edge of $700,000, interest in a POS framework will be invaluable. The POS framework record deals for business and assessment purposes. Illicit programming named "critics" is progressively utilized on them to distort these records with a view to avoiding the installment of duty (Shittu, 2015).

2.13.11 Mobile banking

The portable keeping of money, referred to as m-banking, is a term utilized for performing the balancing of cheques, account exchanges, installments, credit applications and other money saving exchanges through a cell phone or a Personal Digital Assistant (PDA) (Shittu,2015). The most immediate, portable means of managing account administrations were offered over SMS, an administration known as SMS keeping money. This part of versatile trade is likewise prominent in nations where the vast majority of their populace has un-kept money. In the vast majority of these spots, banks must be found in enormous urban communities, and clients need to travel for several miles to the closest bank. The extent of offered administrations may incorporate offices to lead bank and securities exchange exchanges, to direct records and to get to modified data (Tiwari, 2007).

2.14 E-banking classification according to functionality level

E-banking technology can be divided into other types according to the financial transactions that can be performed among e-banking services. The Federal Deposit Insurance Corporation (1998) divided e-banking into three parts: informational, communicative and transactional.

2.14.1 Informational

E-banking can be considered as an information service like advertisements. This type of banking is used to announce banks' services without any access between the banks' customers and the banks' servers. Therefore, the risk is relatively low. Informational type is considered as market-oriented. This type is the basic level of e-banking.

2.14.2 Communicative

This type of e-banking allows some interactions between the banks' systems and its customers. Therefore,

the risk in using it, is higher than for informational systems. These interactions are limited. They send emails, enquiry balances, applications for loans, or the updating of files. For example, customers can apply for loans by using online applications.

2.14.3 Transactional

This type allows customers to perform financial transactions. Paths exist between customers and the banks' networks. This type has the highest risk, so it must have controls and high security issues to protect e-banking servers from hackers and viruses.

Customers in Zimbabwe have tended to be very participative in informative and communicative platforms rather than transactional. It seems that they only want to receive information about accounts, but are not willing to perform some transactions involving the movement of funds.

2.15 Types of internet banking

Aladwani (2001) categorized online banking into two types: first, web-based banking through the internet and, second, dial-up banking where a consumer uses a modem to dial up to a bank's server to access a bank account. There is a special type of dial-up banking operated by private banks between a banking institution and its corporate clients, known as Extranet. Thulani et al. (2009), Yibin (2003) and Diniz (1998) all identify three functional kinds of e-banking that are currently employed in the market place and these are:

2.15.1 Informational websites

Such services are known as the first level of e-banking. Through such services a bank provides marketing information regarding banking products and services on a standalone server. It has a very low degree of risk as there is no connection between the server and the bank. These websites are primarily designed for informing prospective clients about the service levels and products provided by the banking institutions. The concept of informative websites is, however, a more generalized strategy as such mediums are used by other organizations providing non-banking information.

2.15.2 Communicative websites

In this system there is less scope for communication between the banking system and e-banking users. This communication only extends to e-mail, account balance enquiries, loan application or static file updates. This system does not have a fund-transfer facility. The medium allows the bank and its clients to be up-to-date in terms of information pertaining to the client's balances and bank statements among

others. The concept of communicative websites has been further developed to accept direct communication with clients through various devices and communication protocols that they use. For instance, a client can receive banking details though an SMS application and can make enquiries about their account.

2.15.3 Advanced transactional websites

This form of e-banking enables users to transfer their funds electronically, make payments of utility bills and to conduct other banking transactions online. These websites are more secure as they are the conveyers of value to various parties in the transitioning process. Advanced transactional websites are not accessible by any other party, only the bank. Clients only use the communicative website as a point of contact to advanced transactional websites. Such websites often go through many upgrades when compared to the other types, to improve on the security and speed of transacting.

2.16 Internet Banking Distribution Channels

Today, the internet has evolved as the prime medium of service delivery for various financial institutions. Prior to this, customers were not able to perform their personal and commercial banking transactions quickly as they could perform with internet banking. The internet facility enables banks to perform their traditional activities on a virtual medium, which they use to perform transactions faster.

Initially, financial institutions were enthusiastic in identifying the advantages of the internet and were one of the initiators to adapt to e-commerce. A few years down the line, they transformed their websites from informational websites only to those which were dynamic transaction-oriented that are providing nominally 'anytime, anywhere' banking services.

Besides having a large internet-user population, most of the banks still have a wide branch network that delivers the same products and services that are provided online as well. Therefore, there must be a few opportunities to address this existing service-overlap between the two kinds of distributional channels.

2.16.1 Modes of distribution

Clients use modern communication media for remote communication with the bank: a modem, telephone, computer or payment card. A characteristic feature of these services is the client's uninterrupted round-the clock account-access, i.e. independent of banking business hours and the ability to execute local and international payments directly from the comfort of the home or office. This reduces cash- handling and transport costs, lowers the risk of theft or of accepting counterfeit bank notes, increases speed and enhances the convenience of making payments. The electronic communication means are proving to be

particularly popular. These are more convenient, faster, and often cheaper for clients. Banking experience shows it is suitable to use combinations of several communication means, depending on individual segments, clients, and types of operation, products and situations. Electronic banking is a service that specifically uses electronic communication forms. Electronic banking can be divided on the basis of the instruments used: telephone connection, personal computers, means of payment [bank cards] and self-service zones. The advent of the internet and development in Information Computer Technologies (ICT) has brought about flexible options of transacting. The banking institutions were quick to imbibe the technological innovations taking place in the industry; so much so that it can be said that the banking industry has become completely revolutionized post 1991. The need for change had been experienced for quite some time, but the initiative of technological up-grading has now been adopted by the private sector banks and this, it can be said, has revived the industry. New modes of providing banking services are illustrated in the diagram below;

```
                              ┌──────────────────┐
                              │    E-Banking     │
                              └──────────────────┘
             ┌───────────────────────┼────────────────────────┐
   ┌──────────────────┐    ┌──────────────────┐    ┌──────────────────────────────┐
   │    Telephone     │    │   ATM Banking    │    │ Personal Computers Connection│
   │    Connection    │    │                  │    │                              │
   └──────────────────┘    └──────────────────┘    └──────────────────────────────┘

   ┌──────────────────┐                             ┌──────────────────┐
   │  Phone banking   │                             │   Home Banking   │
   └──────────────────┘                             └──────────────────┘

   ┌──────────────────┐   ┌──────────────────┐      ┌──────────────────┐
   │   SMS Banking    │   │    Automated     │      │   Mail Banking   │
   └──────────────────┘   │ Telephone System │      └──────────────────┘
                          │                  │
   ┌──────────────────┐   └──────────────────┘      ┌──────────────────┐
   │  GSM SIM Toolkit │                             │ Internet Banking │
   └──────────────────┘                             └──────────────────┘
```
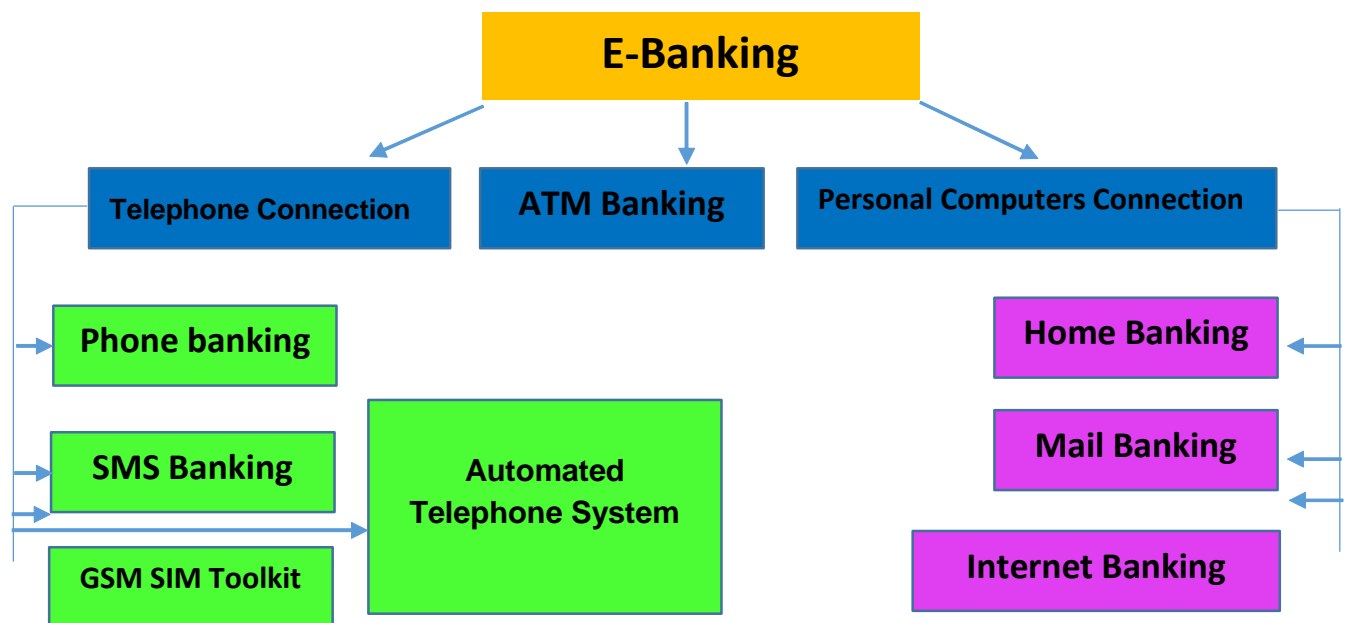
Figure 2.2: E-banking modes

Source: Adapted from Ghandour (2016)

2.16.2 Electronic banking using a telephone connection

Telephone banking and the first banking services using classic telephone lines for communication date

back to the sixties and seventies, of the last century (Ghandour, 2016). These services grew very rapidly and, at the end of the 20th century, mobile phones also started to be used in banking in accordance with the development of ICTs (Ghandour, 2016). Ghandour (2016) continued to explain that in this period, banks quickly responded to the dawning of a new era by using mobile telephones globally and began communicating with their clients through SMS messages, with Global System for Mobile Communication (GSM) banking later becoming a natural component of electronic banking (Ghandour,2016). Each financial institution offers this under a different name, but the essential product remains the same. A mobile phone can be used to communicate with a so-called telephone banker or an automated telephone system, just as well as a fixed line (Ghandour, 2016). However, opportunities for mobile phone usage in communication with a bank are much greater (Ghandour, 2016). Mobile phone use represents a direct communication channel that spreads on a massive scale through which clients have immediate access to typing a bank operation, ordering services or working with accounts. Electronic banking using a telephone connection can be divided into phone banking, client advisor) and mobile banking (SMS banking, GSM SIM Toolkit and WAP) (Ghandour, 2016).

2.16.3 Phone banking

According to Ghandour (2016), phone banking is the provision of banking services using a classic telephone line. A bank client can obtain the necessary information when dealing with a telephone number specified in advance (Ghandour, 2016). Before the requested banking service, information is provided, the client's identity is determined using contractually-agreed upon terms. Ghandour (2016) also argues that using phone banking service enables bank clients to obtain information concerning active and passive banking products, but a client can also use the bank payment system and request this actively. For example, requesting a payment order or a collection order, opening or cancelling a term deposit or a current account. In this case, a fax connected to the telephone serves as an output communication channel.

The client advisor or so-called telephone banker is a bank employee capable of providing any information about products and services and, following verification that the enquirer is speaking with an authorized person, can also perform any passive or active operation (Ghandour, 2016). The advisor can provide advice to the client and offer further banking products. One advantage of this service is that it requires no additional technical equipment apart from a telephone. Biatec (2016) also reiterated that many bank telephone centres (call centres) are open twenty-four hours a day and it is thus possible to use their services from any place at any time, provided there is telephone reception.

2.16.4 Automated telephone system

The technical means necessary to use automated teller systems are the same as for communication with a client advisor (Biatec, 2016). According to Biatec (2016), a telephone is required, which must have tone dialing or be equipped with an accessory adaptor (tone dialer). An automated telephone system works on the basis of a menu through which clients can navigate using buttons on the telephone. The service menu tree is usually designed to be simple so that a choice does not take too long (Ghandour, 2016). More extensive information is sent to the client by fax either to a telephone number agreed in advance or to a number requested by the client, Ghandour (2016).

According to Ghandour (2016). Cost efficiency is the advantage that result from telephone banking. Some banks offer this service to clients' free-of-charge because costs are negligible and convenience is significant, (Ghandour, 2016). One disadvantage is that problems can sometimes arise when the client cannot choose a menu item that corresponds with his wishes or the computer responds to an instruction in a way that differs from what the client wanted. Ghandour (2016) also reiterated that,   it is then appropriate to connect to an automated telephone system with a telephone banker who can resolve the problem. Secure communication for this system can be arranged in two elementary ways:

a) End-to-end security – the whole communication chain is secured by a verbal code. This is very secure but also expensive and only used by public administration and the army (Ghandour, 2016).

b) Using so-called access rights – at the start the client must document his authorization to communicate with the bank (Ghandour, 2016).

A client's personal number (e.g. account number) and PIN as a numerical password are often used for passive operations. Here, however, the risk of misuse is relatively great because anyone who gets to know the personal number and password will be able to enter the system. The following methods are safer:

i)   When an account is opened the client selects several keywords. An operator stores them in the information system. During client authorization during the course of the next call, the system generates a request for specific letters from these words, Ghandour (2016). The operator rewrites them into the information-system terminal which then confirms or rejects the client's authorization. Therefore, not even the operator sees the complete keywords. One exception to this, is when the account is initially opened.

ii)   Using a so-called authorization code – on the principle of a tear-off notebook. Each authorization code is used for one day only and then it becomes invalid (Ghandour, 2016).

iii)   An electronic key is a special device similar to a calculator. The bank's information system gives

the client a random number, the client types it into his key and the key answers with the authorization code. The authorization code is activated by the system and the system either confirms or rejects the authorization. The key itself is protected against misuse by a PIN which the client can change at will. No password or answer is repeated twice (Ghandour, 2016).

iv) According to Ghandour (2016), a two-level system of protection is often used. During entry, a client types in their personal numbers and a password. If they want to perform an active operation they must enter a non-recurring password. When the clients signs a contract using telephone banking services they receive a set of several passwords, whereby for every active operation with an account they use one, by which they authorize the given operation. Once used, the password cannot be used again. Changing the numerical password after some time, further increases safety. When an incorrect password is repeatedly entered, the system blocks access to the given user.

2.16.5 Short Message Service (SMS) Banking

Chovanová (2006) and Ghandour (2016) argue that Short Message Service (SMS) banking uses short text messages sent through the client's mobile phone. Ghandour (2016) further explained that SMS text messages can be used for both passive and active operations as with classic telephone banking as clients can automatically receive information about their account balances: an SMS is sent to the client immediately after a certain operation is performed, or on request: a client sends the bank a correctly formatted message which the bank processes and then answers the client's request by SMS, Ghandour (2016). Information sent on request mostly concerns current interest rates or currency exchange rates. Ghandour (2016) also argued that providing these is simple for the bank because this is publicly accessible information that needs no protection. Clients, can, however, request information about the balance in their accounts, which is not public information and must be protected when it is provided. Passwords are used for this purpose or technologies based on the principle of an electronic key, Biatec (2016). According to the same author (Ghandour, 2016), a client, however, is required to know the code of every transaction including constant and variable symbols. The whole message containing data separated by # symbols sometimes has up to fifty characters. Users can easily make mistakes. This is frequently a limiting factor for clients, reducing the comfort factor in this service, (Ghandour, 2016)

2.16.6 Global System of Mobile communications (GSM) System of Modules (SIM) Toolkit

According to Chovanová (2006) supported by Ghandour (2016), the GSM SIM Toolkit service can only be used from mobile phones supporting this technology. The GSM SIM Toolkit is a software interface that enables arbitrary changes to the mobile phone menu and operators supporting this technology can use

it to personalize mobile phone menus (Ghandour, 2016). This means that the only functions activated and paid for will appear on the user menu. This technology dates back to 1998. Among the first companies to use it in banking applications based on the GSM SIM Toolkit standard were Radio Mobil and Expandia Bank in the Czech Republic.

Most mobile phones now on the market support the GSM SIM Toolkit. To use this service the client needs to be using the services of an operator supporting this standard in its network, be a client of a bank that offers handling of accounts through the GSM SIM Toolkit, have a mobile phone supporting GSM SIM Toolkit technology and use a special SIM card for banking services.

After buying a special SIM card and activating it at the relevant bank branch the client can begin using this service. The mobile phone menu will be widened to include the banking services item, through which it is possible to carry out active or passive banking operations. The precise structure differs from one financial institution to another. Security is what is important here.

2.16.7 WAP (Wireless Application Protocol)

According to Chovanová (2006), the WAP is often compared to web pages, although this is a simplification. Unlike pages appearing on a computer monitor, WAP presents its output on a small mobile phone display, therefore concentrating on text information. It is a form of gateway to various services prepared by a mobile network operator or another firm. One condition for using the service is that the client must have a mobile phone supporting WAP technology. Security is again provided by an electronic key. WAP banking has not caught on very well so far. Some banks, however, continue to offer it despite the relatively low number of users (Chovanová, 2006).

Along with significant growth in the usage of mobile phones in banking practice, personal computers have also come to the fore, which, to an even greater extent, facilitate and modernize banking service provision (Biatec, 2016). Ghandour (2016), argues that WAP plays a crucial role which is very difficult to re. Biatec (2016) divided the use of personal computers into three areas which are: home banking, internet banking and mail-banking. These are explained below:

1. Home banking

Home banking is a service that enables bank clients to handle their accounts from a computer from a place selected in advance, at home or in the office (Ghandour, 2016). Ghandour (2016), argues that the main features of home banking systems are the high level of security, comfort, simplicity of use, openness of the system, wide communication possibilities, networking, definition of users and their

rights, automated data transmission and the option to define a combined signature specimen. A home banking system usually consists of two parts: a bank computer program and a program on the client's computer. The bank program works as a communication server and receives calls from clients, verifies their identity, receives data from them, authenticates digital signatures, generates digital receipts and sends data to clients (Ghandour, 2016). Ghandour (2016) also highlighted that home banking computer system is a multi-user application, meaning that several of the client's employees can work with it, in particular:

a) the administrator can define new employees, change rights;

b) the sender can ensure communication with the bank and transmission of prepared data;

c) the accountant can type payment orders and orders for collection; and

d) the viewer can browse through statements and announcements received.

This system is open and can be expanded in the future without great cost.

2 Internet banking

Ghandour (2016) reiterated that Internet banking can be carried out from the home or the office, as well as from an internet café, although the latter is not recommended for security reasons and is also known as web banking, PC banking or e-banking. According to the same author (Biatec, 2016), the easy accessibility to the internet facility and availability of computers leads the banks to provide their products and services through a new delivery medium, i.e. the internet. Today, all private and public sector banks are providing e-banking services to their clients.

According to Ghandour (2016), in order to handle their accounts users just need an internet browser (such as MS Explorer or Netscape Navigator). Clients cannot avoid visiting the bank though, because they must first ask for an identification code. After opening the bank's web site, the client simply selects internet banking and, further to proper identification, can perform passive or active operations. Good internet banking should provide a maximum of services. No less important are the graphic interface, clarity, simplicity, and unambiguous nature of usage. The intelligibility of texts determines simplicity and speed of understanding of the meaning of menu items, data fields, and general text information displayed to the client. Safety for concrete applications is assured by client authentication, verification of data and data protection by encryption. Client identification is done using passwords or codes. The client chooses some of these and the bank assigns others. It is recommended to choose a password made up of various types of characters, which can be a combination of numbers, lower case and capital letters, and special symbols.

Banks usually protect large volume transactions with additional security means, such as an encryption (authentication) calculator, or a token, which generates non-recurring random passwords, which a client types in, confirming an order. The token itself is protected by certain security features. It is only enabled after the client types in a four-digit PIN code, whereby the user can change the PIN at any time. In the event of three failed attempts to type in the correct PIN, the token blocks itself. After 60 seconds of inactivity a token automatically switches itself off and once switched back on, it again requests the PIN. When a client generates several (for example, 10) authentication codes in succession and types none of them into the client system, the key becomes desynchronized. This protection serves to prevent use of the key for other purposes. A cheaper and, based on its dimensions, more practical alternative to a token is a grid card. This is a card with a mesh drawn on it with fields with random generated characters. The user authorizes an active operation by typing the right code from the field of the card the operator requests.

3 Mail banking

Mail banking is another electronic banking service that makes it possible to communicate with the bank by electronic mail or e-mail (Ghandour, 2016).The most frequently-used service is sending account statements, as agreed, periodically to the client's mailbox. E-mail is not used for more complex operations like payment instruments and self-service zones. Apart from those already mentioned, there are other more or less widely-known forms of electronic banking, including a payment card, an electronic wallet and a self-service zone.

According to Ghandour (2016), a payment card is currently one of the most widely used payment instruments designated for authorized holders through which they can perform non-cash payments or cash withdrawals from an extensive network of ATMs. An electronic wallet represents a chip card similar to a payment card that contains a record of a financial sum that is available to its owner. A self-service zone is a fully automated alternative work place of a bank with terminals and devices that clients can use to get various bank services. It enables active and passive operations offered by the bank to be made without the presence of a bank employee. Devices are constructed to be user-friendly with simple intuitive controls (user friendly). Equipment includes modern security systems outside and inside a self-service zone. A payment card in combination with a password is used to access a self-service zone. It is also possible to use other authentication devices, such as an electronic key, but also a fingerprint. Self-service zones are available 24 hours a day, seven days a week.

In expert circles, it is sometimes possible to encounter another form of electronic banking called fax-banking. A fax is, however, mostly used as an addition to other forms, such as telephone banking, or when a client agrees with the bank that all output should be sent to him by fax.

2.17 Electronic Banking (e-banking) Adoption

2.17.1 Factors influencing e-banking adoption

There are many international studies concerning e-banking technology and the factors that influence the adoption of e-banking. Those studies provide theoretical and empirical background about e-banking technology. Therefore, it is very important to explore those studies to understand, analyse, and highlight the factors that influence e-banking technology. In addition, those studies give the researcher a good chance to compare the findings with others.

The four main factors that influence the acceptance and implementation of e-banking technology (Sohail, and Shanmugham, 2003, Calisir and Gumussoy, 2008) are:

a) customers' acceptance,

b) organizational features,

c) technological abilities; and

d) environmental factors.

2.17.2 Factors influencing customers to adopt e-banking technology:

The most important factor for introducing any service technologies are the customers. Banks can only make profits when there is customer satisfaction. The whole idea of marketing is to identify customers' needs and wants so as to satisfy them profitably. Customer satisfaction is important to spread new technologies and innovations. Therefore, organizations should meet customers' needs and expectations (Akinyele and Olorunleke, 2010).

Khalfan et al. (2006) and Kuisma et al. (2007) focused on e-banking adoption by customers, and explored many factors that influence e-banking adoption.

2.17.3 Security

Security was the most significant factor influencing customers' decisions to adopt e-banking technology (Tan and Teo, 2000). Customers are influenced by information and communication security that ensures the reliability of their transactions. Information and communication security includes authentication, encryption on circuits and servers, firewalls and call-back modems. Customers are secured by legal support issues that preserve their rights; for instance, against hackers or viruses (Khan et al, 2009).

2.17.4 Perceived ease of use

Davis (1989) defined perceived ease of use as the degree to which a person believes that using a particular system would be free from effort. Customers prefer simplicity in e-banking systems. They do not like complicated systems because they fear that mistakes might be made (Calisir and Gumussoy, 2008).

2.17.5 Perceived usefulness

Perceived usefulness is defined as the degree to which a user believes that using the system will enhance his or her performance (Dillon and Morris, 1996). Perceived benefits and perceived usefulness influence customers to adopt e-banking technology (Yiu et al., 2007).

Perceived usefulness and perceived ease of use are the components of the Technology Acceptance Model, (TAM) which will be discussed later in this section. According to Taylor and Todd (1995), attitude, subjective norms and perceived behavioural control are the components of the Theory of Planned Behaviour. These components influence customers to adopt e-banking technology.

2.18 Attitude

Attitude is a positive or negative evaluation of a specific thing or person. Attitude is influenced by beliefs about the consequences. Customers should feel that e-banking benefits them in order to formulate a positive attitude toward e-banking technology (Liao et al., 1999).

Laforet and Li (2005) carried out a study on consumers' attitudes towards online and mobile banking in China and found that Chinese online and mobile bank-users were predominantly males, not necessarily young, and highly educated, in contrast to the electronic bank-users in the West. The issue of security was found to be the most important factor that motivated the Chinese consumer-adoption of online banking. The main barriers to online banking were the perception of risks, computer and technological skills and the Chinese traditional 'cash-carry' banking culture. The barrier to mobile banking adoption was the lack of awareness and understanding of the benefits provided by mobile banking.

A more recent study by Singh (2013) in India showed that the ease of use, reliability, convenience, accessibility, security, low transaction cost and time-consumption emerged as factors that lead to customer satisfaction as regards e-banking services. Furthermore, the results of multiple regression showed that out of the above-mentioned six factors, three factors which are ease of use (i.e. user friendly websites leading to easy technology-customer interaction), low transaction cost (i.e. saving of time, speed of service delivery, convenience, and reduced paperwork in monetary terms) and security (i.e. dependable safety mechanisms in terms of illegal access of accounts, hacking and password protection) are found to

be statistically significant at a 5% significance level.

Rajaobelina, Brun, and Toufaily (2013) carried out a study on relational classification of online banking customers and six groups emerged from the classifications:

Group 1 (wisemen) represented 13.78% of the sample. This group had among the highest mean scores of the different relational items except for calculative commitment. It comprised of men, most of whom were aged 65 and over.

Group 2 (connected calculators), represent 16.15% of the sample, showed the second highest mean scores regarding the relational items. However, this was distinguished by a highest average for calculative commitment (5.79). This group was mainly composed of women between 25 and 44 years of age.

Group 3 (emotionally committed), represented 20.43% of the sample and came in third position on the relational-based mean scores. Its affective commitment mean (5.91) was identical to that of Group 1. Women, mostly 45–64 years of age, formed this group.

Group 4 (skill seekers), represented 22.33% of the sample, followed next in the relational classification. However, this was distinguished by a mean associated to competence (6.48), which seconded that of the more relational group (Group 1). This group was comprised solely of men largely between 55 and 64 years of age, or the baby boomers (41/94), and young people between the ages of 18 and 24.

Group 5 (potential calculators) was characterized by a moderate relational level. This group represented 14.49% of the sample. This had a higher calculative commitment level compared to Group 4 (4.89). Men between 45–54 years of a1ge formed this group.

Group 6 (detached Gen X) completed the classification by being the group with the lowest relational levels on all aspects. This group represented 12.82% of the sample. It was composed of men and women, varying more in ages than the other groups, but with a predominance of them between 25 and 44 years.

Chemingui and Lallouna (2013) carried out a study in Tunisia where the purpose was to identify consumers' resistance and motivational factors affecting the intention to use mobile financial services. They also sought to examine the impact of trust on customer perceptions on the use of mobile financial services. Tradition was found to be one of the factors that affected mobile financial usage. Four other motivational dimensions, these being compatibility, subjectivity to trial, perceived enjoyment and system quality were also identified as contributing to resistance. System quality was found to have a significant and positive impact on trust. The authors argued that these dimensions can be used by marketers to improve adoption of mobile banking by customers. In other words, adoption of electronic banking can be

enhanced through the use of these factors. These factors have a bearing on consumer attitudes towards e-banking.

Limbu et al (2012) carried out a study to examine the effects of consumers' perception of online retailers' ethical behaviour on consumer purchase and revisit intentions in America. Results showed that the perceived ethics of an internet retailer's website significantly affected the consumers' trust and attitudes to the retailer's website that eventually have positive impacts on purchase and revisit intentions. Website trust was positively related to attitudes toward the site. The results did not show support for a direct effect between perceived ethics and behavioural intentions, but attitude and trust toward the website mediate these effects. This supports what Limbu et al (2012) gathered from their research studies where trust was always considered as a key issue when it came to the adoption of electronic banking. Also, the research proved that ethics are important for customer revisits and purchase intentions. The authors also argued that there is a need to enhance features of the website in such a way that people will trust it. The website, therefore, will be able to reap the benefits of trust leading to a positive attitude towards electronic banking. Trust, according to Limbu et al (2012), can also be enhanced through ensuring privacy. They further argued that argued a sense of ethics of the website; websites should ensure that privacy policies are easy to understand, explain clearly how customer information is used, offer secure payment methods, display clearly the terms and conditions of the online transactions, fulfil the orders, and avoid deceptive practices and exaggerations of product characteristics. The following relate to the ethical behaviour that should be considered in e-banking (Limbu et al, 2012):

a) Subjective norms

Subjective norms are defined as the person's perception that most people, who are important to him, think he should or should not perform the behavior in question. Customers are influenced by the opinions of people to adopt or not adopt the new technology (Laukkanen et al., 2009).

b) Perceived behavioural control

Perceived behavioural control is determined by the availability of skills, resources, and opportunities, as well as the perceived importance of those to achieve outcomes. The skills and abilities to use new technology influence customers' adoption (Laukkanen et al, 2009).

c) Experience

Experience in the use of the internet and computers will qualify customers to use e-banking in an

effective manner. Educated customers have better skills to deal with e-banking technology. From this point, customers fear that the use of e-banking will increase their use requirements and responsibilities (Calisir and Gumussoy, 2008).

d) Reluctance and resistance

Reluctance and resistance to change also influence customers' adoption of e-banking technology (Khalfan et al., 2006). A study in Zimbabwe showed that people are resistant to change.

e) Trust

Trust in banks is an important factor influencing e-banking adoption. Trust is not only connected with security issues, but is also related to banks' image, banks' reputation, banks' employees, and all the banks' services (Aladwani, 2001).

f) Accessibility and availability

Accessibility and availability of e-banking services are important factors influencing the adoption of e-banking. The competitive advantage of e-banking services over traditional services is that e-banking empowers customers to perform their transactions anytime, from anywhere in an efficient and effective manner (Tan and Teo, 2000).

g) Cost and financial expenses

Cost and financial expenses of e-banking services influence e-banking adoption. Banks should introduce incentives and promotions to encourage people to use e-banking services. In addition, the cost of computers and internet connections influence customers to adopt e-banking technology (Yang et al., 2007).

h) Income level

A customer's adoption of the internet, computers and other techniques are influenced by their standard of living. Therefore, income level and the value of money influences e-banking adoption directly and/ or indirectly (Laukkanen et al, 2009).

g) Privacy

Privacy of data and connections influences customers to adopt e-banking technology. If e-banking services pass through intermediate stages, customers will not trust this technology. No one should access customers' accounts except authorized people (Khan, 2009).

Customers would realize the benefits of e-banking and develop a positive attitude toward e-banking technology through good communication channels, good customer service, good marketing and advertising strategies. Information is the basic process to achieve customers' attention (Sohail and Shanmugham, 2003).

2.19 Technological Factors Influencing Electronic Banking (e-banking) adoption

Customers and banks are influenced by technological factors such as security, privacy, reliability and internet speed in adopting e-banking technology (Khalfan et al., 2006). Electronic-banking (e-banking) is also technology in itself. A network's security is the most important factor influencing customers. In the time of globalization, there are many risks which can destroy all e-banking technology. Therefore, advanced infrastructure should be implemented by the Ministry of Infrastructure Development, POTRAZ, internet companies, and banks to protect all financial transactions (Yiu et al., 2007).

New technology needs special resources to be adopted, especially as far as e-banking is concerned and this should be implemented with no errors. From this point, there are organizational factors influencing e-banking technology (Shah and Siddiqui, 2006). Technological aspects are the significant factors that influence the uptake of e-banking technology by customers and banks. Electronic-banking (e-banking) needs specific technological solutions like software, hardware, networks and security. Therefore, technology plays the main role in e-banking adoption (Aladwani, 2001).

2.20 Organizational Factors Influencing Banks to Adopt Electronic Banking (e-banking) Technology

Banks' decisions to adopt e-banking technology is the first step toward its use. Many factors influence them to do this. The most important factors that influence banks to do this will be highlighted in the following discussion:

2.20.1 Organizational image

The image of an organization is an important factor influencing banks to adopt new technology. A good image creates mutual trust between customers and banks. Therefore, customers will accept new solutions from their banks. It is very important for banks to build a brand name and to be superior in their services, treatments, technologies, and workforces to adopt critical technology like e-banking. A good reputation creates a competitive advantage for any bank when achieving customer loyalty (Kuisma et al., 2007). Electronic-banking (e-banking) use is relatively high in banks with a upper level image than those with a lower level image

2.20.2 Banks' strategies

A bank's strategies influence e-banking technology. Appropriate strategies should be formulated by top level management when adopting and implementing e-banking services. Top management should motivate all departments to work toward achieving regular use of this technology, and should encourage workforces to introduce improved services for customers (Toufaily and Daghfous, 2009).

2.20.3 Employee relations

Relationships and communication channels among employees are important issues and should persuade banks to adopt e-banking technology. This technology needs co-ordination from all divisions in the bank. Therefore, banks need strong relationships among their employees to spread their strategies and reach their goals (Khalfan et al., 2006).

2.20.4 Abilities

Skills, abilities, and well-trained employees are required to adopt e-banking technology. Banks are influenced by the availability of information, communication channels, and internet specialists. Banks need specialists in security, reliability, privacy, encryption, etc. In addition, marketing specialists are needed to influence people to adopt e-banking technology (Haghighi, et al., 2010).

2.20.5 Financial resources

Budget availability is needed to cover all the expenses of e-banking technology. Information Systems, security, specialists, internet and websites need appropriate budgets. Returns on investment and financial resources influence the adoption of e-banking (Toufaily et al, 2009).

Banks are competing against each other to increase their market shares by introducing innovations for customers. The e-banking services create new markets. These enable customers to access their accounts and perform their financial transactions from all over the world (Tan and Teo, 2000).

Forward integration with customers influences and encourages banks to implement e-banking technology. The relationships between banks and customers is important to get the benefits from e-banking services. Good pricing, quality, and good marketing policies will achieve customer loyalty (Khan, 2009).

2.21 Environmental factors influencing Electronic banking (e-banking) adoption

Banks do not operate in a vacuum. Haghighi et al. (2010) acknowledged the significance of the business environment as an influence in the adoption of e- business technology. The part played by environmental factors (political, economic, social, technological ecological and legal) cannot be undermined in the adoption of e- banking.

2.21.1 Political

The political in/stability of a country largely influences the perception and adoption of e-banking. When there is political unrest in a country, customers tend to be very sensitive and protective in adopting new systems. Public demonstrations in Zimbabwe made customers become sensitive to security issues, even for financial transactions.

2.21.2 Economic factors

A good economic situation means a good standard of living and good investment-potential. (Al Nahian et al., 2009). The cash crisis is one of the most prevailing economic situations in Zimbabwe. It is characterized by a shortage of hard currency circulating in the economy. People now queue in banks daily trying to withdraw their money. The cash crisis is one of the factors that has led to the emergence of this in banks (which is the problem mentioned in this study).

2.21.3 Social

This involves population demographics such as age, income, education levels and population trends. These are one of the most resounding factors that determine whether customers adopt e-banking technology. Norms, habits, culture, and social systems influence banks and customers to adopt e-banking technology. If cultural values agree with traditional banking services and do not trust communication channels, then e-banking technology will not be adopted by the society (Laukkanen et al., 2009).

2.21.4 Technological

The technological state of a country influences the use of technological systems like e-banking. The technological advancement in Zimbabwe is very slow and still lags behind international standards. This results in banks offering services which might not be able to satisfy customers well enough. It also affects the speed, quality and privacy of the e- banking system.

2.21.5 Legal

Legal factors in a country also contribute to adoption levels. They are important and encourage or discourage customers and banks to adopt e-banking technology. Without governmental support and protection of the telecommunication infrastructure, banks and customers cannot adopt advanced technology like e-banking. Governments should apply regulations to protect banks and customers from unexpected events (Lippert and Govindarajulu, 2006). Strict legal requirements can inhibit e-banking. These have to be flexible and be able to promote the adoption of e-banking.

The four main factors (customers' acceptance, organizational features, technological abilities, and environmental determinants) are interconnected. Each factor influences and is influenced by other factors. All aspects of e-banking should be studied from all angles if it is to achieve widespread adoption (Haghighi et al., 2010).

2.22 Challenges in the Adoption of Electronic Banking (e-banking)

According to Angelopoulos and Mihiotis (2011), major problems faced by banks in trying to push customers to adopt e-banking include a low response rate from customers and implementation of security and data protection mechanisms. Take Greece for example, where this research was carried out, there is also relatively low internet usage, non-familiarity with technologically-advanced devices and problems regarding security and privacy.

Thulani et al (2011) carried out research on the adoption and use of Short Message Service (SMS)/mobile banking (m-banking) services in Zimbabwe and noted that from the interviews conducted that 60% of the banks acknowledge that the SMS banking service's acceptance was low when the service was launched and the other 40% reported that the uptake of the service was high on introduction. It was further inferred that the uptake on the launch of the service was high for those banks that launched the service later, as compared to the pioneers of the service. This might be because most customers had already seen the service in operation for some time and were therefore a bit more familiar with it. The bankers also agreed to the fact that there was an increase in the volume of transactions after the SMS banking service was launched. None of the banks reported that the volume of transactions remained static. It was also found that customers did not utilize the full package of SMS banking services. All (100%) of the banks indicated that balance enquiry, mobile airtime top-up and electronic bill payment were the most frequently-used services while 80% showed that funds transfer and mini-statement requests were also popular with users. This shows that capacity utilization of SMS banking is still low. The current study looks into the reasons why the adoption rate is low, not on SMS banking, but electronic banking (e-

banking) in general, although SMS banking is included.

Alam, Magboul and Raman (2010) carried out research in Sudan on the challenges faced by Sudanese banks in implementing online banking. The study looked at the bankers' perceptions of online banking, not the customers'. What is interesting is that one of the reasons why bankers are hesitant to introduce online banking is that they fear customers do not have the knowledge of how to use it. The current research will attempt to find out whether Zimbabweans have the technical knowledge of to use it.

A similar study was carried out by Venkatesh and Davis at the University of Maryland in America in 1996 where they sought to find out the potential measurement biases of the Technology Acceptance (TAM) model. The results confirm the usefulness of the TAM model in measuring technology adoption and hence some of it constructs in measurement of adoption of E-Banking. Figure 2.3 highlights the TAM model. David and Venkatesh (1996) however warned those who use the TAM model to do so carefully as it has its own drawbacks, for example it groups together items measuring individual constructs.
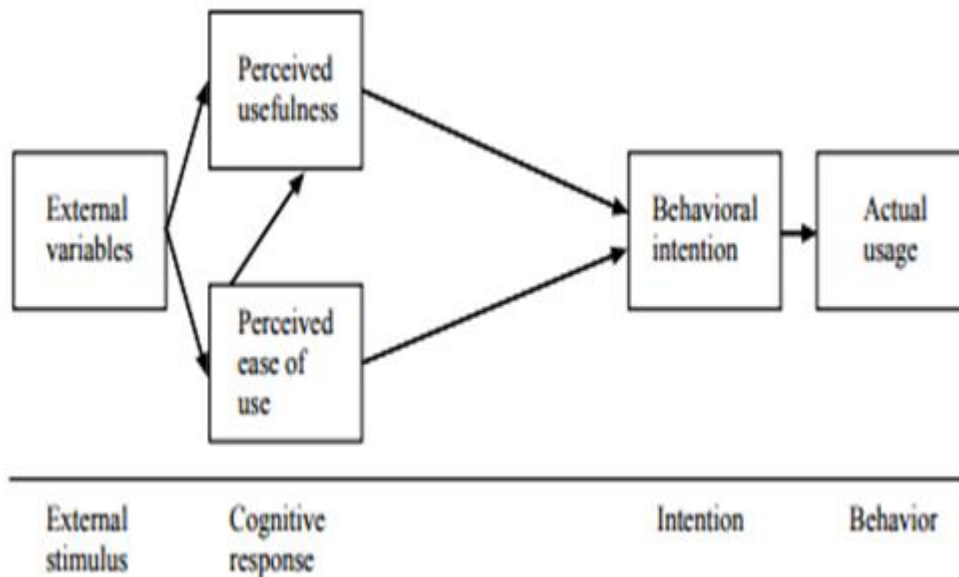
Figure 2.3: Technology Acceptance Model (TAM)

Source: Adapted from International Journal of Human – Computer Studies (1996, page 20)

According Davis (1989) as cited Marumbwa and Mutsikiwa (2013), perceived usefulness is defined as "the degree to which a person believes that using a particular system would enhance his or her job performance" and perceived ease of use is defined as "the degree to which a person believes that using a particular system would be free of effort". Both constructs influence one's attitude toward system usage, which influences one's behavioural intention to use a system, which, in turn, determines actual system-usage. The underlying logic is that users react rationally when they elect to use a technology. The more useful and easy to use the Mobile Money transfer (MMT) services, the more they will be used.

This study looked at the most recent innovation in Zimbabwe, which is less than 10 years old, and already there is worry among stakeholders on the adoption rate of e-banking. This shows that in Zimbabwe, adoption of e-banking is still a challenge that needs to be addressed. Looking back at the origins of e-banking, it can be noted that it has always been difficult to ensure customers' cooperation by making use of it in order to reduce workloads on bank tellers. It was the hope of the researcher that a more in-depth study may yield positive recommendations.

2.23 Customer Satisfaction and its Consequences

According to Saha and Zhao (2005), customer satisfaction is defined as a collection of outcomes of perception, evaluation and psychological reactions to the consumption experience with a product/service. Saha and Zhao (2005) further defined customer satisfaction as a result of a cognitive and affective evaluation where some comparison standard is compared to the actually perceived performance. If the performance perceived is less than expected, customers will be dissatisfied. On the other hand, if the perceived performance exceeds expectations, the customer will be satisfied.

Boateng and Molla (2006) contended that operational constraints related to customer location, the need to maintain customer satisfaction and the capabilities of the bank's main software are influential factors in motivating the decision to adopt e-banking services and, consequently, to influence the usage-experience, thus affecting the level of satisfaction.

Raman et al (2008) stated that service, as an intangible good, appeals differently to each customer and a certain extent of service should be achieved in order to satisfy the customer and that the resulting commitment, loyalty and retention are critical indicators of customer satisfaction.

Regarding customer commitment, Power and Associates (2009) noted that on average, highly committed customers use more products or services, give more referrals and are much less likely to switch to another bank compared to customers who have lower commitment levels. This view is supported by Casaló et al. (2008) who contend that higher levels of website usability might lead to higher levels of consumers'

affective commitment to the website, as well as a direct, positive and significant relationship between them.

Satisfaction has been considered as one of the most important theoretical as well as practical issues for most marketers and customer researchers (Jamal, 2004). Satisfaction reflects a post-purchase evaluation of product quality, given pre-purchase expectations (Kotler, 1991). On one hand, within literature on services marketing, satisfaction has traditionally been defined as a cognitive-based phenomenon

Westbrook (1987) argued that Cognition has been studied mainly in terms of the expectations/ disconfirmation paradigm, also known as the confirmation/ disconfirmation paradigm, which states that expectations originate from the customer's beliefs about the level of performance that a product/service would provide (Oliver, 1980). Expectations are the starting point for measuring a product's perceived performance.

Many marketing scholars (for example: Tse and Wilton, 1988, Anderson and Sullivan, 1993; Patterson et al., 1997), indicate that customer satisfaction is related to the size and direction of disconfirmation, which is defined as the difference between the post-purchase and post-usage evaluation of the performance of the product/service and the expectations held prior to the purchase (Sharma and Ojha, 2004). On the other hand, other studies (Dube-Rioux, 1990; Homburg et al., 2006) have recognized that the effect experienced during the acquisition and consumption of the product or service can also have a significant influence on satisfaction judgments (Homburg et al., 2006).

Customer satisfaction is an ambiguous and abstract concept and the actual manifestation of the state of satisfaction will vary from person to person and product/service to product/service (André, et al., 2000). The state of satisfaction depends on a number of both psychological and physical variables which correlate with satisfaction; behaviour such as the return and recommendation rate. The level of satisfaction can also vary depending on other options the customer may have and other products against which the customer can compare the organization's products.

Organizations of all 'types and sizes have come to realize that their main focus must be to satisfy their customers (Heskett et al., 1994: 34). This applies to industrial firms, retail and wholesale businesses, government bodies, service companies, profit-making organizations and every subgroup within an organization. There is a substantial body of empirical literature that establishes the benefits of customer satisfaction for firms (Heskett et al., 1994). Organizations are increasingly interested in retaining existing customers while targeting noncustomers; measuring customer satisfaction provides an indication of how successful the organization is at providing products and/or services to the marketplace.

2.23.1 Quality

Garvin (1988) classified the definitions of quality into five major groups. The first is transcendent definitions, which refer to definitions that are subjective and personal. They are eternal, but go beyond measurement and logical description. They are related to abstracts such as beauty and love. Secondly, there are Product-based definitions. Quality is seen as a measurable variable. The bases for measurements are objective attributes of the product. According to ISO 8402 (1986), quality refers to the totality of features and characteristics of a product or service that impact on its ability to satisfy stated or implied needs' such as those of the employers. The interpretation of quality is 'fitness for purpose', as employers look for competencies matching the functions.

According to product-based definitions, the product features are the main determinants of quality. In this regard, it means the banks' e-banking products must have desirable features which clients should like. This might mean the bank website must have good features including effects colours and animations on the website and must be easy to navigate.

1. The third group is user-based definitions in which quality is seen as a means for customer satisfaction. This makes these definitions individual and partly subjective. Oakland (2003) seems to agree with this view. Oakland (2003) defined quality as simply meeting the customer requirements and this has been expressed in many ways by other authors, as quoted by Oakland (2003). Deming (1947), an early writer of quality management, argued that quality should be aimed at the needs of the consumer, present and future. Juran (1954), another early doyen of quality management, defined quality as fitness for purpose or use, while Feigenbum (1951), the first man to write a book on total quality' and also introduced concepts of total quality control and continuous quality improvement, advocated that quality is 'the total composite product and service characteristics of marketing, engineering, manufacturing and maintenance through which the product and service in use will meet the expectation by the customer. Quality is the degree to which a set of inherent characteristics fulfils the requirements of stakeholders according to the ISO (EN) 9000 (2000). According to the user-based definitions of quality, the customer decides whether quality is to his/her satisfaction when determining it. Gummesson (1994) argued that quality management can be a means of bridging the gap between external quality management, starting with customer perceived quality, and internal quality management focused on conformance. The interpretation here is one of excellence, as the students want to ensure a relative advantage in career prospects.

Quality has been accepted as a fundamental component to satisfy customers (Sulek and Hensley, 2004). According to Churchill and Surprenant (1982) quality is generally viewed as an attribute to the performance of a product or service. Baker and Crompton (2000) view quality as a measure of provider's

output. Quality significantly affects customer satisfaction and behavioural intentions; as a result it influences customer's relationship with the organization. Peri (2006) also supports quality is a necessary condition to satisfy the needs and expectations of customers

The fourth group is manufacturing-based definitions. Quality is seen as conformance to requirements and specifications. Crosby (1984), as quoted by Oakland (2003), define quality as conformance to requirements, prevention, and "zero defects." This supports manufacturing-based definitions. Quality is interpreted as perfection or consistency, where the behavioural norms are met and the core ethos is upheld in order to achieve job satisfaction.

Value-based definitions define quality in relation to costs. Quality is seen as providing good value for money spent. Harvey and Green (1993), in their interpretation of quality, argued that for providers (funding bodies and the community at large), quality is interpreted as value for money, as funding authorities are looking for a good return on investments.

The above definitions of quality are diverse depending on the product and also the stakeholders where customers look at satisfaction while producers may look at conformance to requirements. The common thing about all the above quality definitions is that they all point to the final user getting value for money. Different authors define quality in a variety of ways depending on the context.

2.24 Service Quality

The most commonly accepted definition of service quality was proposed by Zeithaml and Bitner (2000) who say it is the delivery of excellent or superior service is relative to customer expectations. According to Parasuraman et al. (1988) service quality refers to the notion that service should correspond to the customers' expectations and satisfy their needs and requirements. Rust and Zahorik (1993) state that quality is one dimension where satisfaction is based. As such, the management must take action in quality control. Service quality is viewed as an antecedent to satisfaction. Since the customer's interaction with the service provider and the service-producing process have a significant impact on the customer's perception of service quality and subsequently influence customers' satisfaction, marketing concepts, such as customer satisfaction, should be incorporated into the management's operational decision-making process.

Bolton and Drew (1991) and Parasuraman et al. (1988) argued that while service quality is an overall attitude towards a service firm, customer satisfaction is specific to an individual service encounter. The customers' overall satisfaction with service is based on all their encounters and experiences with the organization. The provision of service involving contact and interaction with customers is usually a real

time activity. In an increasingly competitive environment, companies must be customer-oriented. It is thus not surprising that companies spend substantial resources in measuring and managing customer satisfaction. To improve customer satisfaction and loyalty, companies must understand what factors influence customer satisfaction and then try to make improvements in these critical areas so that they can have more satisfied and loyal customers.

Robinson (2000) pointed out that it is generally agreed that service quality is an attitude or global judgment about the superiority of a service. Where others suggest that it stems from a comparison of expectations with performance perceptions (disconfirmation), according to Parasuraman et al. (1988), and others argue that it emanates from a comparison of performance with ideal standards (Teas, 1993) or from perceptions of performance alone (Cronin and Taylor, 1992). There are many empirical research studies to support Rust and Oliver's (1994) argument that customer satisfaction is as a result of service quality (Anderson and Sullivan, 1993; Spreng and Mackoy, 1996). Taylor and Baker (1994) also viewed quality as one of the key service dimensions that plays an important role in consumer satisfaction in service organizations.

There are several competitive advantages associated with the adoption of technology in service organizations which include the creation of entry barriers, enhancement of productivity and the increase of revenue-generation from new services (Fitzsimmons and Fitzsimmons, 1997). However, developments in ICT have provided a platform upon which banks can design, develop and deliver services that can be perceived by customers as superior while accessing online channels for banking transactions (Surjadjaja et al., 2003).

Service quality is one of the main factors that determines the success or failure of electronic commerce (Santos, 2003). It is a very important component in any banking business. Customers perceive the quality of services of online banking based on the performance of online delivery systems and not on the processes through which the delivered service is developed and produced. Numerous studies have been carried out to conceptualize the service quality concept. It can also be defined by the practitioners in terms of key dimensions that customers use while evaluating the services (Lewis and Booms, 1983). The conceptualization of service quality should include both the service delivery process (Parasuraman et al., 1995) as well as the service outcomes (Lehtinen and Lehtinen, 1991).

2.25 Gaps in Service Quality (Parasuraman et al, 1988)

If customers are to embrace the adoption of e-banking, quality must be seen from the customer's viewpoint, not the company's. It is essential that quality be measured from the customer's perspective, not

from what managers within a company think their customers' views are. Several reasons have been identified as to why it is unsafe to rely on managerial opinions of customer perceptions. These include the following:

i) Management may not know what specific purchase criteria users consider important. For example, customers frequently identify key purchase criteria not identified by management. Even when the criteria are correctly identified, management may misjudge the relative importance of individual criteria.

ii) Management may misjudge how users perceive the performance of competitive products on specific performance criteria. These differences in perception of performance may exist for the most basic of criteria.

iii) Management may fail to recognize that the user needs have evolved in response to competitive product developments, technological advances, or other market or environmental influences.

2.26 Gaps Model

SERVQUAL is a multi-item scale developed to assess customer perceptions of service quality in service and retail businesses (Parasuraman, et al., 1988). The approach starts from the assumption that the level of service quality experienced by customers is determined by the gap between their expectations of the service and their perceptions of what they actually receive from a specific service provider (Parasuraman, et al., 1988). Parasuraman et al (1988) developed the 'Gaps Model' of perceived service quality. This model has five gaps:

Gap 1. Consumer expectation or Management perception gap;

Gap 2. Management perception also known as Service quality specification gap;

Gap 3. Service quality specifications or Service delivery gap;

Gap 4. Service delivery also known as External communication gap; and

Gap 5. Expected service also known as Experience service Gap. The problem here (In gap 1) is that management may not know what customers expect.

Word-of-mouth communications | Personal Needs | Past Experience

Expected Service

Gap 5

Perceived Service

CUSTOMER
PROVIDER

Service Delivery

Gap 4

External communications to customers

Gap 3

Gap 1

Service quality specifications

Gap 2

Management perceptions of customer expectations
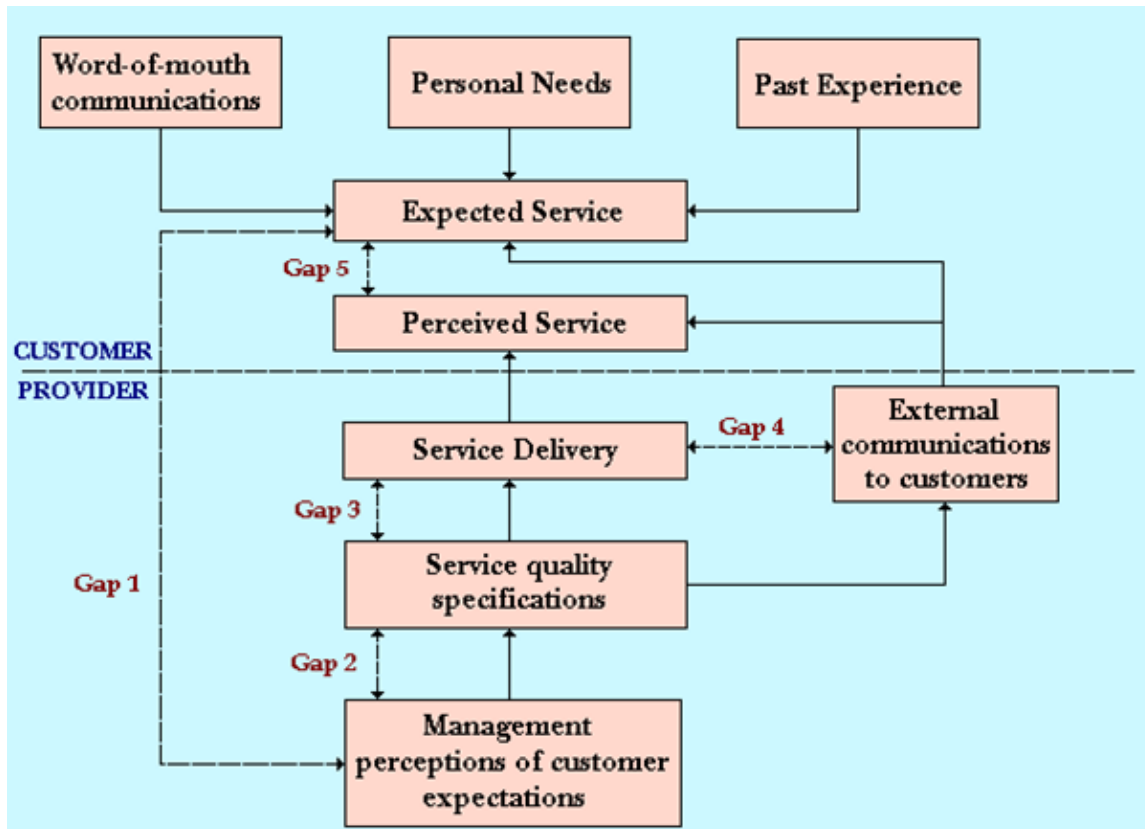
Figure 2.4: The service quality gaps model

Source: Adapted from Kotler (2000 page 206)

a)   Gap one: Perception gap

According to Kotler (2000) this is the gap between consumer expectations and management perceptions. Kotler (2000) argues that management does not always interpret correctly what customers want. The gap represents a misinterpretation of what customers want.

In Zimbabwe, very little research has been done by companies with the aim of knowing to know the customers' expectations. Often, management believes that their estimate of what customers want is final. They make an error of judgment at this stage. The customers themselves are also to be blamed because they do not protest or complain when they do not get the desired service. This means that the management remain ignorant and thus unaware of consumer expectations.

Causes of Gap one

According to Kotler (2003), Gap one is caused by a lack of accurate understanding of what the customer expectations are, inadequate market research orientation, inadequate use of market research, lack of

interaction between management and customers, too many layers between contact personnel and management, insufficient relationship focus – in short, too much emphasis on transactions rather than on relationships, and focus on new customers rather than relationships with existing customers. Shanin (2004) argues that it is caused by lack of research orientation, too many layers in management, and inadequate upward communication.

Solutions to Gap one

To close gap one, there is a need for adequate market research, good relationships between management and customers and customer relationship-management strategies, for example customer retention and loyalty strategies (Kotler, 2000). According to Shahin (2008) it can be corrected by making sure there is good upward communication and removing too many managerial layers.

b) Gap two: Standard gap

The second gap is the difference between the management perceptions of consumer expectations and service quality specifications. Kotler (2000) explained that this is the gap between management perception and service quality specifications. In this regard, Kotler (2000) went on to argue that management might perceive correctly customer needs and wants but might not correctly set the correct performance standards required to satisfy customers. Managers will set specifications for service quality based on what they believe the consumer requires. However, this is not necessarily accurate. Therefore, many service companies put a lot of emphasis on technical quality, when, in fact, the quality issues associated with service delivery are perceived by clients as more important.

Causes of Gap two

Gap two can be caused by poor service design, absence of customer-driven standards and an absence of physical evidence. According to Kotler (2000, p. 207) managers might fail to quantify the performance standards, for example banks might require that the internet be fast but fail to quantify how fast. Shahin (2008) argues that this is a result of inadequate commitment to service quality, a perception of unfeasibility, and also absence of goal setting.

Solutions to Gap two

Gap two can be closed by having customer-driven standards rather than company standards and also appropriate physical evidence and service cap features (Kotler, 2000).

c) Gap three: Delivery gap

The third gap is the difference between service-quality specification and the service actually delivered. Kotler (2000) argues that this is a gap between service quality specifications and actual delivery. This is of great importance to services where the delivery system relies heavily on people. It is extremely hard to ensure that quality specifications are met when a service involves immediate performance and delivery in the presence of the client or they may specify two conflicting standards such as listening to customers and simultaneously serving them quickly. These two goals are conflicting as the service provider cannot be listening to a client while serving him/her at the same time. The gap can be caused by role ambiguity and conflict (Shahim, 2008).

Causes of Gap three

Gap three can be caused by ineffective human resources management such as lack of training, motivation and compensation; customers who do not understand roles, problems in service intermediaries and failure to match supply and demand (Kotler, 2000).

Solutions to Gap three

Gap three can be closed by effective human resources management, planning to match supply and demand, educating customers on their roles and quality equipment in delivery. There is need for proper matching of employee-job fit and also technology-job fit (Shahim, 2000).

d) Gap four: Communications gap

The fourth gap is the difference between service delivery intention and what is communicated about the service to customers. Kotler (2000, p. 207) argues that this is a gap between service delivery and external communications. This establishes an expectation within the customer which may not be met. Often this is a result of inadequate communication by the service provider. Customer expectations are affected by statements made by company representatives and advertisements. An advertisement might reflect an

organization with a user-friendly website but, in reality, the website might be difficult to use. The organization could have reflected a very good picture of the organization, thus generating high expectations which the organization will fail to deliver and thus cause a communications gap (Kotler, 2000)

Causes of Gap four

This is caused by overpromising in advertisements, inadequate co-ordination between marketing and operations, and also differences in policies and procedures across outlets (Kotler, 2000). Shahim (2008) supports that by arguing that propensity to overpromise can result in gap four.

Solutions

There is a need for co-ordination between organizational departments, standardization of policies across outlets and keeping advertisement promises to close this gap (Kotler, 2000). When banks are advertising their services, they need to make sure they always tell the truth about their services. Shahim (2008) argues that inadequate horizontal communication can cause gap four, thus solution to close gap four could thus be making sure that there is adequate horizontal communication.

e) Gap five: Service quality gap

The fifth gap represents the difference between the actual performance and the customers' perception of the service. Kotler (2000, p.207) argued that this is the gap between the expected service and the perceived service and it happens when the customer misperceives the quality of the service. Subjective judgment of service quality will be affected by many factors, all of which may change the perception of the service, which has been delivered. It is a function of Gaps 1–5. Marketers also have to be sincere in everything they do.

2.27 Customer Satisfaction

According to Hansemark (2004), fulfilment is a general client state of mind towards a specialist organization, or an enthusiastic response to the contrast between what clients suspect and what they get, with respect to the satisfaction of some need, objective or want. Oliver (1997) characterized fulfilment as a judgment following a utilization encounter. It is the customer's judgment that an item gave (or is giving) a pleasurable level of utilization related satisfaction. Kotler (2000) characterized fulfilment as a consumer's sentiments of joy or dissatisfaction coming about because of looking at an item's apparent execution (or result) in connection to his or her desires. Fulfilment can be related with sentiments of acknowledgment, bliss, alleviation, fervour, and enjoyment. Most research affirms that the affirmation or

disconfirmation of pre-utilization desires is the fundamental determinant of fulfilment. This implies clients have a specific anticipated item execution at the top of the priority list before utilization. Amid utilization, clients encounter the item execution and contrast it with their normal item execution level. Fulfilment judgments are then framed in view of this correlation. The subsequent judgment is marked positive disconfirmation if the execution is superior to anything expected, negative disconfirmation in the event that it is more negative than anticipated. To put it plainly, clients evaluate product performance by comparing what they expected with what they believe they received.

2.28 Bankhah et al view of Customer service

Bankhah et al (1998) were of the view that most models in the banking industry of customer evaluations of services focus on the comparative judgment of expectations versus perceived performance, resulting in the two major evaluative judgments of perceived service quality and customer satisfaction.

 For example:

1. Customers access service delivery by comparing their expectations prior to their service encounter with a bank (employee).

2. Customers also develop perceptions during the service delivery process and then compare their perceptions with the actual service received from the bank's employee. Thus, customer expectations are unique prior to a service. They influence the customer's evaluation of service performance and customer satisfaction. Customer services, by definition, are intangible and easily duplicated. They can be divided into high-touch or high-tech services. High-touch services are mostly dependent on people in the service process producing the service, whereas high-tech services are predominantly based on the use of automated systems, information technology and other types of physical resources

2.29 Customer Satisfaction Measurement

Peloza (2009) pointed out that maintaining consumer satisfaction is critical for a business because satisfied consumers are likely to do business with the company in the future. In addition to that Sexton (1996) cites that it is important to have a system in place to continually measure customer satisfaction regarding whether they are being satisfied by the service or not and if they are not, then the necessary measures may be put in place.

2.30 Customer Satisfaction with Electronic Banking (e-banking)

An investigation led by Athanassopoulous et al. (2001) analyses the effect of consumer loyalty on client behavioural reactions. The discoveries of the investigation showed that when clients surveyed consumer loyalty to be high, they either chose to remain with the current specialist organization or to repress their negative behavioural intentions. Athanassopoulous et al (2001) also revealed that consumer loyalty is additionally found to have a solid positive relationship with verbal correspondence. They further proposed creating methodologies to upgrade behavioural reactions to consumer loyalty and forbid negative ones. Such techniques can incorporate meeting clients' administration levels, keeping administration issues from happening, managing viably with unfulfilled clients, taking care of administration issues successfully when they happen and managing client grievances emphatically (Athanassopoulous et al, 2001).

Kumbhar (2011) carried out a study to find out the dimensions for assessing service quality in banks and found out the following as useful in service quality measurement in banks: system availability, E-fulfillment, efficiency, security, responsiveness, easiness, convenience, cost efficiencies, problem handling, compensation and contact. The researcher used all these factors by Kumbhar (2011) to assess the satisfaction of Zimbabwean consumers with e-banking facilities in Zimbabwe.

Kumbhar (2011) carried out a research to find out factors that affect the satisfaction of customers with e-banking facilities and found that the following factors are critical in e-banking adoption: perceived use, brand perception, cost effectiveness, ease of use, convenience, problem handling, security/assurance, and responsiveness.

Zeinthaml et al. (2000) opined that consumer loyalty is an equivocal and conceptual idea. Genuine indication of the condition of fulfilment will change from individual to individual, item to item and administration to benefit. The condition of fulfilment relies upon administration and is one of the significant determinants of consumer loyalty. Numerous scientists and specialists specified that benefit quality can be improved by utilizing propelled data and correspondence innovation.

Kumbhar (2011) highlighted that all banks incorporate the use of ICT as they intend to improve the benefit nature of managing account administrations. They provide ICT based e-administration to their clients which are called e-saving money, web saving money or web-based keeping money and so forth. It brings comfort, client centricity, upgrades benefit quality and cost viability in saving money and it expands consumer loyalty in managing account administrations.

A bank client's taste and wants have started to up the ante of desire for excellent administrations in

banking. Clients need to manage their account transactions, whenever and wherever they want to be helpful for their way of life; for example, they need to pay their general family unit bills, to purchase and offer stocks and shares (Carsem,1999).

Research conducted in a few nations on customers' observation and response to electronic managing of account items and administrations and other research done on consumer loyalty, reasons that the few e-banks that face liquidity issues in purported propelled nations is as a consequence of negative recognition their clients have, of the administrations. Truth be told, in a few nations, e-managing an account items and administrations are not extremely prominent in light of the fact that clients do not consider this as a better contrasting option to customary saving money methods (Blachandher, 2001).Worse still; discoveries by a few examinations, uncover that a few clients see these e-advancements as nothing to discuss. The achievement of e-managing an account depends unequivocally on customer fulfilment of the e-items and e-administrations. Thus, banks need to endeavour in creating mindfulness among existing and imminent clients, about the advantages of the items and administrations. A study done in Nigeria uncovered that only 47% of the respondents said that the electronic keeping of money items and administrations are happy with the nature of the items and the productivity of the conveyance. This calls for concern. The investigation likewise uncovered that customers getting charged (bank charges) for electronic managing account administrations, are as yet not happy with the quality and effectiveness of the administrations (Ahmed, 2005).

Another investigation led in one Nigerian bank, Unit Bank, has demonstrated that a powerful electronic saving money framework has enhanced its clients; relationship and fulfilment (Shittu, 2010).

Astute and Ali (2009) contended that many banks need to put resources into ATMs to diminish branch costs since clients like to utilize them rather than a branch to execute business. According to Astute and Ali (2009), the benefits of e-banking outweighs the costs. Ala et al. (2011) had an investigation which uncovered that there is a variety in the impact of e-managing an account, usefulness factors on fulfilment and observational confirmation in this exploration proposes that e-saving money factors have a noteworthy level of effects on fulfilment and the results of fulfilment. In their examination, they presume that e-saving money decidedly impacts consumer loyalty in Jordan's business banks. The investigation additionally found that the impact of improving consumer loyalty through e-banking would change depending on individual variables, such as sexual orientation, age, marital status, instructive level, PC proficiency, and web openness. Albeit sitting tight for benefit, is an unavoidable truth, extreme holding up, can hinder huge fulfilment and monetary effects .Bank experts likewise encounter the unfriendly impacts of long queues and time wastage waiting, including a developing disappointment related with the

failure to give opportune and proper administration to clients. A third report made in Nigerian banks uncovered that there is a noteworthy connection between electronic installments and managing account administrations, to coordinate the connection between the abnormal state of computerization of saving money, firm administrations and the change of administrations conveyance. It is an unquestionable requirement to put resources into an electronic installment framework, before it can contend adequately in the new age and increment consumer loyalty (Fenuga and Oladejo, 2010)

Electronic-saving (E-Saving) money can offer speedy and tried and tested support of the clients for which they might be generally fulfilled than that of a manual arrangement of managing an account. Electronic-managing (E-Managing) an account framework not only creates a most recent feasible return, but it can improve dealings with clients (Jannatul, 2010).

Thornton and White (2001) have thought about seven dispersion stations (ATM, EFTPOS, charge card, cheques, human teller, phone and internet) with a view to an arrangement of factors influencing their use. They reasoned that client introductions, for example, comfort, benefit innovation, change, information PC, and web, influenced the use of various channels. The use of ATM, EFTPOS, and phone expanded as clients were more aligned with change, information, PC and certainty. Polatoglu and Ekin (2001) contended that early connectors and overwhelmingly the clients of web saving money administrations were happier with the administration when contrasted with the other client gatherings. As indicated by Joseph and Stone (2003), the capacity, keeping in mind the end goal to convey administrations by means of innovation, gives an impression of being associated with high fulfilment with administrations esteemed most vital to clients. Moreover, Moutinho and Smith (2000) underlined that human and innovation based conveyancing channels were incredibly connected with the client's impression of how these bank benefits were conveyed to them and they highlighted that that these perceptual results would influence the level of bank consumer loyalty, maintenance and exchanging. Prior to the move of innovation, clients were confronting a great deal of issues, like taking care of a considerable measure of cash and exchanging of this cash, accommodation of service bills and being held up in a long queue by banks and generally store holders, were uninformed of how to get profits for bank items and administrations like bank advances, charge cards, ATM cards and so on. So in the event that we backpedal five to ten years, we can see the very distinction between two managing account frameworks.

Salman and Kashif (2010) carried out an investigation into the electronic saving of money in Pakistan. They uncovered that unwavering quality, learning and criticism were imperative for the fulfilment of the clients. This investigation additionally uncovered those clients who are not fulfilled by the downloading time of site banks in Pakistan. On the off chance that customers are not content with the keeping money

items, costs or administrations offered by a specific bank, they can change their money saving service provider substantially more effortlessly than in the physical or genuine bank-customer relationship. Abraham (2012) portrayed that at present, accessible research discoveries about the reception of electronic money keeping are insufficient in Ethiopia, to the advancement of electronic administrations as required. Doll et al. (1988) demonstrate that there is a connection between consumer loyalty in e-managing an account and dependability, responsiveness, affirmation and compassion.

Abenet (2010) in his investigation of key factors that decide the selection of web managing of an account in Ethiopia, the discoveries uncovered that statistic factors including age, wage, instruction level and occupation have an association with the reception of web money keeping. In his investigation, the age group 30 years to 39 years of age represents 52% of web saving money clients, which is generally more youthful clients and in light of his information, he reasoned that age affects the utilization of web managing an account in Ethiopia. In his findings, training levels were viewed as a compelling variable in the consumers' utilization of web managing account administrations with high instruction levels being especially critical. Furthermore, 81% of web managing account clients had an advanced education level (confirmation or degree), while just 34% of non-clients had tertiary training level capability and it was affirmed that instruction levels affect the utilization of web money keeping in this investigation. In addition, 80% of the clients were sampled and it was presumed that occupation type affects the reception of web saving money. About 85% of the examination tests concurred that web money saving empowered them to deal with their records better, and 95% of clients concurred that web managing an account enabled them to direct exchanges whenever, from any area, and with time investment funds being the final product. Hence, web managing an account, wipes out time and place requirements. The outcomes showed that web saving money charges are a key factor in inspiring the utilization of web managing an account.

Kumbhar (2011) in his investigation has demonstrated that there is a positive connection between age, instruction and calling. In the examination, 81.10% of the respondents were male and the rest were female. Regarding age, 55.70% of the respondents were 39 years of age or less and 9.50% were over 50 years of age. The investigation result likewise demonstrated that so as to expand consumer loyalty and its further appropriation, financiers should develop their e-banking services depending on the expectations of different professions, businesses, and income groups Kumbhar (2011). Ala, Eddin, and Hassan (2011) in their investigation in which 70.40% were male, 71.60% of the clients of e-keeping money were 35 years of age or less and those between 35 and 45 years of age accounted for 7.8%, of the e-saving money clients, 8.40 % were secondary school finishers or less and the rest which composed of 91.6% were educated beyond secondary school with some form of tertiary education.

Likewise, the examination by Kumbhar (2011) explored that bank charges controlled by Jordan banks, were a critical component to encourage the utilizing of e-keeping money which was thought about, when considering maintaining consumer loyalty. Jayaraman et.al. (2012) in their investigation of statistic factors in adaption of retail web money keeping in Klang Valley, Malaysia, found that gender, age, instruction, occupation and yearly wage were adversely identified with the selection of web managing an account. Only race had a positive association with web managing account utilization and gender and yearly pay displayed a noteworthy negative association with appropriation. Sabita Paul (2013) in his investigation entitled "ATM: The new skyline of e-banking on business banks clients in Odisha, Hyderabad, India" out of the 300 participants, 61.33% were male and 38.66% were female and the majority of the respondents in the region of 30.66% were between the ages of 25 to 35. The vast majority of the clients who were qualified, that is 68.34% of the participants, had a degree or more than one degree. Out of aggregate respondents 28% were understudies, 24.33% were independently employed, and 8.33% were experts, whereas 19.33% have a place with the house hold gathering. In the investigation, he discovered the reasons why individuals were inclined towards using an ATM; these being the efficiency, the quicker exchanges, being simple to utilize and simplicity in keeping money whenever/any place. Furthermore, the reasons why clients did not favour using ATMs were the absence of information, absence of security and ATM machine problems.

Alabar (2012) discovered that 61.40% of the respondents were male and the rest female, 66% of the respondents were aged 35 and less and instructive level 97.70% had a huge effect on fulfillment recognition or more in the examination and has likewise demonstrated the electronic money keeping benefit had a huge effect on customers' fulfilment in Nigeria. Ahmed (2005) carried out an investigation on the effects of e-banking on consumer loyalty in Nigeria where the findings demonstrated that the visits of clients to banks every month had expanded by 11% in the wake of utilizing e-keeping money. Much should be done in the range of making mindfulness about the accessibility of electronic saving money items and administration, how they work and their advantages ahead of giving the administration. Just 47% of clients with e-saving money were happy with e-managing an account administration and 82% of the respondents of the specimen respondent considered human teller's imperative and critical. Omar et al (2011) discovered that e-managing account administrations have possessed the capacity to cut costs, spare time and offer administrations at the costs of man-hour as per the general inclination of clients. Omar et al (2011) in his research discovered that there exists a slight connection between expense charged in e-managing an account and consumer loyalty and there is an immediate connection between the issues looked at in e-saving money and consumer loyalty. Zohra and Kashif (2011) discovered that clients don't comprehend what implied versatile management of an account is and recommended that it is urgent to

make mindfulness about the utilization of cell phone and acclimatize individuals with its advantage to build consumer loyalty. Salman and Kashif (2013), when thinking about outcome, demonstrated that the familiarity with clients in e-keeping money was poor, that is more numbers of clients didn't realize what e-saving money implied, e-managing an account had completely lessened cooperation with bank workers and it had empowered clients to control their records developments more than conventional saving money methods. Observational proof suggests that customer support for and response to a specific item, relies upon their level of comprehension of what the item can do and what they remain to profit there from (Balachandher, 2001).

Philipos (2013) in his investigation of consumer loyalty and e-saving money benefit in some, in the banks of Ethiopia discovered that consumer loyalty in e-managing an account has a huge association with comfort, sensible and reasonable expenses (charges) amid exchange, effective administration of e-keeping money, protection, security, unwavering quality responsiveness of workers to comprehend e-saving money benefit disappointment and these variable resulted in an 84% consumer loyalty in e-saving money. Hasan et al. (2013) in their overview of a connection between customers' fulfilment and electronic saving of money found that simple access, plan, exchange speed, security, data substance and client support of the electronic managing an account had an important and positive association with electronic money saving. Fenuga (2010), in his investigation on the impact of electronic installments on consumer loyalty in Nigerian banks, had additionally derived that electronic installments have influenced an expansion in the client benefit conveyance and consumer loyalty. Deribe and Deribie (2013) in their investigation of the assessment of consumer loyalty on bank benefits in the Jimma Commercial bank of Ethiopia found that 25% of their study group reacted by saying that there was not any change in the advantages they got from e-managing an account in contrast with the customary keeping of money and 17% of their respondents answered that they got the best advantages, and the best case scenario level was through e-saving money saving rather than standard saving money.

Challenges in innovation and e-managing an account applications are: new advancements, web and media transmission, absence of appropriate lawful and administrative systems for money keeping, political insecurities in neighbouring nations, high rates of lack of education, incorporation of various budgetary systems, visit influence intrusions, protection from changes in innovation among clients and staff. Ayana (2014) found in his investigation that the adaption of electronic saving money framework in the Ethiopian money keeping industry (Barriers and drivers), that the real boundaries faced in the appropriation of electronic managing of an account are, security hazards, absence of trust, absence of ICT foundation and the nonattendance of rivalry amongst neighbourhood and remote banks. The examination additionally recognized convenience and helpfulness as a driver for embracing the e-saving money framework. The e-

saving money framework, for example, the ATM, the versatile managing of an account, the web money keeping and others, were not all around received by the Ethiopian saving money industry. Notwithstanding the two essential variables influencing reception of the e-managing of an account in Ethiopia, the result of the examination demonstrates that security hazards and the absence of trust in the utilization of innovative appropriation are real boundaries for the framework.

Dawes (1999) suggested that keeping a database of customer complaints can help companies to identify which aspects of the company's products and services customers are not being satisfied with. The responsible team will then work to devise strategies to lower the complaint percentage and raise satisfaction.

A number of retail businesses in Zimbabwe often hand out survey cards to customers when they check out. A business should also maintain an email list of customers. They can be asked to fill out a brief email questionnaire regarding how satisfied they were with the overall experience of dealing with the company.

2.31 Buyer's Remorse

According to Bell (1967), buyer's remorse is the sense of regret after having made a purchase. Consumers can regret having used e-banking platforms if it is not properly done. It may stem from a fear of making the wrong choice, guilt over extravagance, or suspicion of having been overly influenced by the seller. Buyer's remorse usually results from cognitive dissonance that arises when a person makes a difficult decision. It can also be caused by worrying that others may later question the purchase or claim to know better. Anxiety may be rooted in factors such as; the person's concern that they purchased a current model rather than waiting for newer model, purchased in an ethically unsound way, purchased on credit that will be difficult to pay or they purchased something that is not acceptable to others (Gilovich et al., 2012). According to Markovic et al. (2012) this kind of remorse happens when a prospective buyer feels positive emotions associated with a purchase and after having made the purchase they experience negative feelings.

The phenomenon of buyer's remorse has been generally associated with the psychological theory of cognitive dissonance, a state of psychological discomfort when at least two elements of cognition are in opposition. Aronson (2004) articulated that buyer's remorse is an example of a post decision dissonance, where a person is stressed by a decision that has been made and seeks to reduce their discomfort. Sweeney et al. (2000) postulated that the more resources such as money, time and cognitive resources are invested into making a purchase, the more likely it will be that the purchaser experiences remorse. Geva and Goldman (1991) postulated that a buyer feels anxiety and psychological discomfort because the

purchased item does not match their expectations.

Schwartz (2004) in his paradox of choice theory claimed that after a certain threshold is reached an increase in the number of choices will cause a significant amount of stress. The stress manifests itself into remorse. The theory states that remorse is created through increased opportunity cost associated with a variety of choices. As the number of choices increase, then it becomes easy to imagine a different choice that may be better than the one selected. With so many to choose from, the customer might expect that one of the available options must be perfect for their needs and will have no drawbacks (Schwartz, 2004).

Buyer's remorse can be reduced by post-purchase confirmation (Milliman et al., 1990), though post-purchase communication may aggravate a buyer's discomfort if the purchase did not meet the buyer's predominant goals. Indeed, if the purchase meets an individual's goals there will be less post-purchase dissonance which means there will be less remorse and greater decision satisfaction (Shao and Shao, 2009). Bank managers must thus constantly carry out surveys to find out those customers not satisfied with e-banking and then try to address their fears.

2.32 Service Encounter

Lim (2010) indicated that customer ultimate satisfaction may have a significant effect on atmosphere. The physical facilities are crucial to create an image in the mind of customer; also it influences their behaviour. Physical facilities of the retail outlets affect customer satisfaction. Lighting, furnishings, scent, music and atmospheric factors among them influence customer satisfaction. Therefore, as a retail outlet, they should make sure that their environment is clean as this has an impact on the satisfaction of a customer. Sulek and Hensky (2004) viewed that choice of foods, retail atmosphere and fairness contributed a large part to the customer satisfaction. The other service encounter attributes are; waiting time, responsiveness, prompt services, reliability, empathy, assurance, tangibility and customer loyalty, among others. It is through service encounters that customers are either satisfied or dissatisfied with e-banking facilities, therefore marketers have to ensure an enjoyable and memorable service encounter on the web and other e-banking platforms

2.33 Prompt Service

Prompt service is reflected in a consumer's evaluative perception of an encountered service (Cronin and Taylor, 1992). Zeithaml and Bitner (2000) suggested that consumers judge the quality of a service based on their perceptions of the technical outcome provided, the process by which the outcome is delivered and

the quality of the physical surroundings where the service is delivered. Today, almost all retail focuses on several ways to increase their promptness in service delivery in order to increase the level of satisfaction among their customers and thus increase their purchase intentions as well as customer loyalty (Qin and Prybutok, 2008; Gilbert et al., 2004). Prompt service helps to improve service quality as customers feel they are valued by banks.

When banks are able to achieve or exceed the expectations of customers, the customer will be satisfied with the service. Customer satisfaction may be viewed as the individual's perception of the performance of a product or service in relation to his or her expectations. Gilbert et al. (2006) argued that service quality measurement needs to be done frequently to obtain an accurate current level of service quality consumer perception about retail outlets. According to Leon et al. (2006), the degree of satisfaction is provided by the goods or services of a firm.

2.34 Challenges and Opportunities of Electronic Banking (e-banking)

The changing budgetary scene has carried with it new difficulties for bank administration. The real challenges originate from the expanded cross-outskirt exchanges coming about because of radical lowering of exchange costs and the more prominent simplicity of saving money exercises and from the dependence on innovation to give managing an account benefits the essential security (Saleh, 2002).While the electronic saving of money can give various advantages to clients and new business open doors for banks, it worsens the conventional saving of money. Despite the fact that extensive work has been done in a few nations in adjusting saving money and supervision directions, nonstop watchfulness and modifications will be fundamental as the extent of e-managing an account increases. Specifically, there is as yet a need to build up more prominent harmonization and coordination at the universal level. Additionally, the simplicity with which capital can conceivably be moved amongst banks and crosswise over fringes in an electronic situation makes a more prominent affectability to monetary approach administration. To comprehend the effect of e-accounts on the lead of monetary arrangement, policymakers require a strong diagnostic establishment. Without one, the business sectors will give the appropriate response, perhaps at a high monetary cost. Additionally inquiries about strategy related issues in the period ahead, is hence a basic need (Andrea, 2002).

The essential test for banks is to give steady support of clients regardless of the sort of channel they utilize. The more a bank depends on electronic conveyance channels, the more noteworthy the potential for notoriety dangers. There are some genuine ramifications of global e-keeping of money. It is a typical contention that the low exchange costs conceivably make it substantially less demanding to direct cross-fringe saving money electronically. For some banks, cross-fringe operations offer a chance to harvest

economies of scale. Be that as it may, the cross-fringe fund needs a higher level of cross-outskirt supervision. Such collaboration may need to reach out to comparative supervisory standards and exposure necessities (for proficiency and to maintain a strategic distance from administrative arbitrage) and some fitting of lawful, bookkeeping and tax assessment courses of action (Nitsure, 2003).

The most significant worries people have about electronic exchanges, are the issues of security and protection. In the developed nations like France, three out of 40 people buys on line and the rest of the 37 are hesitant to use on line administrations The reasons given are security and protection which are viewed as significant dangers to performing online business. It is not just the obligation of industry; in addition it is the obligation of the government to guarantee individuals secure electronic exchange performances (Abbasi and Zubair, 2001).

When we see the difficulties and challenges of e-managing an account in Zimbabwe, just 20% of the Zimbabwean family units make use of IT. The un-served market, steady and secure political conditions, quickly developing versatile framework, accessibility of conveyance channels outlets, sheltered and sound budgetary divisions are the most vital aspects for the nation in this field. Additionally, the level of monetary proficiency of people in general is low, the low level of availability and limit of money related organizations to give benefit, the lack of foundation, the deficient trade stream in rustic territories with restricted potential specialists, and the nearness of only a couple of branches in provincial zones, are a portion of the difficulties confronting the nation. Lawful and related issues, the significance of looking in to the part of recently developing outsider specialized suppliers, re-examining prepaid adjust necessities and augmenting the extent of versatile saving money benefit are additionally very basic (Birutu, 2012).

The following are a portion of the regular issues which are identified with the electronic managing of an account, as indicated by Abraham (2012):

I. Lack of managing an account benefits through the web or other electronic means, for example, utilizing cell phone.

II. Data and system security and protection.

III. Lack and impediment of government strategies, controls and web based business laws, and in addition enactment to ensure employees' internet security.

IV. Weak broadcast communications.

V. Broken and moderate internet associations.

VI. Lack of internet mindfulness.

2.35 Service Quality Dimensions

The Service Quality (SERVQUAL) model proposes five dimensions upon which customers evaluate service quality. These are:

2.35.1 Tangibles

As the name suggests all tangible things are physical facilities, including personnel, equipment, building and renovations (Ojo, 2008). According to Johns and Howard (1998), the tangible service indicator consists of the cleanliness of the fast food outlet area. For example, employees should wear neat and clean clothes, they must use disposable gloves and also wear hair nets and the seating and parking facilities must be up to date. Equally, bank employees should wear neat and clean clothes and the facilities must be physically appealing.

Tangibles are defined as the appearance of physical facilities, equipment, personnel and communication materials (Ojo, 2008). Ojo (2008) explained that these facilities include the organization's physical facilities, their equipment, appearance of their personnel and appearance of communication materials used to promote their products/ services. All of these provide physical representations or images of the service that customers, particularly new customers, will use to evaluate quality (Ojo, 2008). Every service has an element of tangibility, although its significance may vary. For e-banking, this involves the ATM itself and smart cards.

2.35.2 Reliability

According to Cronin and Taylor (1992) service reliability in a retail outlet is delivering the promise to the customer with accurate charges. It is essential to fulfil promises on time and in a systematic way. More so, Ojo (2008) postulated that reliability describes the capabilities to fulfil promised services, accurately and dependably. Therefore, reliability is an important aspect to manage in a retail outlet so as not to dissatisfy customers. What the service firm advertises must be the service which a firm delivers to the customers.

Reliability is defined as the ability to perform the promised service both dependably and accurately (Ojo, 2008). It means that the service organization performs the service right the first time and honours all its commitments. It is an indicator of how a company delivers its promises about delivery, service provision,

problem resolution, and pricing. Customers want to do business with companies that keep their promises, particularly their promises about the core service attributes.

2.35.3 Responsiveness

The employees should be available for prompt service (Cronin and Taylor, 1992). This is the intention of the service firm and their willingness towards helping customers (Ojo, 2008). The employees should always be willing to help the customers especially when placing orders, also employees should have a time to respond to customer requests. Moreso, employees must provide prompt service should to satisfy the customers.

Responsiveness can also be regarded as the willingness of an organization's staff to help customers and to provide them with prompt service (Ojo, 2008). This refers to timeliness and promptness in providing the service. This dimension emphasizes attentiveness and promptness in dealing with customer requests, questions, complaints, and problems. There are strong similarities between the employee behaviour noted in those critical service encounters and the responsiveness dimension of service quality. Responsiveness is communicated to customers by the length of time they have to wait for assistance, answers given to questions, or attention to problems. Responsiveness also captures the notion of flexibility and ability to customize the service to customers' needs.

2.35.4 Assurance

It includes the understanding and courtesy of employees, their capabilities to convey confidence and trust (Shafiq et al, 2013). Assurance consists of courtesy, competence, security and credibility (Ojo, 2008).A customer should feel safe when consuming a service and they should feel secure in their stay. The employee in the service industry must have sufficient skills and knowledge to perform polite and courteous services. Critically, employees must be capable of delivering the service so that the customers will feel safe at a retail outlet.

It is knowledge, competence and the courtesy of employees and their ability to convey trust and confidence in the customer towards the service firm that is important Shafiq et al (2013). Competency refers to the possession of the required skills and knowledge to perform the service. Courtesy involves the politeness, respect, friendliness, honesty and trustworthiness of the contact personnel. Assurance is important for electronic banking where the customer perceives it as involving high risk and/or about which they feel uncertain about their ability to evaluate outcomes.

Shafiq et al. (2013) argued that trust and confidence may be embodied in the person who links the

customer to the company. For example, securities, brokers, insurance agents, lawyers, counselors. In such service contexts the company seeks to build trust and loyalty between key contact people and individual customers. The 'personal banker'-concept captures the idea that customers are assigned to a banker who will get to know them individually and who will co-ordinate all of their banking services.

In the early stages of a relationship, the customer may use tangible evidence to assess the assurance dimension. Visible evidence of degrees, honours, and awards and special certifications may give a new customer confidence in a professional service provider. Even in the public sector banks, the concept of personal banking and customizing the services is gaining popularity. Despite heavy marketing of private sector banks, people feel assured of security only with the public sector banks. This is the 'assurance' dimension, encompassing trust and confidence.

2.35.5 Empathy

This consists of caring and customized responsiveness to customers. This empathy contains communication, access and understanding of the customer (Ojo, 2008). The services must have the availability of tools or apparatus.

Empathy is the caring and individualized attention the firm provides for its customers Ojo (2008). It includes the approachability, ease of contact of service providers and making of an effort to understand the customer needs. The essence of empathy is conveying, through personalized or customized service, that customers are unique and special. Customers want to feel understood by, and important to, firms that provide service to them. Personnel at small service outlets often know customers by name and build relationships that reflect their personal knowledge of customer requirements and preferences. When such a small firm competes with larger firms, the ability to be empathetic may give the small firm a clear advantage.

In business-to-business services, customers want supplier firms to understand their industries and issues. Many small computer consulting firms successfully compete with large vendors by positioning themselves as specialists in particular industries. Even though larger firms have superior resources, the small firms are perceived as more knowledgeable about customer's issues and needs and are able to offer more customized services.

2.36 e-SERQUAL (e-SQ)

This measures website electronic Service Quality (e-SQ) as perceived by customers. It is a method for measuring website e-SQ that is based on the same principle as the original SERVQUAL method and

includes some dimensions similar to those of SERVQUAL. The e-SERVQUAL scale contains a core and recovery scale, represented by four and three dimensions respectively.

The core scale is used to measure the customer's perceptions of service quality delivered by online retailers. The recovery scale refers to specific situations when a customer has a question or runs into a problem (Zeithaml et al., 2002). In simpler terms, core scale refers to the quality of the website itself, while the recovery scale is more concerned with the actual performance of the company, rather than with website performance. Zeithaml (2002) identifies the need for businesses to focus on e-services in their e-business, and to understand the importance of e-service quality as a differentiating strategy. Businesses also need to recognize that the web experience presents the brand positioning to online consumers, and may be an important element in the establishment of trust and relationships with customers (Zeithaml et al., 2002).

Lee and Lin (2005) carried out a study in Taiwan where the objective was to develop a research model to examine the relationship among e-service quality dimensions and overall service quality, customer satisfaction and purchase intentions in online shopping. The findings from the research showed that dimensions of web site design, reliability, responsiveness, and trust that affects overall service quality and customer satisfaction. These dimensions were used to examine the perceptions of customers towards e-banking services in Zimbabwe. Although the research by Lee and Lin (2005) focused on online shopping alone, the current research focuses on e-banking in totality and is much broader.

2.37 Quality Assurance

Quality assurance in its broadest sense is a strategic management function concerned with the establishment of policies, standards and systems for the maintenance of quality (Early, 1995). It involves the creation of a quality check/quality assurance department that ensures all manufactured goods meet the company standard specifications. It is important for the organization to put strategic policies in place for both controllable and uncontrollable returns. This will play a big role in minimizing manufacturing defects and hence the number of returns experienced by the company.

Products that do not meet the company standards should not be distributed for sale. Quality control initiatives in the manufacturing and distribution processes can also help avoid returns. Quality assurance improves consumer confidence (Walley et al., 1999). It must be ensured that a feedback avenue is in place that allows customers to lodge their comments and complaints. This information might be useful in improving the quality of goods and hence minimizing returns.

2.38 Strategies to Improve Electronic Banking (E-Banking) service quality

The following strategies can be employed by banks to improve e-banking service quality

2.38.1 Shorten waiting time

Consumers today are more constrained by time than ever before. In an intensely competitive world the pressure, expectation and need to accomplish more in less time is unlikely to diminish (Durrande-Moreau, 1999). Service providers understand the premium that consumers place on time they view as wasted while waiting for the delivery of services. A customer waiting in line for service is potentially a lost customer. As such, managers of service operations constantly strive to shorten customer waiting time during service delivery (Jones and Peppiatt, 1996). Firms across a variety of industries have introduced numerous peripheral service elements to the service package experience of their customers, in an attempt to shorten customer waiting times. Banks can ensure that there are many ATMs to shorten waiting time by consumers.

According to Lovelock (1983), when demand is highly fluctuated and peak demand regularly exceeds capacity, managers must consider altering either demand pattern or supply capacity so that service can be delivered without incurring long customer waiting time. In case demand pattern cannot be altered, managers could consider operations-oriented strategies to control the level of service supply, such as scheduling part-time workers and cross training service personnel (Fitzsimmons and Fitzsimmons, 2000).

Bennett, (1990); Collier, (1994) and Kolesar et al. (1998) suggested that improving service process design is another approach to increase the flexibility of a service system to respond more effectively to demand variations, so that customer waiting can be minimized. The way in which the service process is designed determines, to a large extent, the wait that customers experience. Any reductions in customer waiting time by better management of process design can certainly help lower both customer dissatisfaction and defection (Davis and Heineke, 1998; Taylor, 1996).

2.38.2 Improve product quality

Improvement in product quality can lead directly to favourable outcomes through increased future purchase and reduced customer returns. There is a need to make sure e-banking platforms are working correctly as per customer specifications; for example, it must be easy for customers to navigate the website. Kivela et al. (1999), stated that healthy products are a significant predictor of satisfaction and have a significant impact on behavioural intentions. This result may reflect current increasing interest in health and well-being. This can also apply to banking products.

2.39 Conclusion

This chapter presented a literature review where various key terms that relate to e-banking and objectives of the study were unpacked. Hopefully it will help readers of this thesis to understand in general the concepts of e-banking, the challenges of e-banking, and also service quality as it relates to e-banking. The chapter explored factors that banking in general, then moved on to look and e-banking and factors that affect e-banking adoption. The chapter further looked at service quality and e-service quality. It unpacked the dimensions of service quality and however service encounter can help to improve service quality. The assumption was that if e-service quality in e-banking is improved, it can help to improve the rate of adoption of e-banking. The next chapter will highlight the theoretical framework of e-banking.

CHAPTER THREE

THEORIES THAT UNDERPIN THE STUDY

3.0 Introduction

This chapter focuses on the various theories and models that were put in place concerning e-banking adoption and service quality. A critique of the theories is also done and chapter picks the e-servqual model which was found more suitable for this research. Theories that are discussed in this chapter include the Technology Acceptance model, innovation and diffusion theory, Theory of reasoned action and e-service quality mode. The models are especially useful to the researcher as a guide to the research instrument design. The models will be thoroughly discussed and, ultimately, the researcher will highlight the most useful model for the case.

3.1 User Acceptance Theories and Models

To achieve this research purpose, it is important to discuss user acceptance theories and models. Acceptance terminology is defined as the demonstrable willingness within a user group to employ Information Technology (IT) for the tasks they are designed to support (Dillon and Morris, 1996). Most theories and models used social psychology frameworks to study knowledge, beliefs, thoughts, perceptions and behaviours of people. Furthermore, User acceptance models and theories studied technology features and their effect on customers' behaviour (Baraghani, 2007).

There are several user acceptance theories and models such as: Innovation Diffusion Theory, Theory of Reasoned Action, Technology Acceptance Model (TAM), and The Theory of Planned Behaviour.

One of the most common models in technology adoption is the TAM model by Davis (1989).

The TAM model was used mainly by the following authorities: Marumbwa and Mutsikiwa (2013) in Zimbabwe, Dineshwar and Stevens (2013) in Mauritius, Tobbin (2012) in Ghana, Daudi et al. (2011), in Malaysia, Puschel et al. (2010) in Brazil; Jeong and Yoon (2013) in Singapore. Its strengths include the fact that it is extensively used, tested and confirmed. It is also easy to understand with high predictive power in other fields.
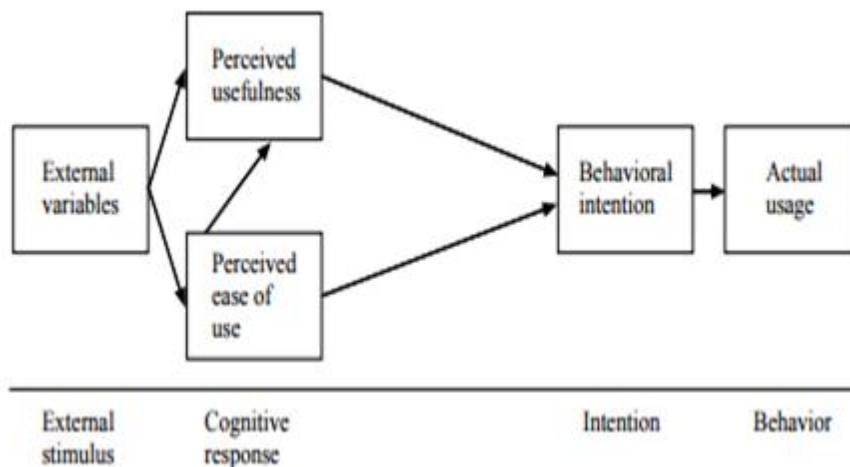
Figure 3.1: TAM model by Davis (1986)

Source: adapted from *International Journal of Human – Computer Studies* (1996, page 20)

According to Liu, Chen, Sun, Wible, and Kuo (2010), the TAM model proposed by Davis (1986, 1989, 1993) is useful when a researcher wants to search for general information regarding whether or not a technology has been adopted. Mathieson (1991) as cited by Liu et al. (2010) argued that the TAM model alone is not adequate when a researcher intends to get more information about a particular field. When Liu et al. (2010) carried out their research to explore factors that affect intention to use an online learning community in their model, they proposed a new model that adds external variables, perceived variables, and outcome variables to TAM model factors. It was found that the extended variables can effectively be used to predict whether or not users will adopt an online learning community. This clearly shows that TAM cannot be used to check the adoption of all technologies, but needs to be used with some modifications intended to address specific fields in research.

Chuttur (2009) carried out a study on the effectiveness of the TAM model and concluded that although TAM is a highly-cited model, researchers share mixed opinions regarding its theoretical assumptions, and its practical effectiveness. The study concluded that the research lacks sufficient rigour and relevance that would make it a well-established theory to use in the information technology world.

Gefen, Karahanna and Straub (2003) carried out a study where they used TAM in online shopping. The researchers managed to use the TAM model to achieve results and, generally, it was found that online shoppers must be able to trust online vendors for them to adopt new technology. Other factors are important but 'trust' was found to be the most important (Gefen et al., 2003). The other weakness of the TAM model is that it has limited explanatory power and mainly focuses on product characteristics

therefore, this research needed to extend it using price, promotion and place. This research has more to do with electronic service quality, therefore the TAM model falls away, though some of its aspects may be borrowed as they pertain to service quality.

3.2 Determinants of Electronic Service (E-Service) Quality

Santos (2003) carried out a study to find and investigate the determinants of e-service quality and found the following to be critical aspects:

a) Ease of use

This means that e-service platforms must not be difficult to use and thus must be user-friendly. It must be easy to use internet banking, the Automated Teller Machine (ATM), or mobile banking such that people of all ages and genders must be able to use e-banking. The questionnaire asked about these aspects in order to draw conclusions on the adoption of e-banking basing matters on this aspect, among other issues.

b) Appearance

According to Santos (2003) appearance looks at the physical or general outlook of devices used to deliver e-services. Services are intangible, hence appearance is defined as the proper use of colour, graphics, images, and animations, together with the appropriate size of the web pages. It is difficult to judge them. In research by Santos (2003) the provision of good-quality graphics, pictures, images, animation, Java applets, moving objects, and zooming effects were all considered positive elements in a quality Web site. appearance of the facilities used to deliver the service should be appealing and inviting. The Automated Teller Machines (ATMs) must be fascinating to see and invite people to do transactions on them, Equally, the website and mobile application must be eye catching. The research by Santos (2003) also found out that consumers prefer web pages that can fit on one page, and are easy to read.

c) Linkage

Santos (2003) referred to linkage as the number and quality of links that a website offers. There is therefore a need to set up and maintain quality links on a website. The research by Santos (2003) found that there is no general consensus in terms of the quantity of links, as some see more links as more useful, while some find them to be annoying.

d) Structure and layout

According to Santos (2003) this refers to the organization and presentation of a website's content and information. From the research, it was highlighted that customers want a simple, clear, and consistent layout among other factors.

e) Content

Santos (2003), noted that content refers to the presentation and layout of factual information and functions on a website. There is a need for adequate information, not too much and also not too little.

The active dimensions by Santos (2003) include:

a) Reliability

Santos (2003) refers to reliability as the ability to perform the promised service accurately and consistently. To ensure reliability, bank personnel and advertising must be truthful in terms of what they offer, to avoid a situation where customers are disappointed. The service must also be uniform throughout, thus bank managers must work to ensure consistency in terms of what the organization offers.

b) Efficiency

This refers to the speed of downloading, search, and navigation (Santos, 2003). There is a need to ensure that the network is continuously upgraded so as to make sure there is sufficient speed when downloading and that customers are happy.

c) Support

Support refers to the technical help, providing user guidelines, and personal advice available to customers from the web. Banks must make sure there is always support as and when customers need assistance (Santos, 2003). A toll free phone number must always be available for customers who might need assistance in terms of how to use e-banking platforms.

d) Communication

This is keeping customers properly informed and communicating with them in a language they can understand (Santos, 2003). It is crucial that lines of communication are kept open to make it easy for customers to enquire or complain about problems with an e-banking platform (Santos, 2003).

e) Security

This refers to the freedom from danger, risk, or doubt during the service provision (Santos, 2003). There

is a need to ensure the safety of websites and mobile banking must be protected from hackers. Equally the ATM must be guarded to avoid theft of customer money from banks and other cybercrimes.

f) Incentives

This refers to the encouragement given by web providers to consumers to browse and use the website including rewards for doing so (Santos, 2003). Rewards provide an incentive for customers to continue using the service.

Some determinants by Santos (2003) are similar to the e-service quality dimensions by Zeithmal et al. (2006). Ibrahim et al. (2006) came up with six composite dimensions of electronic service quality, which are:

a) Provision of convenient/accurate electronic banking operations

According to Santos (2003), electronic-banking (e-banking) makes banking accessible all the time and at more convenient places. There is thus the convenience of both variable time and place.

b) The accessibility and reliability of service provision

Electronic-banking (e-banking) must enable customers to access services as and when they want them. Banks must ensure reliability by making sure their websites, ATMs and mobile banking systems are always up and running. This improves the confidence people will have in the bank Santos (2003).

c) Good queue management

Santos (2003) argue that the ATM in particular must be managed in such a way that there is fair treatment of customers. Those who arrive first must always be the first to use the ATM. This helps to make sure customers feel they are treated fairly and valued.

d) Service personalisation

Electronic-banking (e-banking) must ensure services are personalized in such a way that everyone gets exactly the information they want Santos (2003). The researcher observed that banks in Zimbabwe like Barclays bank, ZB, CABS personalize communication on e-banking platform where clients are addressed by their names.

e) The provision of friendly and responsive customer service

Clients need a friendly and responsive system so that when they want to use e-banking platforms.

Mistakes made by clients when using e-banking platforms are then reduced Santos (2003).

f) The provision of targeted customer service

Customer service can also be targeted so that it is exactly what might satisfy customers. Customers can be asked to evaluate the exact service that they would have used for the purpose of improving the systems and thus improving service quality.

Further analysis using importance-performance analysis revealed that the UK customers' perceptions of their banks' actual performance on e-SERVQUAL dimensions were largely modest.

Daneshgadeha and Yıldırıma (2014) carried out a study to investigate the factors impacting internet banking by Turkish bank customers. A Unique Internet Banking Usage (IBU) model was proposed with 10 factors that affect internet banking usage and these are:

I)   usefulness;

II)   ease of use;

III)   control;

IV)   social influence;

V)   compatibility;

VI)   risk;

VII)   website features;

VIII)   alliance service;

IX)   awareness of service; and

X)   personalisation.

The initial model was tested against both measurement and structural models Daneshgadeha and Yıldırıma (2014). The results of the initial model testing indicated that compatibility has the most significant effect on internet-banking usage which is then followed by alliance service, usefulness, personalization and ease of use Daneshgadeha and Yıldırıma (2014). Consequently, the initial model was modified in order to find the inter-relationships among factors. The final IBUM consists of seven factors

which are able to explain 65% of the variance in internet banking usage. Finally, the results are discussed and suggestions for future research studies presented by highlighting the effects of personalization and alliance services (Daneshgadeha and Yıldırıma, 2014).

When the model was tested, it was discovered that website features have no direct influence on e-banking although they do affect the usefulness and ease of use of internet banking (Daneshgadeha and Yıldırıma, 2014).

The e-SERVQUAL (Electronic Service Quality) model was developed as a result of the inadequacies of the SERVQUAL (Service Quality) model in covering all the essentials of electronic resources quality. It was developed by Zeithmal et al. (2002), as quoted by Sistemas and Gestão (2007), with the aim of assessing how customers judge e-service quality. It contains five broad sets of criteria as relevant to e-service quality perceptions:

(a) information availability and content,

(b) ease of use or usability,

(c) privacy/security,

(d) graphic style; and

(e) reliability/fulfilment.

Again Nemati et al. (2012) carried out an analysis of e-service quality in a service-based website using the e-SERVQUAL model proposed by Zeithmal et al. (2001, 2002). The model has seven dimensions for measuring electronic service delivery. The seven dimensions suggested by Zeithmal as quoted by Nemati et al. (2012) are:

(1) Core service scale in:

a) efficiency,

b) fulfilment,

c) reliability; and

d) privacy.

2) Recovery service scale in:

a) responsiveness,

b) compensation; and

c) contact.

Van Riel et al., (2001), in (Santos, 2003), proposed five components to e-services which are:

(i) the core service,

(ii) facilitating services,

(iii) supporting services,

(iv) complementary services; and

(v) the user interface through which customers' access the services.

Research by Collier and Bienstock (2006) on modeling the consequences of e-service quality on e-services reviewed four components as essential to attainment of this quality and these factors include:

a) efficiency,

b) fulfilment,

c) system availability; and

d) privacy.

According to the same authors, all these are linked to client trust and satisfaction.

3.3 Innovation Diffusion Theory

This is a basic theory on the technology adoption process; it deals with user acceptance and organization acceptance for new technology. The theory appeals to the Zimbabwean e-banking industry. This theory moves from the innovation stage to actual usage by customers and organizations (Green, 2005).

According to Rogers (1995), there are five categories that influence the spread of innovation. These five categories are:

Relative Advantage: New innovations should introduce benefits to all people. Electronic-banking (e-banking has to bring benefits to the people for it to be adopted.

Compatibility: The consistency of innovation with norms, habits and social systems are the compatibility of innovations. Electronic-banking (e-banking) technologies have to be compatible with the social systems of Zimbabwean people.

Complexity influences the spread of any new technology. Technology should be as easy to use as possible, therefore, e-banking must be easy to use. It does not have to be so sophisticated that the average Zimbabwean person finds it difficult to use.

Trialability: People always need to try new innovations before making their decisions. Electronic-banking (e-banking) systems have to provide trials before one can fully adopt it. This might also involve samples.

Absorbability: The output and results from innovation should be clear, obvious, and able to be noticed by all people without ambiguity. The results after the introduction of e-banking have to be clear to everyone.

All these categories should complement each other to achieve high diffusion for new innovations. It takes the function of all these qualities for e-banking to be adopted by Zimbabweans. When e-banking technologies are being introduced, the innovation-diffusion theory suggests that these are the pre-requisites.

3.4 Theory of Reasoned Action (TRA)

The Theory of Reasoned Action (TRA) is the basic theory for user acceptance models and other theories are derived from it. The TRA adopts a generalized framework for technological acceptance. The intention influences people's behaviour to adopt or reject new innovations. The intention is influenced by the attitude and subjective norms according to this theory. The subjective norms are influenced by beliefs and motivation, whereas the attitude is influenced by beliefs and evaluations (Fishbein and Ajzen, 1975).

3.5 Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (TPB) is also derived from the Theory of Reasoned Actions (TRA). The TPB added a new factor to the TAR model which is perceived behavioural control. According to the theory of planned behaviour, attitude, subjective norms and perceived behavioural control directly influence the intention to use new technology (Koger and Winter, 2010), in this case, e-banking.

The concept was proposed by Icek Ajzen in order to improve on the predictive power of the TRA by including perceived behavioural control (Koger and Winter, 2010). It is one of the most predictive persuasion theories. This theory states that an individual's attitude toward behaviour, subjective norms, and perceived behavioural control together, shape an individual's behavioural intentions and behavior, (Sniehotta, 2009).

The TPB helps one to understand how the behaviour of people can change, that is from traditional banking methods to e-banking. The TPB is a theory which predicts deliberate behaviour, because behaviour can be deliberate and planned. The TPB is the successor of the similar TRA of Ajzen and Fishbein (Koger and Winter, 2010). The succession was the result of the discovery that behaviour appeared to not be 100% voluntary and under control, which resulted in the addition of perceived behavioural control. With this addition the theory was called the TPB.

According to the TPB, human action is guided by three kinds of considerations:

Towards the behaviour, subjective norms, and perception of behavioural control leads to the formation of a behavioural intention. As a general rule, the more favourable the attitude and subjective norm and the greater the perceived control, the stronger the person's intention should be to perform the behaviour in question. Recently, Stern (2005) investigated the residual effects of the past on later behaviour. He came to the conclusion that this factor indeed exists:

(i) Behavioural beliefs are beliefs about the likely consequences of the behaviour);

(ii) Normative beliefs are beliefs about the normative expectations of others; and

(iii) Control Beliefs are beliefs about the presence of factors that may facilitate or impede the performance of the behaviour.

Ajzen's three considerations are crucial in circumstances / projects / programs when changing the behaviour of people. In their respective aggregates, behavioural beliefs produce a favourable or unfavourable attitude toward the behaviour and normative beliefs result in perceived social pressure or subjective norms, while control beliefs give rise to perceived behavioural control (Koger and Winter 2010). In combination, attitude cannot be described as habituation as many people think. A review of existing evidence suggests that the residual impact of past behaviour is attenuated when measures of intention and behaviour are compatible and it vanishes when intentions are strong and well formed, expectations are realistic, and specific plans for intention implementation have been developed.

The following diagram explains TPB and its extensions.
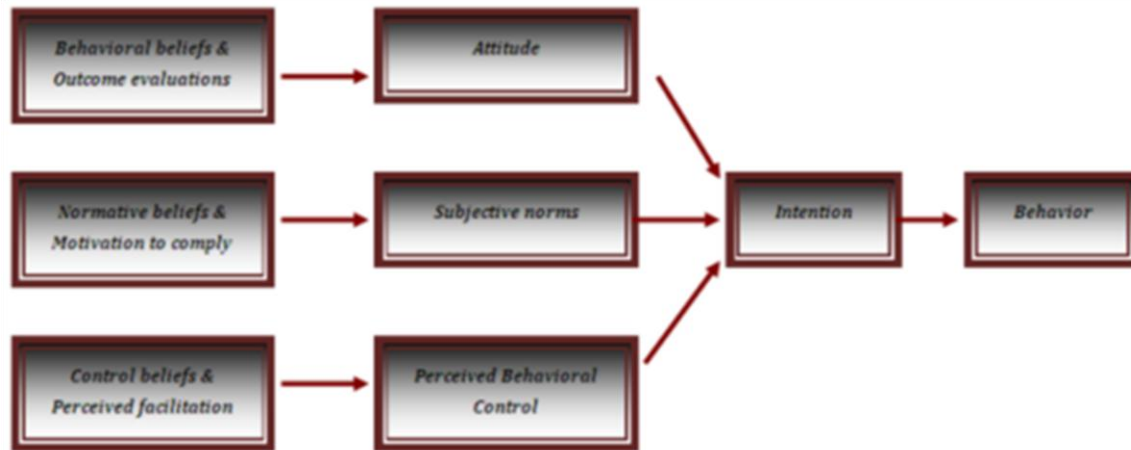
Figure 3.2: Theory of Planned Behaviour

Source: Lee (2009)

Taylor and Todd (1995) further created the Decomposed Theory of Planned Behaviour to explain technology acceptance by people. Attitude is influenced by perceived usefulness, perceived ease of use and compatibility. Peers and superiors influence subjective norms. Self-efficacy, technology facilitating conditions, and resources facilitating conditions influence perceived behavioural control (Taylor and Todd, 1995).

3.6 Technology – Organization – Environment (TOE) Framework

Tornatzky and Fleischer (1990) developed the Technology-Organization-Framework (TOE) framework. The TOE helps to determine the factors that influence the adoption of new technology by organizations. According to the TOE, technological innovations are influenced by three categories; technological factors, organizational factors, and environmental factors (Tornatzky and Fleischer, 1990).

The technological factors involve internal and external issues. Organizations should create appropriate software, hardware, firewalls, and security systems, to be able to implement and use new technologies correctly.

On the other hand, technological solutions need the appropriate infrastructure to perform well. External technological infrastructure needs advanced communication channels, high-speed internet, security systems, advanced technological equipment, etc. (Lippert and Govindarajulu, 2006).

A bank's resources, size, bank, technological knowledge, availability of experts, perceived benefits, formalization, interconnectedness, top management support, motivation, complexity of the managerial

structure, for example are factors that influence banks to adopt e-banking technology (Rui, 2007).

The environment influences organizations to adopt, apply and implement new services and technologies. Technological solutions should agree with society, social systems, cultural values, norms, and habits. Economic scale, competitors, and government also influence organizations to adopt new technologies (Haghighi et al., 2010).

The following figure explains the TOE framework.
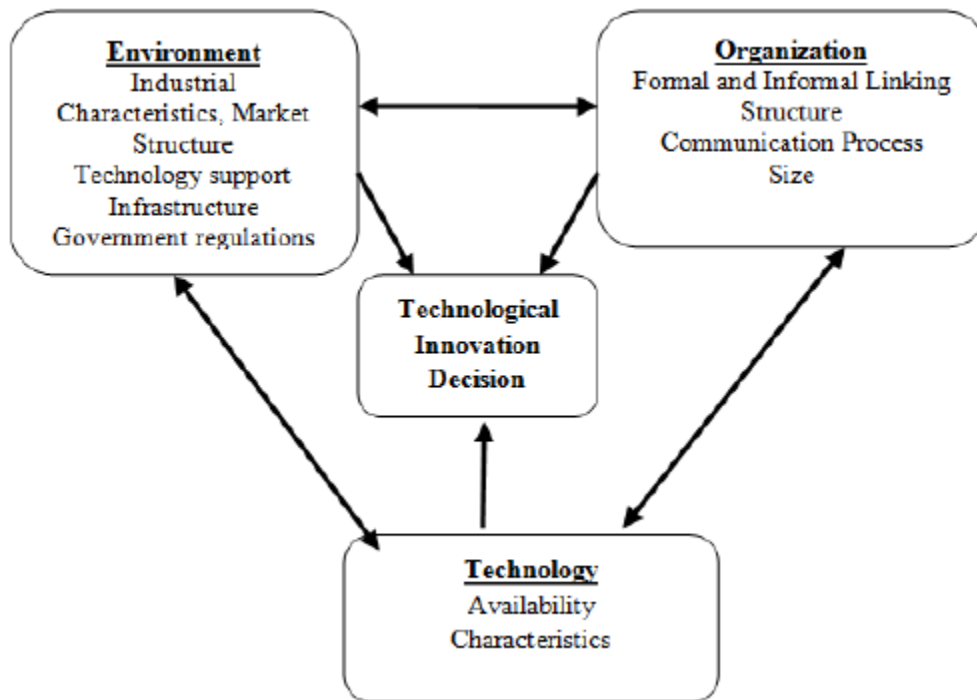
Figure 3.3: TOE Framework, source: Tornatzky and Fleischer, 1990

Therefore, the objectives of the study are:

a) To examine the perceptions of Zimbabweans towards electronic banking (e-banking);

b) To discover why some people do not use e-banking;

c) To identify the gap between customer expectations of e-banking facilities and management perceptions of customer expectations;

d) To propose a model that can be used by bankers for adoption of e-banking; and

e) To discover ways of improving service quality through e-banking.

<u>3.7 Why the electronic-SERVQUAL (e-SERVAQUAL) model was adopted in this study</u>

The researcher used the e-SERVQUAL model for this study and subjected the components of the study to find out if all the factors by Zeithmal et al. (2002) are relevant to the Zimbabwean scenario. This research is on customer satisfaction with e-banking facilities in Zimbabwe and banking as a service, while e-banking is an e-service. The e-SERVQUAL model was chosen because its constructs represent the modern day era and factors that affect adoption of technology in this era. It is most appropriate especially when we look at modern day banking. The e-SERVQUAL model helps to measure the quality of e-banking services and is, therefore the reason why the e-SERVQUAL model is most appropriate in this case.

3.7 Conclusion

The chapter outlined various theories surrounding e-banking, critiqued them and finally the researcher chose the e-SERVQUAL model by Zeithmal et al. (2002).The chapter outlined several theories which include Technology Acceptance Model (TAM), Theory of Planned Behaviour (TPB), Theory of Reasoned Action (TRA), Innovation and Diffusion theory, and also e-SERVQUAL model. The theories and models inspired this research, as it was most appropriate for the study and helped the researcher query more concerns around e-banking usage in Zimbabwe. It helped the researcher to ask valid questions when it comes to e-banking adoption in Zimbabwe. The study also interrogated the gap that exists between management perceptions' on customer expectations and the customers' actual expectations. The next chapter will look into the background of e-banking in Zimbabwe.

CHAPTER FOUR

BACKGROUND OF ELECTRONIC BANKING (E-BANKING) IN ZIMBABWE

4.0 Introduction

This chapter looks into the origins of electronic banking (e-banking) in Zimbabwe. First by looking at the origins of banking itself internationally, then moving on to look at banking in Africa. Lastly, the chapter focuses on how and when Automated Teller Machines (ATMs), internet banking, and also mobile banking (m-banking) developed. It also highlights the current state of e-banking in Zimbabwe. The chapter also looks into the advantages and disadvantages of e-banking according to different scholars. The major types of e-banking which include ATMs, Mobile, and Internet banking are the major headings.

4.1 Origins of Banking Abroad and in Zimbabwe

Levine and Zervos (1998) quoted Walter Bagehot (1873) and Joseph A. Schumpeter (1912) and emphasized the critical importance of the banking system in economic growth and highlight circumstances when banks can actively spur innovation and future growth by identifying and funding productive investments. In contrast, Robert E. Lucas, Jr. (1988) states that economists badly over-stress the role of the financial system, and Joan Robinson (1952) argues that banks respond passively to economic growth. Empirically, Robert G. King and Levine (1993) stress that the level of financial inter-mediation is a good predictor of long-run rates of economic growth, capital accumulation, and productivity improvements.

Abbot (1934) supported by McAndrews and Roberds (1999) highlighted that the origins of banking can be traced back to medieval times and was started by money changers. Downey (1986) highlighted that banking started in the 14th century. Abbot (1934) differentiated between isolated credits transactions and organized banking. Organized banking requires that there is a loaning facility, unlike isolated credit transactions, where there is a mere transfer of purchasing power from one person to another and money changes hands from one person to another, with or without interest. Loaning out can only be possible when the bank has clients who make deposits. The banker can now make use of the deposits to lend money or engage in trade, but, at the same time must make sure depositors are not deprived of their money when they need it. In the 15th century deposits were recognized as bank money and could be used to transfer money from one account to the other without physical movement of real money. Downey

(1986) suggested that there was evidence from inscriptions in ancient Babylon that temples accepted deposits and gave loans.

Downey (1986) notes that as early as 1941 in Venice, terms denoting bank money and cash were evident in the literature. Cases in point are *contadi di banco* (cash) and *denari contadi* (bank money). Around the same time, in Barcelona and Sicily, they already recognized the term 'payment in bank' or its equivalent. Money changers of the 12th and 13th century were not involved in banking as they made no form of credit advancement. However, some money changers extended their services to become bankers. In Catalonia, bankers were called bonded money changers or public money changers while dealers who dealt in coins were called petty money changers.

Early banks in the first two centuries since 1500 performed functions similar to modern banks such as deposit taking, except that they did not use cheques and other negotiable instruments. Early banks lacked a satisfactory type of short-term paper to act as negotiable instruments and this jeopardized the credit structure to the extent that it led to disastrous losses in Italy in the sixteenth century. This led to a demand for regulation which resulted in some undesirable curtailment of the credit activities of the bank. Banking in Britain has its origins in the 15th Century (Downey, 1986). According to Downey (1986), financial relationships were governed by the Law of Moses which forbade anyone benefiting from another's misfortune. It was then left to those interpreting the law to investigate any case based on the law. Many money-lenders were Jews and as a result of prejudice and bad feelings they were evicted from England. This left the business to a group of Italians who were referred to as the Lombards. They congregated in Lombard Street in the city of London and his gave rise to the name that is still being used today. The benches where they used to sit were called *bancos* and that is where the term "bank" originated from. If one of these dealers dishonoured a deal, his bench would be broken so that he could no longer carry out further business. This explains the origins of the term "bankrupt". Between 1400 and 1500, there were religious wars which led to the bankruptcy of many bankers. In the 18th century banking activities increased and private bankers were allowed to operate and in Britain, under an Act of parliament in 1709, these private bankers were allowed to exist and issue their own bank notes provided they remained in partnerships of not more than six partners. in Britain, by 1820 there were more than 600 banks in England (Downey, 1986). However, between 1809 and 1830 more than 300 commissions of bankruptcies were issued and, consequently, British authorities became concerned and realized the need to regulate the operations of banks. One way that was chosen was to allow banks to become bigger through joint stock banking. This provision was made by the Banking Act of 1826. In 1844, the Bank Charter Act was passed which continued the regulation of banking by authorities. It had the following provisions as highlighted by Downey (1986):

a)   The issue of notes by the bank of England was to be fully backed by gold or silver except for an issue of 14 million pounds, which has become known as fiduciary issue. The silver backing was to be no more than 20% of the backed notes.

b)   The note issue of the remaining 72 banks was to be restricted to the circulation immediately before the act.

c)   No other banks were to issue notes.

d)   A note-issuing bank would lose this right if it opened a branch in London or amalgamated with another bank; and

e)   as banks gave up their issuing powers, the Bank of England could increase its fiduciary issue by two thirds of the lapsed bank's issue.

According to Downey (1986), the banking business improved after this and forerunners of the big banks developed during this period. These included Barclays Bank, London and Westminster Bank, Lloyds Bank, and Midland Bank. In the 20th century major changes that happened to banking included greater amalgamation, greater competition among banks and other financial institutions and also greater regulation and supervision by authorities.

Zimbabwe, a former British colony, gained her independence in 1980, but banking was established well before this. Brownbridge and Harvey (1998) argued that the colonizers of Zimbabwe brought in the concept of banking. This was facilitated by the opening of the Zimbabwe Stock Exchange in 1946. They went on to argue that, in 1952, treasury bills were issued which enabled banks to acquire local liquid assets and were provided by the government with budget finance, from funds which previously were foreign balances. In 1956, a central bank was established and at that time Zimbabwe was still joined to Nyasaland (now Malawi). In 1963 the federation broke up and the central bank changed its name to "the Central Bank of Rhodesia" as Zimbabwe was called 'Rhodesia' by then. Between 1960 and 1980, banking increased and improved. However, soon after gaining independence, there was a neglect of the banking sector by the Zimbabwean government and some banks collapsed and the government purchased 62% of the shares from foreign banks; such as, the Netbank which was rebranded to Zimbank. Government also acquired 49% of shares from the Bank of Credit and Commerce International (BCCI) which was later renamed Commercial Bank of Zimbabwe (CBZ). In the 1990s there was financial sector liberalization which allowed private individuals to own banks. Financial sector liberalization had the objectives of removing controls on bank lending, establishing positive real interest rates, and liberalizing the licensing of new banks so as to increase competition and improve banking services. Liberalization l a

led to a number of banks being established.

Since the 1990s people have been travelling globally and have witnessed changes that have been happening technologically elsewhere in the banking sector and are demanding the same for Zimbabwe. Consequently, customers are utilizing banks that offer them better service quality, particularly in terms of technology. The following are licensed banks in Zimbabwe:

(i) Commercial Banks

a)   Agricultural Development Bank of Zimbabwe (Agribank);

b)   BancABC;

c)   Barclays Bank of Zimbabwe (now First Capital Bank);

d)   CBZ Bank Limited;

e)   Ecobank;

f)   FBC Bank Limited;

g)   MBCA Bank Limited;

h)   Metbank;

i)   NMB Bank Limited;

j)   Stanbic Bank Zimbabwe Limited;

k)   Standard Chartered Zimbabwe;

l)   Steward Bank; and

m)   ZB Bank Limited

(ii) Building Societies

a)   CABS;

b)   FBC Building Society;

c)   National Building Society; and

d)   ZB Building Society

(iii) Savings Banks

   a) People's Own Savings Bank

(iv) Merchant Bank of Zimbabwe

a) Tetrad Investment Bank Limited

4.2 Definitions of the Different Types of Banks

4.2.1 Commercial bank

According to the Zimbabwe Banking Act Chapter 24:20, a commercial bank-means a banking institution that conducts banking business in Zimbabwe and whose business mainly consists of, the acceptance of deposits and withdrawals by cheque, or otherwise. Shekhar and Shekhar (2005) highlighted that commercial banks are organized according to the joint stock company system, primarily for the purpose of earning a profit.

4.2.2 Building society

Building societies are governed by the Building Societies act of Zimbabwe, chapter 24:02, which states that a building society is a commercial bank, an accepting house and a discount house.

4.2.3 Merchant bank

Shekhar and Shekhar (2005) argued that the term' merchant bank' escapes a precise definition though it may be considered as an institution which offers the following activities:

(i) Corporate financial advice, on such diverse matters as new share and bond issues, capital reconstructions, mergers, and acquisitions;

(ii) the taking of deposits and money market operations, including foreign exchange dealings;

(iii) medium term lending and syndication of loans;

(iv) acceptance of credit and all forms of export finance;

(v) the holding and dealing in quoted and unquoted investments; and

(vi) fund management on behalf of clients, most typically pension funds, unit trusts, investment trusts, and funds of wealthy individuals.

4.2.4 Savings bank

This is governed by the Post Office Savings Bank Act chapter 24: 10 which states that a savings bank is much like a commercial bank in its organization, but is more in line with a savings association in its form of charter and operation.

4.3 Origins of Automated Teller machines (ATMs)

According to Gordon (2017), by the end of the 1960s, with the idea of self-service and a more generalized willingness to trust unfamiliar technologies, ATMs were introduced. The idea came from a Scotsman, John Shepherd Baron in 1967 (Gordon, 2017). He wondered how vending machines dispensed chocolates and thought the same could be used for banks to dispense cash. Barclays, a London-based bank, loved the idea, and Shepherd-Baron's first ATM was installed in a branch on Enfield High Street not long afterward. Unlike modern ATMs, Shepherd-Barron's did not use plastic cards. Instead, it used paper vouchers printed with radioactive ink so that the machine could read them (Gordon, 2017). The customer entered an identification code and took their cash, a maximum of £10 at a time. The first automated banking machine in United States of America (USA). was devised by a Dallas engineer and former professional baseball player named Donald Wetzel. Wetzel's machine used plastic cards like the ones we use today. Instead of radioactive ink, the cards stored account information in magnetic strips.) In September 1969, a chemical bank branch on Long Island installed the first of Wetzel's machines.

4.3.1The spread of ATMs

By 1970, dozens of USA banks had jumped on the ATM bandwagon. To introduce this new machine to consumers, banks used all kinds of advertising tricks (Gordon,2017) For example, to get the attention of female customers, a bank in Columbus, Ohio, sponsored a six-hour Paul Newman movie marathon on a local television channel. Every 25 minutes during the movies, commercials for the bank touted the advantages of its new cash-dispensing machine.

However, it was difficult for the ATM to win the confidence of American consumers (Gordon, 2017). In 1977, the chairman of Citibank took a huge risk, spending more than $100 million to install ATMs all over New York City. That investment paid off the following January when a huge blizzard hit New York, dumping 17 inches of snow on the city. Banks were closed for days and inevitably ATM use increased by 20 percent. Within days, Citibank had launched its 'The Citi Never Sleeps' advertising campaign. Posters

and billboards showed customers trudging through snow to get to Citibank ATMs (Gordon, 2017).

After that, almost every one of the country's banks followed Citibank's lead. The era of the ATM was underway.

4.3.2 ATMs Today

Today, there are almost two million ATMs around the globe. Although use of the machines has declined in recent years, likely because more people make purchases using credit and debit cards instead of cash, the ATM continues to have a place in modern culture. Today's machines sell everything from airline tickets to movie tickets, to medicine (Gordon, 2017)

With the technology that led to the success of Magnetic Ink Character Recognition (MICR) and Electronic Recording Method of Accounting (ERMA), the industry's first mainframe computer to automate check processing in the late 1950s and early 1960s, the idea of automating critical banking services became an attainable goal.

In the 1970s, the era of modern banking in America was underway as more banking services became automated through the help of computers. 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. By 1982, the Bank of America had approximately 2 000 internal terminals, allowing employees to access the bank's network. This enabled bankers to work more efficiently for customers and communicate quickly via the then new electronic mail programme, later to become known as electronic mail (e-mail).

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. In 1983, the bank introduced its first home banking product. Through home banking, customers could access their account balances and perform basic banking services. In these early days of the service, home banking offered customers access to their accounts seven days a week between 6:00 a.m. and midnight.

Home banking formed the basis for online banking as we know it today. In the following decade, the Bank of America launched its first presence on the internet with bankofamerica.com in 1994. 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.

By the turn of the millennium, Bank of America's online banking website continued to grow rapidly in both the number of users and services offered. Later, with the advent of mobile phone technology, the bank moved to offering banking services to customers on mobile devices. Since 2007, mobile banking has become a significant platform for customer engagement. Today, with more than 15 million active mobile users and more than 30 million online banking customers, Bank of America has continued to be an industry leader in developing and offering innovative products to its customers. (About.bankofamerica.com)

4.4 Origins of Internet Banking

Banking has come a long way since the days of regular visits to tellers (Sarreal, 2017). Now a customer can take a picture of a cheque with his phone to deposit it into a savings account (Sarreal, 2017). Sarreal (2017) also argued that the evolution of online banking started in the 1980s, when the definition and the practice of internet banking was far different than what exists today.

4.4.1 What is online banking?

When the term 'online banking' initially gained popularity in the 1980s, the phrase referred to the use of a terminal, keyboard and television or computer monitor to access one's bank account using a landline telephone Sarreal (2017). Now the online banking definition, or internet banking definition, includes any electronic payment system that allows customers of a financial institution to conduct financial transactions through the financial institution's website. Online banking services include mobile internet banking technology, such as person-to-person payment, smart phone applications and text banking (Sarreal, 2017).

4.4.2 Online banking in the early years.

Electronic-banking (e-banking) in the early years was in the form of Automated Teller machines (ATMs) and Telephone transactions (Driga and Isac, 2014). The early version of what was considered online banking began in 1981. New York City was the first place in the USA to test out the innovative way of doing business by providing remote services at four of its major banks i.e. Citibank, Chase Manhattan, Chemical Bank and Manufactured (Hanover, 2014). Throughout online banking history, customers have been slow to adopt this new method of banking. In 1981, customers did not adopt the new initiative, so the online banking system failed to gain momentum until the next wave of innovation in the mid-1990s.

In October 1994, Stanford Federal Credit Union became the first financial credit union in the United States to offer internet banking to all of its customers. A year later, Presidential Bank became the first

bank in the country to offer customers access to their accounts online. Internet banking systems began to catch on as many other banks soon followed Presidential Bank's lead. At the same time, the now-defunct Security First Network Bank (SNFB) became the first dedicated online bank in the United States of America. The SFNB opened its virtual doors for business with basic offerings for national online banking, including no-fee checking and an ATM card. (Driga and Isac, 2014).

The evolution of internet banking continued and the first truly successful internet-only bank, Netbank was founded in 1996 and closed in 2007. The Netbank name and domain were acquired by Bofl Federal Bank in 2012. The Bank of Internet in the United States of America was officially founded as part of the incorporation of Bofl Holding, Inc. on July 6 1999, making it America's oldest internet bank. It opened for business on July 4, 2000 (Driga and Isac, 2014).

The conveniences and perks of internet banking became obvious to many customers. These included online interest rates that were higher than those of regular banks, greater access to accounts and online banking transfers. Still, other customers were hesitant at first to use this new banking method because they were unsure of how it worked and did not trust the security features of online banking (Driga and Isac, 2014).

4.4.3 Online banking in the 2000s

As the evolution of online banking continued, it slowly began to gain popularity with e-customers. When big banks began to offer online products and services, internet banking seemed to gain legitimacy for consumers. By 2000, online banking had become mainstream where an overwhelming 80% of banks in the U.S. were offering internet banking services. In 2001, The Bank of America made history as the first financial Institution to gain more than 3 million online banking customers; about 20% of its customer base.

In 2009, Ally Bank joined the ranks of internet-only banks. The Ally Bank brand was launched to provide customers with a straightforward, customer-centric approach to banking as consumer preferences continue to shift toward online banking (Sarreal, 2017).

According to Sarreal (2017), in a 2010 survey on consumer billing and payment trends, Fiserv found that online banking and mobile payments were growing at a faster pace than the internet. Online banking has continued to evolve as more innovations and conveniences have been offered (Sarreal, 2017). The Bank of Internet USA has introduced a number of new and technologically-advanced products and services since its inception, including mobile internet banking applications for the most popular mobile devices, such as 'My Deposit' for cheque deposit by mobile or computer scan, 'Pop money' for money transfer via

text or e-mail, and 'Europay MasterCard Visa (EMV) chip' debit cards (Sarreal,2017).

Sarreal (2017) argues that online banking has become so widespread today that customers expect accounts to include free online banking, and many banks in developed countries only operate on the internet, effectively decreasing overhead costs to offer more competitive rates and enjoy higher profit margins. As an online bank, Ally does not have branches, which allows it to offer customers great rates, 24/7 service, and innovative and competitive deposit products.

4.4.4 Online banking security: How accounts stay safe.

Today, according to Sarreal (2017), online banking is one of the most popular ways for people to manage their money. Banks ensure internet banking security by using encryption technology such as secure socket layer-verifying internet banking account activity, incorporating account safety features, and constantly warning consumers of ways to avoid threats such as identity theft.

Since early 2015, banks around the world, have been the victims of security hacks (Sarreal, 2017). The Society for the Worldwide Interbank Financial Telecommunications (SWIFT), the messaging network that connects the world's banks, warned its members as late as August 2016 to increase their security in the face of on-going attacks. Banks have been focusing on providing comprehensive security measures. JP Morgan Chase, for example, began limiting their employees' access to the SWIFT software.

Sarreal (2017) further highlights that the bank of America's online banking service, incorporates industry-leading safety features that give customers greater security and peace of mind as they manage their money. The Federal Deposit Insurance Corporation (FDIC) has also taken measures to ensure that this highly convenient banking method is safe.

4.4.5 Consumer responsibility for secure online banking

According to a survey by Accenture, most consumers trust their banks over other businesses such as mobile phone networks and online retailers to securely manage their personal data (Sarreal, 2017). Still, online banking customers should take measures to practice safe internet banking. The FDIC advises consumers to take the following precautions (Sarreal, 2017):

a) research a bank prior to opening a paid or free online banking account;

b) be aware of fraudulent websites made to look like to actual bank sites;

c) always make sure the bank is FDIC-insured;

d) keep personal online banking information secure; and

e) know your rights.

4.5 The Pros and Cons of Internet Banking

Customers should be aware of the benefits and drawbacks they get from internet banking so that they use it carefully.

4.5.1 Advantages of internet banking (Mobarek, 2007)

The major advantage of internet banking is convenience due to the fact that it is available 24 hours a day, seven days a week and the customer is able to access bank accounts from any place at any time as long as there is an internet connection. The other advantages include the following:

a)   Better rates

The rates for internet banking are cheaper as banks do not pay the overhead costs associated with brick-and mortar banks and, therefore, are able to charge lower rates for e-banking and there are cost savings for customers in the form of better interest rates. According to Chaffey (2006), some clients in Britain moved to internet banking to reduce the costs of transacting. Mobarek (2007), as cited by Driga and Isac (2014), argued that e-banking ensures reduced costs as branches are very expensive to set up and maintain. Secondly, e-banking products and services like ATMs and electronic fund transfers were an important qualitative element of differentiation for the banks that used them.

b)   Ease of use and less waiting time

Internet banking is easier to use as customers can quickly monitor balances, check on spending and be alerted to low balances (Mobarek, 2007). Driga and Isac (2016), argue that internet banking is faster as one does not have to wait.

c)   Services and tools

Resources such as online bill payment and online tax forms, loan calculators and budgeting tools are often available and free of charge (Mobarek, 2007).

d)   Mobility

Internet banking makes it possible for customers to access their accounts from electronic gadgets such as Smart phones, computers, iPads, and tablets.

e)   Electronic transfers

It is easy to transfer funds from one account to another through internet banking (Mobarek, 2007)

f)   Environmental friendliness

Internet banking can be conducted in a paperless way, as customers can access their bank statements online. This reduces litter.

g)   Security alerts

With 24/7 access to their online banking accounts and balance information, customers can be alerted to unusual activity and security breaches almost immediately.

h)   Diminished relationships

Relationships may be diminished since transactions are mainly done online and not face-to-face. There is thus little opportunity to develop a relationship between customers and bank representatives.

i)   Lack of comprehensive or special services

Brick and mortar banks are able to provide services such as notarizing financial documents, which cannot be done by an online bank.

j)   Transaction issues

Online banking has limited services as customers cannot do all the transactions online, for example it is impossible to do a cash deposit online. There are also no ATMs for online-only banks.

k)   Security issues

Online banks are vulnerable to security risks such as phishing, spoofing and viruses. Chaffey (2006) defines phishing as obtaining personal details online through sites and e-mails masquerading as legitimate businesses. Spoofing, according to Chaffey (2006), involves someone masquerading as someone else. Spoofing can be of two sorts: IP-spoofing is used to gain access to confidential information by creating false identification data such as the originating network (IP) address. The objective of this access can be espionage, theft or simply to cause mischief, generate confusion and to damage corporate public image or political campaigns. Firewalls can be used to reduce this threat.

Site-spoofing, i.e. fooling the organization's customers: using a similar URL such as www.amazno.com instead of the original www.amazon.com can divert customers to a site which is not the bona fide retailer

Chaffey (2006)

4.6 Origins of Mobile Banking (M-Banking)

Mobile banking is known as m-banking (Laukkanen, 2010). The European company called PayBox, supported financially by Deutsche Bank, in 1999 started m-banking in 1999 UK essays (2017). The earliest m-banking service offered was through SMS. It is an emerging field in the banking segment. However, older phones had limited functionality. Mobile phones and palm PCs lacked hardware and software support. The higher cost of data plans and the slower network speed were also limiting factors in the growth of m-banking. It has been improved with the advancement of technology, hardware and software. The cost of mobile devices has been reduced drastically and is still reducing. Network speed is much better than before and data plans are not as costly as they used to be. All of these changes have provided necessary raw materials for the growth of m-banking and the number of people using m-banking is increasing day by day. Users, who were using computers/laptops for online banking, are moving towards m-banking because of the ease of use and fast access. In the USA, m-banking was introduced in 2006 by Wachovia bank. However, security issues are the major concerns for m-banking service providers and users. As m-banking systems mature, more users will start using m-banking, which will draw the attention of the hacker community to target m-banking customers mostly for financial gain. Safety and security of the personal and financial information stored and managed in the devices are the key factors for users, banking organizations and the security community. The purpose of this paper is to gain basic knowledge of m-banking, explain the different kinds of utilities involved there and identify the different security attacks and countermeasures against these (UK essays, 2017)

4.6.1 Mobile banking (m-banking) in the USA compared to other countries

According to UK essays (2017), Wachovia Bank was the first to announce m-banking services to their customers in September, 2006 and it was re-launched in March, 2007, followed by a few other banks. They developed their own banking product. Bank of America started m-banking services in March 2007, in collaboration with four major wireless carriers, which reported 500 000 users within the first six months. Initially, the services offered were funds transfer, bill payments, branch and ATM locations, account balance, etc. Since then there has been huge progress in m-banking services. In 2009 and 2010 respectively, San Antonio launched their new application for the i-phone and Android platform that is capable of remote deposit and deposit electronically. In the middle of 2010, Chase Bank also introduced the mobile application for the i-phone. In November 2010, United States of America Bank and Visa announced a mobile payment system for their customers. They offered the service via the use of the Micro Secure Digital (Micro SD) card, which fits into most existing mobile devices. A month before that,

the United States of America Bank launched a full suite m-banking solution for prepaid cardholders with bill paying capabilities. Even though the United States- based banks provide different kinds of m-banking services, they are still behind their counter parts in the rest of the world.

Many banks in the world have offered m-banking and financial services for years. European and Asian countries have been offering m-banking services for years that vary from banking-related services to the mobile "proximity" payments. Japan and South Korea are the world leaders in adopting m-banking technology. Before 2004, the internet was the only way of using m-banking in Japan. This enabled customers to browse the merchant website through a web browser. However, customers still had to use their credit/debit cards for payments.

According to Chitungo and Munongo (2013), in Zimbabwe, m-banking started in late 2011. This was necessitated by mobile network operators such as Econet Wireless Zimbabwe, which introduced Ecocash and this enabled the unbanked people in the rural areas to gain access to financial services. Access to mobile phones leveraged the introduction of m-banking.

4.6.2 Difference between mobile banking (m-banking) and online banking/credit/debit card banking

According to UK essays (2017), m-banking provides almost the same kind of services as online, credit/debit card banking. When m-banking services first started, mobile devices were not able to support all m-banking services and they lacked hardware and software support. The initial m-banking service offered was SMS banking; while online banking was very well developed and was offering all kinds of banking services. Credit/debit card systems are also fully developed and people were able to use their cards at merchants' points of sale and online for payments. However, technological advancements in mobile devices have enabled users to use m-banking-related services via SMS, web browser and mobile web applications. Currently, available mobile devices have the same processing power as computers and they are still evolving. In some countries, m-banking was started in the early 90's and they now offer a full-suite m-banking solution, which has features of online banking and credit/debit card banking. People are using their mobile devices to replace cash and cards. However, m-banking services in the United States of America were started at the end of 2006. Most of these banks are still not offering full m-banking solutions to their customers. The banks there recently announced the proximity payment systems in 2010, and this has been in use for a long time in other countries. Some of the features of online banking and credit/debit card banking are not available for m-banking systems. So m-banking systems in the USA are less developed compared to online, credit/debit card banking in terms of services. However, as the number of people registered for m-banking increases and banks offer more services with a full range of solutions in the USA, the gap between m-banking and online/credit/debit card banking will diminish. It is

envisaged that m-banking will provide a combination service of online and credit/debit card banking in the USA.

In terms of security, Mobile banking is as secure as online banking and offers the same security features and protections. However, there are fewer users of m-banking than online/credit/debit card banking, which reduces the risk of security threats. The hacking community is targeted more towards the online/credit/debit card banking for financial gain. The large number of antivirus, antimalware/spyware, available for online banking is not widely available for m-banking. But, with the increase in the number of users for m-banking, this software is also increasing. Mobile banking (m-banking) also carries the risk of phishing, smishing and spoofing that are only possible on mobile devices. The security features and countermeasures for them differ from online banking. However, m-banking provides the same security protections as online banking, as most of them are derived from the experience with online banking.

4.6.3 Mobile banking (m-banking) services

According to UK essays (2017), the m-banking system allows users to perform bank-related transactions like balance checks, account transactions, bill payments, fund transfers, and also credit/debit card management through mobile telecommunication devices like mobile phones or personal digital assistants (PDAs). It can be divided into three different concepts based on an academic model:

(a) mobile accounting,

 (b) mobile brokerage; and

(c) mobile financial information services.

Mobile accounting services can be divided into account operations and account administration. Account operations include fund transfers, bill payments. Account administration includes ordering cheques, updating profiles and personal information, managing lost or stolen cards (Uk essays, 2017). Mobile brokerage is related to the buying and selling of stocks, securities and obtaining current information about securities. Mobile financial information divides into account information and market information. Account information includes information on branch and ATM locations, credit/debit cards, statements, alerts, balance enquiries, for example, while market information includes products and services, currency exchanges, interest rates, etc.

4.6.4 Mobile banking (m-banking) advantages and disadvantages

Uk essays (2017) highlights that the m-banking system offers many advantages to both users and service

providers. It is fast and easy to use and saves time. For online banking, an internet connection is an essential which is a major problem in developing countries Uk essays (2017). However, many individuals can find mobile connectivity at places where an internet connection cannot be found. It is cost-effective for providers as the cost of mobile banking is much less compared with onsite banking. Various kinds of banking services and transactions can be performed with m-banking. However, it has many disadvantages too. Security issues are the major concern. Phishing scams, viruses and Trojans and physical loss of the mobile device are some of the security issues that affect m-banking. The costs of the mobile devices, which are compatible with the m-banking applications are still quite high. The mobile requires a data plan and text messaging services, which is an added cost to the user. Some providers charge for software and m-banking services as well.

4.7 Different Types of Mobile Banking (M-Banking) architecture

There are three types of architectures available for mobile phones to enable m-banking Uk essays (2017). Up until 2010 most of the m-banking was performed by SMS or mobile web. With the advancement in mobile phones and following the success of Apple's iPhone and other operating system-based phones, m-banking is increasing through the special client applications. These different architectures are further discussed below:

a) SMS or MMS-based mobile banking;

b) mobile website; and

c) mobile client application.

4.7.1 Short Message Service (SMS) or Multimedia Messaging Service (MMS) based mobile banking architecture- UK essays (2017)

The SMS-based m-banking was the first m-banking service offered Uk essays (2017). It is based on plain text message interaction. Short Message Service (SMS) banking works in two different modes, pull-mode and push-mode. Pull-mode is a one-way text message system where the bank sends a text message to the users informing them about certain account situations. It can be used to promote other m-banking services. Push-mode is a two-way message system where users send text messages to the bank requesting specific transactions or services with predefined request codes and the bank replies with specific information pertaining to the transactions or services through plain text messages.

There are two different kinds of text messaging systems: SMS and MMS, SMS is a short form of short message service, which includes sending or receiving plain text messages from the bank. It has a

limitation on the number of characters that can be included in a message. MMS, known as multimedia messaging service, is the second type of messaging service, which can carry larger text messages and works on the same platform as SMS (Uk essays, 2017). To use message-based m-banking, a customer has to register his/her cell phone with the bank and the bank sends a text massage with a onetime password. Each bank has its own SMS banking number and commands for m-banking. The message-based system has some advantages. It is cost effective and possesses familiar technology and is virtually available on each and every cell phone regardless of manufacturer, model or carrier. It provides two-way communication between the bank and the user, so either the bank or the customer can initiate communication. It does not transmit or store the confidential information in the mobile device. However, SMS cannot carry a larger message and account information and has to be limited to a certain number of characters which limits its use.

4.7.2 Mobile website-based mobile banking (m-banking) architecture

This architecture includes the use of the internet browser of the mobile device to access the bank's internet banking website (UK essays, 2013). Users can connect to the internet via a wireless network or their carrier's internet service. The biggest advantage of this architecture is that most of the processing is done at a remote server at the bank and much less information is stored in the mobile device. On the other hand, it does not require the installation of special software and most of the phones today are capable of using an internet browser (UK essays,2013).

4.7.3 Mobile client application based mobile banking (m-banking) architecture

According to UK essays (2013) this architecture requires the download and installation of a mobile client application to the mobile device. With the help of the application, a bank can provide a wide range of services to their customers. This approach has some advantages and some disadvantages. First of all, users have to learn a new application. The application has to be customized to different phones which increases the development cost to the banks. The applications are also susceptible to attacks and only customers can initiate communication (UK essays, 2013). Older phones are not capable of running this application because of technical limitations. The use of the internet requires a data plan that increases the cost on the part of customers. (A data plan requires the client to use application-based m-banking architecture, at a cost.) Some of the banks charge an initial fee for downloading and installing the mobile client application.

4.8 Mobile Banking Security Requirements (Uk essays, 2017)

a) Confidentiality

b) Authentication

c) Integrity

d) Non-repudiation

4.8.1 Security attacks/threats

According to UK essays (2017), Mobile banking is an emerging technology and the number of m-banking subscribers increases day by day. With the increase in number of users, the concerns for security also rise. Different kinds of security attacks that include the following have been identified:

4.8.2 Vishing

Chaffer et al. (2006) state that, Vishing is a social engineering attack over the telephone system. It is a type of phishing and it is a combination term of voice and phishing Chaffer et al. (2006). Mostly it uses features facilitated by Voice over Internet Protocol (VOIP) to gain access to private, personal and financial information from the public (information of the users). It is used to get the authentication information of the user mostly for financial gain.

4.8.3 Phishing

Chaffey et al (2006, p.165) define phishing as a specialized form of identity theft. Phishing is another kind of social engineering attack in an electronic communication to acquire sensitive information like usernames, passwords and credit card details by redirecting unsuspecting users to a fake website with the use of an authentic looking e-mail. It can also be carried out by instant messages. Chaffey et al (2006, p.165) defines phishing as a specialized form of identity theft.

4.8.4 Smishing

Chaffer et al. (2006) define smishing as a social engineering attack similar to phishing. The name is derived from 'Short Messages (SMs) phishing'. It uses the text message system of the phone to access the private, personal, and financial information of the user. A website's Uniform Resource Locator (URL) embedded in the text message may act as a 'hook'.

4.8.5 Spoofing

Chaffer et al. (2006) argued that spoofing involves someone masquerading as someone else. Spoofing is an attack where a person or program successfully masquerades as another with falsifying data. A spoofing attack causes the telephone network to display a number on the recipient's caller-ID-display. This number is familiar and looks like it came from a legitimate source, which is not actually the origination.

4.8.6 Lost and stolen phones

UK essays (2017), labels lost and stolen phones as one the biggest threats to m-banking. Mobile phones are small and portable and can be easily lost or stolen. Authentication, authorization and confidentiality are the areas to be considered when mobile devices are lost or stolen. In 2001, 1.3 million devices were lost or stolen in the UK and in 2006, over 1 billion phones were sold worldwide. Of those sold worldwide, 80 million were smartphones, which have operating systems and can store all kinds of information. A survey found that 34% of users didn't even use a PIN (Personal Identification Number). This threat increases with the increase in the number of phones.

4.8.7 Cracking and cloning

According to UK essays (2017), cracking a mobile device means modifying its software to gain control of that particular mobile device. Attackers find ways to break or crack the software and, once cracked, the attacker has access to the data stored in the device. With cracking, the software attacker can also view SMS logs, call history, or send that data to their machine. Bluetooth is also vulnerable to a phone crack attack. If Bluetooth is on, any Bluetooth device can connect to the phone within a 30 foot range. An attacker can use bluesnarfing and download, upload or edit files on a device without the owner's permission. Default settings can be changed by attackers. Once a Bluetooth device is connected with a phone, an attacker can also change the default setting. A survey in London found that 379 out of 943 phones had their default setting on and 138 out of 379 were vulnerable to attack.

Making identical copies of anything is known as cloning Chaffer et al. (2006). Cloning of a mobile device creates a second device, which has the same identical information as the original device. Cloning new phones is difficult while older phones are easy to clone with some basic equipment. Cloning of Global System Mobile (GSM) phones is much more difficult in comparison to cloning of Code-Division of Multiple Acesss (CDMA) phones (UK essays,2017). CDMA phones only requires the phone's electronic serial number and mobile identification number. Cloning can affect all carriers and all kinds of phones if they are left on. With less than 2000 United States dollars any attacker can build a cloning device that can capture the signals from a mobile device. It can capture the signals sent out by the phone from up to a

mile away and get the codes that identify the phone. Cracking and cloning are active threats to m-banking. Cracking can be used to get sensitive data from the phone or to install malware, while cloning can duplicate all information from the phone and an attacker can get about half of the information to identify the phone (UK essays, 2017)

4.8.8 Man-in-the-middle attack (MIM)

The MIM is considered a threat to the confidentiality and integrity of people (UK essays, 2017). It is a form of active eavesdropping in which the attacker makes independent connections to victims by positioning him/herself in between two victims, to take control of communication between them, with the intention of the interception and alteration of information and relays it to others, making them believe that it came from the other person and not from the attacker. The attacker must be able to intercept all messages and alter them while in transit. It is also known as active wiretapping or traffic intercepting. The chances of this kind of attack increases with the use of wireless connection compared to other more secured connections (UK essays,2017).

4.8.9 Viruses, malware and malicious code

UK essays (2017) define malicious code as software in the form of viruses, malware or worms. These kinds of software can be inserted into a system without the knowledge of the user. The primary purpose of inserting the software is to gain the private, personal and financial information of the user and compromise the integrity and confidentiality of the system. It affects the victims' private data, applications, and operating systems or sometimes it merely annoys the user. Mobile browsers are susceptible to the same kind of security risks as home or office computers. With the increase of m-banking, the numbers of these kinds of software will increase. However, at present, the increasing number of viruses and Trojan horses is the biggest concern to m-banking security. The mobile devices running windows operating system are a favourite target for hackers.

The first generation viruses were proof-of-concept viruses. The Commwarrior virus spreads over Bluetooth and MMS. The SymbOS.skulls is a Trojan horse that affects Symbian phones and changes all the application icons to skull icons. In 1994, the Cabir worm spread as an infected SIS package called caribe.sis. It spread via open Bluetooth connections and affected Symbian Series 60 phones. The Timifonica virus infected PCs in 2000 and sent harmless text messages to cell phones. There is also software that infects mobile devices and looks for personal information like stored passwords or other sensitive information. Some Trojans can steal address-book information and send that information to hackers via SMS or MMS. Bluetooth can be used easily to spread these viruses. Most digital phones

available today are Bluetooth-enabled and any Bluetooth device can be infected within range. In Finland, mobile malware was spread from Bluetooth to Bluetooth devices during a soccer game. However, while Bluetooth is the easiest way to spread viruses, it is not the only way. Malware have been written that use internet and cellular networks to spread; SMS and MMS can also be used to spread viruses and malware.

Therefore, this threat is a recent major concern for banks and users because a vast number of attacks can be launched with use of viruses and malware.

4.9 Security Counter Measures

Security of m-banking is an important and crucial issue. Added to that, wireless communication increases the vulnerability of the system. Therefore, a more robust security system is necessary to protect the private personal and financial information of the users. The following are some of the countermeasures discussed in the paper.

What kinds of countermeasures are required and are more available for which types of architecture model?

4.9.1 User authentication

Authentication is the process of identification of something or someone as being authentic (UK essays, 2017). There are three different ways by which someone can be authenticated. These three categories are based on the factors of authentication which are what you know, what you have or what you are. Each of these factors has a range of elements. Research has suggested that, for better security, at least two or, preferably, three factors should be verified. If two elements are required for authentication, this is called 'two-factor authentication' while two, or more than two factors authentication, is known as 'multi-factor authentication'. The Federal Financial Institutions Examination Council (FFIEC) requires banks to use multiple forms of authentication for electronic banking. All m-banking systems need to use at least two-factor authentication for user-identification.

Authentication techniques are based on what the user knows and includes a combination of the PIN (Personal identification Number), the username, the password and the One Time Password (OTP) for mobile banking. Research has noted security concerns with this technique as users use weak passwords, write them down or share them with others. Therefore, to increase the protection of the mobile device pin or distributed pin, a verification scheme has been suggested in which one-half of the pin is stored in the mobile device and the other half is stored in a remote machine in the network. So with this, the attacker

can get only half of the pin from the phone's memory.

Another technique uses what the user has. This includes the identity card, cell phone and credit card. Use of any of these forms, is not a reliable technique as the user must have the physical possession of them.

Biometrics is another form of authentication that includes face, voice, fingerprint, DNA sequence etc. Clarke and Furnell (2002) discovered in a survey that 83% of the population were in favour of using biometric systems for authentication. According to Clarke and Furnell (2002), the 29A report on biometric security for m-banking in March 2008 discusses the different issues of m-banking and suggests use of a biometric system for more robust security, with the help of a user's fingerprint as a biometric element. Behavioural analysis can also be used as a security measure where users are granted or denied access based on their previous behaviour. A robust system uses multiple forms of identification before and during the use of an application and, if necessary, asks for a more accurate form of identification. If the user fails to provide this, they are then locked out.

In Zimbabwe the most popular security measure is use of the PIN, Username, and the passwords when transacting online. These are effective though there are cases where these are hacked. Banks such as Barclays bank also use the OTP. Clarke and Furnell (2002), UK essays (2017) and Chaffer et al (2006) agree on the usefulness of user authentication as a way of reducing fraud in e-banking. Mutsikiwa and Marumbwa (2013) discovered that consumers in Zimbabwe trust the measures in place to curb fraud in mobile banking.

4.9.2 Encryption

Encryption means changing or transforming the information in an unreadable form to anyone, with the help of an algorithm (UK essays, 2017). A key is required to make the information readable again. This process is called decryption. Encryption addresses the confidentiality issue. Encryption can be used to protect data 'at rest' and 'in transit'. There are vast numbers of incidents reporting data interception in transit.

There are two different ways to protect the data on the phone. (1) Encryption of information stored in the phone and (2) Encryption of the information during communication. The current encryption technique is Advanced Encryption Standard (AES) and Error-Correcting Code (ECC). The wireless data is encrypted with AES and the encryption key uses ECC to encrypt this data. They increase the speed of encryption and decryption and currently they are the most powerful technologies available for encryption. Cell Trust uses AES and micro clients to protect the SMS messages and send encrypted SMS messages. Clair Mail recommends the use of Secure Sockets Layer (SSL) and Hypertext Transfer Protocol (HTTPS) during

communication. Text My Phone (TMP)is another tool that can help with encryption and protection of mobile devices. It is an embedded chip in the motherboard that can work with mobile devices or security smartcards. It can store keys, passwords, digital signature and certificates. A TPM can be used to perform platform authentication; for example, to verify mobile devices seeking access for m-banking.

4.9.3 Digital signature

Digital signature is an electronic signature that can be used to identify the authenticity of the message of a document. It is also known as a digital cryptographic signature. It can be used with encrypted or unencrypted messages. A valid digital signature indicates that the message or document was sent by a known person and it was not altered in transit. A digital signature also represents non-repudiation. Therefore, once the message has been sent and digitally signed, the signer cannot deny that he/she did not sign a message. With the help of digital signatures, a customer can sign the document and does not have to visit the branch office. In m-banking, adding a digital signature to the transaction proves that a customer authorized the transaction.

At present, digital signature technology uses both the RSA algorithm and the ECC algorithm. Because of higher security levels, low calculating processing speed, small storage space and low band-width requirement, ECC has been proven to be more suitable for m-banking.

4.9.4 Wireless Public Key Infrastructure (WPKI) technology

Public Key Infrastructure (PKI) is a security mechanism for wireless internet and uses public key cryptography and certificate management for communications. It provides all four of the security features for e-commerce: confidentiality, integrity, non-repudiation and authentication.

Wireless Access Protocol (WAP) is developed by the WAP forum to provide a common format for internet transfers for mobile devices. The WAP stack includes five layers: Wide Area Ethernet (WAE), Wireless Session Protocol (WSP), Wireless Transaction Protocol (WTP), Wireless Datagram Protocol (WDP) and Wireless Transaction Layer Security (WTLS) Sharon (UD). The WPKI is an extension of the traditional IETF PKI standards used in wired networks. It is mainly used in wireless network. The WPKI applications work in restricted environments such as in less powerful Central processing Units (CPUs), less memory, less storage space, small displays. Therefore, the WPKI must be optimized like the other security and application services within the WAP environment. The WPKI uses a public key system based on an Elliptic Curve Cryptographic (ECC) algorithm for encryption and decryption. With the help

of this system the information can reach its destination safely. In the presence of other security protocols such as Wireless Identity Module (WIM), Wireless Transport Layer Security (WTLS) and Wireless Markup Language (WML) Scrypt of WAP, the WPKI can fulfil all four security requirements for mobile banking: confidentiality of data, identity, authentication, integrity and non-repudiation.

The number of people who use mobile devices is rising rapidly. Advanced technology in the mobile device field has overcome the limitations posed by older phones. Newer phones have a wide range of functions and improvement in hardware and software support, which enables users to use mobile devices as substitutes for computers. These mobile devices are capable of performing complex functions, which enable users to manage their finances through mobile devices.

There are three different kinds of architecture for m-banking. SMS-based systems work in almost any mobile device. Web-based systems are similar to internet systems and they are more popular in the USA. The client application system offers robust solutions to m-banking. However, all of these systems have security issues and these need to be identified and addressed in a proper fashion. Confidentiality, authentication, integrity and non-repudiation are the most important security requirements for any mobile banking system.

Authentication of the user and encryption of the data presents serious challenges to the mobile banking system. Implementing the various types of authentication and encryption technology can improve the m-banking security, which reduces customers' fears concerning security issues and increases their trust in the m-banking system. Digital signature and WPKI technology can play a significant role in the authentication of the user and the messages or documents sent by them. These additional measures of security technology can make a huge impact on m-banking.

Mobile banking (m-banking) has great potential for growth. However, as the numbers of m-banking users increase, the security issues and threats will also increase. Therefore, banks need to address these security issues and build a safe and secure m-banking system.

4.10 The History of Electronic Banking (E-Banking) in Zimbabwe

The history of e-banking in Zimbabwe can be traced back to the 1980s with international banks transacting online and using client-server applications with other international banks. The increased use of e-banking technologies in commercial transactions increased in 1997. The adoption of the technology among individual customers is still very slow. Internet banking is an innovation in Zimbabwe. Therefore, it is a worthwhile topic to study so that the quality of Zimbabwe's banking sector can be improved for the future. By the same token it is important to note that internet banking has been widely studied in

developed countries and very few studies have been undertaken in Africa and its adoption has not been investigated in Zimbabwe. The literature shows that there are problems when it comes to the adoption and use of internet banking on the African continent. There is lack of experience within individuals and organizations and most of the potential users are unqualified. The reasons cited compelled the researcher to choose this topic as an area of study.

4.10.1 Electronic-banking (e-banking) preliminary stages (1997–2003)

Electronic-banking (e-banking) was introduced in Zimbabwe in 1997 with Barclays Bank being the first to introduce Automated Teller Machines (ATMs). The manual system was predominant in those days and other banks followed suit as per regulation from the Reserve Bank of Zimbabwe. The adoption of ATM cards was embraced by bankers as it was a fast and flexible option to access funds. The majority of the civil service shifted towards using e-banking facilities. Later in 2001, more disruptive innovations from ZIMSWITCH added to the e-banking developments in the country. The facility permitted transactions using ATM cards in retail outlets and payment of services and bills. By 2002 the majority of banks had integrated ZIMSWITCH applications to their banking card services and also the Fast Moving Consumer Goods (FMCG) industry installed Point of Sale (POS) terminals supporting the use of the service.

Mail banking started developing with increasing popularity among the early adopters of the innovation. This became necessary due to the introduction of the internet and personal computers to the populace in Zimbabwe. The challenge, however, was that mail banking was only limited and accessible to businesses and premium bankers and it facilitated communication only and instructed third party transactions. Mail banking is identified as the first form of internet banking medium in the e-banking history of the country. Also mail banking is recognized as one of the primary forms of communicative website tools used by banks among other mediums including intranet mail packages.

Internationalization factors also came to play, as the majority of the populace migrated to foreign countries in the search for greener pastures. Registered mail in the earlier stages of the period was the main medium used to send money from overseas as well as the remittance service accessible through the Central bank and other commercial banks. Due to the various complications of authentication and loss of funds during transfer, an organization, Western Union (a multinational company) was initiated in the country. Their business model was targeted mainly towards cross-border traders, individuals and business that sought to remit funds to the country from Europe and America. The business concern later enlarged its cosmopolitan boundaries, as sending and receiving money from all countries became permissible. Western Union integrated with local banks for transactions across the country through creating an office in nearly all of the banks in the country.

4.10.2 E-banking during the hyper-inflation period (2004–2008)

During the hyper- inflation period, Zimbabwe went through a macro-economic meltdown which reached 12.875% per year. Economic theory states that the hyperinflation period in Zimbabwe was due to money supply issues as more money was placed into circulation compared to the Gross Domestic product (GDP). This situation posed great challenges to the acceptance and usage of plastic money services as the money supply was determined by parallel market activities. The notion that money is best kept in the form of cash was now common in society and this promoted speculation habits by bank users. Malpractices such as the selling of cash, both local currency and foreign currency in the black market were practiced, and for holders of plastic money, getting cash was a challenge, and people would pay exorbitant amounts for cash. There was much frustration as many banks filed for bankruptcy and disappeared with voluminous sums of money belonging to customers. The shutting down of banking operations was caused by the deliberate increase in the statutory reserve by the Reserve Bank of Zimbabwe and also the weak deposit protection policy in the country. These factors frustrated the society and prevented them from using e-banking services and plastic money as people viewed the option as a risky form of currency. Customer perceptions on the dependency of using plastic money services were negative and it would take a revolution to persuade civilians and organizations of the usefulness of plastic money as a medium of exchange. Even up until today plastic money is less preferred less in comparison to cash.

The hyper-inflation period was also associated with lesser developments in terms of investment in related infrastructure to support free flow e-banking and transacting. Various factors including technological, economic, demographic and information security issues had a significant bearing on the progression of such developments. The lack of infrastructure accompanied by weak awareness campaigns constrained the development of e-banking mediums in the country. In other countries in southern Africa, like South Africa, the government and telecommunications companies created partnerships to make extensive investment in e-banking infrastructure. The situation was different in the case of Zimbabwe, as there were distractions in the adoption of plastic money and e-banking services in the country.

 Much of the bankers' business was based on international transactions and they levied exorbitant charges based on foreign currency. Competition on international transacting started to increase as the new concern meant business to the bankers. Banks that did not supply international banking services were forced out of business. Banks like CBZ, Barclays Bank, Standard Chartered Bank, who were direct competitors of Western Union, survived because of their flexibility in terms of service delivery on the grounds of international transacting.

4.10.3 E-banking during the dollarization period (2009–2015)

In 2009, the creation of an inclusive government brought about the 'dollarization policy' as a means to relieve the country through re-industrialization so as allow the country to regain its economic standing. This was well-supported to such an extent that the country's liquidity standpoint was stabilized. The daily cash withdrawal limit was raised and there was an increased adoption of e-banking services by the populace. The institution and standing of the Deposit Protection Corporation of Zimbabwe was propagated and, as such, acceptance of e-banking services became popular among the people as security and insurance of public funds was settled.

Disruptive innovations supporting phone and banking applications, triggered by the technological explosion, started to bear fruit. Telecommunications companies introduced m-banking applications and mediums including Ecocash, Telecash, and Netcash. Private institutions also followed by providing mobile banking applications like Mukuru and Nettcash among others. In turn, banking institutions followed suit provided SMS banking services that would allow for real time information on account activities, authentication and inter-bank or platform transacting. The phone banking innovations were widely accepted because of their ease of registration, access and the cost of maintaining such accounts where the switching costs to adopt m-banking were significantly low.

The period also witnessed increased electronic funds transfers due to the advent of advanced and modernized methods of payment in retail outlets. The enlargement of ZIMSWITCH and the Eco-cash Debit Card services as payment methods in retail outlets escalated. The increases in service use were mainly attributed to the increase in e-banking infrastructure, moral persuasion by the Central Bank and modernization.

4.10.4 E- banking during the cash crisis period (2016–2017)

This period was associated with cash shortages as the Central Bank introduced a local currency referred to as 'Bond note' which was perceived as a weaker currency on the money market. The advent of the currency has promoted activities such as speculation, parallel market activities and money borrowing as households and businesses panicked because they thought their money would lose value through holding an unstable currency. The situation created money-supply shocks as households and business held cash speculatively. Long queues at banks and rejection of plastic money as a medium of exchange were the common problems encountered and this became a concern for the advancement e-banking in the country. To transact using plastic money, one had to supplement the transaction with a trading fee to cushion the seller as this was perceived to be an expensive medium of exchange. The use of plastic money as a

payment method posed challenges as it was not readily accepted resulting on people preferring to trade in cash. The challenge worsened as result of poor service delivery by telecommunications companies that made clients fail to access trading platforms.

The problem, however, is of mixed benefit as organizations that supported e-banking during the period made major profits as clients sought to exhaust plastic money reserves as soon as they get inflows. This, however, has constrained SMEs that do not have the competencies to meet the requirements of using e-banking services. For much of the business, reduction of market share, turnover and profits and, in extreme cases, shutting down are common characteristics of SMEs failing to adopt e-banking mediums in the country. The survival of the e-banking strategy as a business and payment model are threatened as the economy is heading towards a meltdown associated with inflation, a liquidity crunch and the shutting down of organizations.

4.10.5 Current state of e-banking in Zimbabwe

Zimbabwe is currently facing hard cash shortages and the Reserve Bank of Zimbabwe is encouraging the use of e-banking for all transactions. In a Herald newspaper article from 24th November of 2016, in an article titled 'Dr Mangudya blasted retailers demanding cash payments', the number of electronic payments were reported to have been on the rise by 38.7% since October. This means that the cash shortages are forcing people to embrace electronic transactionsd. Virtual transactions are also on the rise, especially on the telephone, as people are now doing interbank transfers over their cell phones. In the past, some banks like NMB were actually broadcasting that they were no longer allowing people to use paper-based transactions from January 2017. This is meant to increase the usage and adoption of e-banking.

Bond notes are financial instruments, guaranteed by an international financial organization to the tune of US$200 million, issued at par with the US Dollar (1:1). Bond notes are issued as an incentive to exporters of goods and services and are available for use by the transacting public within Zimbabwe. Bond notes will be redeemable for US dollars or any other currency within the multi-currency system. Bond notes are not Zimbabwe dollars for they are not a currency but financial instruments, issued on par with the US Dollar. Bond notes will be used as a medium of exchange in the same manner that bond coins are being used. They will be available for use by the transacting public. Bond notes will have the same value as the US dollar. Bond notes derive their value from the US$200 million facility, which caps the amount of bond notes to be issued at the facility amount. The bank cannot issue bond notes in excess of the limit. The bank can only issue bond notes against export performance up to a limit of US$200 million.

The partners involved are reputable institutions that have a name and international rating to protect. The bank is putting in place an independent body to monitor the issue of bond notes and information relating to bond notes in an open and transparent manner. Bond notes cannot be used in other countries. Just like the currencies of the Common Monetary Area which include South Africa, Namibia, Swaziland and Lesotho, whose currencies are pegged 1:1 with the Rand, they are not legal tender outside their borders, but the Rand is in all member countries. Bond notes are also an anti-money laundering tool that is useful in guarding against the externalization of the US dollar. The Zimbabwean economy has continued to suffer from foreign exchange malpractices since the adoption of the multi-currency system in 2009. The foreign exchange malpractices include externalization, capital flight, hoarding of US dollar in cash and the looting by unscrupulous businesses and individuals. Bringing in bond notes will mitigate against such malpractices and other vices that have become entrenched in the economy. Bond notes will therefore preserve the value of Zimbabwe's foreign exchange reserves up to the maximum limit of the facility. Bond Notes will remain in existence as long as the facility guaranteeing their existence is in place. They will also remain in circulation as long as the economic fundamentals required to issue a local currency are not in place. Such economic fundamentals include: minimum foreign exchange reserves equivalent to one year of import cover; balanced and sustainable government budget; sustainable interest rates; high consumer and business confidence; sustainable level of inflation; and a healthy job market.

The bank has considered and taken note of the public's concerns, fear, anxiety and skepticism surrounding bond notes which are all about trust and confidence within the economy. The bank has decided to introduce smaller denominations of bond notes of $2 and $5 which will compliment bond coins in dealing with issues of change and small purchases of goods and services (RBZ, 2016).

Currently in Zimbabwe, people are using ATMs to pay their electricity, water, and telephone bills. Many grocery shops such as OK Zimbabwe, TM supermarket, N. Richards Wholesale, Metropeech, Spar and many others also accept payment through ATM cards. Filling stations also have swipe machines. This means that when people get their salaries they can make many payments through the ATM. The only payments which they cannot make are rentals, and payments of domestic workers as these do not have swiping machines, but they still can use mobiles and the internet to pay these people so they do not have to move around with cash.

Mobile phones are used to make interbank transfers, purchase goods in shops, bill payments and also exchange money. The majority of people, even school children, are using m-banking. In Zimbabwe mobile telecommunications companies are allowed to keep money for their clients and individuals can send each other money through cell phones and this exchange is monitored by the telecommunication

company and controlled by the Reserve Bank of Zimbabwe. The most popular platform that people use is Ecocash, a company run by Econet, a telecommunication company. Other platforms include One wallet by Netone, Telecash by Telecel, and Getcash which changed its name from Nettcash. Besides telecommunications companies using m-banking, banks can also link their accounts to their mobile numbers, such that they can also make quite a number of transactions using mobile phones.

The Reserve Bank of Zimbabwe (RBZ) which is the regulatory authority for banking in Zimbabwe, also orders banks to charge transaction fees for people who buy using ATM cards in shops. At the moment, it is cheaper to use e-banking platforms for transactions and this is increasing the usage of e-banking. For example, to transfer money from ZB bank to another bank or account using the traditional paper-based money costs $5 no matter how much you are transferring, while it costs less than a dollar to transfer $500 to another bank using an application called ZIPIT.

Despite the increased usage of e-banking, some shops are charging higher prices for people who use e-banking as they still believe in hard cash. (The Herald, 16 November 2016). Shortages of some commodities such as fuel, have been experienced and this has led to the emergence of cash mongers who demand cash payments for these commodities.

On the other hand, using the network is sometimes a big drawback to electronic payments as some point--of sale (POS)-machines may sometimes not be working properly and may record the transaction as failed while at the same time, it would have deducted money from the client's account. This has the effect of reducing the confidence of people. The other challenge being faced, is that some retailers are refusing to accept electronic payments and want hard cash which means people need cash for some transactions, especially those in rural areas where there is no electricity for POS machines to operate. Moreso, people are used to the conventional way of using cash to pay for goods and services, hence the electronic method needs getting used to. Those who sell small items like vegetable vendors and those who sell scratch cards for recharging phones will not accept any form of payments besides cash. The government is, therefore, trying every means to make sure all people use e-banking, but it is a mammoth task to improve infrastructure to make sure e-banking is adopted.

While the government is encouraging the use of plastic money, it is only a short-term measure to solve cash shortages. The long-term measure which the government of Zimbabwe intends to use, is to increase liquidity in the market through the use of bond notes. This is because Zimbabwe adopted the use of multi-currency in 2009 when inflation hit its dollar and has since dropped its own currency and now uses the currencies of other countries. The main currency used is the United States dollar. Of late there have been challenges in terms of shortages of this on the market which has prompted the use of plastic money. This

means e-banking has been adopted temporarily. The use of bond notes by government shows that it is not committed to the use of plastic money as they still want to solve the problem of cash shortage. Therefore, now that the bond note has been introduced, it is likely that e-banking is going to suffer, as people are going to return to their traditional ways of transacting.

4.12 Conclusion

This chapter looked at the historical development in Zimbabwe, and also how each e-banking tool started and where it is right now. Initially banking origins were explored, where the origins were traced back from the back in 1921 when the terms were first used in Venice. Furthermore the background of banking in Zimbabwe was explored before moving on to look at a list of banks operating in Zimbabwe. The chapter also gave an insight into how each e-banking tool works and, finally, looked at the pros and cons of each tool. The chapter also looks at the ways of overcoming threats to e-banking. The next chapter looks at methodology and discusses the research design and the research approach used.

CHAPTER FIVE

RESEARCH METHODOLOGY

5.0 Introduction

This chapter looks at the research methods, the research philosophies the research design and the research approaches used. The research utilized a mixed methods approach where both quantitative and qualitative approaches were used. The researcher chose this approach as some objectives could better be approached quantitatively, while others could be achieved qualitatively. Research methodology defines what the activity of the research is, how it proceeds, how its progress is measured, and what constitutes its success. (Cohen and Manion, 1994). It is also defined as a logical basis for collecting and interpreting data followed by an analysis of the findings (McNeill, 1990, p. 14). Research methodology is a method, technique or procedure used in conducting research. Lichtman (2006, p. 219). The chapter outlines and justifies all the activities that were used to collect data.

5.1 The Research Onion

The research 'onion' as conceived by Saunders et al. (2009) was used in this research. This model was developed to guide research methods and methodology. Bryman et al. (2014, p. 383) defined a research method as a technique for collecting data and which can involve one or more specific instruments such as self-completion questionnaires, structured interview schedules, participant observation, structured surveys, focus group discussions, observations, interpretation of documents, secondary data and internet research methods. Saunders et al. (2008, p. 595) defined methodology as the theory of how research should be undertaken, including the theoretical and philosophical assumptions upon which research is based and the implications of this for the method or methods adopted. The research 'onion' summarizes the research methods and methodology that the researcher used, in an effort to make it easy for readers to understand how the research was undertaken.
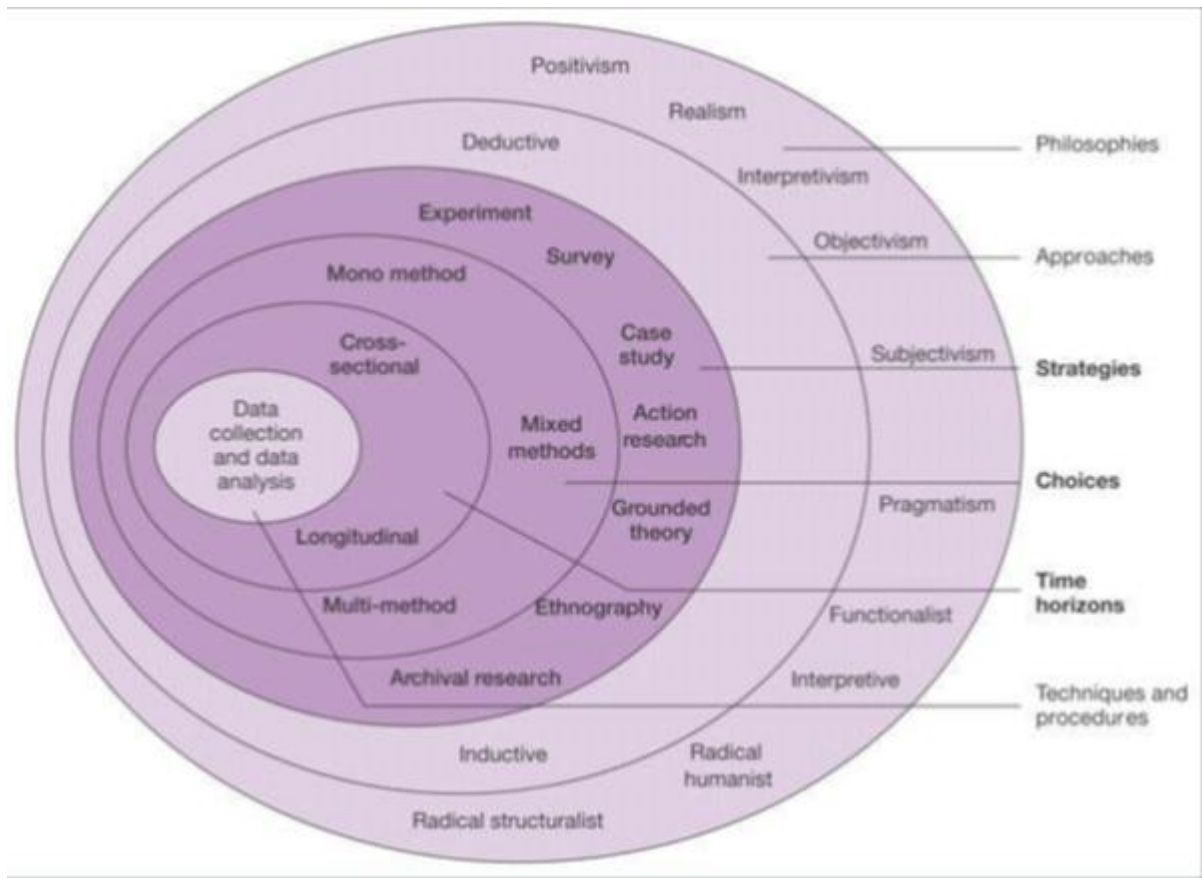
Figure 4.1: The Research onion.

Adapted from Saunders et al. (2009)

The research 'onion' by Saunders et al. (2007) was modified to suit this research study's objectives and the following research 'onion' was adopted. It clearly explains how the research was carried out.

5.1.1 Research philosophy

According to Saunders et al. (2009, p. 108), "research philosophy as an overarching term relating to the development of knowledge and the nature of the knowledge." Saunders et al. (2009) categorized research philosophies into three: which are Epistemology, Ontology, and Axiology.

Saunders et al. (2009, p. 112) highlighted that Epistemology refers to what is acceptable knowledge in a particular field of study and they can be classified into 3 main taxonomies: positivism, realism, and interpretivism. "Positivism concerns working in the position of the natural scientist" (Saunders et al., 2009: pp 112). Positivism is objective-oriented, implying that the researcher does not arrive at

conclusions before analysis of the results. Positivism views knowledge as hard, real, objective and tangible just like natural science observes phenomena. Anti-positivism assumes that knowledge is soft and subjective. Anti-positivism looks at knowledge as personal, subjective, unique, soft, and transcendental. Positivism leads to the quantitative approach to research while anti-positivism leads to the qualitative method. Both positivism and anti-positivism were used in this research as both quantitative and qualitative data was used. The researcher believed that both were useful as some objectives could be fulfilled partly using quantitative data and partly qualitative data. "Realism is a scientific enquiry to find out if objects exist independently of our knowledge of their existence" (Saunders et al., 2009, p. 114).Interpretivism is concerned with understanding the differences between humans as social actors and advocates that it is necessary, for the researcher to understand differences between humans in our role as social actors (Saunders et al, 2009: p.115)." This research adopted this philosophy as it tried to find out why some people use e-banking while others do not.

"Ontology is concerned with the nature of reality and concerns issues to do with objectivism and subjectivism" (Saunders et al., 2009, p. 109). Objectivism portrays the position that social entities exist in reality, external to social actors concerned with their existence, while subjectivism holds that social phenomenon are created from the perceptions and consequent actions of those social actors concerned with their existence (Saunders et al., 2009: pp109). This research looks into the perceptions of customers on e-banking and there is the belief that these perceptions are important contributors towards their adoption of e-banking. It therefore, adopts the subjectivist philosophy.

"Axiology is a branch of philosophy that studies judgments about value" (Saunders et al., 2009, p.115). This research had a question that looked at value where the researcher wanted to find out whether people value e-banking. The question was on the convenience of e-banking where customers were asked whether e-banking is convenient or not. This was meant to find out the perceptions of Zimbabweans concerning e-banking facilities in Zimbabwe.

Saunders et al. (2009) further argue that the philosophy a researcher adopts, contains important assumptions about the way the researcher views the world. "Pragmatism argues that the most important determinant of the Epistemology, Ontology, and Axiology you adopt, is the research question where one way may be more appropriate than another, to answer a particular research question" (Saunders et al., 2009: p.100).

5.2 Research approach

The research approach can either be deductive or inductive (Adams et al., 2007). This study took the deductive approach where the researchers started off with general statements to reach the specifics. General statements were e-banking adoption challenges worldwide while the specifics were e-banking adoption challenges in Mashonaland West, a province of Zimbabwe. The researcher used a mixed-method approach in the collection of data. The research 'onion' by Saunders was also utilized. The research 'onion' is useful in that any research methodology in a variety of contexts can be extrapolated from it (Bryman, 2012). The research 'onion' is a comprehensive guide to research that requires the researcher to design a relevant research thread that links relevant research methodologies.

5.3 Research paradigm

In order for the research to achieve the set objectives efficiently, it will follow both a quantitative as well as a qualitative method thus it is supposed to be mixed-methods research. This is supported by Harrison (2013) who argues that business scholars realize the benefit of this method. Quantitative data will be used to provide the numerical measurements and analysis of the dynamics of adoption, while qualitative data will reveal the feelings and opinions of people. According to Creswell (2003, p. 153), "quantitative research entails collecting data in order to quantify and subject information to statistical treatment so as to support or refute alternate knowledge claims."

5.4 Research design

The research design is a framework that has been created to seek answers to research questions. It includes how data is to be collected, what instruments will be employed, how the instruments will be used and the intended means of analyzing the data collected. According to Gray (2013), the research design stipulates the purpose of the research. An appropriate research design is determined by the research objectives and information requirements. There are various research methods which might be used in a research. These include descriptive design, experimental design and exploratory research design. For the purpose of this research, a causal research design was used by the researcher.

This research utilized the descriptive research design which, according Robson (2002), serves the purpose of portraying an accurate profile of persons, events or situations According to Bellis (2003, p. 436), a descriptive research is the process of describing the characteristics of any selected phenomenon. Sekeran and Bongie (2016, p. 97) argued that the objective of descriptive study is to describe and that descriptive studies are often designed to collect data that describes the characteristics of persons, events, or situations. Sekeran and Bongie (2016, p. 97) again highlight that these studies can take either quantitative or

qualitative approaches and may help the researcher to:

a)   understand the characteristics of a group in a given situation, for example the profile of a specific segment of a market; and

b)   think systematically about aspects in a given situation, for instance factors related to job satisfaction.

This study tries to describe the attitudes of consumers towards electronic banking (e-banking). These attitudes represent the accurate profile of people and it tries to discover what really motivates them to want to use e-banking or traditional banking.

Other types of research design include causal and experimental design.

(i) Causal research design

Zikmund (2006) asserts that a causal research design involves a cause and effect relationships between two variables which are the independent and dependent variables which provide significant and meaningful facts. Zikmund (2001) warns against using this research design It only works under the conditions that state that the event must occur either before or simultaneously with the effect. It cannot occur afterwards and the absence of other possible causal factors means that the variable being investigated should be the only possible causal explanation.

The researcher utilized both open-ended and closed-ended questions for both the interview and questionnaire as in Appendix A. Six questions were asked of managers of various financial institutions, mainly probing their views of consumer expectations when using e-banking facilities while 10 main questions were asked of consumers, mainly probing their attitudes towards electronic banking and their expectations when using it.

(ii) Exploratory research design

According to Sekaran and Bongie (2016, p. 96), exploratory research design is undertaken when not much is known about the situation at hand, or no information is available on how similar problems were solved in the past. Shajahan (2009, p. 33) describes exploratory studies as a valuable means of finding out what is happening in order to seek new insights, to ask questions, and to assess phenomena in a new light. It is useful when one wishes to clarify an understanding of a problem. Shajahan (2009, p.33) defined the following conditions under which an exploratory study is conducted as:

a)   to design a problem for investigation and to formulate a hypothesis,

b)   to determine the priorities for further research,

c)   to gather data about the practical problems in carrying out research on particular conjectural statements,

d)   to increase interest of the analyst towards the problem; and

e)   to explain basic concepts.

This research does not meet the criteria above, hence the reason why an exploratory study was not chosen as the appropriate design for this research.

<u>(iii) Causal research design</u>

Under causal studies the researcher is interested in delineating one or more factors that are causing the problem (Sekaran and Bongie, 2016: p. 98). According to Sekaran and Bongie (2016), causal studies should meet the following four conditions:

a)   the independent and the dependent variable should co-vary,

b)   the independent variable (the presumed causal factor) should precede the dependent variable,

c)   no other factor should be a possible cause of the change in the dependent variable; and

d)   a logical explanation (a theory) is needed and it must address why the independent variable affects the dependent variable.

This research does not probe into the cause and effect. Neither does it meet the above criteria, therefore, the researcher could not adopt the causal research design.

5.5 Research strategy

Saunders et al., (2009, p. 600) defined a research strategy as a general plan of how the researcher will go about answering the research questions. The strategy utilized in this research is a survey research strategy. According to Fink (2003) as quoted by Sekaran and Bongie (2016, p. 102), "a survey is a system of collecting information from or about people to describe, compare, or explain their knowledge, attitudes, and behaviour." Survey systems require setting objectives for data collection, designing the study, preparing a reliable and valid instrument, administering the survey, managing and analyzing the survey data, and reporting results Fink (2003), as cited by Sekaran and Bongie (2016, p. 12). In a business

context, surveys are often used to determine the causes of consumer-decision making, customer satisfaction, the use of health services, and management of information systems and are used in exploratory, descriptive, and causal research. (Sekeran and Bongie, 2016, p. 102). Since this research tries to find out customer satisfaction with e-banking facilities in Zimbabwe, the survey approach was found to be the most suitable strategy.

Other strategies that can be used in a research include experiments, observations, grounded theory and action research. Experiments are usually associated with deductive research and a scientific hypothetical-deductive approach to research Sekeran and Bongie (2016, p. 102).

According to Sekeran and Bongie (2016, p.102-103), "observation involves going into the natural setting of people, watching what they do, describing, analyzing, and interpreting what one has seen, they define observation as the planned watching, recording, analysis, and interpretation of behaviour, actions and events."

Case studies focus on collecting information about a specific object, event, or activity such as a particular business unit or organization (Sekeran and Bongie, 2016, p. 103). In case studies the case is the individual, the group or the organization, the event or the situation that the researcher is interested in. (Sekeran and Bongie, 2016, p.103). According to Yin (2009), as quoted by Sekeran and Bongie (2016, p. 103), a case study is a research strategy that involves an empirical investigation of a particular contemporary phenomenon within its real-life context using multiple methods of data collection. Saunders et al. (2009) defined a case study, as a strategy that involves the empirical investigation of a particular contemporary phenomenon within its real life context, using multiple sources of evidence. Bryman et al. (2015) consider a case study, not as a strategy, but as a research design and highlight that it involves the detailed and intensive analysis of one or more cases which the researcher aims to study in-depth. Bryman et al. (2015, p. 110) further argue that a case can be a single organization, a single location, or a single event. The researcher formulated the research as a design whereby the case was Mashonaland West Province. The case was mixed with descriptive design to make it a descriptive case-study design.

Grounded theory, according to Gorbin (1990), as quoted by Sekeran and Bongie (2016, p. 103), is a systematic set of procedures to develop an inductively-derived theory from the data. This researcher's main objective was not to develop a theory. The strategy, therefore, falls away.

Action research is sometimes undertaken by consultants with the idea of initiating a change (Sekeran and Bongie, 2016, p. 103). In this case, the researcher begins with a problem that has already been identified

and gathers relevant data to provide a tentative problem situation used to achieve more reliable results as multiple ways are used to gather data to fulfil the main objectives (Sekeran and Bongie, 2016, p. 103).

5.6 Time horizon

Longitudinal research involves the study of a sample (or cohort) on more than one occasion. They cover long periods of time, sometimes a decade and follow the sample a repeated number of times (Adams et al., 2007). According to Sekeran and Bongie (2016), for longitudinal studies, data was gathered at two different points in time.

Rindfleisch et al. (2008) defined cross-sectional study as a survey research in which each respondent completes the survey at one point in time. Sekeran and Bongie (2016) defined a cross-sectional study as a study in which data is gathered just once, perhaps over a period of days or weeks, or months in order to answer a research question and can also be regarded as a 'one-shot' study. Shajahan (2009, p. 34) argued that longitudinal studies take the form of a sample of respondents who are studied over a period of time from a few months, to a few years. Since the researcher was supposed to work under a limited time period, the cross-sectional approach was adopted.

5.7 Data collection methods

The researcher used self-administered questionnaires. The researcher also made use of research assistants in data-collection so that it would be easy to collect data from all the thirteen districts in Mashonaland West. The assistants were mainly Chinhoyi University of Technology students doing a research methods course. The researcher made use of these students as the province is very large and, therefore, he could not cover it by himself. The researcher also chose students doing research methods as they had at least some knowledge of research which was further improved by this field work. The researcher personally conducted some interviews with the managers of financial institutions. Appointments with the managers were done via telephone and the researcher had to meet and interview the managers as per the scheduled time. The interviews took around fifteen minutes each.

5.8 Study Site

The study was carried in Mashonaland West Province in Zimbabwe. Mashonaland West is the province where the researcher resides and this was very convenient for him. It has thirteen districts, which are Chegutu rural, Hurungwe, Mhodoro Ngezi, Kariba rural, Makonde, Zvimba, Sanyati, Chinhoyi, Kadoma, Chegutu, Kariba, Norton, and Karoi. Mashonaland West has around 11% of the population of Zimbabwe with 75% of its population residing in the rural areas. The most popular activity in the area is

farming. Literacy-rate according to the latest census in 2012 in Zimbabwe was 96%. This constitutes people who can read and write.
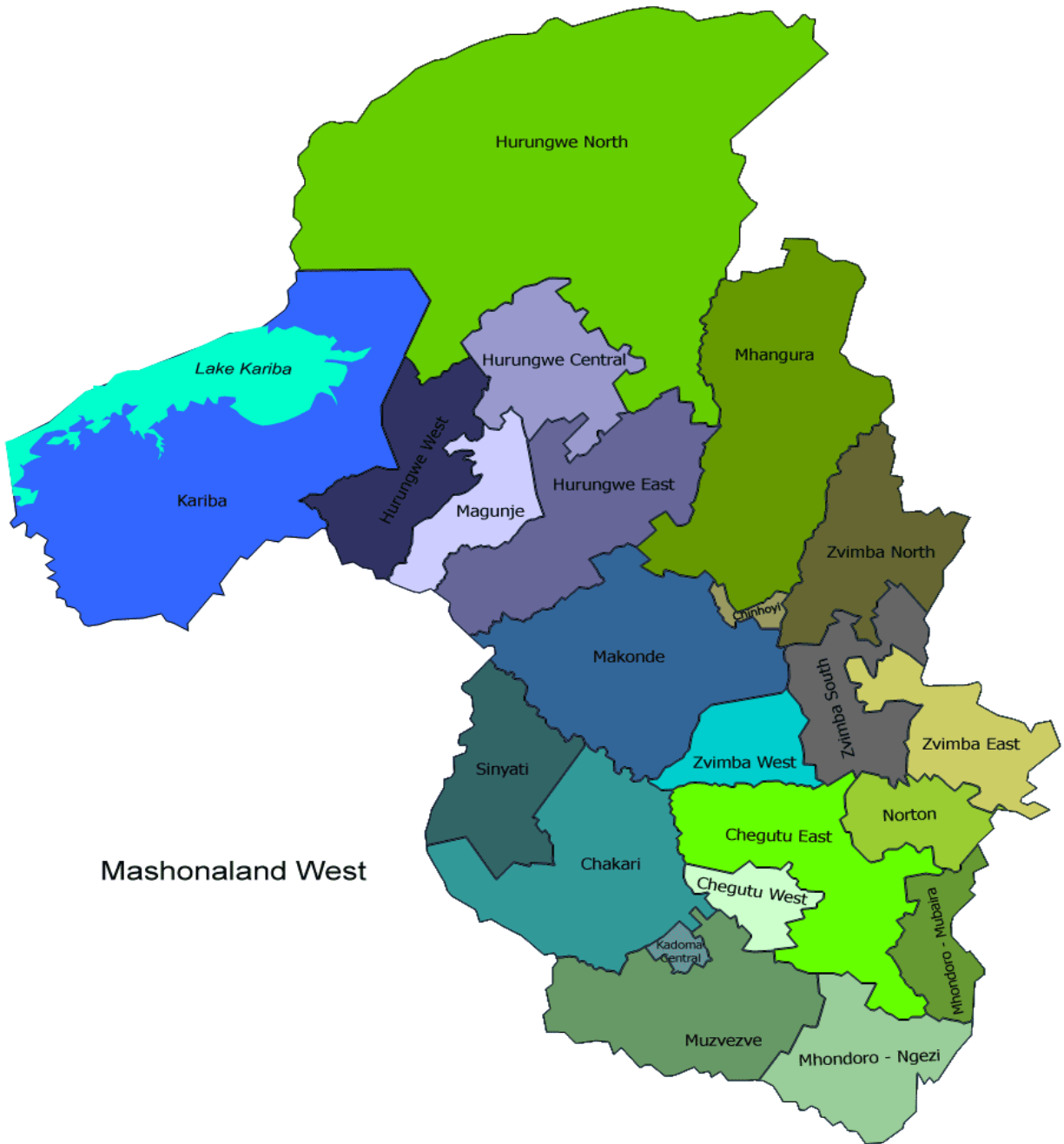
Figure 4.2: Map showing the Districts of Mashonaland West Province, Zimbabwe.

Source: www.worldatlas.com

Figure 4.3 Whole map of Zimbabwe

Source: www.worldatlas.com

5.9 Target Population

A population may be defined as the full set of cases from which a sample is taken, (Saunders et al., 2011) or a group of people from which the desired information is wanted (Coolican, 2014). The researcher targeted a population of approximately 825 911 people as, according to a 2012 Census survey in Zimbabwe, the ages of those who are economically-active and who reside in Mashonaland West, range from 15 years to 64 years. This group constitutes the target group for banking services and, therefore, is the group that can relate well to e-banking services in Zimbabwe.

5.10 Sampling Strategies

Saunders et al, (2009, p. 210) defined sampling as "the collection of data from a sub-group of all possible cases or elements." The researcher made use of non- probability convenience sampling techniques based

on the availability of people at resting places like parks in town and townships in Mashonaland West Province. Saunders et al. (2009:p.213) argued that non-probability sampling is the selection of elements using sampling techniques in which the probability of each case being selected from a population is not known. Probability sampling in this case is impossible due to unavailability of a sampling frame. Probability sampling involves the selection of a sample from a population, based on the principle of randomization or chance (Zikmund, 2000).

a) Convenience sampling

Saunders et al. (2011) suggested that convenience sampling, which is also called haphazard sampling, involves selecting haphazardly those cases that are easiest to obtain for your sample, such as the person interviewed at random in a shopping centre for a television programme or the unpremeditated selection of a book about entrepreneurship you find at the airport. The sample selection process is continued until the required sample size has been reached. This method is easy especially for a large population where it is difficult to get a sampling frame. Moreover, it saves time when carrying out research. However, the researcher has to guard against getting responses from a homogeneous group of people. Therefore, there is need to collect data from different points where different kinds of people gather. The researcher made use of convenience sampling to interview 13 managers from the following financial entities involved in e-banking: Zimbabwe Bank (ZB), Commercial Bank of Zimbabwe (CBZ), Standard Chartered, NMB Banking Corporation, BancABC, People's Own Saving Bank, CABS, Ecocash, Telecash, Nettcash, and One Wallet.

b) Purposive sampling

For the purposes of selecting managers, purposive sampling was used. Purposive sampling is also known as judgmental sampling (Saunders et al., 2009, p. 237). According to Saunders et al. (2009, p. 237), purposive sampling enables a researcher to use his or her own judgment when selecting respondents who would enable him/her to answer the research questions. The researcher interviewed managers whom he judged had information pertaining to e-banking.

5.11 Sample Size

The researcher made use of Krejcie and Morgan's (1971) statistical table of sample sizes at 5% margin of error and 95% confidence level, to come up with a suitable sample size. From the table, the researcher was going to consider a sample of 384 as recommended by Krejcie and Morgan (1971). The total

economically-active population for Mashonaland West, as reflected in the census report of 2012, is 825 911 which is 55% of the total population of 1 501 656. According to Krejcie and Morgan's table, a sample size for such a population is supposed to be 384. This was distributed across the Mashonaland West District proportionally.

Table 5.1: Population and Sample by District

Branch	Population	Sample
Chegutu rural	153 655	39
Hurungwe	329 197	84
MhondoroNgezi	104 342	27
Kariba rural	41 329	11
Makonde	153 540	39
Zvimba	263 020	67
Sanyati	112 897	29
Chinhoyi	77 929	20
Kadoma	92 469	24
Chegutu	50 590	13
Kariba	26 451	7
Norton	6 7 591	17
Karoi	28 606	7
Total	**1 501 656**	**384**

The table sample size per district is determined by the proportion of each district's population divided by the total population and this is expressed as a proportion of the target sample size, which is 384.

Furthermore, the researcher interviewed 13 top management staff who work for financial institutions in Mashonaland West. These were selected using judgmental sampling, where the researcher chose one manager from each financial organization in Mashonaland West Province.

5.12 Sources of Data

Data was gathered from both primary and secondary data sources.

a)Primary data

Primary data was gathered from questionnaires and interviews.

Shajahan (2009, p. 43) highlighted the following advantages of primary data.

(i)   It is the first-hand account of the situation. A phenomenon can be observed as it is taking place.

(ii) It has greater reliability of the information as the investigator collects the data for himself/ herself and can therefore, take precautions to ensure reliability.

(iii) It is a logical starting point for research in several disciplines.

(iv) Primary data is the only source that helps in knowing opinions, personal qualities and attitudes.

However, Primary data according to Shajahan (2009, p. 43) has the following disadvantages.

(i)It is expensive to collect in terms of both time and money.

(ii)There is greater scope for bias by the researcher. The researcher was very fair in this research and made every effort to make sure there was no bias.

(iii) The sample selection might not be representative enough.

5.13 Research Instruments

Oppenhein (1992) defined research instruments as tools for collecting the data needed to find solutions to a problem under investigation. Weyner (2005) asserted that a research instrument is one which is used to obtain information concerning a particular issue from individuals. The researcher used a questionnaire and an interview guide. A questionnaire was distributed to potential users of e-banking who are ordinary while interviews were conducted with the managers of various financial institutions in Mashonaland West.

a) Questionnaire design

Gillham (2008) described a questionnaire as being a research instrument consisting of a series of questions and other prompts for the purpose of gathering information from people about their knowledge, beliefs, attitudes and behaviour in a research survey or within clinical trials or epidemiological studies. It serves four basic purposes: to collect the appropriate data, make data comparable and amenable to analysis, minimizes bias in formulating and asking question, and to make questions engaging and varied. Heaton (2004) defines a questionnaire as a list of questions that are carefully formulated, constructed, and sequenced so as to obtain most useful data in the most cost-effective manner, while Leedy (1996) defines a questionnaire as a document that contains questions that are designed to solicit information for appropriate analysis. This researcher used a questionnaire as an instrument consisting of a series of questions and other prompts for the purpose of gathering information from respondents. The questionnaires designed comprised both closed-ended and open-ended questions for the maximum utilization of the opportunity in data-gathering.

The researcher designed simple and direct questions so that no ambiguity would be met by the respondents. The questionnaire was designed so that it met objectives to ensure that the respondents fully understood the questions and were not likely to refuse to answer. The researcher utilized structured questionnaires to elicit responses from Mashonaland West residents. Questions were designed to capture people's attitudes towards electronic banking (e-banking). The main research instrument that was used was a questionnaire and it was widely distributed. Interviews were also used to allow for probing top management at financial institutions in Mashonaland West. Open-ended questions were used for further probing while closed-ended questions were used to quantify and analyse. Interview questions consisted of structured and unstructured questions. About 96% of Mashonaland West Province was found to be literate, and that was the reason why the researcher used the questionnaire survey because almost everyone could read and write.

5.14 Data collection Procedure

The researcher personally collected data in many circumstances, therefore, he travelled around Mashonaland West districts, towns, growth points and townships to collect data while, in some instances, he employed some data collectors whom he monitored closely to avoid bias. Personal collection of data is more effective than other methods of data collection as there are very few disappointments. No appointments were made with customers, but the researcher simply used cold canvassing at the research

collection points like parks and other resting points, where the researcher asked people to be so kind as to fill in the questionnaire through the help of bank officials. This was not very easy as some of them did not want to be disturbed while resting. Some would want to get material benefits from participating. Very few participated and, as a result, it took the researcher three months to collect the data. For interviews, the researcher called branch managers and booked an appointment with them. On average, the interviews took twenty minutes to conduct.

5.9 Data Quality Control

The researcher used pilot tests on research instruments to ensure the validity of the research instruments. In this case the researcher gave ten questionnaires to fellow employees to fill in and then checked on the responses to correct ambiguous questions. The pilot study also helped to make sure that the responses gave answers to the research questions. On top of the pilot survey, the research instruments were also peer-reviewed by fellow PhD students and the researcher also received expert advice from the supervisor and the Ethical Clearance Committee at the University of Kwazulu Natal where the studies were done.

5.10 Validity and Reliability of the Research

According to Leedy and Ormond (2005, p. 31), validity is the extent to which a research instrument measures what it is supposed to measure. Best and Khan (2003) defined validity as the correct method used to find answers for questions. The following methods were used to test for the validity of the research instrument:

a) Expert opinion

The researcher sought expert advice from the study supervisor who made quite a number of recommendations which were noted and the necessary amendments were made.

b) Peer reviews

Suggestions made by colleagues were noted and the necessary changes were made. The pre-test helped the researcher to ensure that the structured questions were fit for the purpose. Through this process, the researcher could identify and correct questions that respondents could misunderstand, that were ambiguous, unnecessary, missing the objective and he could gauge general reactions to them (Babbie and

Mouton, 2001, p. 119). The questions were also drawn so that they provided answers to the various research objectives.

c) Pilot tests

The pre-test involved handing the data collection instruments and research objectives to five colleagues who had completed their PhDs. They were asked to complete the questions and make comments where they felt that the questions were not clear and could be improved upon. Reliability implies the consistency of measurement (Drummond, 2003:79). It is the extent to which data collection or analysis procedures yield consistent findings (Easterby–Smith et al., 2008, p. 109). The use of consistent and systematic questions during the interviews and in questionnaires was important for reliability and any possible replication of this study (Klaas, 2008, p. 56; Berg, 2001, p. 93). Data were also collected from reliable sources, that is, respondents who on a daily basis use banking facilities in Zimbabwe. The instruments used had the same questions for consistency in eliciting data.

5.11 Trustworthiness

There are a number of methods that evaluate the rigour, assess the trustworthiness, establish credibility of qualitative data and critically appraise qualitative research (Baxter and Jack, 2008, p. 554). In this study, a number of elements (listed below) were integrated to enhance the overall study quality and trustworthiness of the collected data:

a) The main research question and sub-questions were clearly written and complemented by accompanying research objectives that were thoroughly satisfied at the end of the study. This was done as the researcher was under the supervision of other professional researchers who gave thorough guidance and advice on all the processes involved. The data gathering instruments were developed by using the six research questions/objectives. The purpose was to gather data that answered the overall research question.

b) The survey design was found appropriate for the research questions and the study as discussed in Section 6.4.

c) Purposive and convenience sampling strategies, appropriate for the study, were used.

The strength of this study also lay in the promotion of data credibility or truth value. This was done through mixing data types. As already alluded to, primary and secondary data sources were used as reflected in Section 6.7 of this chapter. Further to that, the mixing of data sources took place. Quantitative data were collected from different data bases, as highlighted in subsection 1.7.1 in Chapter One. The data were used to analyse the historical view on the manifestation of flood disasters in selected SADC-countries in Section 3.2 of Chapter Three. Empirical data were also collected from different stakeholders who included government and private disaster management experts, both at local and national level. An account of the management of flood disasters was also collected from the victims of flood disasters. This was meant to compare and validate data from all these parties. In the data collection exercise, rapport was firstly established with participants on the date of arrival. This was done in order to create an atmosphere of friendship and trust. It made participants open up, feeling free to give their views openly without any mistrust of the researcher or the process. This in return enhanced the truthfulness of the data collected.

5.15 Data Analysis Plan

According to Fisher and Durrance (2005), data analysis is the process of reducing large volumes of collected data to make sense of them and Kawulich (2006) states that it is a body of methods that helps to describe facts, detect patterns, develop explanations and test the hypothesis. Data analysis involves presenting and interpreting the data collected from the subject. It is the core of the research activity where the researcher presents, analyses and interprets all that is in the research. The Data were subjected to statistical calculations and presented on tables and graphs after grouping. The Statistical Package for Social Scientists (SPSS) version sixteen (16) was used to analyse the data.

5.13 Ethical Considerations

According to Lancaster (2005), ethical issues in research encompass a set of mores and values for conducting and using research and the researcher must be careful not to violate these. The researcher made sure ethical values were upheld, for instance, by making sure anonymity was preserved when individuals were responding to questionnaires. The topic that was chosen is also not meant to embarrass anyone therefore, the researcher exercised caution to the extent that those who cannot use electronic banking platforms, perhaps because of illiteracy, were not made to feel ashamed. To ensure this was achieved the researcher made sure responses were private and confidential. No names of participating organizations or individuals would be included anywhere in source documents or in the dissertation.

Respondents could withdraw at any time when they felt they no longer wanted to participate in the research and no threats would be made against them. Also, all source documents were going to be filed and locked up in researcher's drawers where no one could access them to make sure they were not for public consumption. If any organization was to be used, consent was sought between the researcher and the institution before any publication could be made.

5.14 Conclusion

This chapter highlighted the methods that were used to collect and analyse data. It highlights the major reasons why the researcher chose the methods used. Additionally the chapter analysed the research design that was used and why it was appropriate for the researcher to use descriptive research design. Sample size was justified using the Kredjice and Morgan's table. Ethical issues that were of concern in the research were also discussed. The chapter also outlined how validity and reliability were ensured. Finally the chapter also highlighted how data was analysed. The next chapter will highlight the major findings from the research together with the discussion of the findings.

CHAPTER SIX

RESEARCH FINDINGS

6.0 Introduction

This chapter looks at the findings from the research. The findings are going to be presented using graphs, charts, and tables. Statistical Package for Social Scientists (SPSS) version 16 was used in analysing the data. Data are presented based on the objectives that the data were collected to fulfil. Demographic data are also presented and this denotes the population characteristics particularly relating to age, gender, geographical region where participants reside and also occupation. This information is important for the variables particularly when it comes to the adoption of e-banking technologies. Both descriptive and inferential statistics were used to analyse the data.

The objectives of the study were (i) to examine the perceptions of Zimbabweans towards electronic banking, (ii) to find out why some people do not use electronic banking, (iii) to identify a gap between customer expectations concerning electronic banking (e-banking) facilities and management perceptions of customer expectations, (iv) to propose a model that can be used by bankers for the adoption of e-banking, and (v) to find out ways of improving service quality through e-banking.

For data analysis, the researcher used descriptive and inferential statistics. Descriptive statistics include means and standard deviations where applicable. Chi-square tests of independence were used in cross tabulations to see whether or not a significant relationship exists between two variables represented in a cross tabulation. When conditions were not met, Fisher's exact test was used. Binomial tests are used to analyse whether a significant proportion of respondents selected one of a possible two responses. This can be extended when data with more than two response options was split into two distinct groups. One sample t-test tests whether a mean score is significantly different from a scalar value.

6.1 Response Rate

6.1.1 Questionnaire response rate

Table 6.1: Questionnaire Response Rate

Questionnaires distributed	Questionnaires returned	Response rate
384	283	73.7%

Out of the 384 questionnaires distributed, 283 were returned. The response rate for questionnaires distributed was 73.7% which is well above the rate prescribed by Baruch and Holtom (2008) who concluded that an average response-rate for individuals in organisational research is 52.7% while 35.7% was the average response- rate for organizational responses from 2000 to 2005.

6.2 Interview response rate

Table 6.2: Interview response rate

Planned number of interviews	Actual number of interviews conducted	Response rate
12	7	58.3%

Twelve interviews were planned but only seven were conducted as the researcher did not manage to reach some of the managers who kept on giving the excuses of a busy schedule. According to Baruchi and Holtom (2008), 35.7% is the average response in organisational research. Table 6.1.2 above highlights the response rate.

6.3-Response rate by district

Table 6.3: Questionnaire Response rate by districts

District	Questionnaires Distributed	Questionnaires returned	Response rate
Chegutu rural	39	29	74.36
Hurungwe	84	61	72.61
MhondoroNgezi	27	19	70.37
Kariba rural	11	7	63.63
Makonde	39	30	76.92
Zvimba	67	48	71.64
Sanyati	29	21	72.41
Chinhoyi	20	17	85.00
Kadoma	24	18	75.00
Chegutu	13	10	76.92
Kariba	7	5	71.42
Norton	17	13	76.47
Karoi	7	5	71.42
Total	384	283	73.70

From Figure 6.1 below, it can be seen that the response-rate was highest for Chinhoyi with a response-rate of 85%. This is the town where the researcher resides, therefore follow ups were the highest in this town. The least response-rate of 63.63% was for Kariba rural. The area is very remote and difficult to access and many questionnaires were not returned. The roads are bad and there is limited transport in the area. In addition, there are wild animals so that, when the researcher had collected a few completed questionnaires, he had to stop in view of impending danger. Most other towns had a fair response-rate of between 70% and 75%.
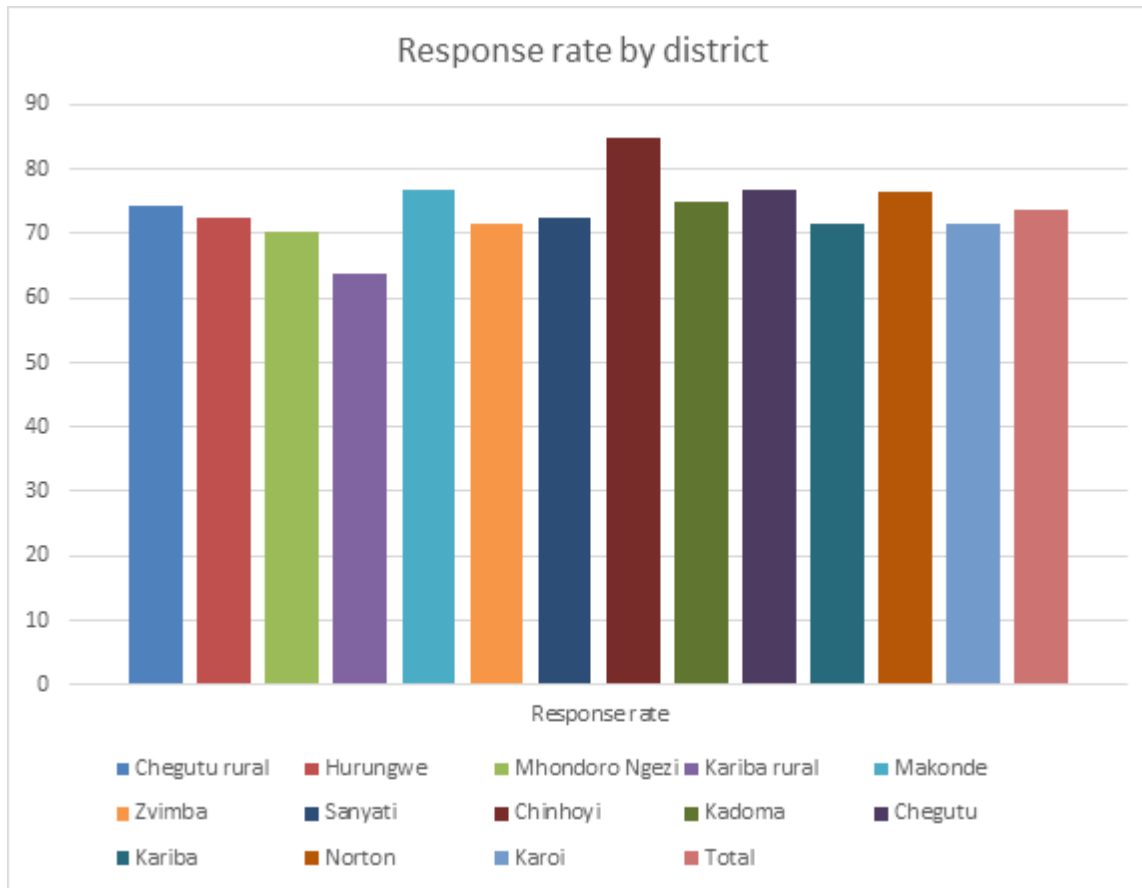
Figure 6.1: Questionnaire response rate by district

6.2 Demographic Data

6.2.1 Respondents' age

Table 6.4**: Repondents' age**

	Frequency	Per cent	Cumulative Per cent
15–20	6	2.2	2.2
20–30	108	39.0	41.2
31–40	106	38.3	79.4
41–50	41	14.8	94.2
51–60	15	5.4	99.6
61–64	1	.4	100.0
Total	277	100.0	

From the graph in figure 6.2 below, it can be determined that the modal class ages of respondents was 22–30 years of age followed by 31–40 years of age. Those are the classes that the researcher and his assistants managed to access or the class that was easy to access and was probably the most active group. A few respondents were between 61–64 years of age. Most of these were probably not very active and were difficult to contact as they stayed indoors.

Participant's age
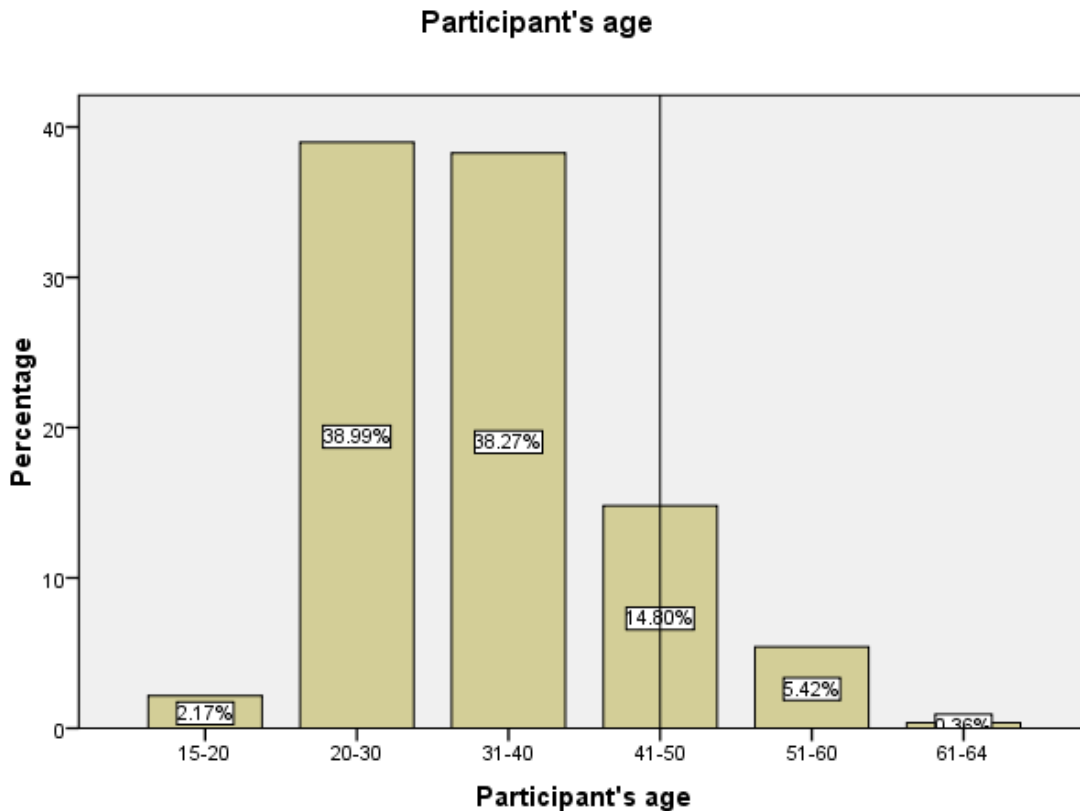
Figure 6.2: Consumer respondents' age

6.2.2 Consumer respondents' gender

Table 6.5: Consumer respondents' gender

Response		Frequency	Valid Per cent	Cumulative Per cent
	Male	150	53.2	53.2
	Female	132	46.8	100.0
	Total	282	100.0	

Figure 6.2 and table 6.2 both show that there were more males who responded to the questionnaires than females. Most men who received questionnaires were willing to respond while some women shunned the questionnaires citing reasons such, "I do not have time." Figure 6.2.1 highlights the gender of respondents and shows a slight difference between the number of men and women who responded to the questionnaire. About 4% of the sample did not specify their gender as seen in the bar graph in figure 6.2.1 below:
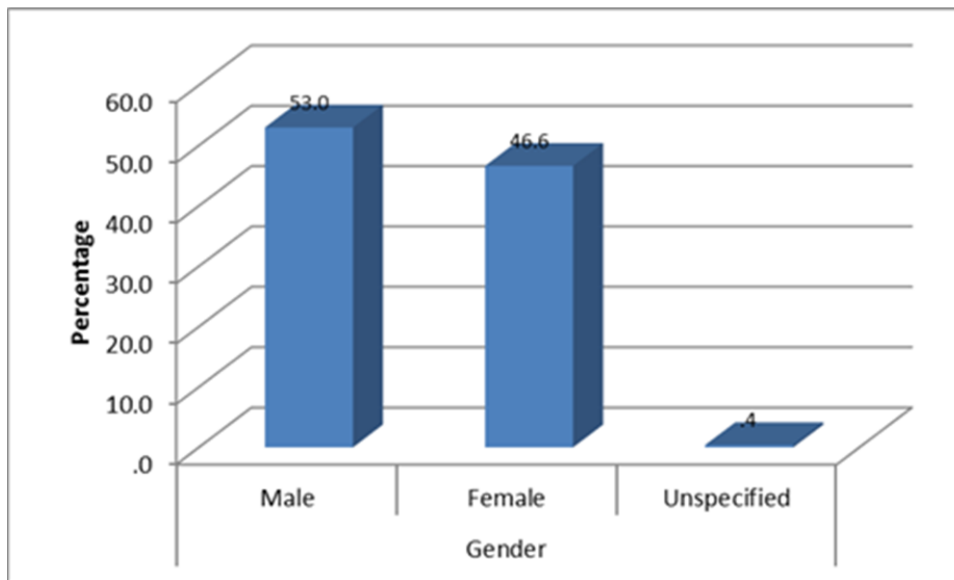
Figure 6.3: Consumer respondents' gender

Table 6.6: Consumer respondents' occupation

Class of job	Frequency
White Collar	174
Non white collar	40
Self-employed	23
Unemployed	28
Missing	18
Total	**283**

The participants were from all walks of life covering more than twenty-five professions and 10% were not formally employed. This shows that e-banking is not for particular professionals but everyone as long as he/she is independent they can use an e-banking service. The occupations were grouped into white collar, non-white collar, self-employed, and, finally, the unemployed. A total 61.5% of the respondents were white collar professionals. These were easier to target at their work places and were easier to convince to respond to the questionnaire. Table 6.2.2 above and figure 6.2.2 below present the information.
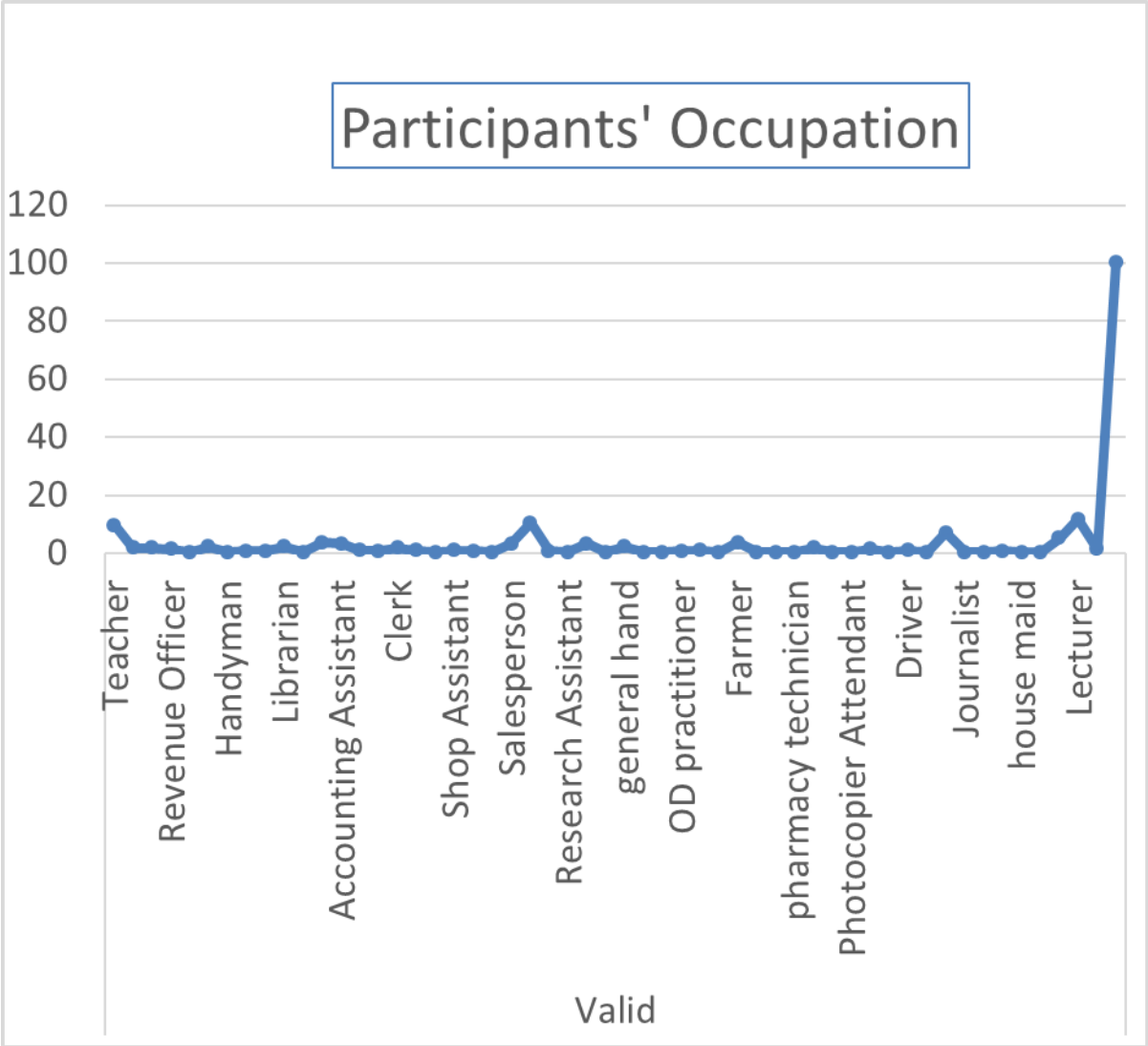
Figure 6.4: Consumer respondents' occupations

6.3 Perceptions of Consumers towards Electronic Banking (E- Banking)

Table 6.7: Participants' response on whether or not they do any banking

Response	Frequency	Per cent	Cumulative Per cent
Yes	271	96.4	96.4
No	10	3.6	100.0
Total	281	100.0	

Altogether 96.4% of the consumers who participated in this study used bank accounts or mobile accounts that keep their cash. The majority of Zimbabweans used Ecocash which is a mobile money transfer platform. This account is very easy to open as it just requires one to buy a sim card from Econet and then to register. This is also the reason why many Zimbabweans use mobile banking (m-banking) platforms more than any other e-banking platforms. Ecocash does not require one to use internet banking but even the simplest phones make it easy for one to transact on Ecocash. Other mobile money transfer platforms include Telecash, One Wallet and Nettcash. Table 6.3.1 presents the findings from the research as to whether consumer participants held bank accounts or not. Since the majority of participants were formally employed (more than sixty per cent) they were mostly paid through their banks and this is the reason why they held bank accounts. Employers also keep their cash safe in banks. Only a few, that is 3.5%, did not have bank accounts. Refer to figure 6.3 below.
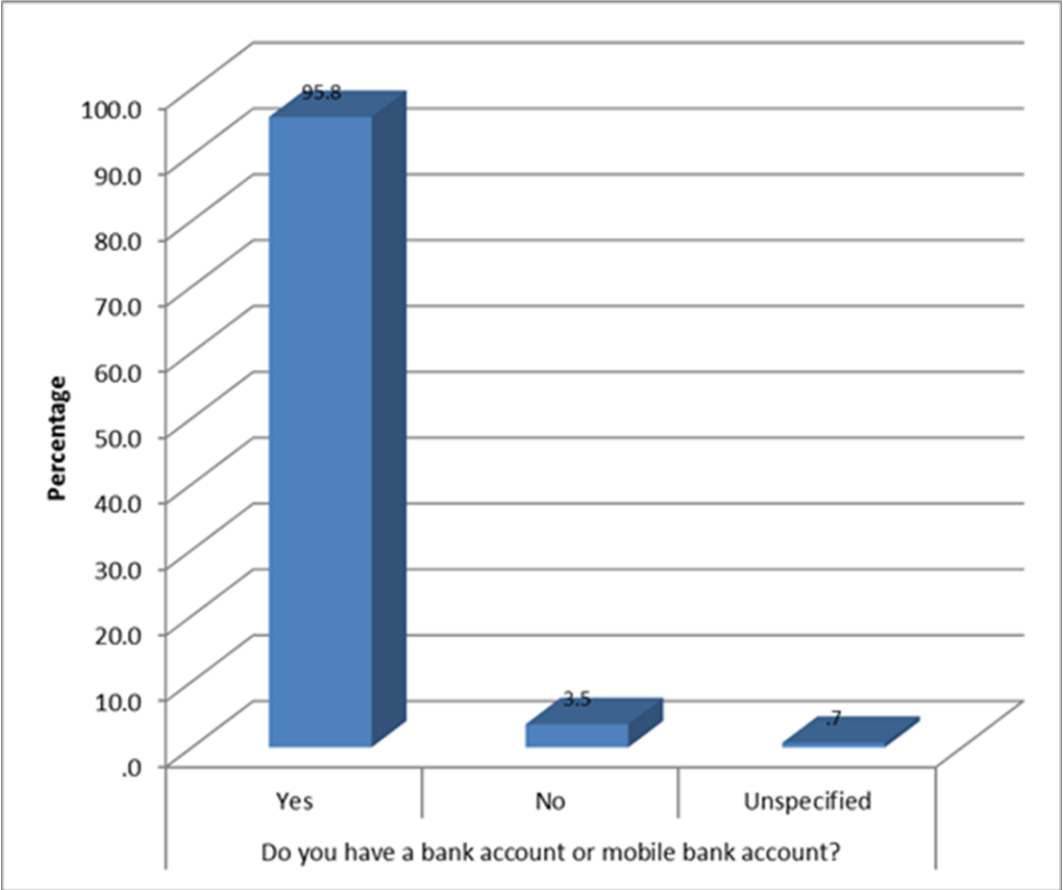
Figure 6.5: Bar graph showing the response of participants' when asked whether they have bank accounts or not

Table 6.8: Use of ATMs by Consumers

Response		Frequency	Percent	Cumulative Percent
	Yes	242	88.6	88.6
	No	31	11.4	100.0
	Total	273	100.0	

From table 6.3.2 above and figure 6.3.2 below, it can be seen that 88.6% of participants who responded to this question used ATMs. This is due to the fact that it is the oldest innovation amongst the e-banking facilities in Zimbabwe and probably many people now have adopted it. Of interest would be the extent to which it is used. Many people reported using it to draw cash and did not use it for other purposes like the transfer of cash, purchasing, balance enquiries and so forth.
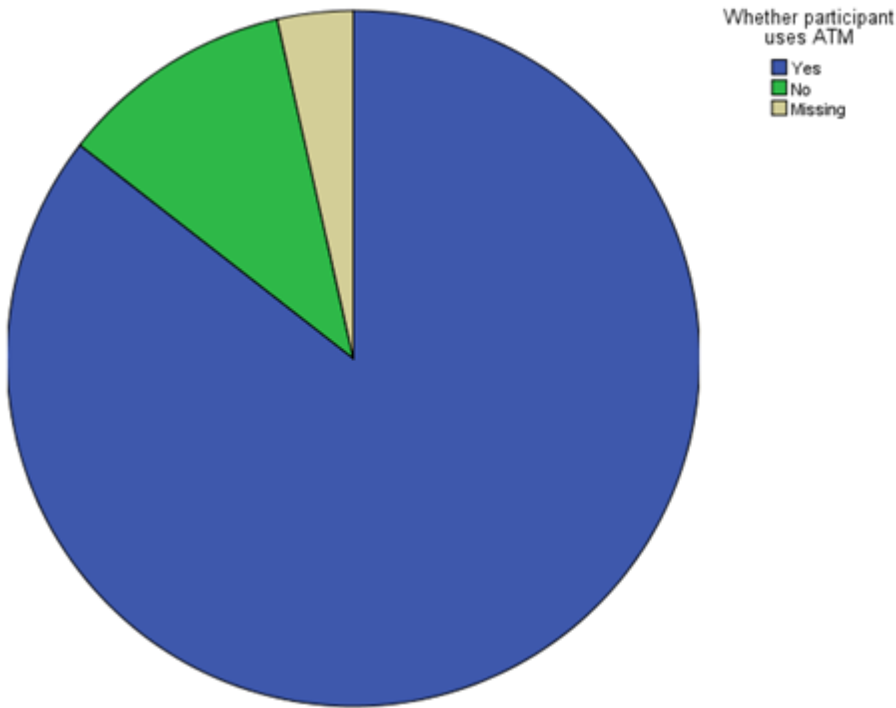
Figure 6.6: Participants who use ATM

Table 6.9: Internet usage by consumers

Response		Frequency	Per cent	Cumulative Per cent
	Yes	91	36.4	36.4
	No	159	63.6	100.0
	Total	250	100.0	

About 36.4% of respondents as shown in table 6.3.3 and figure 6.3.3 use internet banking. The reasons that are provided for not using it included no access to the internet and that it is too sophisticated to use. These reasons were given in the last section under 'any other comment.' The figure 6.3.3 summarizes usage of all e-banking facilities investigated in this study and shows that internet banking is the least adopted platform with all other facilities having 85.5% of respondents who agreed that they used ATMs and mobile banking.
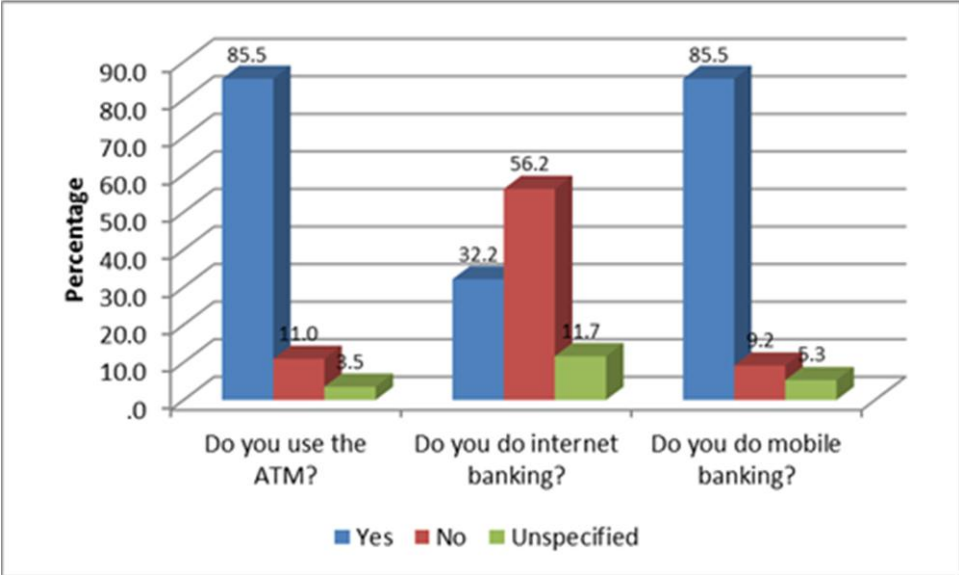
Figure 6.7: Whether participants use internet banking or not

Table 6.10: Mobile banking usage

Response		Frequency	Per cent	Cumulative Per cent
	Yes	242	90.3	90.3
	No	26	9.7	100.0
	Total	268	100.0	

90.3% of participants, as in table 6.3.4, indicated that they used mobile banking (m-banking). Though m-banking is a recent technology, the majority of customers found it very convenient. Again the question comes back to the extent of use. Results that follow will help highlight why consumers use more mobile communications than other means.
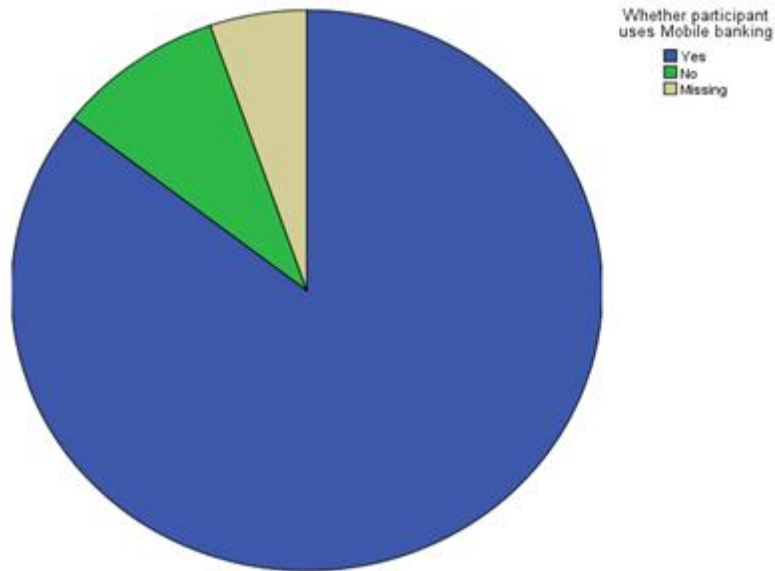
Figure 6.8: Participants who use mobile banking.

A significant 96% indicated that they did have a bank account, p<.0005. In addition to that, a significant proportion of the sample used ATMs, that is 89% indicated by p<.0005, and were on a mobile banking platform (90%), p<.0005. However, a significant 64% did not do internet banking, p<.0005. Refer to binomial analysis, appendix 3.

6.4 Perceptions of Zimbabweans towards Electronic Banking (e-banking).

This information was gathered entirely from questionnaires distributed to customers. Customer perceptions were gathered through their responses to questions pertaining to key variables of service quality.

Table 6.11: Whether e-banking platforms meet customer banking needs or no.

	Frequency	Per cent	Cumulative Per cent
Strongly disagree	13	4.9	4.9
Disagree	34	12.7	17.5
Neutral	33	12.3	29.9
Agree	141	52.6	82.5
Strongly agree	47	17.5	100.0
Total	268	100.0	

From table 6.4.1 above it can be deduced that there are, generally, a greater proportion of respondents (70.1%) who agreed to the notion that e-banking platforms meet customer banking needs. This generally means that customers were satisfied with the menu available on e-banking platforms. Figure 6.6.1 below clearly shows bars of agreement to the assertion being higher than those of disagreement therefore, further pointing to greater satisfaction.

Whether E-Banking platforms meet all of participants' banking needs
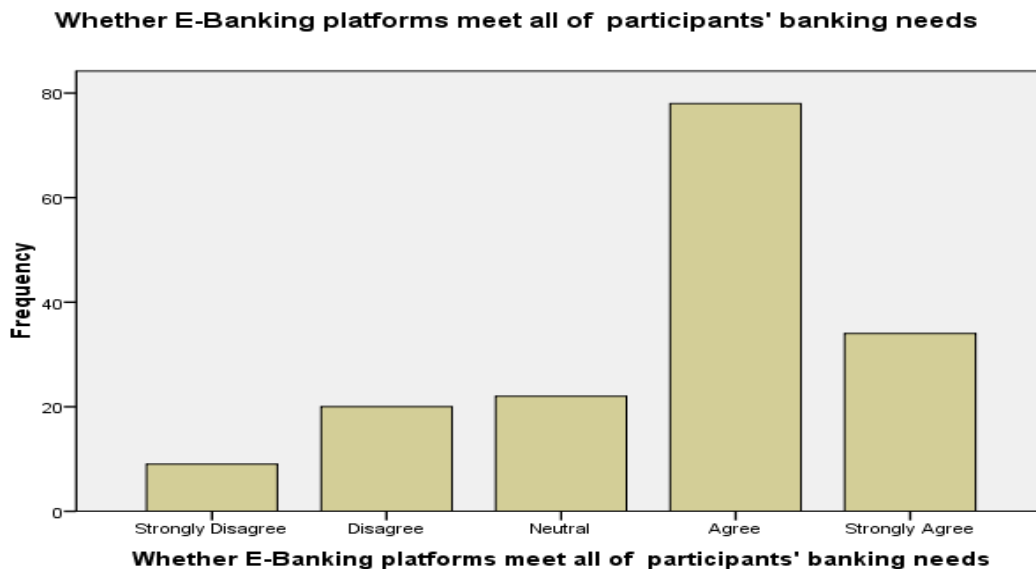
Figure 6.9: Level of agreement on whether e-banking platforms meet participants' banking needs or not

Figure 6.4.1 and table 6.4.1 shows that the majority of respondents were in agreement that e-banking platforms meet their banking needs, which means one can perform quite a number of transactions using e-banking platforms like ATM, internet and mobile banking, including transfers, balance enquiry, pin reset, purchasing and withdrawals. These are transactions that can be performed on e-banking platforms.

Table 6.12: whether e-banking platforms perform transactions accurately or not

	Frequency	Per cent	Cumulative Per cent
Strongly disagree	10	3.7	3.7
Disagree	18	6.6	10.3
Neutral	32	11.8	22.1
Agree	146	53.7	75.7
Strongly Agree	66	24.3	100.0
Total	272	100.0	

Results in 6.4.2 show that 78% of participants agreed on the accuracy of e-banking facilities in Zimbabwe. It probably means the errors that participants witnessed were very few if any, in terms of how the platforms perform their transactions. However, there were 10.1% of participants who disagreed with the notion that e-banking facilities are accurate. This notion could be coming from participants who might have been duped and this is quite significant.

Whether E-Banking platforms perform transactions accurately or not

Figure label (x-axis): Whether E-Banking platforms perform transactions accurately or not

Bar values:
- Strongly disagree: 3.68%
- Disagree: 6.62%
- Neutral: 11.76%
- Agree: 53.68%
- Strongly Agree: 24.26%
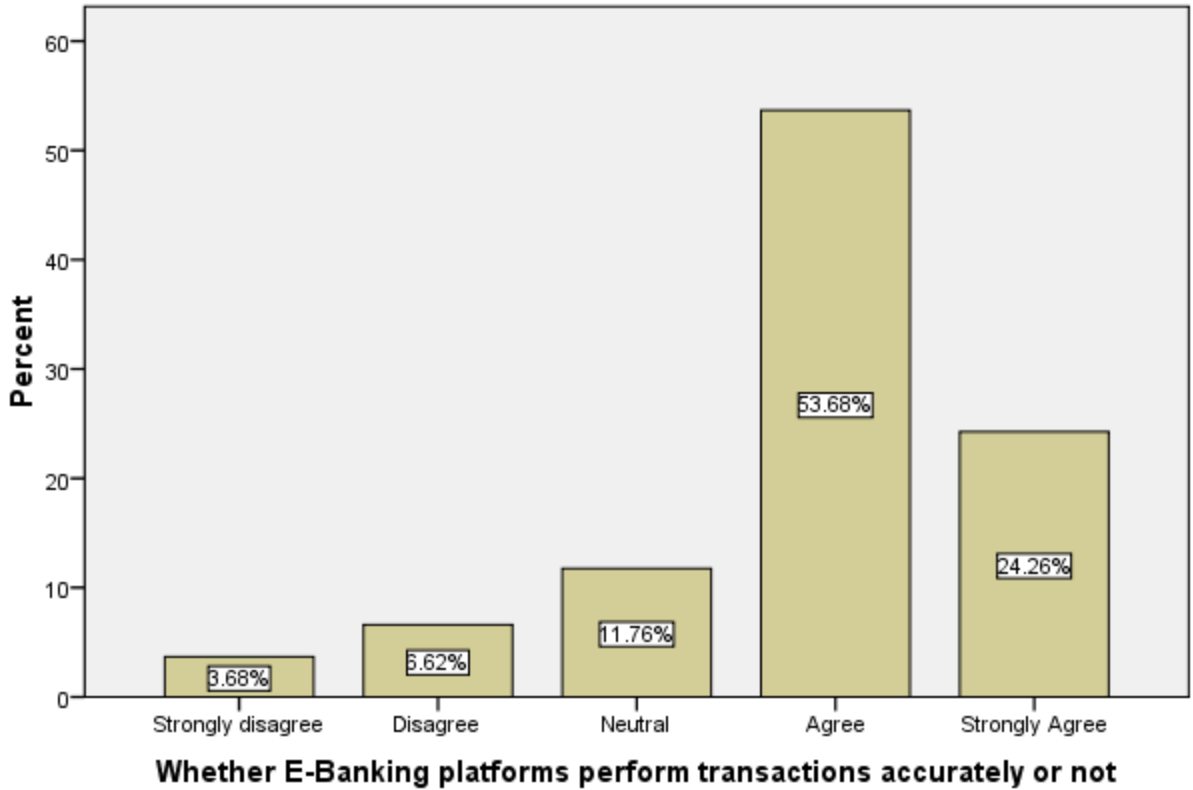
Figure 6.10: Participants' perceptions towards accuracy of e-banking platforms

Table 6.13: Whether e-banking has convenient hours of operation or not

		Frequency	Valid Per cent	Cumulative Per cent
Valid	Strongly Disagree	12	4.4	4.4
	Disagree	13	4.8	9.2
	Neutral	35	12.9	22.1
	Agree	130	48.0	70.1
	Strongly Agree	81	29.9	100.0
	Total	271	100.0	

In terms of the convenience of e-banking facilities, most participants (74.5%) agreed that e-banking

platforms are convenient. This means they have less hassles when using them as compared to traditional banking where one has to visit the bank and speak to bank personnel in order to receive a service.

Whether E-Banking platforms have convenient hours of operation or not
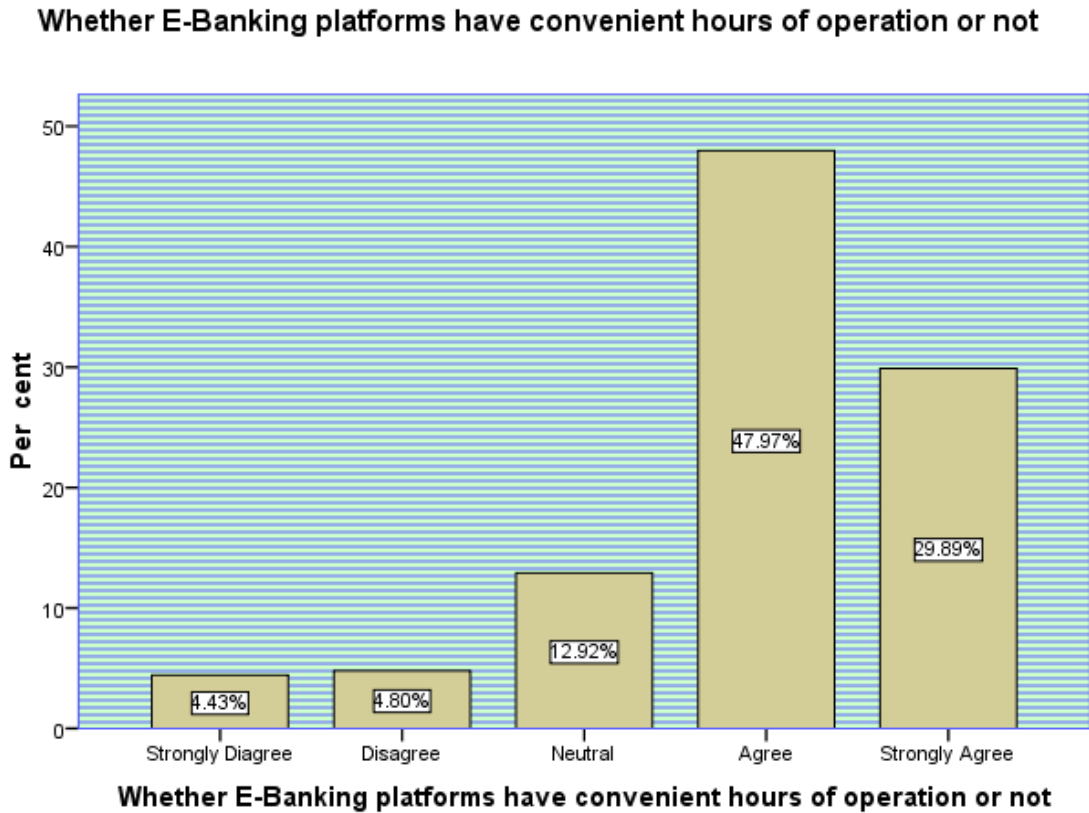
Figure 6.11: Participants' perceptions on the convenience of e-banking facilities

Table 6.14: Efficiency of e-banking platforms

	Frequency	Per cent	Cumulative Per cent
Strongly Disagree	8	3.0	3.0
Disagree	20	7.5	10.5
Neutral	41	15.4	25.9
Agree	131	49.2	75.2
Strongly Agree	66	24.8	100.0
Total	266	100.0	

A majority of 74% of participants, as seen in the table and graph, were in agreement that e-banking

platforms are efficient. Efficiency mean they are less costly to use; 15.4% were neutral; while 7.5% were in disagreement. This means that the majority who have used e-banking facilities have seen cost savings in such use as the low charges, and a reduction in transport costs as one no longer needs to travel to the traditional bank.

Whether E-Banking platforms perform transactions efficiently or not
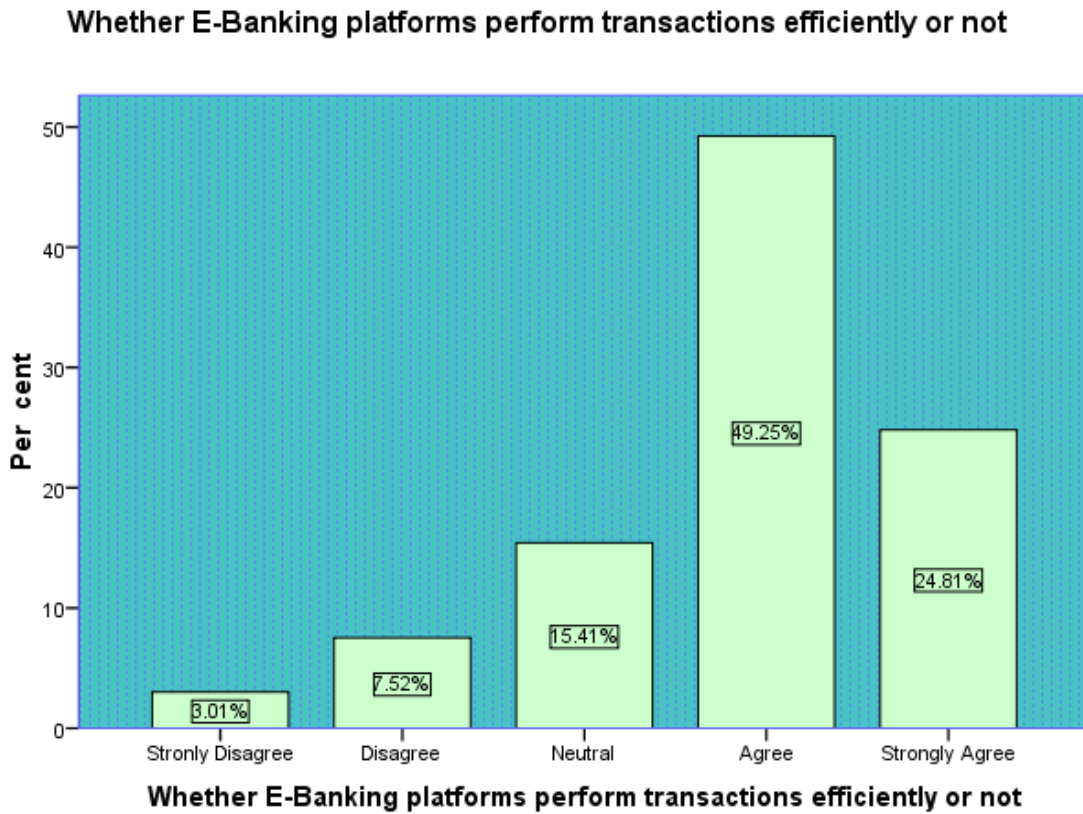
Figure 6.12: Participants' perceptions on efficiency of e-banking platforms

Table 6.15: Consumer responses on whether e-banking platforms provide accurate records of what transpired or not

Response	Frequency	Per cent	Cumulative Per cent
Strongly Disagree	6	2.2	2.2
Disagree	13	4.8	7.0
Neutral	35	12.9	19.9
Agree	127	46.9	66.8
Strongly Agree	90	33.2	100.0
Total	271	100.0	

Figure 6.4.5 and table 6.4.5 shows that the majority of participants (70.2%) agreed to the notion that e-banking platforms provide accurate records of all transactions undertaken, while 12.4% were neutral and 4.6% disagreed with the notion.
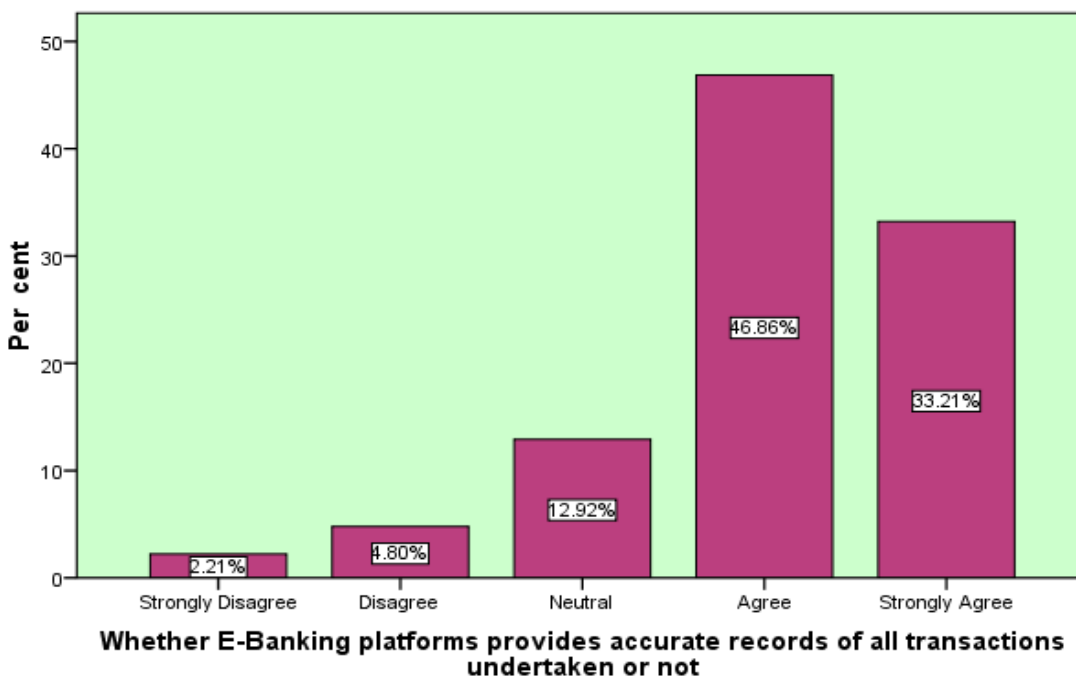
Figure 6.13: Consumers' perceptions on accuracy of e-banking platforms

Table 6.16: Speed of transactions on e-banking platform

	Frequency	Per cent	Cumulative Per cent
Strongly Disagree	10	3.7	3.7
Disagree	23	8.6	12.4
Neutral	47	17.6	30.0
Agree	126	47.2	77.2
Strongly Agree	61	22.8	100.0
Total	267	100.0	

About 66.1% of the participants agreed that e-banking platforms perform transactions immediately which enables customers to access their funds expeditiously. Refer to table 6.4.6 and figure 6.4.6. In terms of money transfers such as interbank transfers, Zimbabweans use the mobile banking ZIPIT menu options which process transactions instantly. Other transactions that are processed instantly include purchases and balance enquiries using mobile banking, Internet baking, and ATM cards.

Whether E-Banking platforms perform transactions immediately or not
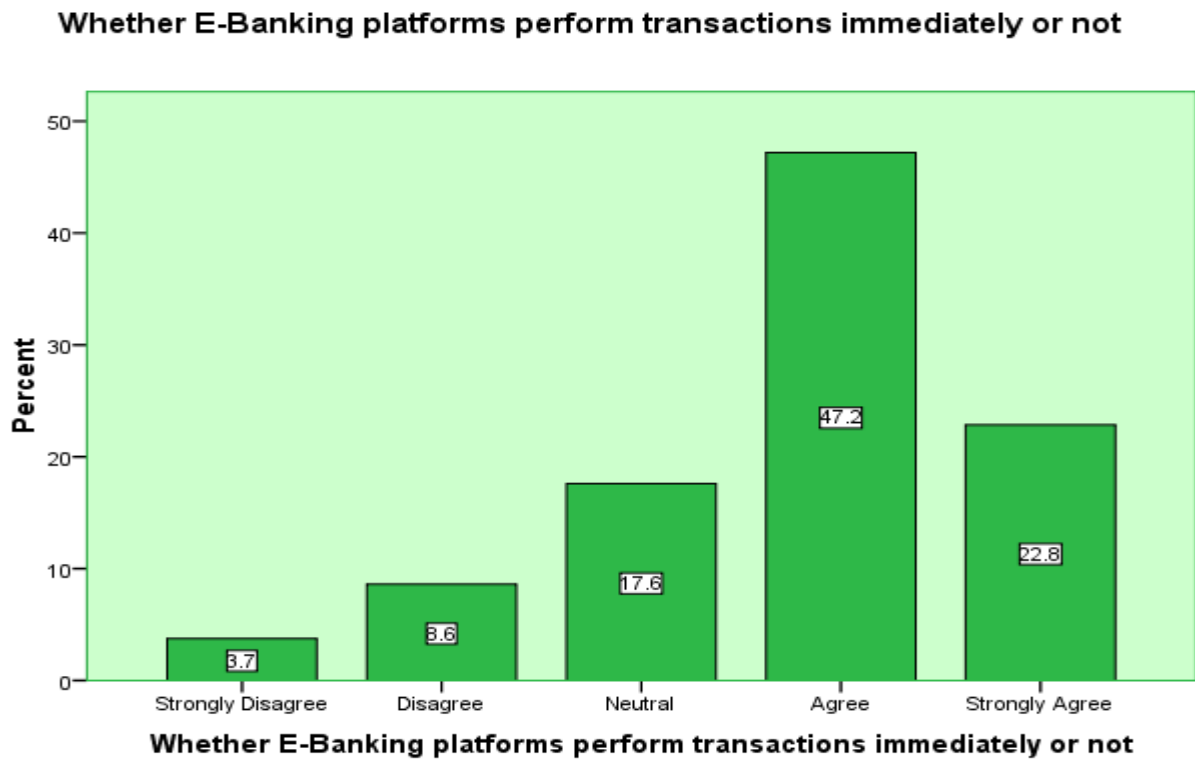
Figure 6.14: Whether e-banking platforms perform transactions immediately or not.

Table 6.17: Whether e-banking saves participants' time or not

Response	Frequency	Per cent	Cumulative Per cent
Strongly Disagree	15	5.6	5.6
Disagree	22	8.1	13.7
Neutral	29	10.7	24.4
Agree	115	42.6	67.0
Strongly Agree	89	33.0	100.0
Total	270	100.0	

A majority of 72% of participants agreed that e-banking platforms save their time as they do not have to travel to the bank or wait in queues to get a service. Transactions can be performed at home but 7.8% of respondents disagreed that e-banking platforms save a participant's time, while 10.2% were neutral about the issue. Banks have to make sure they are always online and their systems work properly to make sure all clients recognise the time-saving aspect of e-banking.
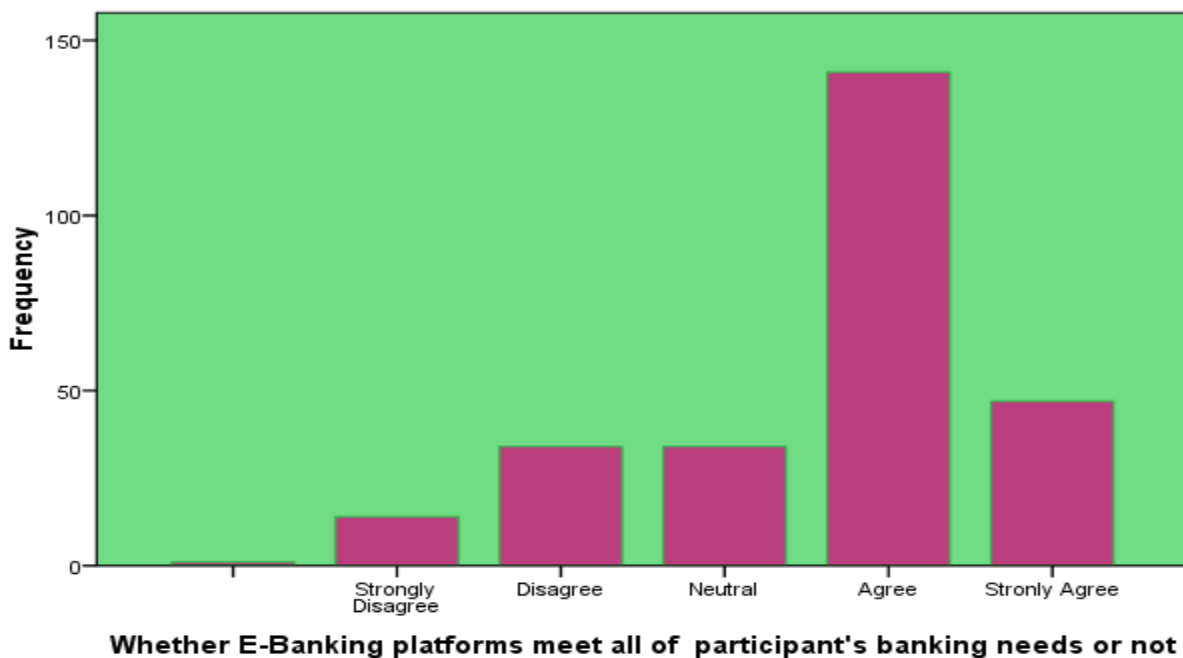
Figure 6.15: Whether e-banking platforms save consumers' time or not

Table 6.18: Security of e-banking platforms

Response	Frequency	Per cent	Cumulative Per cent
Strongly Disagree	5	1.9	1.9
Disagree	8	3.0	4.9
Neutral	36	13.6	18.6
Agree	126	47.7	66.3
Strongly Agree	89	33.7	100.0
Total	264	100.0	

A majority of 75.9% of the respondents agreed that e-banking platforms are secure, as in table 6.4.8, and figure 6.4.8. This means many people in Zimbabwe trust e-banking platforms, but 2.8% of respondents disagreed with the notion that, "e-banking platforms are secure" while 12.7% were neutral. Banks must work on tightening the security of e-banking platforms to ensure that everyone is satisfied with the security of the banks.

Whether E-Banking platforms are secure or not
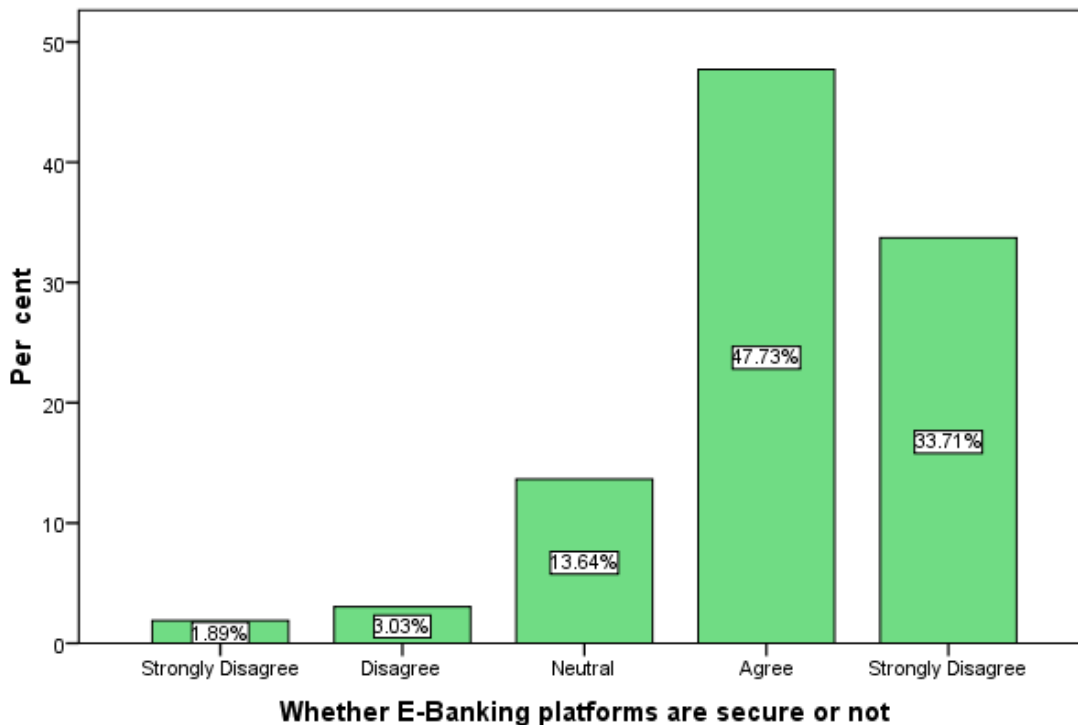
Figure 6.16: Whether e-banking platforms are secure or not

Table 6.19: Whether e-banking platforms have additional services or not

Response	Frequency	Per cent	Cumulative Per cent
Strongly Disagree	26	9.6	9.6
Disagree	37	13.7	23.2
Neutral	71	26.2	49.4
Agree	95	35.1	84.5
Strongly Agree	42	15.5	100.0
Total	271	100.0	

About 58.7% of respondents agreed that banks provide additional services. These services include assisting the elderly to use e-banking platforms but 13.1%, however, did not agree with the notion while 25.1% were neutral. Those who were neutral probably did not know about the additional services at their banks. In order to boost customer morale, banks must always give some extras so that customers will always remember their encounter with their banks. The elderly can be assisted at the ATM by the security personnel who may show them how to do whatever transaction they might want to do on the machine.
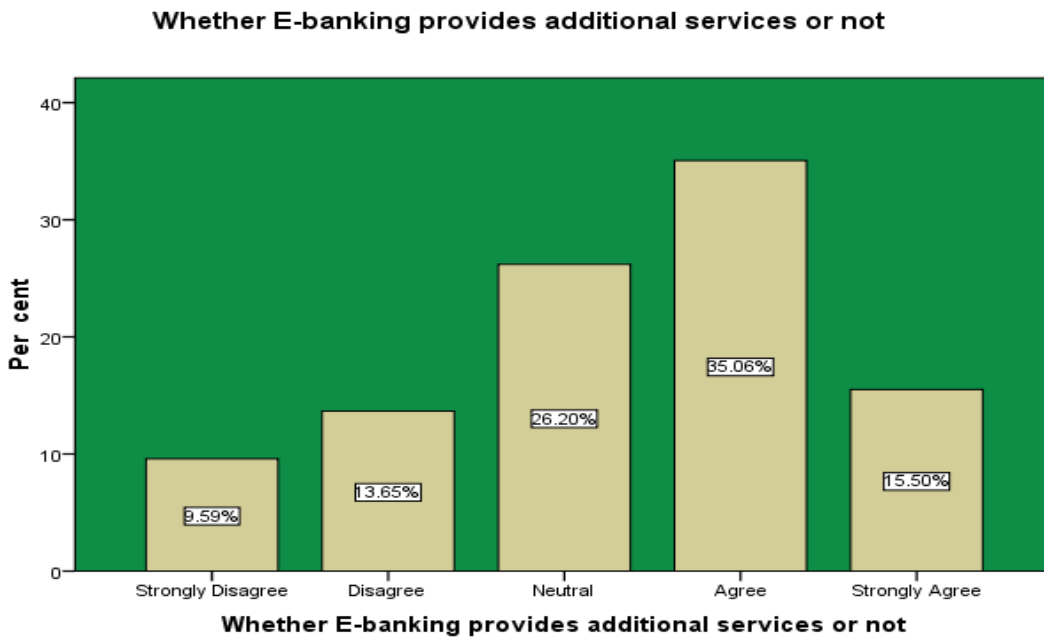
Figure 6.17: Whether e-banking provides users with additional services or not

Table 6.20: Accessibility of ATMs

	Frequency	Per cent	Cumulative Per cent
Valid	1	.4	.4
Strongly Disagree	13	4.8	5.2
Disagree	25	9.3	14.5
Neutral	42	15.6	30.1
Agree	126	46.8	77.0
Strongly Agree	62	23.0	100.0
Total	269	100.0	

A majority of 66.4% of the participants agreed that ATMs are easily accessible while 4.6% of participants did not agree. It means those banks whose ATMs are not easily accessible should work on improving the accessibility of ATMs. All in all, ATMs are accessible at many banks in Zimbabwe. There are also 14.8% of respondents who were neutral about the issue. These respondents were neither happy nor unhappy about the service. Banks should also target this group of customers to move them from being neutral to making sure they are satisfied.
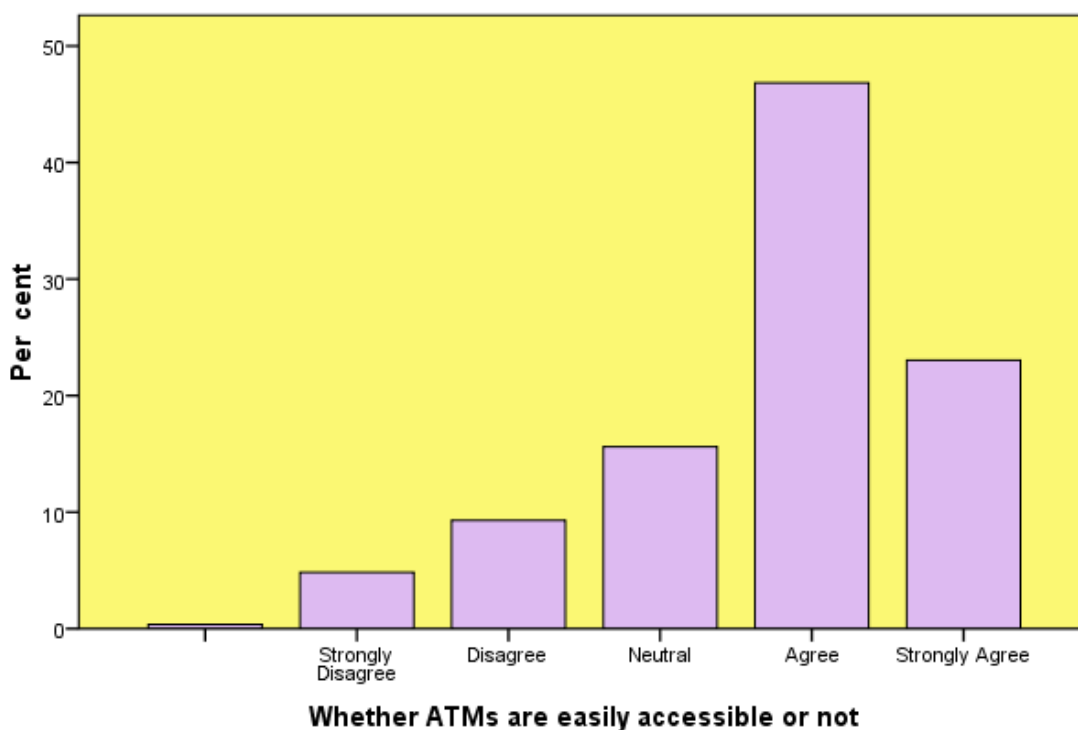
Figure 6.18: Consumer response on accessibility of ATMs

Table 6.21: Accessibility of websites

	Frequency	Valid Per cent	Cumulative Per cent
Strongly Disagree	6	2.3	2.3
Disagree	41	15.4	17.7
Neutral	52	19.5	37.2
Agree	120	45.1	82.3
Strongly Agree	47	17.7	100.0
Total	266	100.0	

A majority of 59% of the respondents agreed that their bank websites are easily accessible, 17.7% of the respondents disagreed while 19.5% were neutral. Those who were neutral, when added to those who

disagreed with the motion, add up to 32.9% of the respondents, which is very high. Banks should, therefore, improve the accessibility of their websites.
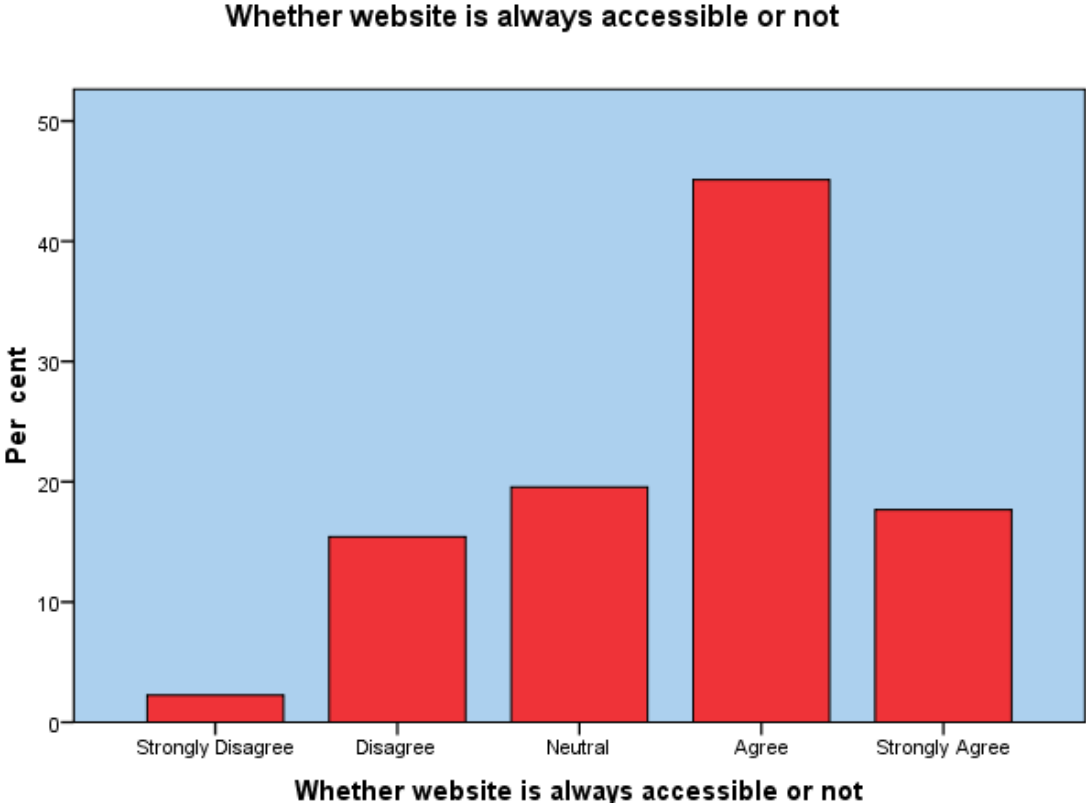
Figure 6.19: Customer responses on accessibility of websites

Table 6.22 Security of ATMs

	Frequency	Per cent	Cumulative Per cent
Strongly Disagree	8	3.0	3.0
Disagree	15	5.6	8.6
Neutral	41	15.4	24.1
Agree	135	50.8	74.8
Strongly Agree	67	25.2	100.0
Total	266	100.0	

A majority of 71.4% of respondents agreed to the motion that 'ATMs are secure' while 8.6% of the respondents did not agree and 15.4% of respondents were neutral about the issue. Altogether 24% were either neutral or agreed to the motion. Banks should increase the security of their ATMs.

Table 6.23: Whether Management has knowledge of customer needs or not

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Disagree	13	4.6	4.8	4.8
Disagree	34	12.0	12.6	17.5
Neutral	64	22.6	23.8	41.3
Agree	119	42.0	44.2	85.5
Strongly Agree	39	13.8	14.5	100.0
Total	269	95.1	100.0	
Total	283	100.0		
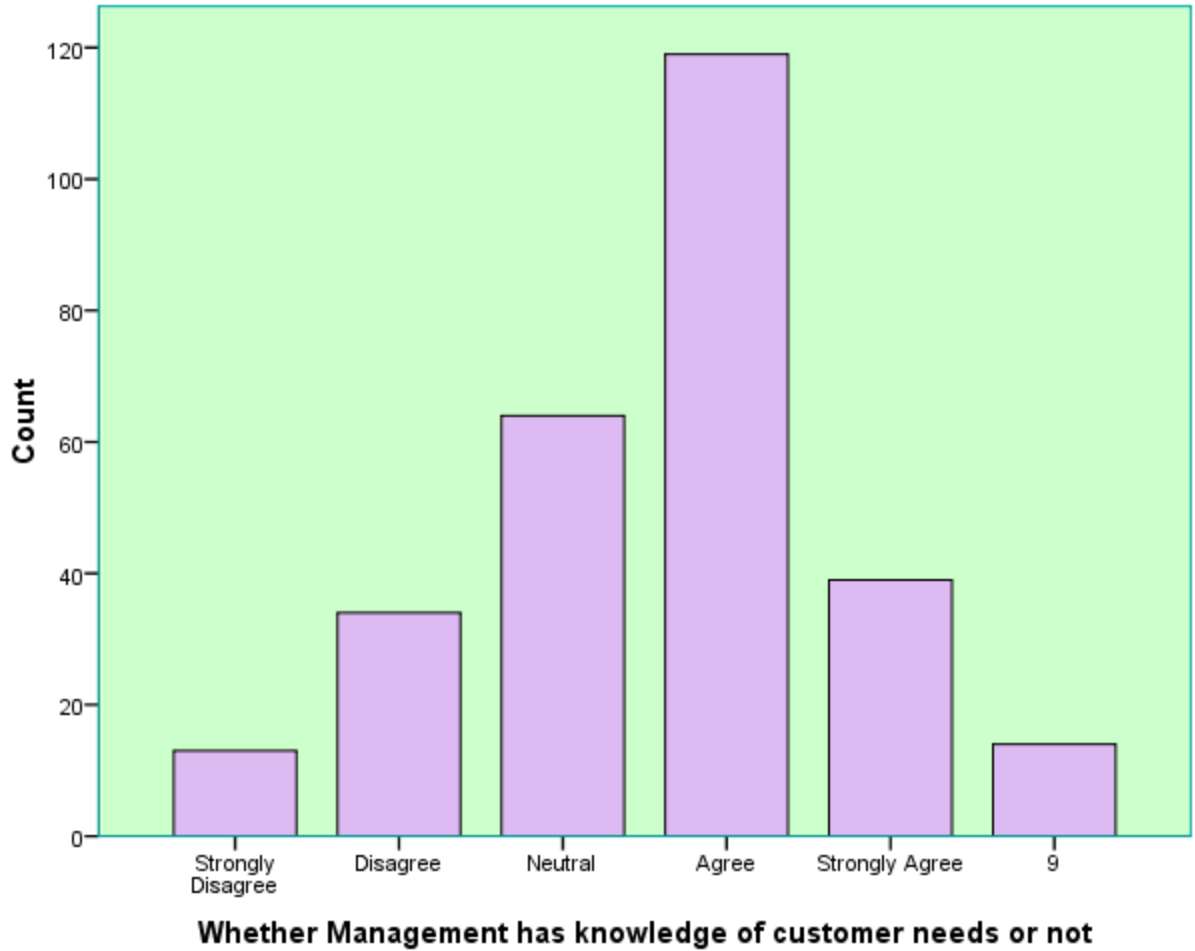
Figure 6.20: Customer response as to whether they think management has knowledge of their e-banking needs

Altogether 58.7% of participants agreed to the motion that, 'management has knowledge of customer needs'. They must have based their responses from e-banking facilities that are provided by their banks and seem to provide evidence of their knowledge of customer needs. However, of those who disagreed and strongly disagreed, there was a 12% level of disagreement that management has knowledge of customer needs while 22.6% were neutral about the motion. All this means is that the participants were not quite sure as to whether management has knowledge of their needs or not.

Table 6.24: Customer perceptions on whether or not they think e-banking platforms improve service delivery

Response	Frequency	Per cent	Cumulative Per cent
Strongly Disagree	9	3.3	3.3
Disagree	7	2.6	5.9
Neutral	20	7.4	13.4
Agree	131	48.7	62.1
Strongly Agree	102	37.9	100.0
Total	269	100.0	

A significant percentage (79.3%) of respondents were in agreement that e-banking leads to improvement in-service delivery as on figure 6.18 below. 5.9% disagreed, while 7.4% were neutral about the issue.
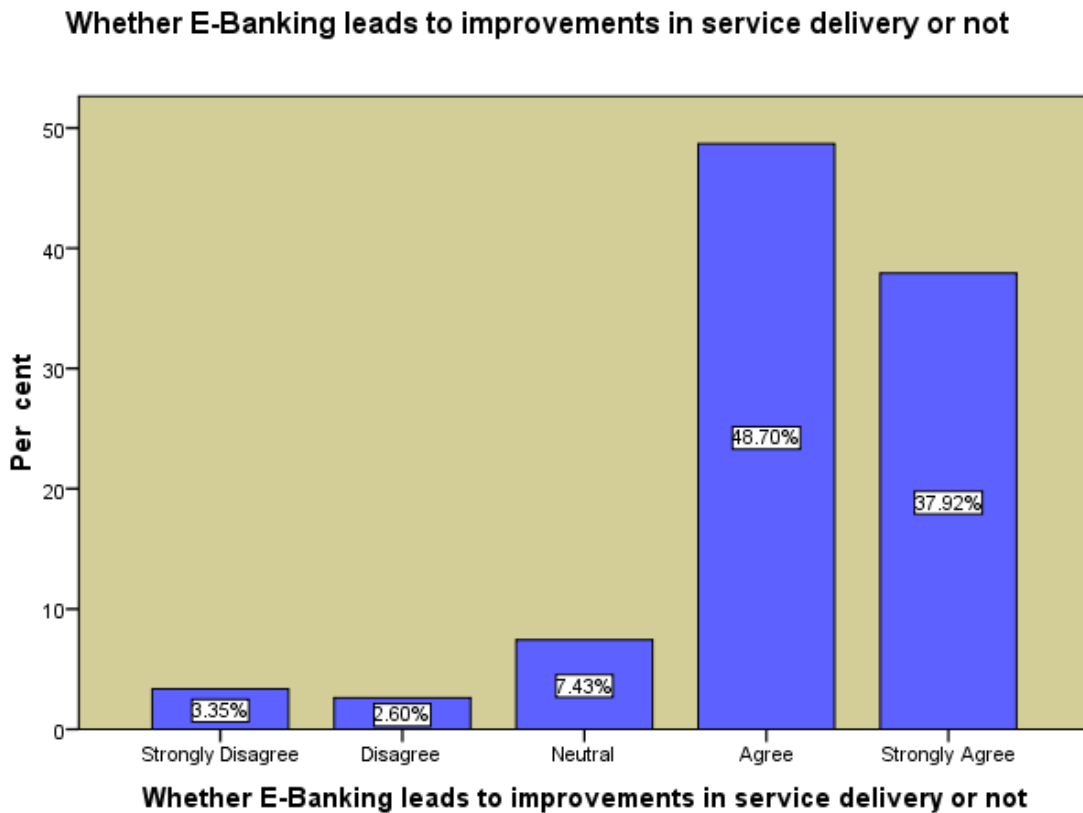
Figure 6.21: Consumer perceptions on whether e-banking leads to improvements in service delivery or not.

Figure 6.4.14-indicates the consumer response on their perception as to whether e-banking leads to improvements in service delivery or not. The findings on the perceptions of people towards e-banking platforms generally show that respondents were satisfied with e-banking facilities in Zimbabwe as the majority rated the e-banking facilities available in Zimbabwe highly. All the attributes measured had a significant level of agreement as on graph in Appendix E. However, no single attribute scored 100%. This means there is still room for improvement.

Table 6.25: Whether Automatic Teller Machine (ATM) Recognises Customers by Name or not

Response	Frequency	Per cent	Cumulative Per cent
Yes	131	49.1	49.1
No	136	50.9	100.0
Total	267	100.0	

A greater percentage of 50.9% did not agree that the ATM recognises them by name while a smaller percentage of 49.1% agreed that the ATM recognises them by name. This means the majority of ATMs in Zimbabwe do not personalise their services, thus to improve services there is need for ATMs to be programmed in such a way that when a client uses his or her card the ATM must recognise and display the name of the client on the screen like " Hello Mr Tembo….."

Table 6.26: Consumer response on whether ATMs allow them to set up accounts immediately or not.

Response	Frequency	Per cent	Cumulative Per cent
Yes	111	41.6	41.6
No	156	58.4	100.0
Total	267	100.0	

When participants were asked whether ATMs allow them to set up accounts immediately or not, 41.6% of participants responded 'YES' to the question, while 58.4% of them disagreed. Statistical binomial analysis in Appendix G indicates that there is a significant level of agreement to say ATMs do not enable customers to set up accounts immediately.

Table 6.27: Consumer response on whether or not banks provide them with brochures on how to use the ATM or not

Response		Frequency	Per cent	Cumulative Per cent
	Yes	77	28.8	28.8
	No	190	71.2	100.0
	Total	267	100.0	

A significant percentage of 71.2% disagreed on the notion that banks provide brochures for customers to use. About 28.8% of participants agreed with the motion that their banks provide them with brochures on how to use the ATM. This means there is little dissemination of information as to how the ATM is used. A binomial test in Appendix G indicates that there is a significant level of agreement that banks do not provide brochures to educate people on how to use ATMs.

Table 6.28: Consumers' level of agreement on the assertion that ATMs have a personal touch or not

Response		Frequency	Per cent	Cumulative Per cent
	Yes	113	42.3	42.3
	No	154	57.7	100.0
	Total	267	100.0	

A greater percentage of customers, that is 57.7%, did not agree that an ATM has a personal touch, while 42.3% agreed with the notion that an ATM has a personal touch. A binomial test in Appendix G indicates that there is a significant level of agreement that ATMs do not enable a client to feel a personal touch.

Table 6.29: Level of agreement by consumers that ATMs have User-friendly systems or not

Response		Frequency	Valid Per cent	Cumulative Per cent
	Yes	158	59.2	59.2
	No	109	40.8	100.0
	Total	267	100.0	

From the table above, it can be seen that 59.2% of respondents agreed that ATMs have user-friendly systems while 40.8% of respondents did not agree with the motion. The majority of 59.2% of the

respondents agreed that ATMs have user-friendly systems, which means most ATMs in Zimbabwe are easy to use. Even though the majority argued that there are no brochures to educate people on how to use ATMs, this could be compensated for by the design of the systems which are user-friendly. However, 40.8% of participants argued the ATMs are not user-friendly, therefore, banks should work on improving the systems to make sure users do not find them difficult to use. Statistically, there is, however, a significant level of agreement that ATMs in Zimbabwe are user-friendly.

Table 6.30: Whether ATMs provide online direction or not

Response	Frequency	Per cent	Cumulative Per cent
Yes	95	35.6	35.6
No	172	64.4	100.0
Total	267	100.0	

About 35.6% of participants, as in table 6.5.6, agreed to the assertion that ATMs provide online direction while the majority, which is 64.4% did not agree to the assertion. A binomial test in Appendix G, indicates that there is a significant level of agreement that banks provide online direction.

Table 6.31: Whether ATMs provide customers with feedback or not

Response	Frequency	Per cent	Cumulative Per cent
Yes	111	41.6	41.6
No	156	58.4	100.0
Total	267	100.0	

Altogether 41.6% of the participants agreed to the notion that ATMs provide customer-feedback services, while 58.4% of clients did not agree with that. A binomial test in Appendix G indicates that there is a significant level of agreement that ATMs do not provide customer-feedback services.

Table 6.32: Consumer response on whether or not ATMs provide special services to the elderly

Response	Frequency	Per cent	Cumulative Per cent
Yes	58	22.0	22.0
No	206	78.0	100.0
Total	264	100.0	

From table 6.5.8, it can be deduced that 22% of participants agreed to the notion that, 'ATMs provide special services for the elderly' while 78% did not agree with the assertion. A binomial test in Appendix G indicates that there is a significant level of agreement that ATMs provide special services for the elderly.

Table 6.33: Customer response on whether or not ATMs have adequate menu options for everyday banking.

Response	Frequency	Per cent	Cumulative Per cent
Yes	122	46.6	46.6
No	140	53.4	100.0
Total	262	100.0	

Altogether 46.6% of respondents agreed that ATMs have an adequate menu option for everyday banking, while 53.4% did not agree on the assertion. A binomial test in Appendix G indicates that there is no significant level of agreement on adequacy of menu options for everyday banking.
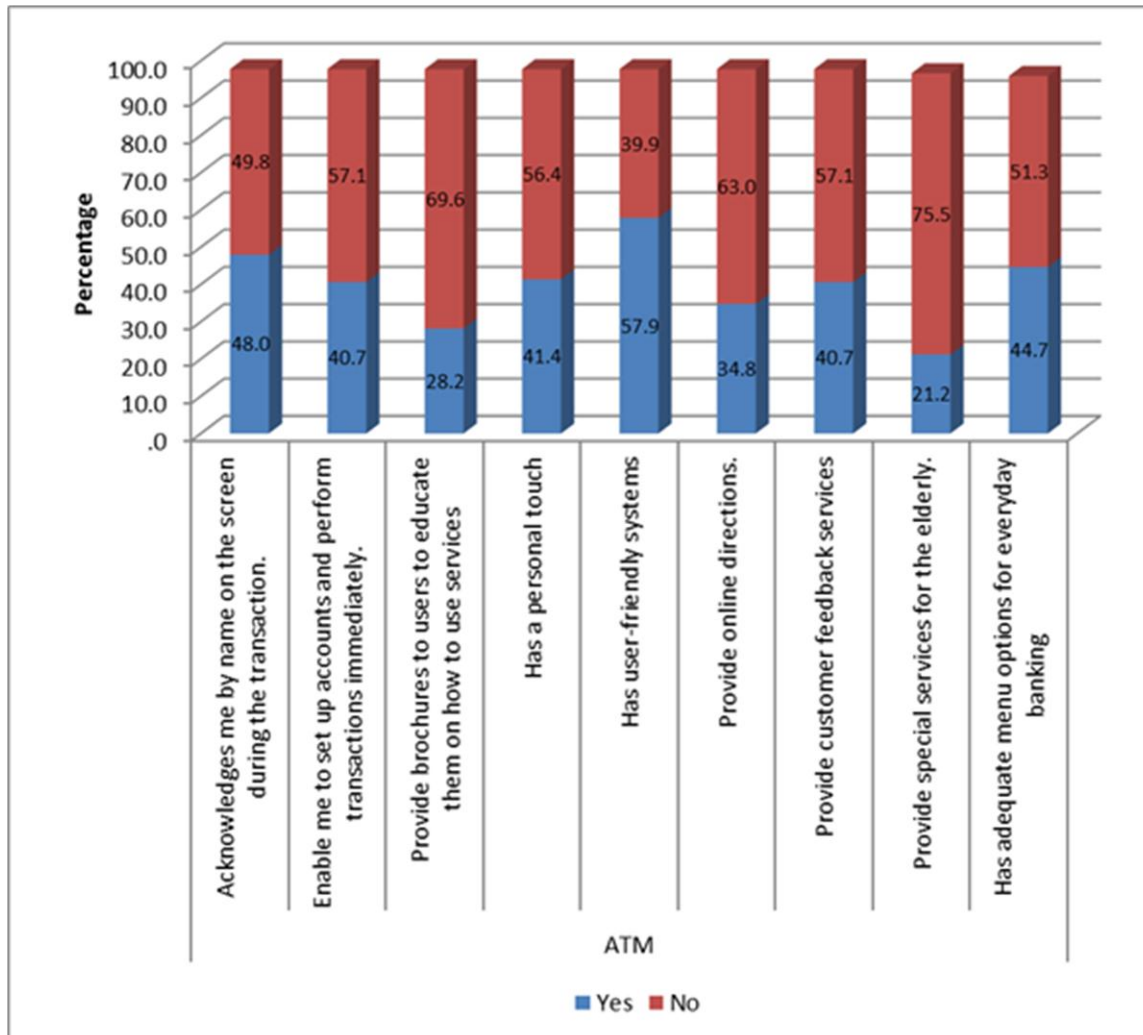
Figure 6.22: Customer expectations of e-banking facilities

Figure 6.9.1 highlights that, to a greater extent, customers expect e-banking to have all the attributes that the researcher asked them about, that it should be user-friendly, allow feedback from customers, should be more secure, should be always available, provide notification of all transactions that occur in a client's account, should provide clients with bank statements, and must offer help as to how to use the platform. There is also a significant level of agreement on all these issues as per binomial test in Appendix K. Furthermore, there is also a significant level of agreement that customers are satisfied with the convenience of e-banking in Zimbabwe. Further expectations are derived from recommendations by customers indicated in responses to question 10 of the customer questionnaire.

6.6 Management Perceptions of Customer Expectations

From the interviews carried out, the researcher found out that:

Managers felt that people are scared to do online payments as there is no paper trail. It may take time to trace whether the transaction was successful or not. People expect reduced costs, efficiency, reduced time to transact, and reliable service. They also expect the service always to be available, where the term ubiquity is applied. On top of the above expectations for ATMs, people expect internet banking to allow them to transact across country borders to reduce risks of carrying cash across these borders and must also enable them to buy goods anywhere in the world.

Managers also felt that customers do not use e-banking platforms as they fear that it is difficult to trace failed transactions. There is also fear of the unknown.

Managers also felt customers want less sophisticated, not complicated, user-friendly ATMs and also lower bank charges. They also perceived that customers want all available balances, and all denominations. For example, a customer might want to withdraw $23 which means the ATM must have denominations of $20, $2 and $1.

With internet banking, managers' view of customer expectations is that customers want instant transfer of funds to the beneficiary. Customers also want a secure site.

With mobile banking (m-banking), managers felt people want to use the most basic gadget to do their banking. According to managers, they felt customers want to access m-banking not only through using Smart phones, but even a phone with just basic functions of sending and receiving. Short Message Services (SMSs) should be able to transact using m-banking. Managers also felt m-banking should be done without airtime. With some banks in Zimbabwe, you need to have some balance of money in order to transact whilst for others not even a single cent is needed to make a transaction.

Some managers also felt there is resistance to change because of fear of the unknown. They felt that it is just technophobia that results in people not transacting using e-banking. In the rural areas, old people may

not be able to use it because of lack of infrastructure.

6.7: What Managers Think are the Reasons Why Some Customers do not use Electronic Banking (E-Banking) while some customers do

a) Lack of knowledge by customers

People do not know of the services available through e-banking, like making online payments. Furthermore, it is not accessible to some groups of customers like in the rural areas. Some people cannot use the technology whereas others lack confidence in using e-banking platforms.

b) Colonial banking

This is the way of doing business where there are too many papers required like proof of residence and too many protocols like conditions of opening an account. There could also be too many papers when one wants to use ATM, internet, and m-banking. Too much paper prevents financial inclusion.

c) Lack of infrastructure

Zimbabwe does not have the capital necessary to start using these e-banking gadgets. In rural areas, there is no network for people to use e-banking. The country is in a liquidity crisis at the moment and people are encouraged to use e-banking when they buy goods, using the ATM, Internet, and m-banking, but in the rural areas there is no network for people to use e-banking.

d) Loss of confidence in the service

According to managers, some people do not use e-banking because of a lack of confidence. One manager gave a scenario where network connectivity was a challenge and some transactions never went through or there was a double deduction for a single transaction in some instances. Because of this some people lost confidence in the facility.

e) Ignorance

The issue of ignorance was also mentioned by some managers where some customers never seek out new ways of transacting, besides face-to-face with the teller. They are satisfied with traditional banking and do

not want to explore other ways of doing the same thing.

There was an insignificant gap identified in this research as to the difference between customer expectations and management perceptions of customer expectations. The expectations by customers generated through a questionnaire were the same as those of management generated through interviews. Customers recommended that they expect the network to be available at all times and for sites to be more secure –this is what was gathered from interviews as well. Managers also mentioned that they felt customers want less sophisticated ATMs which are user-friendly, and, in the same vein, customers mentioned this as their expectation. Further to that, customers also highlighted that they expect feedback from e-banking facilities. Managers also had full knowledge as to why some customers do not use e-banking facilities. The reasons they mentioned in an interview were the same reasons that were provided by customers in a questionnaire survey. Reasons like fear of lack of security, fear that there is no paper trail, ignorance and comfort in traditional banking. However, managers did not mention the issue of knowledge; they assumed everyone has full knowledge of e-banking facilities, but some customers, though very few, indicated they did not know about e-banking platforms at their bank.

6.8 Models that can be used by Bankers for Adoption of Electronic Banking (e-banking)

The variables that are critical in ensuring that e-banking is adopted should capture the expectations of customers. These are derived from their recommendations made by both managers and customers. Question 10 of the questionnaire was used to capture the responses. The question requested respondents to suggest ways of improving e-banking. The factors that the researcher considered for the model were highlighted by more than 50% of the respondents. Question 4 of the interview guide also answered this objective when managers were asked about the variables that are critical for e-banking adoption. There was consensus between management and customers in terms of the factors that are mentioned below. The following variables are critical to make e-banking a success in Zimbabwe:

 (i)Education;

(ii) Accessibility;

(iii) Ease of Use; and

(iv) Security.

a) Education

Both managers and customers highlighted the need for education for the success of e-banking in Zimbabwe. Education can be in the form of brochures or the personal banker can take some time to demonstrate how the e-banking platform is used.

b) Accessibility

There is a need to make sure e-banking platforms are available for use by the people. Accessibility means when a person wants to use the platform, it must not be difficult to find and use. Websites must always be accessible, ATMs must always be up and running and so should m-banking. There must not be any disappointed customers.

c) Ease of use

The e-banking platforms must be easy to use. These days many banks are using the mobile application which is installed on phones so that people do not have to follow a lot of links to do transactions, but can go directly to the transaction link. For adoption by people, there is the need to make sure the platforms are easy to use. The internet site must be easy to navigate so that people can use it easily and likewise with ATMs. Ease of use also means the platform must be user-friendly.

d) Security

All e-banking platforms must be secure. The ATMs must be enclosed and guarded so that bank clients are secure when doing their transactions. There is also the need for cameras and CCTVs for the safety of clients. Internet sites must be protected using firewalls to make sure accounts are not hacked. People can only transact with confidence when they know they are secure.

6.9 Inferential Statistics

Several inferential tests were made in this study and these were meant to complement the descriptive statistics above. The tests that were performed in the form of binomial tests, chi-square tests, Fisher's exact index and one-sample t-tests were done in order to determine whether there is a significant

relationship or not. These inferential tests are presented below in terms of the objectives they fulfilled.

a) Demographic data

Chi-square tests of independence were done to find out if there is any significant relationship between e-banking usage, age and gender. Appendix L shows that there is no significant relationship between age and ATM usage. Appendix M shows that there is no significant relationship between age and internet banking, while Appendix N shows that there is no significant relationship between age and m-banking usage. Again, Appendix O highlights that there is no relationship between gender and ATM usage, Appendix P shows that there is no significant relationship between gender and internet usage while Appendix Q shows that there is no significant relationship between gender and m-banking usage. It can thus be concluded that, in Zimbabwe, internet banking adoption has nothing to do with age and gender.

b) Perceptions of Zimbabweans towards e-banking

Perceptions of Zimbabweans were measure-based on how consumers agreed on a number of good attributes of e-banking. Only significant relationships are highlighted. A binomial test in Appendix I shows that there is a significant level of agreement that m-banking has user-friendly systems. The proportion of people who use e-banking was tabulated from a binomial test and the results are presented in Appendix C. A significant number of people, that is 96%, indicated they had some bank accounts in the form of either real bank accounts or mobile bank accounts. This is represented by $p<0.0005$. In addition, a significant proportion, that is 89%, used the ATM ($p<0.0005$) while 90% used m-banking. A significant proportion of 64% ($p<0.0005$) did not use internet banking. It can therefore be deduced from the binomial test performed that amongst the e-banking platforms in use in Zimbabwe, internet banking is least popular and is not used by a significant number of people, although a significant number of people do some form of banking where they use both the ATM and m-banking. Refer to Appendix C for more information.

c) Whether e-platforms meet all banking needs or not

There is a significant agreement that banks' e-platforms in Zimbabwe meet all banking needs (M=3.65, SD=1.061), t (267) =10.073, p<.0005 and banks' e-platforms perform all transactions accurately. Refer to Appendices D, E, and F for statistical sample tests, mean, Standard deviation and t-tests that were done.

d) The e-banking platforms provide an accurate record of what transpired

There is significant level of agreement that banks' e-platforms in Zimbabwe are accurate (M=3.89, SD=.974), t (269) 14.926, p<.0005; banks' e-platforms perform all transactions accurately. Refer to Appendices D, E, and F for sample statistics.

e) The e-banking platforms' convenience

There is significant agreement (M=3.95, SD=1.10) and t (268)=15.397,p<.0005 that e-banking platforms are convenient. This means participants are satisfied with the convenience of e-banking platforms in Zimbabwe. Appendix F highlights the findings.

f) Efficiency of e-banking platforms

There is significant agreement that banks' e-platforms in Zimbabwe are efficient (M=3.86, SD=.970), t (263) =18.406, p<.0005; banks' e-platforms perform all transactions efficiently. Refer to Appendices D, E, and F for sample statistics and to figure 6.4.4 and table 6.4.4 for a presentation of the findings.

g) Whether e-banking platforms provide accurate records of what transpired or not

A binomial test in Appendices D, E and F highlights that there is significant agreement that banks' e-platforms in Zimbabwe keep accurate records (M=4.04, SD=.928), t (268) =18.406, p<.0005; banks' e-banking platforms keep accurate records of what has transpired.

h) Speed of transactions on e-banking platforms

Conclusively, there is significant agreement that banks' e-platforms in Zimbabwe perform transactions immediately (M=3.77, SD=1.022), t (264) =12.207, p<.0005; banks' e-platforms perform all transactions immediately. Refer to Appendices D, E, and F for sample statistics.

i) Whether or not use of e-banking platforms save consumers' time

There is significant agreement that banks' e-platforms in Zimbabwe save time (M=3.89, SD=1.125), t (267) =12.979, p<.0005; banks' e-platforms save time. Refer to Appendices D, E, and F for sample statistics.

j) Security of e-banking platforms

Conclusively, there is significant agreement that banks' e-platforms in Zimbabwe are secure (M=4.09, SD=.873), t (261) =20.165, p<.0005; banks' e-platforms provide secure services. Refer to Appendices D, E, and F for sample statistics.

k) Additional services for the elderly

Conclusively, there is significant agreement that banks' e-platforms in Zimbabwe provide additional services for the elderly and disabled (M=3.33, SD=1.181), t (268) =4.646, p<.0005; banks' e-platforms provide special services for the elderly and disabled people. Refer to Appendices C and D for sample statistics.

l) Are ATMs located in areas that are easily accessible?

Conclusively, there is significant agreement that banks' ATMs are located in easily accessible areas (M=3.75, SD=1.062), t (266) =11.522, p<.0005; banks' ATMs are located in accessible areas. Refer to Appendices D, E, and F for sample statistics.

m) Are bank websites easily accessible?

Conclusively, there is significant agreement that banks' websites are easily accessible (M=3.60, SD=1.023), t (263) =9.566, p<.0005; banks' websites are easily accessible. Refer to Appendices D, E, and F for sample statistics.

n) Are ATMs secure?

There is significant agreement that ATMs in Zimbabwe are secure M=3.89, SD=.948), t (264) =15.364, p<.0005; banks' ATMs are secure. Refer to Appendices D, E, and F for sample statistics.

Conclusively, it can be noted that e-banking facilities in Zimbabwe meet consumers' needs as they are satisfactory in all the attributes that they were measured against and in all cases there was a significant number of consumers whose responses highlighted that. Descriptive statistics discussed earlier also point to the same results.

6.10 Description of Electronic Banking (e-banking) facilities

a) Automated Teller Machines (ATMs)

There is a significant level of disagreement that ATMs enable a consumer to set up accounts and transact immediately. A binomial test in Appendix G indicates the relationship where p=.007a, and thus p<.0005. Therefore, there is a significant level of agreement.

There is also a significant level of disagreement that banks provide brochures to consumers on how to use ATMs with an asymptotic significance of .000a which is less than 0.0005, as in Appendix G.

Appendix G also highlights a significant level of disagreement that ATMs have a personal touch as the asymptotic significance level is less than 0.0005. The asymptotic level of agreement is .014a.

There is also a significant level of agreement that banks have user-friendly systems, with an asymptotic level of agreement of .003a referred to in Appendix G. Since p is less than 0.0005, this is regarded as significant.

There was a significant level of disagreement that ATMs provide online directions with an asymptotic significance of .000a and since p is less than 0.0005, it is regarded significant. Refer to Appendix G.

When it comes to feedback, there is a significant level of disagreement that ATMs provide customer feedback. Appendix G indicates that the asymptotic level of disagreement is less than 0.0005. The asymptotic significance level is .007a.

There is a significant level of disagreement that banks provide special services to the elderly when using ATMs. The asymptotic significance in Appendix G is .000a. Since this is less than 0.0005, it is regarded as significant.

The ATMs in Zimbabwe seem to fall short of many essential elements that help to make the banking experiences of their clients more enjoyable. These might have caused some people to shun the use of ATMs, or to shy away from utilizing them fully.

b) Internet banking

There is a significant level of disagreement that internet sites recognize clients by name when they are doing an online bank transaction. Appendix H highlights binomial test results where the asymptotic significance is .000a. Since p is less than 0.005, it means there is a significant level of agreement that internet banking does not recognize customers by name during a transaction.

6.11 Management knowledge of customer expectations

Appendix H also highlights that there is a significant level of disagreement that internet sites allow them to set up accounts and transactions immediately. This is indicated by an asymptotic significance of .000a which is less than 0.0005.

There is also a significant level of disagreement that banks provide brochures on how to use internet banking. This is highlighted by a binomial test in Appendix J where p is less than 0.0005.

Appendix H also highlights that there is a significant level of disagreement that internet banking has a personal touch with an asymptotic significance of .000a. Since p is less than 0.0005, it means there is a significant relationship.

Again there is a significant level of disagreement that internet banking in Zimbabwean banks involves generally user-friendly systems. A binomial test based on Z approximations highlighted an asymptotic significance of .000a and since it is less than 0.0005, there is a significant level of agreement.

There was again a significant level of disagreement regarding the assertion that banks provide online directions with an asymptotic significance of .000a, as highlighted in Appendix H. Since p is less than 0.0005, the level of significance is high.

There was also a significant level of disagreement that internet banking has a platform for feedback, as highlighted by a binomial test in appendix H, where the asymptotic significance level is .000a and since p is less than 0.0005, the significance level is high.

There was also a significant level of disagreement that banks provide special services for the elderly. A binomial test with Z approximation was done and an asymptotic significant level of .000a was found. Refer to Appendix H for binomial test results.

Lastly, a binomial test in Appendix H highlights that there was a significant level of disagreement with an asymptotic level of .000a that internet banking has adequate menu options for everyday banking. Since p is less than 0.0005, it means the level of agreement is significant and thus an issue worth mentioning and addressing.

In summary, internet banking has the worst attributes as measured by customers. It has no single desirable attribute. Banks must, therefore, work on improving this, based on the attributes above.

a) Mobile banking (m-banking)

There was an overwhelming level of agreement on the assertion that "mobile banking enables me to set up accounts and perform transactions immediately". The asymptotic level of agreement in Appendix I highlights this since it is less than 0.0005. The asymptotic level of significance is 0.002a.

Again, there was a significant level of agreement that banks provide brochures on how to use internet banking. Appendix I highlights the binomial test that tested the results where the asymptotic level of .000a was produced. Since it is far less than 0.0005, it means consumers agreed overwhelmingly that their banks provide them with brochures on how to use ATMs.

An asymptotic significance level of .000a was realized through a binomial test in Appendix I when customers were asked; "has mobile banking got user-friendly systems?" This shows that there is a significant level of agreement that m-banking has user-friendly systems.

There was a significant level of disagreement with an asymptotic significance level of 0.050a that m-banking platforms in Zimbabwe provide online directions. Appendix I highlights binomial test results based on Z approximations and since p is less than 0.0005, the level of significance is high.

Lastly, pertaining to m-banking, there was also a significant level of disagreement that m-banking platforms provide special services for the elderly. A binomial test based on Z approximations in appendix

I highlights the test results where the asymptotic significance level is .000a which is far less than 0.0005 and thus high. This shows that there is need to improve m-banking platforms to make sure there are specialized services for the elderly.

Summing up on m-banking, it can be concluded that m-banking platforms in Zimbabwe have more desirable attributes than those that are undesirable. There is a need to improve on provision of online directions and also making sure everyone, including the elderly, can use m-banking. Banks can and should provide education to the elderly so that they can use m-banking platforms.

Conclusively, the attributes of ATM and m-banking are desirable while internet banking has less desirable attributes. Banks have to work on educating clients on how internet banking works and also improve its features so that it becomes more desirable.

6.12 Why Some Customers do not use Electronic Banking (e-banking) Platforms

A binomial test was carried out on why some people do not use e-banking facilities and results obtained from the test in Appendix J are not significant, therefore not important to discuss under inferential statistics. However, descriptive statistics were used to make conclusions.

6.13 Electronic Banking (e-banking) Expectations

Customers were also asked about their e-banking expectations and a binomial test was done to test the level of significance of the results.

There was a significant level of agreement that consumers are happy with the convenience of e-banking platforms as the asymptotic level of agreement was .000a and since it is way less than 0.0005, it means the level of agreement is very high. A binomial test in Appendix K highlights this result.

Appendix K also highlights a significant level of agreement on the assertion that consumers expect e-banking platforms to be user-friendly with an asymptotic significance level of 000a which is less than 0.0005.

There is a significant level of agreement that e-banking platforms should allow feedback from customers as in a binomial test in Appendix K. The binomial test result indicates an asymptotic significant level of

agreement of .000a which is far below 0.0005.

There is a significant level of agreement by respondents that to a greater extent they expect e-banking platforms to be more secure. Test results in Appendix K highlight this result with an asymptotic significance level of .000a. Since this result is far less than 0.0005, it means customers expect e-banking platforms to be more secure.

Availability of e-banking is also a critical component of adoption of the facility by clients and there is a significant level of agreement as can be deduced from the binomial test in Appendix K where the asymptotic level of agreement is .000a, which is far below 0.0005. This means the desire of consumers is that e-banking platforms should always be functional.

There is a significant level of agreement by customers that they expect e-banking facilities to notify them of all transactions in their accounts. A binomial test in Appendix K highlights a level of asymptotic significance of .000a and since it is less than 0.0005, it is the basis for arguing that there is a significant level of agreement that customers of e-banking platforms notify them of all transactions in their accounts.

A binomial test in appendix K indicates that there is a significant level of agreement that customers expect e-banking platforms to provide them with bank statements. A binomial test in Appendix K indicates an asymptotic level of significance of .000a and since it is less than 0.0005, it is the basis for concluding that the level of significance is high.

There is also a significant level of agreement that banks should offer help as to how to use e-banking platforms. A binomial test was carried out and an asymptotic significance of .000a was found and since it is less than 0.0005, it can be regarded as significant.

All in all, customers expect e-banking platforms to be convenient, user-friendly, should allow feedback from customers, should be more secure, always be available, should notify customers of all transactions in their accounts, should issue bank statements and finally provide them with help as to how to use the platforms. The results from these expectations are used to look at the gap between customer expectations and management perceptions of customer expectations.

6.14 Conclusion

This chapter presented, analysed, and discussed research findings. The results were gathered through the questionnaire and the interviews. The findings indicate that consumers are satisfied with e-banking services in Zimbabwe as they rated all the attributes of e-banking highly. The results were captured on an SPSS spread sheet and the researcher designed graphs and tables from the spread sheet and analysed data. The next chapter will look at conclusions, where the researcher will conclude on each objective.

CHAPTER SEVEN

DISCUSSION OF RESULTS

7.0 Introduction

This chapter discusses the results that were obtained in the research based on the objectives of the study. All these objectives were achieved and this chapter discusses the findings and compares them with previous research studies that were done elsewhere in the world but with a similarity to this study. This chapter is divided into sections according to the objectives.

7.1 Objective One: The Perceptions of Zimbabweans towards Electronic Banking (E-Banking)

This was the first and main objective of the study where the objective was to determine the perceptions of Zimbabweans towards e-banking. A perception is a belief or opinion that people might have concerning a given phenomenon. This study thus sought to find out the opinions people have towards e-banking. The perceptions of Zimbabweans towards e-banking were measured using the elements of the e-SERVQUAL (electronic-Service Quality) model by Zeithmal as quoted by Nemati (2012). The following is a list of these elements:

a) Efficiency;

b) Fulfilment;

c) Reliability;

d) Privacy;

e) Responsiveness;

f) Compensation; and

g) Contact.

The questionnaire for customers was drafted to gauge the perceptions of consumers towards online banking. Questions 6, 7, and 8 captured customer perceptions where the efficiency, fulfilment, reliability, privacy, responsiveness, compensation and contact issues were tested to find out whether or not e-banking complied with e-SERVQUAL attributes by Zeithmal, as discussed by Nemati (2012).

All these attributes were measured using both descriptive and inferential statistics in this research and found to be satisfactory as there was significant level of agreement that e-banking services in Zimbabwe meet all the above standards. It was also found in this research that e-banking adoption in Zimbabwe was not linked to age and gender, as shown in Appendices L, M, N, O and P. This is unlike a study by Laforet and Li (2005) carried out in China on consumer attitudes towards online banking where those who use online banking were found to be predominantly males. The Chinese adopted online banking as a result of the fear of being robbed if they move around with cash. In this research there was not much probing as to why people used e-banking, but one of the reasons that came out was that they seek convenience. Again, Laforet and Li's study in 2005 on consumers' attitudes towards online and mobile banking in China and found out that Chinese online and mobile bank users were predominantly males, not necessarily young and highly educated, in contrast with the electronic bank users in the West. The issue of security was found to be the most important factor that motivated the Chinese consumer's adoption of online banking.

7.2 Objective two: Why Some People do not use Electronic Banking (E-Banking)

The second objective of the study was to determine why some people do not use e-banking. Question 8 of the customer questionnaire gathered this information from customers. Closed-ended questions were asked and put on a Likert scale to find out the level of agreement based on highlighted assertions. These assertions were taken from the literature review and provided possible reasons why consumers may be reluctant to use e-banking.

The major reasons why most Zimbabweans do not use e-banking include the following:

a)   Lack of knowledge about e-banking platforms at their bank.

About 83.3% of all those who responded to the question in Table 6.8 highlighted that they did not have

adequate knowledge about the e-banking facilities available;

b)   The e-banking platforms are difficult to use.

About 71.4% agreed on the assertion that e-banking platforms are difficult to use, hence the reason why they do not use these. Refer to Table 6.9.

c)   It is risky to transact electronically.

Of all the respondents who did not use e-banking, 57.2% of them agreed that they chose not to do so because it is risky to transact electronically. Refer to Table 6.10.

d)   It is difficult to control transactions made through e-banking platforms.

The second main reason why people in Zimbabwe do not use e-banking is that it is difficult to control transactions made through e-banking. In this regard it means if you make an error, it is difficult to rectify. Table 6.11 highlights that 85.7% of the valid respondents agreed that they did not use e-banking because it is difficult to control transactions made through e-banking;

e)   I once visited my bank's website but failed to navigate through the pages.

Table 6.11 highlights that 57.2% of respondents agreed that they once visited their bank's websites but failed to navigate through the pages hence the reason why they did not use e-banking;

f)   Consumers want more personalised services.

Altogether, 71.5% of respondents agreed that they did not use e-banking simply because they want more personalised services, hence the need to be served by a human being. Table 6.12 highlights this result.

g)   Some consumers are used to the traditional way of banking.

Most of the respondents indicated that they do not use e-banking because they are more comfortable and

familiar with the traditional way of banking. These people are afraid of change and are likely to be the last to adopt the new technology of e-banking. This reason was the most popular with 86.7% of respondents agreeing to the assertion that they did not use e banking because they were used to the traditional way of banking. This is highlighted in Table 6.13.

h)   Some tried to use e-banking but failed.

Altogether 57.2% of valid respondents, who said they did not use e-banking, argued that they had tried to use e-banking but failed. Table 6.14 highlights this information.

i)   Some consumers lack access to the internet.

Altogether 72.4% of valid respondents agreed that they did not have ready access to the internet and hence this is the reason why they did not use internet banking. Refer to TABLE 6.15.Some bank systems are always down (non-functional).

Altogether 57.1% of respondents, as highlighted in Figure 6.16, indicated that their banking systems were always down, hence the reason why they did not use e-banking platforms.

k)   Some customers did not use ATMs for fear of robbers since the ATMs are outside.

Altogether 67.3% of valid participants in this question argued they fear robbers and thus did not use ATMs as they are outside banking halls.

From the responses it, can be found that the main reasons given why people in Zimbabwe do not use e-banking is that they are used to the traditional way of banking and also that they fear they cannot control transactions made over e-banking channels.

Huili and Zhong (2011) found out that one of the reasons why people do not use e-banking is that sometimes people want to access physical cash but mobile and internet banking does not allow them to do so. While this reason was not found directly in this research, there is some similarity in the sense that customers in Zimbabwe recommended that for banks to improve their service quality through e-banking, they should make cash available all the time. While Huili and Zhong only regarded mobile banking (m-

banking) and internet banking as the only e-banking platforms, this study regarded e-banking platforms as internet banking, m-banking, and ATMs.

Laforet and Li's (2005) study found out that security was the most important factor determining e-banking adoption. The results are similar for Zimbabwe as people showed concern for security as well in this research study. According to the same research, the other reason for the poor adoption of e-banking was a 'cash and carry' culture. The results are similar as customers in this research indicated that in order to improve service quality on e-banking platforms, there is a need to make sure cash is always available at ATMs. In this research, online banking adoption was not thoroughly investigated as it was blanketed in e-banking and, therefore, unlike in the research by Laforet and Li (2005) where technological skills were found to be one of the factors barring e-banking adoption, this was not a finding of the current research.

7.3 Objective Three: Gap between Customer Expectations regarding Electronic Banking (E-Banking) Facilities and Management Perceptions of Customer Expectations

This objective was fulfilled by asking customers their expectations. Question 9.2 to 9.7 of the customer questionnaire gathered information on customer expectations. The researcher used literature to gather the expectations of customers and tested to find the extent to which customers held expectations of e-banking facilities. The tested expectations included user-friendliness, feedback from customers, and more security, constant availability, notification of all transactions in an account, provision of bank statements, and help offered on how to use the platforms. Customers indicated that to a greater extent they wanted e-banking services to reflect all these attributes. Further to that, the interview guide also measured management perceptions of customer expectations. A gap between customer expectations from the questionnaire and manager's perceptions of customer expectations was then measured and addressed the third objective, to highlight the gap between manager's perceptions of customer expectations and the actual expectations of the customers.

The researcher found out that there was not much difference between customer expectations and management perceptions as far as e-banking is concerned. There is no author who has done research on this issue. Researchers who looked at service quality gaps focused on other areas.

7.4 Objective Four: Model that can be used by Bankers for Adoption in Electronic Banking (E-Banking)

The researcher used question 10 of the customer questionnaire to gather customer recommendations on improving e-banking services. From this the researcher picked the most important factors to consider in e-banking.

The factors highlighted by Singh (2013) as affecting e-banking adoption in India were also found to affect e-banking adoption in Zimbabwe. These factors include:

c)   ease of use,

d)   reliability,

e)   convenience,

f)   accessibility,

g)   security; and

h)   low transaction cost.

Chemingui and Lallouna (2013) discovered that the following factors contributed to the resistance by people in Tunisia to use e-banking: compatibility, trial facility, perceived enjoyment, and system quality. These factors were examined, but not directly and were also predominant in this study.

A research study by Collier and Bienstock, (2006) on modelling the consequences of e-service quality reviewed four components as essential to the attainment of e-service quality and these factors included efficiency, fulfilment, system availability, and privacy. While these were also found in the current research, they are not exactly the same as the findings by Laforet and Li (2005). The issue of system-availability was often mentioned by people as they were arguing that this is one of the factors that they feel banks should improve on. The current situation in Zimbabwe is that some transactions are difficult to do via e-banking platforms because the system is often down, hence the need to improve systems if greater adoption of e-banking is truly to materialize.

7.5 Objective Five: Ways of Improving Service Quality through Electronic Banking (e-banking)

The researcher used responses to question 10 to gather the recommendations for improving service quality. A study by Singh (2013) highlighted that six factors are critical for the successful e-banking adoption by clients. These factors included ease of use, reliability, convenience, accessibility, security, low transaction cost, and efficient time consumption. These factors lead to consumer-satisfaction and are therefore ways of improving service quality. All these factors came out of this research and consumers indicated a significant level of agreement that they lead to satisfaction.

7.6 Summary

The discussion of results looked at how the researcher arrived at the findings. All objectives were fulfilled and the researcher analysed objectively all the findings using both descriptive and b inferential statistics. The next chapter will look at conclusions and recommendations garnered from the research. The results were presented according to the objectives in such a way that each objective formed a thematic area. Both tables and figures were used for clarification's sake. The results were also compared to previous researches to find out if the research produced unique results. The results were not different from researches that were done prior to this research except that the challenges that are faced in Zimbabwe are unique and the recommendations made are thus applicable mainly in Zimbabwean context and any other nation that might have the same characteristics.

CHAPTER EIGHT

CONCLUSIONS AND RECOMMENDATIONS

8.0 Introduction

This study sought to find out customer satisfaction with e-banking facilities in Zimbabwe and the specific objectives were to find out the perceptions of Zimbabweans towards e-banking, to find out why some people do not use e-banking, to find out the gap between customer expectations and management perceptions of these expectations, to develop a model that can be used for the easy adoption of e-banking and also to recommend the best strategies to be used to improve customer satisfaction with e-banking facilities. All these objectives were achieved and this chapter will summarise the whole thesis and the findings for each objective.

8.1 Summary of the Research

This report was organised into eight chapters and the following summarises what each chapter dealt with.

8.1.1 Chapter 1: Introduction

Chapter one was the general introduction. It set the tone of the research by introducing important elements of the research such as the research problem, research questions, and research objectives, significance of the study, research gap to be filled, and also the limitations of the study. The objectives that were highlighted in this chapter became the roadmap for the whole thesis as each chapter that followed was discussed according to these objectives.

8.1.2 Chapter 2: Literature review

The chapter looked at various terms that were key to this thesis and also some research studies that were done elsewhere that were useful in highlighting the research gaps that necessitated this research. Through this chapter the reader can understand e-banking better. Types of e-banking were discussed in this chapter and, furthermore, issues to do with service quality were also highlighted.

8.1.3 Chapter 3: Theoretical framework

The chapter dealt with e-banking theories that were put forward by various authorities. The models were clearly explained and their weaknesses were exposed. The chapter also explains why the e-servqual model was chosen by the researcher and its suitability to this research in terms of how it informed this research. The chapter is very important in that it provides the theoretical foundations of this research. It makes the reader understand the subject of e-banking adoption and customer satisfaction better.

8.1.3 Chapter 4: Background of electronic-banking (e-banking) in Zimbabwe

The chapter first of all looked at origins of banking worldwide then in Zimbabwe. After that, the chapter went on to look at the development of e-banking by discussing each e-banking tool development starting with the ATM, internet then mobile banking (m-banking). This is the order in which the tools developed. Furthermore, the chapter dug deeper into the pros and cons of each tool.

8.1.4 Chapter 5: Methodology

This chapter looked at how the research was done, the methods that were used, population of the study, sampling, research design that was used, the research approach and issues to do with validity and reliability. The research took a mixed-method approach where both quantitative and qualitative methods were used. A descriptive design was utilized.

8.1.5 Chapter 6: Research findings

In this chapter research results were presented and analysed. Charts and graphs were used to present the data and SPSS was used for data analysis which both descriptive and inferential statistics were derived from and used for data analysis. T-tests and Binomial tests were done to find out if any relationships existed between variables.

8.1.6 Chapter 7: Discussion of results

This chapter discussed results in line with research objectives and compared results with previous results gathered from other researchers.

8.1.7 Chapter 8: Conclusions and recommendations

This chapter summarises both research results and the whole thesis. It looks at what each chapter entails in a summary format and, based on the research summary, the chapter now has a basis for recommendations and highlights contributions to knowledge in the academic arena. It also looks at the limitations of the study and recommends areas for further study.

8.2 Summary of Conclusions

The following is a summary of conclusions that were arrived at in this research:

8.2.1 The perceptions of Zimbabweans towards electronic banking (e-banking)

Generally people in Zimbabwe are satisfied with the e- banking services available as they rated highly all the services available to them. Results showed that from all the forty one attributes that the researcher tested, the majority were satisfied. However, there was not a single attribute that scored one hundred per cent satisfaction. This shows that there are some banks in Zimbabwe whose e-banking facilities have to improve on all attributes. It is now the duty of e-banking managers from the various banks to carry out research on their specific banks to find out where they are lacking.

8.2.2 To find out why some people do not use electronic banking.

The main reasons why some people do not use e-banking include lack of information. They do not have adequate knowledge on how to transact electronically. The e-banking platforms are difficult to use. People are afraid of the risks involved when transacting electronically. They are afraid they cannot take proper control of transactions done electronically and they cannot correct errors easily. The consumers indicate they want more personalized services when transacting. There is an unavailability of banks on the network and they are used to the traditional way of banking and are comfortable with it. There is a desire for more personalized services, meaning they want to be served by a human being. There is also a fear of robbery since ATMs are outside in the open with no security, for example. Some bank systems are not reliable, and also some bank systems are not user-friendly. Some respondents have tried e-banking but failed to be successful in doing the transactions. Some consumers had lack of access to the internet. The fact that there was not even a single attribute that was tested by the researcher and that scored one

hundred per cent also shows that all these issues have to be dealt with by banks. Question 8 of the questionnaire addressed these issues, where respondents were asked to indicate their level of agreement on each assertion pertaining to the reasons why they did not use electronic banking. Though there were a few people who agreed on each individual attribute, it shows that all the above-mentioned reasons are part the reasons why people do not use e-banking.

8.2.3 Gap between customer expectations on electronic banking facilities and management perceptions of customer expectations.

The expectations of customers are well known by management as the mentioned expectations by customers were the same as what managers perceived them to be. These expectations include convenience, user-friendliness, platforms that allow feedback from customers, more secure platforms, a platform that is always available, a platform that notifies clients of all transactions in his or her account, platforms that provide bank statements, and also information that offers clients help on how to use the platform. These expectations were addressed by question number 9 and 10 of the customer questionnaire while management perceptions of customer expectations were dealt with in the interviews.

8.2.4 Model that can be used by bankers for adoption of electronic banking (e-banking).

The variables that are important for the adoption of e-banking in Zimbabwe include the following:

(i) education,

(ii) accessibility,

(iii) ease of use,

(iv) friendliness; and

(v) security.

8.3 Recommendations

I.   Based on the findings, the researcher recommends the following as ways of improving e-Banking adoption:

II.   Banks should work on improving networks as many clients complained about having a poor network. There is also need for banks to make sure their systems are always up and running and the network, needs to be improved operation-wise. Network improvement helps to make sure there is ubiquity, that is, service availability all the time for the consumer.

III. Banks are also encouraged to make sure they always have cash in the ATMs so that people are always confident they will get cash each time they need it. This may be difficult to implement in the current liquidity environment of Zimbabwe, but once cash is available, there is need to ensure the reliability of banks, by always loading cash into ATMs.

IV.   Quite a number of customers argued that there is need for more education, particularly regarding the use of internet banking. There is need for e-banking departments of banks to make sure they find ways of educating their clients on how to use e-banking facilities. They can print brochures or e-mail clients information regarding the use of ATMs, the internet, or mobile banking (m-banking).

V.   Banks should have an interactive customer relationship marketing plan. They should constantly hold awareness campaigns to inform and persuade their clients to use e-banking platforms.Internet sites should have fire walls which cannot easily be hacked. Bank managers are also encouraged to have an open-door policy where they encourage customers to visit them to speak out their views regarding the improvement of service quality through e-banking. This helps to strengthen the relationship between the bank and its clients.

VI.   Bank managers recommended that there is need for financial inclusion such as changing the structure of the colonial era. It must be made easy to start using e-banking facilities. There must not be too stringent a set of rules to use e-banking platforms, but at the same time, there is need to make sure the platforms are secure.

VII. The charges for using e-banking should be very low. For m-banking, the Postal and Telecommunications Regulatory Authority of Zimbabwe (PORTRAZ) should regulate the

charges so that they are low. Systems like ECOCASH, TELECASH, and NETTCASH are expensive to use, as indicated by customers, and the charges need to be reduced.

VIII. The Zimbabwean education system must include financial literacy with some attention given to e-banking and the nation at large must be educated via fliers, brochures, and even books on e-banking. Posters must also be distributed in the rural areas and these must be in languages understood by customers. Headmen, chiefs, and other community leaders must also be educated so that they in turn, also can educate their constituencies.

IX. There is also a need to improve infrastructure especially in the rural areas. Facilities like network, electricity, and banks need to be available in rural areas.

X. Furthermore, there is also need for more information on e-banking platforms, like, for example, detailed bank statements and, also, timeous information dissemination of activities in a client's account, be it debit of account service charges or any credits reflecting in the account.

XI. Banks are also encouraged to develop user-friendly websites. It must be easy for customers to follow links to register online banking and instructions must be ready and clearly understood, in all native languages.

XII. There is also the need for banks to have well-established standards to follow that are benchmarked with global standards. These standards must also be customer-driven and systems must be in place to make sure they are followed.

XIII. There were also concerns that e-banking transactions do not inform the user the name of the originator of a transaction. Banks should work on making sure the name of the person or organization who originates a transaction, say like a person who deposits money, should appear on the alert that customers receive on text messages or e-mail, so that the client does not need to go to the bank to find out who deposited money or a salary.

XIV. In addition to the above, there is also a need to make sure banks always acquire the latest equipment and technology to make sure there is continuous improvement in customer service via e-banking. Banks should have the latest and most advanced systems and Automated Teller

machines (ATMs). The Commercial Bank of Zimbabwe recently introduced CBZ touch which allows clients to link ATM withdrawals with a mobile phone so a person can use it to draw cash from an ATM without a card. This allows one's phone to be able to perform quite a number of bank transfers. Many banks now have mobile applications which are user-friendly software that is installed on smart phones that allow clients to do quite a number of bank transactions on mobile phones. All these technologies help to improve service quality as customers quickly get the links to the transactions they want.

XV.   Banks can also assist small retailers to have Point-Of-sale (POS) machines in their retail outlets. These help customers not to move around with cash but, they can simply swipe and get products they want. Banks can make the machines cheaper and also transaction charges should be lowered.

XVI.   Some non-e-banking users complained of e-banking platforms always giving instructions in English, yet some people do not understand English and it was argued, that there is need to give people language options when they need assistance. Mobile telecommunications companies adopted this as they ask customers the language they are familiar with. This helps to ensure that there is effective communication between clients and the e-banking platforms.

8.4 Contributions and Limitations of the Study

The following are the major contributions of the study to literature, method and industry:

To literature, the study provides a comprehensive analysis of E-banking. Previous studies only dealt with the tools in isolation but this study combines all the tools and give an insight into what each entail.

The study is also useful to the industry as it is reach of ideas on how to enhance customer satisfaction through e-Banking. Technology is not introduced for the sake of just introduction, but must enhance efficiency and lead to better ways of doing things. Through this study, the banking industry is advised on the best ways of enhancing customer satisfaction.

The study also provided a method for measuring many attributes at one goal by making use of the model used in this research. A comparison between the tools was made and for each attribute, banks now know what needs to be improved. The questionnaire used was quite comprehensive and results were well analysed.

Despite the contributions of the research to industry, literature and research methods, the following are some of the limitations that the researcher encountered while undertaking the research:

I.   Some participants were not able to read, especially vendors and other non- white- collar job holders. The researcher had to assist them to read and write;

II.   The researcher also faced some funding challenges which he resolved by borrowing money, especially to cater for travelling costs; and

III.   Some respondents were non-English-speaking. The researcher had to translate English into native languages. As with any translation, the possibility of slight meaning changes cannot be overlooked.

IV.   The study was too broad as e-banking encompasses a lot of issues. The researcher will look at one instrument of e-banking in future researches.

8.5 Conclusion

Having looked at conclusions and recommendations, this marks the end of the current research. There is need for further research on the adoption of internet banking. This is necessitated by improvements in internet access as most mobile phones now have internet access. If the issues raised are addressed successfully to make e-banking a more convenient, easier and efficient choice for the customer, then both customers and businesses and society at large, will ultimately benefit from the greater efficiency and service quality provided.

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LIST OF APPENDICES

Appendix A: Questionnaire for customers

UNIVERSITY OF KWAZULU-NATAL

School of Management, IT and Governance

PhD Research Project
Researcher: Josphat Manyeruke (+263773401770)
Supervisor: Dr M. Phiri (+27332605843)
Research Office: Mariette Snyman (031-260 8350)

Dear Respondent,

My name is Josphat Manyeruke, a PhD student at the University of KwaZulu-Natal. I am carrying out a research study in fulfilment of my PhD in Marketing that is entitled: Customer satisfaction with Electronic Banking services in Zimbabwe: A case of Mashonaland West Province, Zimbabwe.

I am kindly requesting that you respond to this questionnaire. Your responses will be used for academic purposes only and you are not supposed to indicate your name anywhere.

Thank you

Manyeruke Josphat
(Researcher)

Section A- Demographic data

1.) Tick your appropriate age group

15–20	
21–30	
31–40	
41–50	
51–60	
61–64	

2.) Gender: Male ☐   Female ☐

3.) Occupation……………………………………………………………

4.) Do you have any bank accounts or mobile bank accounts such as Ecocash, Telecash, Nettcash, etc.?

Yes ☐   NO ☐

Section B

Platform	YES	NO
5.1 ATM		
5.2 Internet banking		
5.3 Mobile banking		

5.) Do you use the following e-banking platforms?

Questions 6 and 7 are meant for those who use ATM, Internet banking, or Mobile banking.
If you responded YES to any of the above questions (5.1 to 5.3), answer QUESTIONS 6, 7 and 9. If you responded NO to all the above questions (1.1 to 1.3), answer Question 8.
Note that E-platforms refers to ATM, Internet banking, and/ or Mobile banking.
6.) Indicate your agreement with the following statements:

Claim	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
6.1 My bank's e-platforms meet all my banking needs.					
6.2 My bank's e-platforms perform all transactions accurately.					
6.3 My bank's e-platform has convenient hours of operations.					
6.4 My bank's e-platforms process my transactions efficiently.					
6.5 My bank's e-platforms provide accurate records of all transactions undertaken.					
6.6) My bank's e-platforms process transactions immediately.					
6.7 My bank's e-platforms save me time as I do not need to wait in queues.					
6.8 My bank's e-platforms provide secure services.					
6.9 My bank's e-platforms provide additional services for some customers (e.g. those who can't speak English, the disabled, and the elderly)					
6.10 The location of ATMs ensures that they are easily accessible.					
6.12 The bank's website is always accessible.					
6.13 My bank's ATMs are secure.					

6.14 My bank's management knows my e-banking needs.					
6.15. E-banking helps to improve service delivery.					

7. Tick a facility which concurs with descriptions in first columns below. You can tick more than one facility or might not tick any, if there is no facility that concurs with the description.

Description	ATM	Internet banking	Mobile banking
7.1 Acknowledges me by name on the screen during the transaction.			
7.2 Enables me to set up accounts and perform transactions immediately.			
7.3 Provides brochures to users to educate them on how to use services			
7.4 Has a personal touch.			
7.5 Has user-friendly systems.			
7.6 Provides online directions.			
7.7 Provides customer feedback services.			
7.8 Provides special services for the elderly.			
7.9 Has adequate menu options for everyday banking.			

Question 8 (Respondents who do NOT use e-banking)
Indicate your agreement with the following statements:

Claim	Strongly disagree	Disagree	Not Sure	Agree	Strongly Agree
8.1 I do not know of e-banking platforms available at my bank.					
8.2 E-banking platforms are difficult to use.					
8.3 It is risky to transact electronically.					
8.4 I cannot control transactions I make through e-banking platforms.					
8.5 I once visited my bank's website but failed to navigate through the pages.					
8.6. I do not use e-banking services because I want more personalized services.					
8.7 I do not use electronic banking because I am used to the traditional way of transacting.					
8.8 I tried to use e-banking platforms but failed.					
8.9 I do not have ready access to the internet.					
8.10 I do not use e-banking platforms because my bank's systems are always down.					

8.11 I do not use ATMs for fear of robbers since the ATMs are outside banking halls.					

9. Indicate your level of agreement in terms of whether e-banking platforms meet your expectations

Expectation	To a greater extent	To a lesser extent
9.1 The convenience of e-banking meets expectation.		
9.2 E-banking platforms should be user friendly.		
9.2 E-banking platforms should allow feedback from customers.		
9.3 E-banking platforms should be more secure.		
9.4 E-banking platforms should always be available.		
9.5 E-banking platforms should notify me of all transactions in my account.		
9.6 E-banking platforms should provide me with bank statements.		
9.7 E-banking platforms must offer help as to how to use the platforms.		

10) How do you think your bank's management can improve its e-banking platforms to improve service delivery?

………
………
………
………
……………………………………………………………………………………………

<div align="center">Thank you for your time.</div>

Appendix B: Interview guide for managers of Financial Institutions

1) What do you think is the general view of Zimbabweans towards purchasing goods online, making electronic payments and doing all sorts of virtual transactions in the comfort of their homes?

……
……
……
……

2) What challenges do people face in using e-banking platforms?

……
……
……
……

3) What do you think are the expectations of people when using the following platforms?

i) ATMs

……
……
……
……

ii) Internet Banking

……
……
……
……

iii) Mobile Banking.

……
……
……
……

4) In your opinion, what are the major variables that affect electronic banking adoption in Zimbabwe?

……

……

……

……

5) How do you think Zimbabwean banks can improve service quality through Electronic Banking?

……

……

……

……

6) Any other comments?

……

……

……

……

Appendix C: Binomial Test-Usage of e-Banking

		Category	N	Observed Prop.	Test Prop.	Asymp. Sig. (2-tailed)
4 Do you have a bank account?	Group 1	Yes	271	.96	.50	.000[a]
	Group 2	No	10	.04		
	Total		281	1.00		
5.1 Do you use the ATM?	Group 1	Yes	242	.89	.50	.000[a]
	Group 2	No	31	.11		
	Total		273	1.00		
5.2 Do you do internet banking?	Group 1	Yes	91	.36	.50	.000[a]
	Group 2	No	159	.64		
	Total		250	1.00		
5.3 Do you do mobile banking?	Group 1	Yes	242	.90	.50	.000[a]
	Group 2	No	26	.10		
	Total		268	1.00		

a. Based on Z Approximation.

Appendix D: One-sample statistics on Customer perceptions on e-banking platformsOne-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
6.1 My bank's e-platforms meet all my banking needs.	268	3.65	1.061	.065
6.2 My bank's e-platforms perform all transactions accurately.	270	3.89	.974	.059
6.3 My bank's e-platform has convenient hours of operations.	269	3.95	1.010	.062
6.4 My bank's e-platforms process my transactions efficiently.	264	3.86	.980	.060
6.5 My bank's e-platforms provide accurate records of all transactions undertaken.	269	4.04	.928	.057
6.6 My bank's e-platforms process transactions immediately.	265	3.77	1.022	.063
6.7 My bank's e-platforms save me time as I do not need to wait in queues.	268	3.89	1.125	.069
6.8 My bank's e-platforms provide secure services.	262	4.09	.873	.054
6.9 My bank's e-platforms provide additional services for some customers (e.g. those who can't speak English, the disabled, and the elderly)	269	3.33	1.181	.072
6.10 The location of ATMs ensures that they are easily accessible.	267	3.75	1.062	.065

6.12 The bank's website is always accessible.	264	3.60	1.023	.063
6.13 My bank's ATMs are secure.	265	3.89	.948	.058
6.14 My bank's management knows my e-banking needs.	268	3.51	1.044	.064
6.15. E-banking helps to improve service delivery.	267	4.15	.915	.056

Appendix E: Bar graph showing level of agreement on customer perceptions on e-banking

Statement	Value
E-banking helps to improve service delivery.	4.15
My bank's management knows my E-banking needs.	3.51
My bank's ATMs are secure	3.89
The bank's website is always accessible.	3.60
The location of ATMs ensures that they are easily accessible.	3.75
My bank's E-platforms provide additional services for some customers (e.g elderly, disabled etc)	3.33
My bank's E-platforms provide secure services.	4.09
My bank's E-platforms save me time as I do not need to wait in queues.	3.89
My bank's E-platforms process transactions immediately .	3.77
My bank's E-platforms provide accurate records of all transactions underta	4.04
My bank's E-platforms process my transactions efficiently.	3.86
My bank's E-platform has convenient hours of operations.	3.95
My bank's E-platforms perform all transactions accurately.	3.89
My bank's E-platforms meet all my banking needs.	3.65

Disagreement 1 2 3 4 5 Agreement

Appendix F: One-Sample Test for perceptions of customers on e-banking performance

	Test Value = 3				95% Confidence Interval of the Difference	
	t	Df	Sig. (2-tailed)	Mean Difference	Lower	Upper
6.1 My bank's e-platforms meet all my banking needs.	10.073	267	.000	.653	.53	.78
6.2 My bank's e-platforms perform all transactions accurately.	14.926	269	.000	.885	.77	1.00
6.3 My bank's e-platform has convenient hours of operations.	15.397	268	.000	.948	.83	1.07
6.4 My bank's e-platforms process my transactions efficiently.	14.195	263	.000	.856	.74	.97
6.5 My bank's e-platforms provide accurate records of all transactions undertaken.	18.406	268	.000	1.041	.93	1.15
6.6 My bank's e-platforms process transactions immediately.	12.207	264	.000	.766	.64	.89
6.7 My bank's e-platforms save me time as I do not need to wait in queues.	12.978	267	.000	.892	.76	1.03
6.8 My bank's e-platforms provide secure services.	20.165	261	.000	1.088	.98	1.19
6.9 My bank's e-platforms provide additional services for some customers (e.g. those who can't speak English, the disabled, and the elderly)	4.646	268	.000	.335	.19	.48

6.10 The location of ATMs ensures that they are easily accessible.	11.522	266	.000	.749	.62	.88
6.12 The bank's website is always accessible.	9.566	263	.000	.602	.48	.73
6.13 My bank's ATMs are secure.	15.364	264	.000	.894	.78	1.01
6.14 My bank's management knows my e-banking needs.	8.017	267	.000	.511	.39	.64
6.15. E-banking helps to improve service delivery.	20.600	266	.000	1.154	1.04	1.26

Appendix G: Attributes of ATM binomial test

ATM		Category	N	Observed Prop.	Test Prop.	Asymp. Sig. (2-tailed)
7.1a Acknowledges me by name on the screen during the transaction.	Group 1	No	136	.51	.50	.807[a]
	Group 2	Yes	131	.49		
	Total		267	1.00		
7.2b Enables me to set up accounts and perform transactions immediately.	Group 1	No	156	.58	.50	.007[a]
	Group 2	Yes	111	.42		
	Total		267	1.00		
7.3a Provides brochures to users to educate them on how to use services.	Group 1	Yes	77	.29	.50	.000[a]
	Group 2	No	190	.71		
	Total		267	1.00		
7.4a Has a personal touch.	Group 1	No	154	.58	.50	.014[a]
	Group 2	Yes	113	.42		
	Total		267	1.00		
7.5a Has user-friendly systems.	Group 1	No	109	.41	.50	.003[a]
	Group 2	Yes	158	.59		
	Total		267	1.00		
7.6a Provides online directions.	Group 1	No	172	.64	.50	.000[a]
	Group 2	Yes	95	.36		
	Total		267	1.00		
7.7a Provides customer feedback services.	Group 1	No	156	.58	.50	.007[a]
	Group 2	Yes	111	.42		
	Total		267	1.00		
7.8a Provides special services for the elderly.	Group 1	No	206	.78	.50	.000[a]
	Group 2	Yes	58	.22		
	Total		264	1.00		
7.9a Has adequate menu options for everyday banking.	Group 1	No	140	.53	.50	.294[a]
	Group 2	Yes	122	.47		
	Total		262	1.00		

a. Based on Z Approximation.

Appendix H: Binomial test on Internet banking attributes as described by customers

INTERNET BANKING		Category	N	Observed Prop.	Test Prop.	Asymp. Sig. (2-tailed)
7.1b Acknowledges me by name on the screen during the transaction.	Group 1	Yes	53	.20	.50	.000[a]
	Group 2	No	214	.80		
	Total		267	1.00		
7.2b Enables me to set up accounts and perform transactions immediately.	Group 1	No	204	.76	.50	.000[a]
	Group 2	Yes	63	.24		
	Total		267	1.00		
7.3b Provides brochures to users to educate them on how to use services.	Group 1	Yes	77	.29	.50	.000[a]
	Group 2	No	190	.71		
	Total		267	1.00		
7.4b Has a personal touch.	Group 1	No	224	.84	.50	.000[a]
	Group 2	Yes	43	.16		
	Total		267	1.00		
7.5b Has user-friendly systems.	Group 1	No	216	.81	.50	.000[a]
	Group 2	Yes	51	.19		
	Total		267	1.00		
7.6b Provides online directions.	Group 1	Yes	90	.34	.50	.000[a]
	Group 2	No	177	.66		
	Total		267	1.00		
7.7b Provides customer feedback services.	Group 1	No	203	.76	.50	.000[a]
	Group 2	Yes	64	.24		
	Total		267	1.00		
7.8b Provides special services for the elderly.	Group 1	No	237	.89	.50	.000[a]
	Group 2	Yes	28	.11		
	Total		265	1.00		
7.9b Has adequate menu options for everyday banking.	Group 1	No	219	.84	.50	.000[a]
	Group 2	Yes	43	.16		
	Total		262	1.00		

Appendix G: Attributes of ATM binomial test

ATM		Category	N	Observed Prop.	Test Prop.	Asymp. Sig. (2-tailed)
7.1a Acknowledges me by name on the screen during the transaction.	Group 1	No	136	.51	.50	.807[a]
	Group 2	Yes	131	.49		
	Total		267	1.00		
7.2b Enables me to set up accounts and perform transactions immediately.	Group 1	No	156	.58	.50	.007[a]
	Group 2	Yes	111	.42		
	Total		267	1.00		
7.3a Provides brochures to users to educate them on how to use services.	Group 1	Yes	77	.29	.50	.000[a]
	Group 2	No	190	.71		
	Total		267	1.00		
7.4a Has a personal touch.	Group 1	No	154	.58	.50	.014[a]
	Group 2	Yes	113	.42		
	Total		267	1.00		
7.5a Has user-friendly systems.	Group 1	No	109	.41	.50	.003[a]
	Group 2	Yes	158	.59		
	Total		267	1.00		
7.6a Provides online directions.	Group 1	No	172	.64	.50	.000[a]
	Group 2	Yes	95	.36		
	Total		267	1.00		
7.7a Provides customer feedback services.	Group 1	No	156	.58	.50	.007[a]
	Group 2	Yes	111	.42		
	Total		267	1.00		
7.8a Provides special services for the elderly.	Group 1	No	206	.78	.50	.000[a]
	Group 2	Yes	58	.22		
	Total		264	1.00		
7.9a Has adequate menu options for everyday banking.	Group 1	No	140	.53	.50	.294[a]
	Group 2	Yes	122	.47		
	Total		262	1.00		

a. Based on Z Approximation.

Appendix I: Binomial test on Mobile banking attributes

Mobile banking		Category	N	Observed Prop.	Test Prop.	Asymp. Sig. (2-tailed)
7.1c Acknowledges me by name on the screen during the transaction.	Group 1	No	120	.45	.50	.111[a]
	Group 2	Yes	147	.55		
	Total		267	1.00		
7.2c Enables me to set up accounts and perform transactions immediately.	Group 1	No	108	.40	.50	.002[a]
	Group 2	Yes	159	.60		
	Total		267	1.00		
7.3C Provides brochures to users to educate them on how to use services	Group 1	Yes	102	.38	.50	.000[a]
	Group 2	No	165	.62		
	Total		267	1.00		
7.4C Has a personal touch	Group 1	Yes	135	.51	.50	.903[a]
	Group 2	No	132	.49		
	Total		267	1.00		
7.5C Has user-friendly systems	Group 1	Yes	163	.61	.50	.000[a]
	Group 2	No	104	.39		
	Total		267	1.00		
7.6c Provides online directions	Group 1	No	150	.56	.50	.050[a]
	Group 2	Yes	117	.44		
	Total		267	1.00		
7.7c Provides customer feedback services	Group 1	No	119	.45	.50	.086[a]
	Group 2	Yes	148	.55		
	Total		267	1.00		
7.8c Provides special services for the elderly	Group 1	No	186	.70	.50	.000[a]
	Group 2	Yes	79	.30		
	Total		265	1.00		
7.9c Has adequate menu options for everyday banking	Group 1	No	120	.46	.50	.194[a]
	Group 2	Yes	142	.54		
	Total		262	1.00		

Appendix I: Binomial test on Mobile banking attributes

Mobile banking		Category	N	Observed Prop.	Test Prop.	Asymp. Sig. (2-tailed)
7.1c Acknowledges me by name on the screen during the transaction.	Group 1	No	120	.45	.50	.111[a]
	Group 2	Yes	147	.55		
	Total		267	1.00		
7.2c Enables me to set up accounts and perform transactions immediately.	Group 1	No	108	.40	.50	.002[a]
	Group 2	Yes	159	.60		
	Total		267	1.00		
7.3C Provides brochures to users to educate them on how to use services	Group 1	Yes	102	.38	.50	.000[a]
	Group 2	No	165	.62		
	Total		267	1.00		
7.4C Has a personal touch	Group 1	Yes	135	.51	.50	.903[a]
	Group 2	No	132	.49		
	Total		267	1.00		
7.5C Has user-friendly systems	Group 1	Yes	163	.61	.50	.000[a]
	Group 2	No	104	.39		
	Total		267	1.00		
7.6c Provides online directions	Group 1	No	150	.56	.50	.050[a]
	Group 2	Yes	117	.44		
	Total		267	1.00		
7.7c Provides customer feedback services	Group 1	No	119	.45	.50	.086[a]
	Group 2	Yes	148	.55		
	Total		267	1.00		
7.8c Provides special services for the elderly	Group 1	No	186	.70	.50	.000[a]
	Group 2	Yes	79	.30		
	Total		265	1.00		
7.9c Has adequate menu options for everyday banking	Group 1	No	120	.46	.50	.194[a]
	Group 2	Yes	142	.54		
	Total		262	1.00		

a. Based on Z Approximation.

Appendix J: Binomial Test-Reasons why some people do not use E-banking facilities

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
8.1 I do not know of e-banking platforms available at my bank.	Group 1	<= 3	1	.17	.50	.219
	Group 2	> 3	5	.83		
	Total		6	1.00		
8.2 E-banking platforms are difficult to use.	Group 1	<= 3	2	.29	.50	.453
	Group 2	> 3	5	.71		
	Total		7	1.00		
8.3 It is risky to transact electronically.	Group 1	<= 3	3	.43	.50	1.000
	Group 2	> 3	4	.57		
	Total		7	1.00		
8.4 I cannot control transactions I make through e-banking platforms.	Group 1	<= 3	2	.29	.50	.453
	Group 2	> 3	5	.71		
	Total		7	1.00		
8.5 I once visited my bank's website but failed to navigate through the pages.	Group 1	<= 3	3	.43	.50	1.000
	Group 2	> 3	4	.57		
	Total		7	1.00		
8.6 I do not use e-Banking services because I want more personalized services.	Group 1	<= 3	2	.29	.50	.453
	Group 2	> 3	5	.71		
	Total		7	1.00		
8.7 I do not use e-banking because I am used to the traditional way of transacting.	Group 1	<= 3	1	.14	.50	.125
	Group 2	> 3	6	.86		
	Total		7	1.00		
8.8 I tried to use e-banking platforms but failed.	Group 1	<= 3	3	.43	.50	1.000
	Group 2	> 3	4	.57		
	Total		7	1.00		
8.9 I do not have ready access to the internet.	Group 1	<= 3	2	.29	.50	.453
	Group 2	> 3	5	.71		

	Total		7	1.00		
8.10 I do not use e-banking platforms because my bank's systems are always down.	Group 1	<= 3	3	.43	.50	1.000
	Group 2	> 3	4	.57		
	Total		7	1.00		
8.11 I do not use ATMs for fear of robbers since the ATMs are outside banking halls.	Group 1	<= 3	3	.43	.50	1.000
	Group 2	> 3	4	.57		
	Total		7	1.00		

Appendix K: Binomial Test on customer expectations

		Category	N	Observed Prop.	Test Prop.	Asymp. Sig. (2-tailed)
9.1 The convenience of e-banking meets expectation	Group 1	To a greater extent	199	.75	.50	.000[a]
	Group 2	To a lesser extent	65	.25		
	Total		264	1.00		
9.2a E-banking platforms should be user friendly	Group 1	To a greater extent	242	.92	.50	.000[a]
	Group 2	To a lesser extent	20	.08		
	Total		262	1.00		
9.2b E-banking platforms should allow feedback from customers	Group 1	To a greater extent	245	.94	.50	.000[a]
	Group 2	To a lesser extent	17	.06		
	Total		262	1.00		
9.3 E-banking platforms should be more secure	Group 1	To a greater extent	246	.93	.50	.000[a]
	Group 2	To a lesser extent	19	.07		
	Total		265	1.00		
9.4 E-banking platforms should always be available	Group 1	To a greater extent	247	.93	.50	.000[a]
	Group 2	To a lesser extent	18	.07		

	Total		265	1.00		
9.5 E-banking platforms should notify me of all transactions in my account.	Group 1	To a greater extent	249	.94	.50	.000[a]
	Group 2	To a lesser extent	16	.06		
	Total		265	1.00		
9.6 E-banking platforms should provide me with bank statements.	Group 1	To a greater extent	226	.85	.50	.000[a]
	Group 2	To a lesser extent	39	.15		
	Total		265	1.00		
9.7 E-banking platforms must offer help as to how to use the platforms.	Group 1	To a greater extent	247	.94	.50	.000[a]
	Group 2	To a lesser extent	17	.06		
	Total		264	1.00		
q5.1=1 or q5.2=1 or q5.3=1 (FILTER)	Group 1	Selected	273	1.00	.50	.000[a]
	Total		273	1.00		

a. Based on Z Approximation.

Bivariate analysis

APPENDIX L: Cross tabulation- Age and ATM

			5.1 Do you use the ATM?		Total
			Yes	No	
1 Age	15–20	Count	3	1	4
		Expected Count	3.6	0.4	4.0
		% within 1 Age	75.0%	25.0%	100.0%
		Std. Residual	-.3	0.9	
	20–30	Count	85	17	102
		Expected Count	90.9	11.1	102.0
		% within 1 Age	83.3%	16.7%	100.0%
		Std. Residual	-.6	1.8	
	31–40	Count	99	6	105
		Expected Count	93.6	11.4	105.0
		% within 1 Age	94.3%	5.7%	100.0%
		Std. Residual	.6	-1.6	
	41–50	Count	36	5	41
		Expected Count	36.5	4.5	41.0
		% within 1 Age	87.8%	12.2%	100.0%
		Std. Residual	.0	.3	
	51–60	Count	14	0	14
		Expected Count	12.5	1.5	14.0

			100.0%	.0%	100.0%
		% within 1 Age	100.0%	.0%	100.0%
		Std. Residual	0.4	-1.2	
	61–64	Count	1	0	1
		Expected Count	0.9	0.1	1.0
		% within 1 Age	100.0%	.0%	100.0%
		Std. Residual	0.1	-0.3	
Total		Count	238	29	267
		Expected Count	238.0	29.0	267.0
		% within 1 Age	89.1%	10.9%	100.0%

No significant relationship exists between age and use of ATM.

APPENDIX M: Crosstab: Age and Internet banking

			5.2 Do you do internet banking?		
			Yes	No	Total
1 Age	15–20	Count	0	4	4
		Expected Count	1.4	2.6	4.0
		% within 1 Age	.0%	100.0%	100.0%
		Std. Residual	-1.2	.9	
	20–30	Count	37	59	96
		Expected Count	34.5	61.5	96.0
		% within 1 Age	38.5%	61.5%	100.0%
		Std. Residual	.4	-.3	
	31–40	Count	35	58	93
		Expected Count	33.4	59.6	93.0
		% within 1 Age	37.6%	62.4%	100.0%
		Std. Residual	.3	-.2	
	41–50	Count	11	27	38
		Expected Count	13.6	24.4	38.0
		% within 1 Age	28.9%	71.1%	100.0%
		Std. Residual	-.7	.5	
	51–60	Count	5	8	13
		Expected Count	4.7	8.3	13.0
		% within 1 Age	38.5%	61.5%	100.0%

		Std. Residual	.2	-.1	
	61–64	Count	0	1	1
		Expected Count	.4	.6	1.0
		% within 1 Age	.0%	100.0%	100.0%
		Std. Residual	-.6	.4	
Total		Count	88	157	245
		Expected Count	88.0	157.0	245.0
		% within 1 Age	35.9%	64.1%	100.0%

No significant relationship between age and Internet banking usage.

APPENDIX N: Crosstab: Age and Mobile banking

			5.3 Do you do mobile banking?		Total
			Yes	No	
1 Age	15–20	Count	6	0	6
		Expected Count	5.4	.6	6.0
		% within 1 Age	100.0%	.0%	100.0%
		Std. Residual	.3	-.8	
	20–30	Count	94	10	104
		Expected Count	93.7	10.3	104.0
		% within 1 Age	90.4%	9.6%	100.0%
		Std. Residual	.0	.0	
	31–40	Count	93	8	101
		Expected Count	91.0	10.0	101.0
		% within 1 Age	92.1%	7.9%	100.0%
		Std. Residual	.2	-.6	
	41–50	Count	33	5	38
		Expected Count	34.2	3.8	38.0
		% within 1 Age	86.8%	13.2%	100.0%
		Std. Residual	-.2	.6	
	51–60	Count	11	2	13
		Expected Count	11.7	1.3	13.0
		% within 1 Age	84.6%	15.4%	100.0%

		Std. Residual	-.2	.6	
	61–64	Count	0	1	1
		Expected Count	.9	.1	1.0
		% within 1 Age	.0%	100.0%	100.0%
		Std. Residual	-.9	2.9	
Total		Count	237	26	263
		Expected Count	237.0	26.0	263.0
		% within 1 Age	90.1%	9.9%	100.0%

No significant relationship exists between age and mobile usage.

APPENDIX O: CROSS TABULATION ON ATM USAGE BY GENDER

Crosstab: Gender and ATM

			5.1 Do you use the ATM?		Total
			Yes	No	
2 Gender	Male	Count	129	14	143
		Expected Count	126.8	16.2	143.0
		% within 2 Gender	90.2%	9.8%	100.0%
		Std. Residual	.2	-.6	
	Female	Count	112	17	129
		Expected Count	114.4	14.6	129.0
		% within 2 Gender	86.8%	13.2%	100.0%
		Std. Residual	-.2	.6	
	9	Count	1	0	1
		Expected Count	.9	.1	1.0
		% within 2 Gender	100.0%	.0%	100.0%
		Std. Residual	.1	-.3	
Total		Count	242	31	273
		Expected Count	242.0	31.0	273.0
		% within 2 Gender	88.6%	11.4%	100.0%

No significant relationship exists between gender and ATM usage.

APPENDIX P: Crosstab-Gender and Internet banking

			5.2 Do you do internet banking?		Total
			Yes	No	
2 Gender	Male	Count	48	83	131
		Expected Count	47.7	83.3	131.0
		% within 2 Gender	36.6%	63.4%	100.0%
		Std. Residual	.0	.0	
	Female	Count	42	76	118
		Expected Count	43.0	75.0	118.0
		% within 2 Gender	35.6%	64.4%	100.0%
		Std. Residual	-.1	.1	
	9	Count	1	0	1
		Expected Count	.4	.6	1.0
		% within 2 Gender	100.0%	.0%	100.0%
		Std. Residual	1.1	-.8	
Total		Count	91	159	250
		Expected Count	91.0	159.0	250.0
		% within 2 Gender	36.4%	63.6%	100.0%

No significant relationship exists between gender and internet usage

APPENDIX Q: Crosstab- Gender and Mobile banking

			5.3 Do you do mobile banking?		
			Yes	No	Total
2 Gender	Male	Count	132	10	142
		Expected Count	128.2	13.8	142.0
		% within 2 Gender	93.0%	7.0%	100.0%
		Std. Residual	.3	-1.0	
	Female	Count	109	16	125
		Expected Count	112.9	12.1	125.0
		% within 2 Gender	87.2%	12.8%	100.0%
		Std. Residual	-.4	1.1	
	9	Count	1	0	1
		Expected Count	.9	.1	1.0
		% within 2 Gender	100.0%	.0%	100.0%
		Std. Residual	.1	-.3	
Total		Count	242	26	268
		Expected Count	242.0	26.0	268.0
		% within 2 Gender	90.3%	9.7%	100.0%

No significant relationship exists between gender and Mobile banking usage.

APPENDIX R: Professional editing

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Editing Confirmation

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14/11/2018

Report on Doctoral thesis by: Josphat Manyeruke

Doctoral thesis title: Customer Satisfaction with the Electronic Banking Services in Zimbabwe: A Case of Mashonaland West Province, Zimbabwe

This serves to confirm that the above document was edited substantively by members of the KZN Language Institute's professional English language editing team. The document was returned to the author with numerous tracked changes and comments intending to clarify meaning or to offer suggestions for improvement. In certain sections, the author's intended meaning was unclear. These sections could not be edited as a result. It was the author's responsibility to attend to the necessary changes and to resubmit the document to the KZN Language Institute for further editing before submitting the document for re-examination. However, this advice was not followed. **Please note that the final version of the document was not proofread by an editor from the KZN Language Institute.**

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KZN Language Institute – Transforming Words

APPENDIX S: Ethical Clearance Letter

UNIVERSITY OF
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18 April 2016

Mr Josphat Manyeruke (214576995)
School of Management, IT & Governance
Pietermaritzburg Campus

Dear Mr Manyeruke,

Protocol reference number: HSS/0368/016D
Project title: Customer satisfaction with Electronic Banking services in Zimbabwe: A case of Mashonaland West Province, Zimbabwe

Full Approval – Expedited Application

in response to your application received on 07 April 2016, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol have been granted **FULL APPROVAL.**
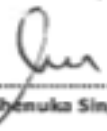
Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.

Please note: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

....
Dr Shenuka Singh (Chair)

/ms

Cc Supervisor: Dr Maxwell Phiri
Cc Adademic Leader Research: Professor Brian McArthur
Cc School Administrator: Ms Debbie Cunynghame

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