AN ANALYSIS OF FACTORS RESULTING IN LOW UPTAKE OF MOBILE BANKING AS A BANKING DELIVERY CHANNEL IN ZIMBABWE. A CASE STUDY OF CBZ BANK (2009-2014)

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DEDICATION

TO MY HUSBAND, MY CHILDREN AND MY FAMILY
DECLARATION

Student Declaration- I, Sylvia Sakuhuni, do hereby declare that this dissertation is the result of my own investigation and research, except to the extent indicated in the Acknowledgements, References and by comments included in the body of the report, and that it has not been submitted in part or in full for any other degree to any other university.

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Supervisor Declaration- I, Dr. Gilford Hapanyengwi, confirm that the work reported in this dissertation was carried out by the candidate under my supervision as the University supervisor. This dissertation has been submitted for review with the approval as University Supervisor.

Signature ........................................ Date: 27 February 2015

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I perceive this opportunity as a big milestone in my career development. I will strive to use gained skills and knowledge in the best possible way.

I thank you all
ABSTRACT

Financial liberalization, globalization, technological advancement and increased competition have brought about new ways of doing business in the banking sector the world over. Technological advancement has brought about new banking delivery channels hence one does not necessarily have to physically visit the banking hall to get service or endure standing in long queues just for balance enquiry. Stiff competition among banks and from mobile telecommunication companies has forced banks to introduce mobile banking in order to enhance their products, image, remain competitive, retain current customers, attract new customers and reduce their operating costs. The study used a structured questionnaire to collect data from 120 customers. Respondents included corporate clients, small and medium enterprise customers, individual bank customers and bank employees from different banks in Harare. A five point Likert scale was used to rank twenty dimensions from five attributes on customer perceptions on the uptake of mobile banking as a banking delivery channel. The response rate was 80 percent. The study results showed that knowledgeable staff, telecommunications networks informative adverts and customer perceptions have an impact on the uptake of mobile banking as a banking delivery channel. Other factors identified by the study that influence adoption and usage of mobile banking are interoperability, financial regulation, business models, agent proximity and ubiquity, education level, income, pricing alternative channels, specific market context products, security, trust, mobility, demographics, and operating environment of mobile banking systems. The study accepted the proposition that bank customers have a negative perception of mobile banking as a banking delivery channel. The study concluded that there is low adoption and use of mobile banking as a banking delivery channel in Zimbabwe. The study recommended that banks need to come together and either acquire a telecommunication company or set up a joint telecommunication network like Zimswitch to alleviate connection challenges as they are currently relying on third party networks from telecommunications companies who are now a source of stiff completion to their products and they may sabotage banks so that their products become superior to bank products. The study recommends banks to open up several agents in remote parts of the country and in areas where banks’ footprint is invisible rather than sticking to banking halls with fixed operating hours. Banks can also use advertising and road shows as a way to raise awareness, staff training to increase knowledge mobile banking usefulness and benefits as a way to motivate adoption and usage. Banks can set up E-learning platforms to intensify staff training as mobile banking usage is the future of banking.
Table of Contents

DEDICATION.................................................................................................................................. ii

DECLARATION ................................................................................................................................iii

ACKNOWLEDGEMENT .................................................................................................................. iv

ABSTRACT ..................................................................................................................................... v

CHAPTER I ..................................................................................................................................... v

1.0 INTRODUCTION ...................................................................................................................... 1

1.1 BACKGROUND TO STUDY ...................................................................................................... 1

1.1.2 Background of CBZ Bank ....................................................................................................... 3

1.1.3 Background of Macro Environment ........................................................................................ 4

1.2 RESEARCH PROBLEM .......................................................................................................... 11

1.3 RESEARCH OBJECTIVES ..................................................................................................... 12

1.4 RESEARCH QUESTIONS ...................................................................................................... 12

1.5 RESEARCH HYPOTHESIS ................................................................................................. 13

1.6 JUSTIFICATION OF STUDY ............................................................................................... 13

1.7 SCOPE OF RESEARCH ........................................................................................................ 14

1.8 DISSERTATION OUTLINE .................................................................................................... 14

1.9 Chapter Summary ..................................................................................................................... 15

CHAPTER 2 .................................................................................................................................. 16

2.0 LITERATURE REVIEW ......................................................................................................... 16

2.1. DEFINITION OF TERMS ...................................................................................................... 17

2.1.1 Mobile Banking ..................................................................................................................... 17

2.1.2 SMS Banking ......................................................................................................................... 19

2.1.3 Mobile Money ........................................................................................................................ 20

2.1.4 Point of Sale ........................................................................................................................... 20
2.1.5 Internet banking ..................................................................................................................... 21
2.1.6 Automated Teller Machines (ATM) .......................................................................................... 22
2.2.1 Mobile Banking .......................................................................................................................... 22
2.2.2 SMS Banking ............................................................................................................................... 23
2.2.3 Mobile Money .............................................................................................................................. 23
2.2.4 Point of Sale .................................................................................................................................. 24
2.2.5 Internet Banking ............................................................................................................................ 24
2.2.6 Automated Teller Machines (ATMs) ........................................................................................... 25
2.3.1. Models and theories of Adoption/diffusion of ICT ................................................................. 26
  2.3.1.1 Domestication Approach ....................................................................................................... 26
  2.3.1.2 Diffusion of Innovation (DOI) Approach ............................................................................... 27
  2.3.1.2 a) Innovation and communication ......................................................................................... 27
  2.3.1.2 b) Time .................................................................................................................................. 27
  2.3.1.2 c) Knowledge stage ............................................................................................................... 28
  2.3.1.2 d) Persuasion and decision stage ......................................................................................... 28
  2.3.1.2 d. i) Implementation and confirmation stage ...................................................................... 29
  2.3.1.3 Theory of Reasoned Action (TRA) ...................................................................................... 31
  2.3.1.4 Theory of Planned Behavior (TPB) .................................................................................. 31
  2.3.1.5 Extended Technology Acceptance Model ........................................................................... 32
  2.3.1.5 a) Customer Attitude ......................................................................................................... 33
  2.3.1.5 b) Technology and enjoyment ............................................................................................. 33
  2.3.1.5 c) Demographics ................................................................................................................ 33
  2.3.1.6 Unified Theory of Acceptance and Use of Technology (UTAUT) ...................................... 34
  2.3.1.6 a) Performance and effort expectancy ............................................................................... 34
  2.3.1.6 b) Facilitating conditions ................................................................................................. 35
2.3.2 REASONS FOR LOW MOBILE BANKING UPTAKE ......................................................... 36
4.3 TYPES OF SERVICES ON MOBILE BANKING ................................................................. 76
4.4 Reliability tests .................................................................................................................. 78
4.5 FACTOR ANALYSIS ........................................................................................................ 79
4.5.5 Normality Test ............................................................................................................. 84
CHAPTER FIVE ..................................................................................................................... 90
CONCLUSIONS AND RECOMMENDATIONS ................................................................. 90
5.1 INTRODUCTION ............................................................................................................. 90
5.3 VALIDATION OF THE RESEARCH PROPOSITION .................................................. 91
5.4 RECOMMENDATIONS .................................................................................................. 92
5.5 AREAS FOR FURTHER STUDY .................................................................................... 92
REFERENCES ..................................................................................................................... 94
Appendix 1: Research intoductive letter .............................................................................. 103
APPENDIX 2: Research Questionnaire ................................................................................ 104
Appendix 3: Extended Technology Acceptance Model ....................................................... 103
Appendix 4: Unified Theory of Acceptance and Use of Technology ................................... 103
Appendix 5: Figure 4.2.2: Gender Information and Figure 4.2.3 Age information .............. 103
Appendix 6: Figure 4.2.4 Education nformaton ................................................................. 103
Appendix 7: Figure 4.2.5 Income Information .................................................................... 103
Appendix 2: Figure 4.2.4.7 computer literacy Information .................................................. 103
LIST OF TABLES

Table 1.1 Traditional bank products.................................................................2
Table 3.1 Sample Distribution...........................................................................63
Table 4.2.1 Response Rate ................................................................................72
Table 4.2.2: Demographic information for sample ...........................................73
Table 4.2.3 Frequencies and age of respondents ...............................................74
Table 4.2.4: Level of education ........................................................................75
Table 4.2.5: Gross income .................................................................................76
Table 4.2.6 Employment status .........................................................................77
Table 4.2.7 Computer literacy ..........................................................................78
Table 4.3.1 Types of services ...........................................................................79
Table 4.4.1 Reliability statistics ..........................................................................82
Table 4.4.2 Reliability of Transformed ...............................................................82
Table 4.5.1 Keiser-Meyer-Olkin (KMO) measure of sampling adequacy and
Bartlett's Test of sphericity ..............................................................................83
Table 4.5.2 Communalities ................................................................................85
Table 4.5.3 Total Variance Explained ................................................................86
Table 4.5.5 Tests of Normality............................................................................88.
Table 4.5.6 Correlation......................................................................................89
Table 4.5.7 Model Summary...............................................................................90
Table 4.5.8 ANOVA............................................................................................90
Table 4.5.9 Coefficients......................................................................................91
LIST OF FIGURES

Figure 1.2: Porter’s five forces that shape competition in the banking sector ……….. 7
Figure 1.3: SWOT Analysis: Strength, Weaknesses, Opportunities and Threats ……… 11
Figure 4.2.1 Response Rate Information ………………………………………………… 73
Figure 4.2.2: Gender Information ……………………………………………………….. 104
Figure 4.2.3: Age Information …………………………………………………………… 105
Figure 4.2.4: Education Information ……………………………………………………. 105
Figure 4.2.5: Income Information ……………………………………………………… 106
Figure 4.2.6: Respondent’s employment Information ………………………………… 106
Figure 4.3.2 Modes of accessing service ……………………………………………… 78
Figure 4.3.3 Services accessed by individuals …………………………………………. 80
Figure 4.3.4 Preferred service provider ……………………………………………….. 80
Figure 4.5.4 Scree plot for customer perceptions dimensions ……………………... 81
ACRONYMS

ACCA – Association of Chartered Certified Accountants

AIDS – Acquired Immuno Deficiency Syndrome

AML – Anti Money Laundering

BCCIH – Bank of Credit and Commerce International Holdings

BCCI – Bank of Credit and Commerce International

BMS – Bank Mediation Server

CABS – Central African Building Society

CSS3 – Cascading Style Sheets Level 3

CCTV – Closed Circuit Television

CIMA – Chartered Institute of Chartered Accounting

CTF – Counter Terrorism Financing

DOI – Diffusion of Innovation

Dr - Doctor

DRC – Democratic Republic of Congo

DSTV – Digital Satellite Television

EFMTS – E-fulusi Mobile Transaction Switch

EFTPOS – Electronic Funds Transfer at Point of Sale

FDI – Foreign Direct Investment

FICA – Financial Intelligence Centre Act

HIV – Human Immuno Deficiency Virus

HTML5 – Hyper Text Markup Language
ICT – Information communication Technology
ID – Identity Document
KMO – Kesier-Meyer-Olkin
KYC – Know Your Customer
MNO – Mobile Network Operator
M2M – Mobile device to Mobile device
MTN – Mobile Telephone Network
PESTEL – Political, Economic, Social, Technological, Ecological, and Legal
PIN – Personal Identification Number
RBZ – Reserve Bank of Zimbabwe
PC – Personal computer
PDA – Personal Digital Assistant
PEOU – Perceived Ease of Use
PM – Past Midday
POS – Point Of Sale
PU – Perceived Usefulness
P2P – Peer-to-Peer Transactions
RA – Relative advent ages
SIM – Subscriber Identity Module
SME – Small and Medium Enterprise
SMS – Short Message Service
SPSS – Statistical Package for Social Scientists

SWOT – Strength, Weakness Opportunity and Threat

TAM – Technology Acceptance Model

TPB – Theory of Planned Behaviour

TRA – Theory of Reasoned Action

Theory of Acceptance Model (TAM)

USA – United States of America

USD – United States Dollar

USSD – Unstructured Supplementary Service Data

UTAUT – Unified Theory of Acceptance and Use of Technology

WAP – Wireless Application Protocol

WAN – Wide area Network
APPENDIX

APPENDIX 1: Research Introductory Letter

APPENDIX 2: Research Questionnaire Technology

APPENDIX 3: Extended Technology Acceptance Model

APPENDIX 4: Unified Theory of Acceptance and Use of

APPENDIX 5: Figure 4.2.2: Gender Information and Figure 4.2.3: Age Information

APPENDIX 6: Figure 4.2.2: Figure 4.2.4: Education Information

APPENDIX 7: Figure 4.2.5: Income Information

APPENDIX 8: Figure 4.2.7: Respondent’s Computer Literacy Information
CHAPTER I

INTRODUCTION AND BACKGROUND

1.0 INTRODUCTION

The liberalization of the economy and the advent of information and technology have taken the banking industry by storm. This has resulted in cut throat competition for customers and hence the banking sector has to adjust their way of doing business so as to keep abreast with these new developments. To remain afloat and relevant in this hostile environment it has become imperative to reduce costs, improve efficiency as well as differentiate their products and services so that they remain relevant.

This Chapter will focus on the background of the study, problem statement, research objectives, research proposition, justification of study, scope of research, structure of dissertation and chapter summary. The study investigates customers’ perceptions of mobile banking as a banking delivery channel in Zimbabwe and the research will zero in on CBZ Bank as a case study in point. This study examines CBZ Bank and non-CBZ Bank customers’ uptake of mobile banking as a banking delivery channel in Zimbabwe.

1.1 BACKGROUND TO STUDY

Financial liberalization, globalization and technological advancement have brought about new ways of doing business in the banking sector the world over. Before financial sector liberalization customers had to physically visit the banking halls for them to get service over the counter. Technological advancement has brought about new banking delivery channels such as: the Automated Teller Machines (ATMs), ATM cards, Point of Sale Machines (POS), Internet banking, Telephone banking then Cell phone banking, SMS banking and Credit cards. Long back people used to travel with cash in their bags and pockets. This has been replaced by plastic cards, internet or mobile phones. Gone are the days when one had to use bus crews at Mbare musika as
couriers to send money to the rural areas. People no longer endure standing in long banking queues in banking halls just to check one’s bank balance. Fast mobile penetration in Zimbabwe has seen private companies spearheading and competing for space in coming up with the best mobile applications to do business online. In response Banks have introduced mobile banking in order to enhance their products, remain competitive, retain current customers, attract new customers and reduce their operating costs (Dube, Chitura and Runyowa, 2009). Banking institutions were slow in analyzing changing customer needs and were ignoring people of low income. The current scenario is that banks are now battling it out with telecommunication companies to win the souls of the unbanked and even the banked. This is because the telecommunication packages seem to be more attractive than what banks are offering. In Zimbabwe the fastest growing service to the unbanked is the e-wallets which include Ecocash offered by Econet Wireless, Telecash offered by Telecel Zimbabwe and Net One’s one-wallet.

On the other, hand there are those that are banked, who rely on Internet banking, SMS banking, telebanking and even plastic money. Due to the fact that ATMs have gained popularity, banks have had to install ATMs in some shopping sites where there are no banks for example CBZ. Banks is installing Spark ATMs in shops like Fruit and Veg, Athenitis Spar. Other banks like Barclays and Afrasia have gone on the same route and even installed ATMs at Service Stations and Food Courts to mention but a few places. We also note that Point of Sale Machines are also being deployed in most busy supermarkets regardless of their locations. Some of the traditional products that are offered by many banks in Zimbabwe include the following:

**Table 1.1 Traditional bank products**

<table>
<thead>
<tr>
<th>Current Accounts</th>
<th>Bancassurance</th>
</tr>
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<tbody>
<tr>
<td>Savings Accounts</td>
<td>Corporate Finance</td>
</tr>
<tr>
<td>Term Deposits</td>
<td>Corporate Banking</td>
</tr>
<tr>
<td>Personal Loans</td>
<td>Direct Salary Payment</td>
</tr>
<tr>
<td>Executive Overdrafts</td>
<td>Investment Banking</td>
</tr>
<tr>
<td>Business Loans</td>
<td>Micro Finance</td>
</tr>
<tr>
<td>Business Overdrafts</td>
<td>Trade Finance</td>
</tr>
<tr>
<td>Mortgage Finance</td>
<td>Treasury Services</td>
</tr>
<tr>
<td>Internet Banking</td>
<td>Visa Gold</td>
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<tr>
<td>SMS Banking</td>
<td>Visa International</td>
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</tbody>
</table>
CBZ Holding is the largest financial conglomerate in Zimbabwe by asset base (RBZ Monthly Economic Review June 2014). It was established in 1980 as the Bank of Credit and Commerce International (BCCI) which was a joint venture between the Government of Zimbabwe and the Bank of Credit and Commerce International Holdings (BCCIH). BCCIH was saved from collapse by the Government of Zimbabwe in 1991 by acquiring its total shareholding (www.cbz.co.zw 12.08.14). Its name was changed to Commercial Bank of Zimbabwe (CBZ) with a new mandate of steering the bank to growth and success. In 1995 the bank removed all non performing loans from the normal portfolios of advances which were a major step in its turnaround strategies. Different strategies have been used to grow business for example in 2004 it adopted a new vision to growth through diversification. CBZ holdings consolidated its operations and it is now a one stop shop and has four subsidiaries namely CBZ Bank, CBZ Mortgage Finance, CBZ Insurance and CBZ Investments trading as Datvest. CBZ Holdings consolidation means a platform has been created for product development and innovation, which means finding more ways to make an even more enjoyable experience for clients. It is operating in an oligopoly environment where many Financial Institutions exist. This has resulted in questions being asked if the Zimbabwean economy is overbanked or not.

CBZ Bank’s Vision is to be the bank of Choice in Zimbabwe. Its uniqueness is that it is great at listening, understanding client needs and exceeding their expectations. CBZ Holdings values include: integrity, respect, accountability, governance consciousness and people centered.

Technological advancement has enabled the group to reach to its valued clients not only in Zimbabwe or Africa but internationally and serve them from the home base. The issue is distance is dead hence clients are able to access their bank accounts from wherever they are in the world through Internet banking. With the advent of internet technology, banks have managed to differentiate their products just by the touch of a button. Clients are able to do transactions such as pay for international examination boards like ACCA, CIMA and purchase commodities online. This is through the use of Visa Cards and this can be done in the comfort of their homes or offices.
and now even on their mobile phones. With Internet technologies gaining popularity, people are using smart phones for mobile banking and SMS banking. Figures indicates that in Zimbabwe more than 4.5 million people are internet subscribers representing about 35% of the country’s population (http://www.econetwireless.co.zw 29.07.14 Technology is also used for security for instance the CCTV in the banking halls

1.1.3 Background of Macro Environment

CBZ Bank has invested large capital outlay in mobile banking as a banking delivery channel; records show that its uptake by customers is very low. For instance only 26% of ATM card holders are active and only 5% of cash withdrawals are done on ATMs and POS (CBZ, 2012). Internet banking usage by corporate customers is only 11% and only 1.21% by individual account holders. This section covers the macro environment in which CBZ bank operates. Macro environmental factors relate to factors that an organization has no control of (Eugene and Sullivan, 1993). The analysis below uses the Political, Economic, Social, Technological, Ecological, and Legal (PESTEL) tool to analyze the environment in which CBZ bank operates in, Porter’s five forces model is used to analyze the industry.

Political

The Zimbabwean political environment has been characterized by stability since dollarization in 2009. Financial institutions are governed by the Reserve Bank of Zimbabwe and the country’s laws and regulations. Zimbabwe has experienced economic decline since the payment of hefty war veterans’ packages which was not budgeted for, and the Democratic Republic of Congo (DRC) War in 1997. The controversial land reform and the political uncertainty in the country did not help but worsened the situation despite the fact that Zimbabwe is in dire need of Foreign Direct Investment (FDI). Further Indigenization Policy where the ownership structure is 51% in favor of the locals has increased the negative perception on Zimbabwe resulting in investors shunning the market as investors prefer to invest in politically stable economies with policies that are favorable to them. It can be argued that policy inconsistency is not only the issue of indigenization but across has contributed immensely in the lack of FDI.
**Economic**

In an effort to bring sanity to the economy Zimbabwe adopted multicurrency in February 2009, (RBZ, 2010). The economic environment has been marred by liquidity crunch, high interest rates above 20%, high unemployment rates above 85% and a shrinking Gross Domestic Product (GDP). Poor infrastructure, in particular roads and power shortages are the order of the day. This has contributed to the high production costs. In addition there is high policy instability and or uncertainty, high labour costs and inflexible labour laws. Recurring failure by some banks to meet their settlement obligations through the national payments system has also affected public confidence, undermines the banking sector and promoted financial Integration (RBZ, 2011).

**Social**

Zimbabwe has been hit hard by brain drain due to the prolonged economic decline as most experienced staff has relocated abroad in search of greener pastures. HIV/AIDS pandemic partnered with deteriorating health delivery system has worsened the situation (Nguwi, 2011). The banking sector was not spared as essential and experienced staff that helps to run the industry efficiently in Treasury, Credit and Information Technology has migrated. The pandemic resulted in many people dying which has resulted in the country left with lean population, hence Mujuru, (2003) argues that the country is left with a population which is too small to sustain the banking sector. The migration of people looking for greener pastures has also compromised the family unit which used to be the backbone of the Zimbabwean family

**Technological**

Traditional brick and motor is being overtaken by technology. The breakthrough in technology and the advent of cell phones has also brought about a new dimension in banking hence the need for banks to make use of self service technology, (Perumal and Shanmugan, 2004). The old ways of doing things are proving to be ineffective as globalization has taken over and is shaping the way people do business. Technology is now the actual cause and driver in forming and shaping business strategy, (Kalakota, Ravi, and Marcia, 1999). A wide range of mobile banking services
like short message service (SMS) banking, Internet banking and other electronic technologies ranging from information communication to transaction processing have revolutionized the banking sector. Mobile phones have ceased to be symbols of one’s economic status but a basic necessity to do business and communicate. Many Zimbabwean companies have started transacting using mobile money systems due to innovative ideas that emanated from Kenya’s model of building an ecosystem around tech entrepreneurship (Kamwendo, 2014).

**Ecological Factors**

Zimbabwe’s economy heavily relies on agriculture. Ecological changes due to the damage of the ozone layer have caused changes in weather patterns which have seriously affected the rainfall patterns in the country. These changes have resulted in unprecedented rainfall patterns. Many farmers are thus failing to reap sustainable produce. Industries such as the textiles and manufacturing sectors are suffering as banks through their agribusiness units, are reluctant to lend to farmers. This has affected their ability to repay their loans as repayment is dependent on good rains, good management and availability of capital.

**Legal**

Various policies such as the Indigenization policy, the Empowerment Act and the Regulation Act of April 2008 where the ownership structure of 51% locals and 49% for the international community is not favorable to investors. As a result investors are not too eager to invest in this country. There is too much state intervention and policy inconsistency in the country which has resulted in negative perceptions against Zimbabwe as a country. The Zimbabwean legal system is thus not seen as favorable and conducive for attracting the much needed FDI. The issue of rule of law was and is still a bone of contention. Many bank failures that have occurred or have been experienced in the country have worsened the confidence among investors and the general populace of Zimbabwe.

**1.1.4 Porter’s Five Forces**
The central tenet of competitive model is for the organization to align itself with the environment, the industry or industries being key; the belief being that industry structure strongly influences the competitive rules of the game, as well as the range of strategies at the firm’s disposal, (Burnes, 2004).

**Power of suppliers**

The bargaining power of suppliers in the banking sector is high in Zimbabwe due to the nature of the industry. It uses computers which are mainly imported as there are no local manufactures. The system vendors are also foreign hence their costs of supplying and maintaining the systems are very high.

**Power of buyers**

Although bank customers are not concentrated and do not perform very large transactions, they can easily switch from one bank to another or from bank to mobile operators for lower rates, better quality service and coverage. This shows that the buyers or consumers’ position is strong.
Figure 1.2: Porter’s five forces that shape competition in the banking sector

Source: Adapted from Porter 1996

Threat of new entrants

Threat of new entrants in the banking sector is low to moderate as there are barriers to entry relating to heavy capital investments. Survivals in the industry is now threatened by telecommunication operators big and small as they are providing substitute services which are more or less like the ones that are offered by banks. For instance Econet launched mobile money service and recently the Ecocash MasterCard (www.itwebafrica 03.02.14) and also more Zimbabwean companies are now paying salaries using mobile money (www.itwebafrica 03.04.14).

Threat of Substitutes

The presence and easy availability of substitute products is a threat to the successful survival of any firm as this forces the firm to cut the prices of its products. There is fierce competition for the few people who are able to open accounts, insure their assets, invest excess cash and borrow from the financial sector among banks. Technological advancement and the use of smart phones have brought about a lot of substitutes like Ecocash, One wallet and Telecash. These are new ways of sending and receiving money across networks around Zimbabwe anytime of the day regardless of the geographical location of where the person is. People can opt to keep their money in their Ecocash accounts which do not have monthly charges instead of depositing in banks where the money is reduced by bank charges at the end of each month. The mobile service providers are targeting the unbanked population thereby tapping in the financial industry’s potential clients. Ecolife from Econet Wireless is another substitute product for insurance products.
Barter trade where people exchange commodities instead of doing money transactions is now common in rural areas these days.

**Rivalry**

There is cut-throat competition in the financial services sector as there are many competitors in the shrinking economy providing similar services with the same capabilities. There is little product differentiation as members tend to copy what competition is offering and they offer almost identical products with no added features. The intensity of competition is rife due to economy stagnation. There are many financial institutions in the country for instance sixteen commercial banks, three building societies, two merchant banks, one savings bank, one industrial bank and one central bank. An example of how big the rival is when banks are fighting Econet on Ecocash and Econet barring its vendors to sign and serve as Telecel agents.

**CBZ Bank Internal Analysis using SWOT**

SWOT stands for Strengths, Weaknesses, Opportunities and Threats. This technique is used to summaries the current state of the organization and help to devise a plan for the future. It employs the existing strengths, redresses existing weaknesses, exploits opportunities and defends against the threats. Businesses operate within two intersecting environments which are internal and external environments and there is need for businesses to do SWOT analysis to help them adapt to changes that occur almost on a daily basis. The internal environment consists of the things that the organization can control. On the other hand the external environment is made up of factors that affect the organization which the business has no control over them.

**Strengths**

These are the internal capabilities that may help the company achieve its objectives, Kotler and Armstrong, (2011). CBZ Bank has a strong brand name and is currently the largest bank in Zimbabwe by asset base. Further, CBZ bank can capitalize on its synergies as it has integrated
forward and backwards with Optimal insurance company, Beverly Building Society and Datvest. This helps CBZ holding to take advantage of economies of scale as its branch network is spread across the whole country. The bank has the largest ATM and POS network and it is the sole acquirer of VISA cards in Zimbabwe at the moment. It is the only bank whose POS machine can accept the local CBZ bank card, Zimswitch card, Visa international cards and MasterCard on one machine. The bank offers several mobile banking services to its customers and non customers like mobile money services, internet banking, SMS banking, Automated Teller (ATMs) machines and Point of Sale (POS) machines.

**Weaknesses**

According to Kotler et al, (2011), weaknesses are internal limitations that may interfere with the company’s ability to achieve its objectives. CBZ bank suffers from lack of long term funding from creditors at low interest rates to enable the bank to advance to its clients and liquidity crunch that is prevailing in the country due to dollarization, (RBZ, 2013).

**Opportunities**

Opportunities refer to external factors that the organization may be able to exploit to its advantage (Kotler et al, 2011). CBZ can make use of its wide branch network to reach the remote parts of Zimbabwe and reach those that are excluded in the formal financial sector. It can also use its mobile money product namely Smartmoney to serve the unbanked wherever their location.

**Threats**

Current and emerging external factors that may challenge the organization’s performance are what are referred to as threats, (Kotler et al, 2011). Due to the negative publicity that the country has suffered, the banking sector in Zimbabwe has failed to attract and access Foreign Direct Investment (FDI) which could have helped on easing liquidity crunch.
1.2 RESEARCH PROBLEM

CBZ Bank has invested large capital outlay in mobile banking as a banking delivery channel; records show that its uptake by customers is very low. Various reasons can be put forward such as; it looks like people have no confidence in the electronic mobile delivery channels as winding queues are the order of the day at most bank branches. It is more expensive to do over the counter withdrawals as compared to electronic transactions. For instance over the counter cash withdrawals at CBZ Bank cost USD3.00 compared to ATM withdrawals which cost USD2.00 per transaction. Over the counter instruction for inter account transfers costs USD2.00 as compared to own electronic transfers through internet banking, SMS banking or smart money which costs only USD0.50. Furthermore interbank electronic transfer costs USD2.00 compared to USD10.00 on RTGS done over the counter. There are huge differences in charges that are levied to clients when they do over the counter transactions as compared to transactions done by electronic means. It is
therefore important to investigate why clients prefer the old ways of doing things as compared to doing transactions in the comfort of their homes and offices where there are no queues, no problems and no traffic jams.

1.3 RESEARCH OBJECTIVES

Against this background the study seeks to:

1. Examine the impact of the introduction of mobile banking by telecommunication companies in Zimbabwe.
2. Determine the reasons for low uptake of mobile banking as a banking delivery channel in Zimbabwe.
3. Explore and establish the uptake level of mobile banking as a banking delivery channel by CBZ Bank customers in Zimbabwe.
4. Establish what CBZ Bank can do to encourage uptake of mobile banking as a banking delivery channel in Zimbabwe.

1.4 RESEARCH QUESTIONS

The study seeks to answer the following research questions:

1. Which services do clients access on telecommunication services platform more than on bank platforms?
2. What are the reasons for the low uptake of mobile banking delivery channels in Zimbabwe?
3. To what extent do Bank clients use mobile banking as a delivery channel?
4. What can Banks do in order to encourage mobile banking uptake as a banking delivery channel?
1.5 RESEARCH HYPOTHESIS

H1: Telecommunication networks have an impact on mobile banking uptake

H2: Informative adverts have influence on mobile banking uptake

H3: Knowledgeable staff influence mobile banking uptake

H4: Negative perception has an effect on mobile banking uptake

1.6 JUSTIFICATION OF STUDY

Banks did not do intensive research on customer needs and wants before they invested immensely in mobile banking technology. According to Kaseke and Charira (2012) banks did not do proper advertising campaigns to educate clients on the advantages of mobile banking let alone the bank staffs in most branches do not even know how to use these mobile banking services. Most staff members in the mobile banking centers labour in vain in trying to educate branch staff so that they in turn educate clients to have their buy ins in using these mobile banking channels. If more clients use mobile banking delivery channels, this will help to curb the liquidity crunch which was experienced in 2003, 2007, Srivastava (2007) and in 2010 to 2011 and is currently deviling the country (RBZ Monetary Policy, 2014).

Technological advancement has allowed phones to be accessible to low income people in very remote areas which telecommunication companies are tapping into. In this vein mobile technology offers a new means of accessing financial services for people who do not operate bank accounts and are not in the main stream-banking hence banks must make efforts to harness this sector. Increased mobile banking usage will help the CBZ Bank to fulfill its mission of being a progressive strong bank geared to satisfy the diverse needs of its customers through innovative financial solutions and serving them from the home base. This is achieved through efficient service delivery, competency and flexibility, whilst adhering to principles of integrity, transparency and fairness (CBZ Bank website, August 2014).
1.7 SCOPE OF RESEARCH

Before financial liberalizations and the advent of technology, the financial services sector in Zimbabwe was comprised of commercial banks, merchant banks, building societies and finance houses. These service providers only targeted the banked population of Zimbabwe. In the current environment, telecommunications companies like Econet, Telecel and Telone have brought a new dimension in banking which mainly targets the unbanked so that they come into the mainstream economy. With this new perspective, banks now have products that target the unbanked populace in Zimbabwe. This study will target the banked and the unbanked in Harare as they use mobile banking channels.

1.8 DISSERTATION OUTLINE

Chapter 1

This chapter introduces the study, identify the research gap. It presents the background of the study, problem statement, Research objectives, justification, scope and limitation of the study

Chapter 2

This section will cover the theoretical framework of the study. Great attention to detail of the research is done to identify the literature gap. Empirical and theoretical literature review is done on factors resulting in low uptake of mobile banking as a banking delivery channel. The researcher compares and contrasts findings and views of different previous researchers.

Chapter 3

This chapter looks at research methodology issues like research design, sampling, and data analysis. The chapter will evaluate different research approaches and will justify the approach that will be adopted by this researcher.
Chapter 4

Chapter 4 focuses on research findings of the study. Comparison between study findings and literature is done and explanations of emerging patterns are explained.

Chapter 5

Summary of key findings, conclusions and recommendations of the study are presented in this chapter.

Chapter Summary

The chapter has covered the introduction, background and research question and justification of why the study should be carried out. It also looked at the objectives, hypothesis and the research questions that will guide the areas that will be unraveled during the study and that will guide the research. A proposition has been put forward and will be tested at the end of the research.
CHAPTER 2

2.0 LITERATURE REVIEW

Introduction

Chapter two covers the theoretical foundation of the study. It provides literature review on customer perceptions of mobile banking as a banking delivery channel. Varied views and concepts of mobile banking as a banking delivery channel from different authors are considered, examined and analysed. This chapter is segmented into four sections. The sections are definition of terms, theoretical review, description of how mobile money and mobile banking delivery channels work and the benefits of each basing on the work of previous researchers on the same subject. The final section covers empirical literature review on the reasons for low uptake. The chapter also looks at case studies from different countries on factors affecting customer perceptions on mobile banking as a banking delivery channel. Mobile money usage for transactions is steadily growing across Africa with the potential to revolutionize the cash dominant economy of this continent to be cashless. Mobile banking comes with new and convenient products and services which make banks connect with their customer base and regain some of the trust that was lost due to the financial crisis. In the same vein banks must be prepared to defend their franchises against threats from mobile carriers, credit card processors and other nonbank competitors that want to assist consumers conduct financial transactions wherever they are with their mobile devices are. The Internet has evolved from a stationery line constraint and is increasingly mobile. A confluence of factors have made mobile banking a reality, and these include rapid adoption of smartphones, shift in consumer preferences, a significant capability built out and product and service innovation.

Rapid adoption of smartphones and shift in consumer preferences

Consumers have made smartphones their preferred mobile devices over the past several years. Smartphones allow users to browse the web, send and receive e-mail and text messages, make calls and perform several other tasks by downloading free or low cost software apps or software. Africa has witnessed an increase of mobile phone usage from 0.83 per 100 to 42.82 per 100
people from 1998 to 2009, (Hausman, 2010). In the same manner that ATMs and online banking services, smartphones are giving consumers more options. Consumers are learning to expect such convenience due to the fact that ATMs or computers have enabled them to access their accounts information and performing transactions wherever and whenever they want without visiting the bank branches.

A significant capability built out and product service innovation

Most banks like CBZ Bank have made substantial investments in mobile banking capabilities and smaller banks are not far behind. For example CABS and CBZ have invested in mobile banking applications. Commercial banks like ZimBank, Agribank, First Banking Corporation, standard Chartered bank, Barclays and others have integrated their systems with telecommunication companies like Econet to use their Unstructured Supplementary Service Data (USSD) platform where they pay monthly fees. Further credit card processors, mobile network carriers and online personal finance services that allow consumers aggregate their accounts on a single web site or app are among the many nonbanks jockeying for positions in this fast growing space. Mobile channels allow banks to offer customers features that are not present online for example person to person transfers, remote deposit check and real time fraud notification. These features make mobile banking a richer experience. Chatain, Hernandez-Coss, Borrok, and Zerzan (2008) denotes mobile phones to have a great potential in becoming a common way of conducting financial transactions on a global scale in the near future as billions of people around the globe have access to them for communication purposes.

2.1. DEFINITION OF TERMS

2.1.1 Mobile Banking

According to Porteous (2006) mobile banking is a term used to refer to access of banking services and facilities offered by financial institutions for instance payments, transfers and account based savings by use of mobile phone or other electronic means like Point of Sale, Internet banking, Automated Teller Machines (ATMs). Further CGap (2006) says mobile banking can make basic
financial services more accessible by minimizing time, costs and distance to the nearest retail bank branch as well as reducing the bank’s operating costs. Further, Drexelius and Herzig, (2001) defined mobile banking as the ability to conduct bank transactions via a mobile device, or broadly to conduct financial transaction through a mobile terminal. Other authors like Barnes and Corbitt, (2003) defines mobile banking as a channel whereby the customer interacts with the bank through a mobile device, such as a mobile phone or personal digital assistant (PDA).

Porteous (2006) went further to distinguish between additive and transformational Mobile banking. Additive refers to where mobile phones are used as banking delivery channels to existing bank account holders resulting in efficiency and convenience. On the other hand, there is transformational effect which relate to the unbanked populace through offering mobile banking products and services. Mobile banking revolution like any other form of technological innovation is a mere tool, which on its own, cannot bring about development. What matters is how it is employed. While it has predominantly been used for sending money over long distances, it also has the potential of delivering more services, leading to financial inclusion in the developing world.

Mobile banking differs from Mobile payments in that mobile payments involve the use of mobile device like debit card to effect an EFTPOS to pay for goods and services at the point of sale or remotely. Further, Mobile banking and Mobile money differ in that the sender and receiver’s mobile wallets are linked to a bank account and the term is used to access more basic services such as checking account balance, receiving debit /credit alerts, receive statements and transferring funds between accounts. Earliest mobile services were done through SMS banking. The introduction of smart phones with WAP support enabled the use of mobile web in 1999 when first European banks started to offer mobile banking on this platform to their customers. Until recently in 2010 most banks were still offerings mobile banking services through SMS or mobile web. The success by Apple with iPhone and the rapid growth of phones based on Google’s android operating system, Hyper Text Markup Language (HTML5), Cascading Style Sheets (CSS3) and JavaScript has led to increasing use of special client programs called apps, downloaded to the mobile devices. More banks have launched web based services to compliment native applications. A recent study by Mapa Research (May 2012) suggest that in the developed
world over a third of banks have mobile detection such as redirecting to an app store, redirection to a mobile specific website or providing mobile banking options for the user to chose from.

2.1.2 SMS Banking

Short Message Service (SMS banking) is the delivery of banking and financial services ranging from administration of bank accounts, stock market transactions, accessing customized information through telecommunications devices, (Tiwari and Buse, 2007). Increasing application of wireless technologies like mobile phones has enabled banks to provide their services anytime and anywhere. The system is designed is a way that allows exchange of information between banks and customers. SMS computer application runs on corporate servers that are connected to SMS networks through specialized connectors and gateways connected to the SMS centers and mobile operators. Through SMS banking one can do balance enquiry, funds transfer, bill payment, mobile airtime top up, request for mini statement among other services. There are push and pull SMS. Push SMS is a one-way message which occurs when a message is send from SMS sever to the mobile phone like monthly reports on salaries and other credits to the account large withdrawals from the ATM and one time passwords authentication. Pull SMS refers to sending a request by a customer and receiving a reply and these include transfers between customer’s own account, account balance enquiry and electronic bill payments (Adagunodo, Awodele and Ajayi, 2007). SMS banking services can be categorized basing on the initiator of the service session to either “push” or “pull”, (Infogile Technologies, 2007). Bank sends out information to clients basing upon a set of agreed rules; for instance an SMS alert when a client’s account is debited or credited. On the other hand Pull refers to when client requests for information or a service from the bank for example balance enquiry or request for a mini statement or the last five transactions on one’s account. SMS banking services can also be classified according to either transaction based like funds transfers or enquiry based like requesting for a bank statement, (Infogile Technologies, 2007).
2.1.3 Mobile Money

According to the Harvard Kennedy school, (2009 summit) mobile money refers to a suite of financial services offered through mobile phones and other handheld mobile devices. These services can be 1) person to person transfers of funds like domestic and international remittances, 2) person to business payments for the purchase of a range of goods and services, and 3) mobile banking through which customers can access their bank accounts, pay bills, or deposit and withdraw funds. Other authors say mobile money may be referred to as electronic money because it is digital and has attributes that relate to portability, mobility and is equivalent to mobile money or mobile cash. It can be differentiated from other means of electronic payments like credit cards, debit cards and smart cards because of its ability to replicate the essential attributes of traditional money, such as acceptability, liquidity and anonymity. Mobile money is related to mobile wallet which refer to digital repository of electronic money developed and implemented on mobile devices that allows peer to peer transactions (P2P) between mobile devices (M2M) from users of the same device. It operates in a similar way like a physical wallet and is able to store money and credit and debits cards.

2.1.4 Point of Sale

A Point of sale (POS) terminal is a machine that enables buyers to make payments directly into other accounts by using the payment cards like debit cards, Visa cards or MasterCard. Others define a Point of Sale (POS) machine as a customer operated counter-top terminal system that triggers various debit or credit card transactions, provides a secure interface with a host computer database and issues an authorization code when a transaction is approved. The system allows the processing services to service providers or merchants permitting them to accept all debit and credit cards for the purchase of goods and services supplied by the establishment thereby providing the advantage of a guaranteed payment for the merchant.

Muelberger and Hughes, (2000) defines a Point of Sale system as an electronic system designed to read into customers’ credit card accounts and debit card accounts with the intention of debiting it and crediting the merchant account when a transaction is done. Point of Sale accepts plastic
cards that have either magnetic stripe or chip. A POS machine is a device which is an in store systems where a customer pay merchants for goods and services, Symatec report (12 February 2014). It can also be used in banking halls for withdrawing cash where a customer’s debit or credit card is swiped by the teller on the POS machine instead of completing a withdrawal slip and the client’s account is debited and the cash account is credited instantly. Many POS transactions are in the form of cash, where customers swipe their cards through a POS system which can handle multiple payment types like sale, refunds or returns, promotions and gift cards.

2.1.5 Internet banking

Internet banking refers to a system that enable bank customers to get access to their accounts and general information on bank products and services through the use of bank’s website, without the intervention of sending letters, faxes, original signatures and telephone confirmations, (Henry 2000). Sullivan and Wang, (2005), define Internet banking as a system where clients of a financial institution access banking services like bank statements, inter account transfers, third party transfers or transfers to other banks, check account balance or information through the institution’s website without physically going to the bank. It differs from online banking in its ability to allow universal connection from any location worldwide and its accessibility from any internet linked computer, (Bradely and Stewart, 2003; Henry, 2000; Rotchanakitumnuai and Soece, 2003; and Jan-Her Wu et al., 2006). The system enables universal connectivity from anywhere on the globe. For instance a CBZ Bank client in Germany can transfer money from his savings account to his Visa card without writing an instruction to the bank or to make an expensive phone call to Zimbabwe for those transfers to be done. Other authors like Chan (2003) and Sullivan et al (2005) view Internet banking as a process innovation where clients handle their own banking transactions without physically visiting the banking halls. The system allows non-customers to visit virtual banks through public networks.
2.1.6 Automated Teller Machines (ATM)

Peter and Sylvia (2008) defines an Automated Teller Machines as a combination of a computer terminal, record keeping system and cash vault in one unit, that allows customers to enter a financial firm’s book keeping system with either a plastic card containing a Personal Identification Number (PIN) or by inputting a code into a computer terminal linked to the financial firm’s computerized records 24 hours a day (Garuba and Aigbe, 2010). The use of a code is usually done when a card less cash withdrawal transaction is being done maybe from a mobile gadget.

Motwani and Shrimali view an Automated Teller Machine (ATM) as a user friendly, computer driven system which operates twenty-four hours a day, seven days a week, three hundred days a year. This system is totally menu driven and displays step by step easy to follow instructions for customers. The main advantage of ATMs is that they are convenient, customers do not have to worry about getting to the bank before they close, they enable clients to access accounts and general information related to bank accounts, funds transfer, bill payment, mobile banking, mobile recharging without visiting the branch and wait in queues, (Mohammed and Rameshwar, 2012).

2.2 HOW MOBILE BANKING DELIVERY CHANNELS WORK

2.2.1 Mobile Banking

With the convergence of banking services and technologies, users are able to conduct banking services at any place and at any time through mobile banking, (Gu, Lee and Suh, 2009). A mobile user who has a bank account initiates a mobile banking transaction by browsing on the mobile banking pages on the mobile device and request for instance account balance from the bank by selecting the account and entering a PIN to confirm transaction. The request is encrypted and signed in the Subscriber Identity Module (SIM) card and sent to the Bank Mediation Server (BMS) through the operator’s communication network and the request is send to the bank system
for processing. When the requested information is received and processed it is sent back through the same channels and the response is decrypted in the SIM card and presented to the user. The mobile user sees the results of his/her request on the phone display. Mobile banking enables mobile phone users to access basic financial services even when they are miles away from their nearest retail bank branch or home computer. Mobile banking is flourishing in some parts of the world such as the Philippines, Brazil, South Africa and Kenya to mention but a few of the countries where it has been successful.

2.2.2 SMS Banking

A customer who is subscribed to SMS banking initiates a request to the bank through a mobile phone for example electronic bill payment. The client’s account is debited and the biller’s account is credited then the client receives a confirmation of the bill payment through an SMS alert. When banks want to communicate with their client they can also broadcast messages to their clients through SMS alerts. Clients can also receive SMS alerts when an activity occurs on their account for example when an account is debited or credited.

2.2.3 Mobile Money

Mobile money usually known as m-money refers to use of cell phone to make payments to others using a cell phone where value can be stored on a mobile wallet before and after the transaction. A sender loads money into his or her mobile wallet through a registered agent such as a supermarket or a bank; then the sender use a secure electronic approach to transmit funds to the recipient’s mobile wallet. After receiving the funds the recipient can either store the funds in his or her mobile wallet for further mobile money transactions or go to an agent to convert the mobile money into cash. Mobile money transfers include airtime top-up, person to person remittances and cash in/cash out. For example Ecocash or Telecash where one can transfer money from one person to the other or one is able to top up his/her phone balance.
2.2.4 Point of Sale

For a Point Of Sale transaction to occur there is need for a merchant who has a point of sale machine for swiping customers’ cards and a customer with a plastic debit or credit card with either a chip or a magnetic stripe. The merchant swipes the card on the POS terminal at the time of transacting, the cashier selects the type of transaction being performed, for instance sale or sale with cash back and key in the sale amount, the cardholder inputs his or her PIN. The terminal will electronically transmit the customer’s PIN and bank account information electronically through the network of ATMs to the customer’s bank account (Muehlberger et al. 2000). The client’s bank either approves the transaction and debits the client’s account or declines the transaction for various reasons which are not limited to insufficient funds, card reported lost or stolen, and account marked for no debits and so on. The response is transmitted back to the merchant through the same network. The main advantage of point of sale to the customer is that the customer has the convenience of not carrying cash when making purchases and to the merchant increased revenue and profits because consumers end up buying more compared to when they purchase using cash (Reeder, 2000). Although Point Of Sale offers convenience to the customer there is the risk of data theft by cybercriminals who collect credit card information and create their own cards and use them to steal money from customer accounts. Further the customer has to be physically present for his card to be swiped and the transaction rely on electricity and network connectivity. Sometimes a client is told that the transaction was declined and leaves the goods at the merchant only to realize later when they visit the bank that the transaction had gone through and the client’s account had been debited.

2.2.5 Internet Banking

The operation of Internet Banking requires a device such as a computer, Ipad or smart phone that can connect to the internet. The customer logs onto the bank’s website (CBZ Annual Report 2004) and uses his or her username and exclusive password to log into the system and perform transactions such as bill payment, view account statement, mobile phone recharge, funds transfer to mention but a few. The main benefit of internet banking is the ability of a client to do banking
transaction wherever and whenever in the world and at whatever time of the day. This facility is hassle free in that a client need not physically visit the bank, or phone in for confirmations hence this help reduce transaction costs, encourage paperless banking, efficient, convenient and saves time (Hua, 2009)

2.2.5 Automated Teller Machines (ATMs)

One inserts an ATM or credit card into the ATM Machine, enters a Personal Identification Number (PIN) and selects the services that they wish to access. For instance when withdrawing cash they enter the amount of cash that they wish to withdraw and the cash is then disbursed by the machine as long as there is enough available in the person’s account. In this age of electronic banking ATMs offer services like account balance enquiry, mini statement, cash withdrawals, paying bills, funds transfer, mobile recharging, cash and cheque deposits, mobile banking, cheque book request and access to loan or credit card statements. In a nutshell it can be said that ATMs enable clients to access bank accounts without visiting the brick and wall branch and waiting on lines.

2.3. THEORIES OF INFORMATION COMMUNICATION TECHNOLOGY

It is widely believed that information and communication technology (ICT) enables organizations to decrease costs and increase capabilities meaning it enables to shape inter-organizational coordination. ICT is considered the driving force that enables users to access, store, transmit and manipulate information. The internet and mobile technology are two most dynamic information and communication technologies which are converging into one ubiquitous mobile service, which will change our way of doing both business and dealing with our routine activities daily. Recent study on mobile data traffic forecast has shown that smartphones represent only 12% of total global handsets in use today, but they represent 82% of total global handset traffic and the number of mobile handsets reached 6,000 million at the end of 2011 representing a worldwide penetration rate of 86.7% and 78.8% in developing countries, (IOP Science, 2013).
2.3.1. Models and theories of Adoption/diffusion of ICT

Numerous theories are used to understand user’s adoption of new technologies. A better understanding of the factors that contribute to the acceptance or rejection of information is the first step towards the solution of the problem. User acceptance is the pivotal factor and a central focus in determining the success or failure of an information technology product as availability of information technology does not necessarily lead to its acceptance. Most failures are due to lack of user acceptance rather than poor quality of the system or product. Technology adoption was defined as the use of a new technology, or new product, (I0P Science, 2013). Various models were developed including Theory of Reasoned Action, Theory of Planned Behavior, Technology Acceptance Model, Innovation Diffusion Theory and recently the Unified Theory of Acceptance and Use of Technology. Pedersen, (2003) tend to categorize the approach into three main approaches namely adoption approach, domestication approach and the diffusion approach.

2.3.1.1 Domestication Approach

According to Manuel et al, (2007), domestication approach focuses on the process in which technology becomes an integral part of our day today habits, It emphasizes on the process by which a technology find its way into our day-to-day activities. Research findings in this approach should be used to provide a model that would explain the adoption of complex technologies such as mobile telephone services, (Pederson, 2005). These studies help to explain the adoption process describing the consequences of a new product’s use from a social perspective. The approach has been used to analyze how telephone technology permeated and transformed the essence of daily activities, (Fischer, 1992). Television and personal computers are some of the other technologies that have been studied using this approach, Silverstone and Haddon, (1996) in this study they focused on explaining the dynamics of innovation by privileging the role and perspective of the consumer thus they looked at ICT as a social and cultural process.
2.3.1.2 Diffusion of Innovation (DOI) Approach

Diffusion theory involves the process by which an innovation is communicated through certain channels over time among members of a social system, (Rogers, 2003). The characteristics of innovation as perceived by the members of a social system determine its rate of adoption. This theory comprises four elements; namely innovation, communication channels, time and social system. New ideas are conveyed through the networks and depending on the nature of the network and the role of opinion leaders, innovations are either adopted or rejected, (Manuel et al, 2007).

Factors affecting diffusion approach

2.3.1. 2. a) Innovation and communication

Characteristics which determine how quickly an innovation is adopted include relative advantage over existing products, complexity, compatibility, trialability, observability to the people within the social system. There are two channels through which information can be conveyed from one individual to another. Mass media channels are more effective in creating knowledge about innovation and interpersonal channels are more effective in changing people’s attitudes towards a new idea. These two channels influence the decision to accept or reject a new idea. The social system comprises a boundary within which an innovation is diffused. The focus is on how the structure of the social system affects the diffusion.

2.3.1. 2 b) Time

Time dimension can be implicated in the diffusion process in three ways namely innovation decision process, innovativeness and rate of adoption. The innovation decision process is the mental process through which an individual passes from first knowledge of innovation to confirmation of his decision. Innovativeness is the degree to which an individual is relatively earlier in adopting a new idea than others. The number of members of the system that adopt innovation in a given time is what is known as the rate of adoption, (Rogers and Seemann, 2003).
2.3.1.2 c) Knowledge stage

The innovation decision making starts with the knowledge stage where an individual learns about the existence of innovation, what?’, ‘how?’ and ‘why?’ are the critical questions in the knowledge phase. The individual attempts to determine what the innovation is and how and why it works, (Rogers, 2003). The questions form three types of knowledge thus awareness of innovation’s existence, how to and principles knowledge. Awareness knowledge motivates the individual to learn more about the innovation and eventually to adopt it, and it may encourage the individual to learn more about the other types of knowledge. How-to knowledge contains information about how to use innovation correctly. Wetzel (1993) stated that even the faculties who have technical backgrounds may not use technology in teaching, if they do not have knowledge of how to use it correctly. Technology is not used at the expected level, because they need help in how to use it effectively in teaching, (Spotts, 1999). To increase the adoption chance of innovation a person should have sufficient level of how-to-knowledge before the trial of the said innovation. This knowledge is an essential variable in the innovation decision making process and is critical for relatively complex innovations. Furthermore, principle knowledge involves functioning principles that describe how and why innovations work. Adoption can occur without this knowledge but the misuse of innovation may cause its discontinuance. According to Sprague et al (1999) the biggest barrier to use of technology in faculties in teaching was that the faculty lacked vision of why integrate technology in the classroom. In order to create new knowledge, technology education and practice should provide not only a how-to experience but also a know-why experience, (Seemann, 2003). In fact a person may have all the necessary knowledge, but that does not necessarily mean that they will adopt the innovation because the person’s attitudes also shape the adoption of the innovation

2.3.1.2 d) Persuasion and decision stage

The persuasion step occurs regardless of the individual’s attitude whether positive or negative towards the innovation, as the formation of favorable or unfavorable attitude toward an innovation does not always lead to adoption or rejection, Rogers, (2003). A person’s attitude is
shaped after the individual has knowledge about the innovation. According to (Rogers, 2003) knowledge stage is more cognitive-centered whereas persuasion stage is more affective-centered thus the individual is involved more sensitively. The individual’s opinions and beliefs are affected by the degree of uncertainty of the innovation’s functioning and social reinforcement from others like peers and colleagues. Subjective evaluations that reduce uncertainty about innovation from close peers help are more credible to the individual. At decision stage the individual chooses to adopt thus make full use of an innovation as the best course of action available or reject the innovation meaning not to adopt innovation, (Rogers, 2003). An innovation is adopted quickly if it has a partial trial basis as more people prefer to try an innovation in their own situations before making an adoption decision. The trail process can speed up the innovation decision process. However rejection is possible at every stage.

2.3.1.2 d. i) Implementation and confirmation stage

Innovation is put into practice at the implementation stage and the innovation brings the newness and some degree of uncertainty is involved in diffusion. Problems can arise due to uncertainty about outcomes of the innovation hence the implementer may need the technical assistance from change agents to reduce the degree of uncertainty on results. At confirmation stage the individual looks for support for his decision. This decision can be reversed if the individual is exposed to conflicting messages about innovation, (Rogers, 2003). However, individuals tend to shy away from negative messages and seek supportive messages that confirm their decision hence attitudes are more crucial at this stage.

2.3.1.3 Adoption Approach

Social and individual decision making concepts are applied in order to explain this approach. Well known models in this approach include Technology Acceptance Model (TAM), Theory of Reasoned Action (TRA) and Theory of Planned Behavior (TPB).
Theory of Acceptance Model (TAM), Davis, (1989) aims to explain and predict ICT usage behavior, that is, what causes potential adopters accept or reject the use of information technology. According to theory, TAM is based on Theory of Reasoned Action (TRA). When individuals are presented with a new technology, several factors affect and influence their decisions about how and when they will use the said technology, Manuel et al, (2007).

It sought to measure the willingness of people to accept and adopt new information technology innovations of that era. There are two theoretical concepts in TAM namely perceived usefulness and perceived ease of use that are fundamental determinants of system use and predict attitudes towards the use of the system, which is the user willingness to use the system.

According to Divaris (2002), “the degree to which a person believes that using a particular system would enhance his or her job performance” and “the degree to which a person believes that using a particular system would be free of effort”. The theory describes the impact of external factors that influence internal attitudes, beliefs and usage intentions of users. In this notion bank customers will adopt mobile banking if they believe it will improve efficiency, provide enjoyment and mobility. Contrary to his hypothesis, Divaris reported that the relationship between perceived usefulness and adoption was significantly stronger than that between perceived ease of use and adoption. He also noted that perceived ease of use might even precede perceived usefulness which suggesting a causal relationship rather than the independence of the two determinants. Mobile banking users want something that eases and which is free of effort to use. Bank customers are motivated to use mobile banking if they perceive simplicity; speed and service quality factors are embedded in the use of the technology. Customers do not want to spend extra time and money to use mobile services.

TAM is criticized that is has low external validity and it fails to control external variables like economic factors, suppliers and so on. There is need to explore the nature and specific influences of technological and usage factors such as perceived risk and trust exists, Moon and Kim, (2001). Trust greatly influences the user to engage in online exchanges of personal information and money whereas adoption is determined by perceived risk. Despite its frequent use TAM has been widely criticized which has led to the original proposers attempt to redefine it. It has been
criticized for its questionable heuristic value, limited explanatory and predictive power, triviality and lack of any practical value, (Chuttur, 2009).

Benbasat and Barki, (2007) suggest that TAM has diverted researchers’ attention away from other important research issues and has created an illusion of progress in knowledge accumulation. In addition, independent attempts by several researchers to expand TAM so as to adapt it to the changing IT environments have led to a state of theoretical chaos and confusion, Benbasat et al, (2007). Generally, TAM focuses on the individual user of a computer, with the construct of perceived usefulness, with extension to bring in more factors to explain how a user perceives usefulness thereby ignoring the essential social processes of Information system development and implementation, without question where technology is actually better and social consequences of Information system use. Bagozzi (2007), claim that combined TAM and TAM2 account for only 40% of a technological system use. According to studies of telemedicine, perceived ease of use is less likely to be a determinant of attitude and usage intention (Hu et al, 1999).

2.3.1.4 Theory of Reasoned Action (TRA)

This theory was introduced by Fishbein and Ajzen in 1975 and 1980 respectively and has been integrated into TAM to overcome its shortfalls. Theory of Reasoned Action (TRA) originates from psychology to define the links between beliefs, attitudes, intentions, norms and behaviors of individuals. It is based on a person’s behavioral intentions such as one’s attitude towards performing the behavior and one’s subjective norm with respect to performing a behavior. Its conceptual framework is provided by the distinction between beliefs, attitudes, intentions and behaviors and the major concern is the relations between variables. A person’s performance of a specific behavior is determined by the person’s attitudes and subjective norms towards the behavior in question.

2.3.1.5 Theory of Planned Behavior (TPB)

Theory of Planned Behavior (TPB) is an extension of the Theory of Reasoned Action and it focuses on cognitive self regulation thus perceived behavioral control. It deals with conditions
where an individual has no control of their behavior, (Manuel et al, 2007). It is considered to be among the theories that predict and explain behavior. In TRA rational considerations determine the choices and behaviors of individuals, and individual intentions determine behavior. The theory suggests that human behavior is governed by personal attitudes, social pressures and a sense of control (Ajzen, 1991). This model is used to depict people’s behavior in several fields like advertising campaigns, public relations and so on.

Studies of adoption of new technologies are usually done for market research. Industry players use this model to evaluate the adoption of potential or new products. For instance Pedersen, (2005), used it in his study on the adoption of mobile internet services, found that there was a significant relationship between perceived usefulness of the technology and external influences such as disposable income of households. These findings help service providers when trying to sell their products in a new location.

2.3.1. 6 Extended Technology Acceptance Model
The Extended Technology Acceptance Model, Adesina and Ayo, (2013) is a model which is widely used for investigating user’s acceptance of information systems. External variables are used and their impact is measured on user’s adoption of information systems, (Fonchamyo, 2013); and (Adesina et al, 2010). This study adopts a combination of Extended TAM and Unified Theory of Acceptance and use of technology to investigate customer perception on the adoption of mobile banking as a delivery channel zeroing in on Harare Bank customers. Perceived usefulness, perceived ease of use, perceived time efficiency, perceived reliability and perceived accessibility, perceived security, perceived trust, perceived enjoyment, perceived innovativeness, perceived cost, perceived service quality, perceived speed and perceived simplicity are the variables adopted in this study. Extended Technology Acceptance Model variables are discussed in this section (see Appendix 1).
2.3.1.6 a) Customer Attitude

Attitude refers to customers’ positive or negative feelings towards the adoption of mobile banking, (Taylor and Todd, 1995). It is argued that attitudes have strong direct and positive effect on the user’s intentions. Individual behavioral intentions to perform a behavior and those behavioral intentions are jointly determined by individual attitudes and subjective norms regarding behavior (Jahangir et al, 2008). Social influence refer to the degree to which an individual perceives that important people in one’s circle believe that he or she should use the new system. Social factors affect the social interaction and influence mobile service adoption especially the young people, adoption can be encouraged by a theory of fashion which is influenced by social environment (Ling, 2001).

2.3.1. 6 b) Technology and enjoyment

Technological improvement could lead to a better user experience in using mobile services, transaction cost reduction, quality and efficient service delivery, Hyvonen and Repo, (2004). Innovativeness is vital as it is distinguished by individuals as something new and reliable therefore leads to adoption. Enjoyment refers to the extent to which the activity of using specific system is perceived to be enjoyable in its own right besides from any performance consequences resulting from the use of the system. Carlson et al, (2006), stated that mobile services should be changed or improved in everyday life in order for it to be adopted, used and to create enjoyment

2.3.1.6 c) Demographics

Age influences adoption of mobile banking as younger people are more likely to adopt mobile banking than the elderly as young people are adventurous and the elderly are a bit on the conservative side. Gender refers to the different in attitudes between male and females. Literature has shown that more males use mobile banking than females Marital status refers to whether a
respondent is married or single and this may influence the adoption of mobile banking as within married couples, most men may have the financial muscle and make most financial decisions. Literacy level of respondents denotes how educated a respondent is; as highly educated customers tend to have a higher chance of adopting mobile banking than lowly educated people. Income also influences adoption of mobile banking. The tendency is people with high income are more likely to adopt and use mobile banking more than people with low incomes.

2.3.1.7 Unified Theory of Acceptance and Use of Technology (UTAUT)

Venkatesh, Morris, Davis and Davis (2003) developed the Unified Theory of Acceptance and Use of Technology (UTAUT) model through reviewing previous eight models which explains ICT usage, namely TRA, TAM, the motivational model, TPB, a model of combining TAM and TPB, The model of PC utilization, DOI, and the social cognitive theory. The researcher is also using the Unified Theory of acceptance and Use of Technology to explain a user’s intentions to use ICT and the subsequent behaviors of the user. Four constructs are considered as the direct determinants of user acceptance and user usage behaviors which are effort expectancy, social influence, performance expectancy and facilitating conditions, (Davis, 2013). Further there are four key moderating variables namely, gender, age, experience and voluntariness. This theory provides a tool to assess the likelihood of success of technology introductions and to understand the drivers of acceptance in order to design interventions like training, marketing advertising and so on for managers. UTAUT focuses on users who may be less willing to adopt and use new systems. (See Diagram in Appendix)

2.3.1.7 a) Performance and effort expectancy

Performance expectancy refers to the perceived utility associated with using mobile internet by customers. Mobile internet frees users from temporal and spatial limitations, and enables them to acquire services or information at anytime from anywhere hence this may improve users’ living
and working performance and efficiency. Clients are enabled to access banking facilities at their convenience and they are not forced to rush to the bank halls before doors close.

Effort expectancy reflects the perceived difficulty of using mobile internet. The constraints of mobile terminals such as small screens and inconvenient input have made it relatively difficult for users to search for information on mobile internet. This may explain why clients are still going to the traditional brick and mortar banking halls to get service. Perceived enjoyment is an intrinsic motivation which emphasizes the usage process, brings out the enjoyment and pleasure associated with using technology and it can facilitate continuance of usage, (Venkatesh, Morris, and Davis (2003). Perceived usefulness is an intrinsic motivation that emphasizes the outcome. Attention focus shows a user’s immersion when using ICT such as mobile internet. More often than not mobile users perform multiple tasks on movement like listening to music while accessing mobile internet, attention allocated mobile internet may be limited. If a user fails to focus his or her attention, his or her experience maybe affected, (Davis, 2013).

2.3.1.7 b) Facilitating conditions
Behavioral intention is defined as a person’s perceived likelihood or subjective probability that he or she will engage in a given behavior. Consumers have more opportunities to reinforce their habits with increased experience because they have more time to encounter the cues and perform the associated behavior. Users must have the knowledge and resources necessary to use mobile internet, (Rogers, 2003). There is need for users to bear the costs of using mobile internet for instance communication fees thus airtime or data bundles. This occur is the perceive value in doing so. Perceived value is defined as the consumer’s overall assessment of the utility of a product based perceptions of what is received and what is given. Social influence reflects the effect of referees’ opinion on individual user behavior, (Davis, 2003). Users tend to comply with other important referees’ opinion in this theory. For instance when a person important to the user recommends one to use mobile internet one may follow their suggestion.
2.3.2 REASONS FOR LOW MOBILE BANKING UPTAKE

Current literature hypothesize that mobile phones have the potential to become low cost delivery channels for financial services, in particular electronic money and mobile banking, Boateng and Duncombe, (2009). Although there are more than 120 mobile money projects deployed in about 70 emerging markets, Beshouri et al. (2010), mobile payments have only taken off in a limited number of countries. This failure to disseminate a service with such a huge potential worldwide shows that the reasons for the successful cases are not clearly understood, and as a result are not being easily replicated. The need to understand how and why technology has or has not been adopted for knowledge work in less developed countries is vital for managers and or service providers and customers alike, Al Sukkar and Hasan (2005), Bradely and Stewart (2003), Maholtra and Singh (2007), Corrocher (2002), Sullivan et al, (2005) and Hannan and Mcdowell (1984) concur that factors such as size of business, organizational structure, number of previous adopters and entry of new competition to the industry may also affect the uptake of a particular innovation.

Past studies identified some of the causes of low uptake as cultural, low income levels, policy and regulation challenges, (Demirguc-Kunt and Klapper, 2012). The success of mobile banking requires collaboration of various stakeholders like policy makers, business partners, both finance and communication industries, mobile phone operators and consumers.

According to Africa Economic brief limited access to financial services in Africa stems from deficient infrastructure, physical and geographical isolation or inaccessibility and financial illiteracy. Other authors like Kaseke and Charira, (2012), identify factors such as trust, security, awareness, confidentiality and demographics as the main influences mobile banking adoption.

Ernst and Young (2009) points out that business models, financial regulation, legislation, lack of technical interoperability and user experience hamper widespread adoption of mobile banking. Key constraints apply mainly to users, business models, suppliers, price/cost and regulation.
2.3.2.1 Users

Users’ adoption and experience is mainly related to security, fraud, trust, privacy and risk perception, (Davis, 2003). It also includes psychological inhibitions caused by technology and new services. Telecommunication mobile banking is more attractive to clients than for banks because clients are able to transact on their accounts through peers or through their agents whom they can just hand over their cash and phones so that they can do the transactions on their behalf. People may feel scared to do that in banking halls as they think banks need to deal with people who are organized and who know what they are doing, (Demirguc-Kunt and Klapper, 2012). The other reasons why people may not use mobile banking include challenges that people encounter when navigating through the mobile phone menus in general. Some people may feel that Smartphones are not user friendly as it would take them a long time to know their phones functions as to what the phone can do and where to get which function such as get balance, change PIN, view last transaction and so on. People may be reluctant to leave their comfort zones and do not want to venture into uncharted territory, (Pavlou, 2003). As a result some customers get satisfaction by physically visiting the banking hall, talk to the teller, have their papers accepted, stamped and get confirmations that their transaction will be processed.

2.3.2.2 Trust and risk perception

Technology trust relates to an individual’s willingness to be vulnerable to an information technology based expectations of technology predictability, reliability and utility, Lippert and Davis, (2006). Knowledge based trust or experienced trust is based on trust built through repeated interactions thus for one to gain it one engages in repeated interaction over a longer period with the trustee and trust develops in the process. People get worried about their money not reaching the intended phone number and customers worry whether it is possible to retrace lost money. The challenge with mobile money is when a money is transferred from one to the other the recipient receives the money there and there and now if the transfer is a mispost it may land in a person who is in dire need of cash to the extent that they rush to withdraw and use the money, when one
realizes that they made a mistake on the phone number it may take ages before they recover the money

2.3.2.3 Security

Gemalto, (2011) define security as the protection of systems from unauthorized intrusion. This is the degree to which a customer perceives mobile banking as a safe and secure system where confidential information is not easily tempered with. Hassan, (2012) and Dixit and Datta, (2010) define security as the ability of online firms to protect information and customers’ transactions from being stolen by phishes and hijackers. Other authors define security as the subjective probability with which bank customers believe that their private information will not be viewed, stored and manipulated during transit and storage by inappropriate parties (Lallmahamood, 2007 and Pavlou, 2003). Security is one of the challenges that affect uptake of mobile banking on Tanzania due to mobile phone malware. According to Cheng, (2007), the greater number of functionality a mobile phone has, the more vulnerable mobile phones become to the same types of threats that plague laptops and desktop computers.

2.3.2.4 Privacy

Lallmahamood, (2007) defined information privacy as the claim of individuals, groups or institutions to determine when, and to what extent, information about them is communicated to others. Privacy and data protection concerns are distinct issues that are inherent in a mobile banking transaction. They are linked to consumer protection policies within banking services and telecommunications, as well as certain practices in financial regulation. Privacy is of great concern in mobile banking where transfer of electronic money is involved as the data include sender and receiver’s ID, their geographic location, time of the day and mobile numbers and a payment transaction may include transaction value and items purchased.
2.3.2.5 Interoperability

Interoperability is a process whereby information and services are shared in order to increase efficiency while reducing operational costs and complexity, (Porteous, 2006). Several factors can affect the performance of mobile banking since it depends on how technological innovation is employed. Enacted policies matters a lot for example, if policy-makers fail to come up with pro-poor policies in relation to the innovation, then one has to forget about financial inclusion through mobile phones. Mobile banking design, its marketing strategies, networking with other institutions such as other banks, telecommunication companies, government institutions and many more factors, all contribute in determining the success of mobile banking in relation to financial inclusion. Failure by consumers to send money from one mobile banking service of one bank like CBZ Bank’ smart money to CABS’ Textacash is a major drawback as consumers would consider it as a value proposition. The computer society of Zimbabwe has urged the Government to be in charge of constructing the fiber highway infrastructure as a way of addressing the high cost of information communications technologies as Zimbabwe is ranked 157 out of 161 economies in terms of ICT price basket and number 160 out of 161 in mobile cellular price basket, Sunday News, (16 November 2014). Sharing of infrastructure by companies would reduce the costs of ICTs, (Hapanyengwi, 2014).

2.3.2.6 Financial Regulation and Business Models

Mayer and Klein, (2011), point out that mobile payment raise significant regulatory and competition issues which imply that a number or risks inherent exist that need to be mitigated through regulation and compliance. For example in South Africa only banking institutions can participate in the national payments system. A non bank led operator such as Vodacom or MTN must either apply for its own banking license like Econet did or form a strategic partnership with a bank, (GSMA, 2012). Problems of business models arise from restrictions and complexity including obstacles of adoption and the need for an ecosystem with multiple operators and relations. It also includes remuneration and commissions of agents paid to resellers and there could be a problem of too large or too small commissions paid.
There is need for public regulation to enable innovative business models in highly regulated environments. Policy makers are critical in removing environmental barriers where mobile banking takes place, (Demirguc-Kunt et al, 2012). In the case of South Africa it was noted that the current banking and mobile regulation make it difficult for registration of new consumers in store which can be addressed by making banking regulation adjustments.

Mobile financial services such as M-Pesa, Ecocash, and Smartmoney are required to follow Financial Intelligence Centre Act (FICA), Anti Money Laundering Act (AML) and Counter Terrorism Financing (CTF) procedures. This includes that users should identify themselves with a photo ID card during registration as part of know your customer (KYC) procedure and when withdrawing cash, (Carmer, 2009).

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2.3.2.7 Bank operating hours

People shun banks because of the time they spend waiting in long winding queues for the banked and the unbanked cashing in or cashing out. People save time in transacting in cash in or cash out agents where there are lower customer traffic is important in raising the convenience of these services (GSMA, 2012). Further banks in Zimbabwe operate their services during banking hours between eight in the morning or three or four in the evening Monday to Friday and up to half eleven on Saturdays contrary to the agents which are open later in the evening, on Sundays and public holidays. It is faster to do transactions at agents as compared to banks even when transactions have delayed it is a matter of receiving a SMS confirmation in a matter of minutes.
2.3.2. 8 Agent Proximity and ubiquity

The footprint of available outlets offering mobile banking as well as location of participating outlets is a major factor in uptake of mobile banking. Banks do not have agents who operate after banks have officially closed. The proximity and ubiquity of mobile banking agents locations (cash in/cash out) and bank branches is a very important determinant affecting the motivation for adoption and the frequency for usage by customers (Carmer, 2009). For instance in Kenya getting to the nearest agent is much faster than getting to the nearest Post Office or bank. This also applies in Zimbabwe where mobile phone agents are nearer the customer as compared to banks which are located at strategic points. In India proximity to the Eko agents help bring down travelling costs.

2.3.2. 9 Pricing versus alternative channels

The pricing of mobile banking service as compared to other formal and informal channels may lead to non usage of the service. If it is too pricey to use mobile money services people will turn to old ways of sending and receiving money such as depositing money into the recipient’s account where one is charged only USD3.00 for withdrawing or giving it to someone who is travelling to the area where the recipient is (GSMA, 2012). For instance it costs up to USD6.00 to send money through Ecocash but if one deposit money into a bank a client is charged only USD3.00 to withdraw the cash.

2.3.2. 10 Education level

According to the study carried out in Kenya, it was concluded that mobile money users are more likely to be educated than non-users, (Jack and Suri, 2011). This notion was supported by another study carried out in Tanzania, InterMedia, (2013) that out of 2980 households surveyed, 65% had a primary education, 22% had secondary education while 14% had no formal education. Access
to financial services is also hampered by lack of information and customer service, (Dermish, 2012). The degree of mediation is a vital determinant influencing how mobile banking services are adopted and used especially by low literate users. People use mobile money if it is explained to them as to how they should transact as compared to using starter packs. In the banking set up in Zimbabwe it is not possible for one to log on to the banks’ website, register and start transacting, one has to download forms, complete and physically submit the forms to the bank where they are vetted, manually captured in the system and a password is send to the client so that he or she can start transacting which may take days or weeks.

2.3.2.11 Lack effective marketing efforts

Level of awareness about the availability and features of mobile banking services affects the way customers adopt the services. According to (Pikkaraine, (2004), awareness refers to the degree to which the users are informed about the existence of the new technological innovation. It focuses on the amount of information that a consumer has about mobile banking as well as the benefits and challenges. A study carried in South Africa on M-Pesa mobile money showed that lack of communication plan to consumers leads to lack of trust in the system and avoidance due to ignorance.

In Zimbabwe most people are ignorant on how the service works and most banks did not educate their clients as to how the services work. For instance, most bank frontline staff has no knowledge of how the product works yet they are expected to sell the product to the clients.

2.3.2.12 Socio economic

Socio economic factors in the country play a significant role in the successful roll out of mobile banking. The socio-economic and banking environment must also be taken into account. For example in countries like south Africa which already has a robust banking environment, mobile
banking does not have to be a standalone product but rather a banking option for the currently
unbanked to be able to enter the banked fold, (Mobile Money conference, Johannesburg, 2013).

Previous studies recommend that one of the key attributes impacting the relative advantage of
mobile technologies and services is the independence of time and location, Carlsson et al, (2006).
However, the unbanked are unbanked for a reason as they will transact if the costs of doing so are
cheap or free and it is convenient, safe and reliable, (Comninos, 2009).

Acharya et al (2012) identify socio economic conditions, rapid diffusion of mobile phones,
increased efficiency and lower costs, convenience and new initiatives as driving factors in mobile
payments ecosystem and the absence of these factors lead to low or non adoption of mobile
services technology.

2.3.2.13 Specific market context

Mobile service providers are not taking time to study requirements of their specific markets and
they are just copying a product from a market. For instance from first world countries like United
States of America and paste it to third world countries like Zimbabwe which has more Small and
Medium Enterprise (SMEs) than big formal companies as the case of USA. The product does not
address the needs of the Zimbabwean market as such but users are forced to take what is offered
to them hence the low uptake level.

2.3.3 BENEFITS OF MOBILE NANKING

Mobile banking offers a lot of benefits not only to users or customers but also to banks that
provide the service and to telecommunication companies. Goswami and Raghavendran (2009)
note that based on best practices in mature mobile banking markets, advantages of mobile
banking include secure authentication, transaction and data transmission, and easy deletion of
content in the event of handset loss. Further, it is icon driven, has user friendly interface,
contactless payment that offers quicker checkout at the point of sale and replaces all current payment solutions. In addition it has dynamic credit facility and innovative point of sale offers; dynamic account monitoring and around the clock alerts; convenient of micro payments (parking meters, vending machines); real time access to account information, outstanding debt and bill payment; ubiquitous access to banking services (personal ATM).

2.3.3.1 Benefits to Mobile Network Provider

2.3.3.1a) Increased Revenue

The use of mobile banking enables telecommunication providers expand their services portfolio, promote their brands and create strategic marketing differentiation, hence attracting new customers, (Gemalto, 2011). Mobile banking increases revenue for telecommunication providers by providing subscribers with instant access to airtime purchase, thereby increasing traffic. Further with financial services at customers’ fingertips, mobile users conveniently recharge their prepaid accounts or pay post paid bills, (Gemalto, 2011). Most companies have seen mobile money wallets as convenient accounts which they can use to pay their employees with. There is no need for employees to open bank accounts which have monthly fees. The cons of mobile banking include, phone banking is limited to existing customers only as it provides closed networks.

2.3.3.1b) Benefits to financial service provider

Mobile banking enhances consumer loyalty, satisfaction and enhance ability to attract new customers by offering new and better services, which can be customized to specific needs of customers, (Jen-Her Wu et al, 2006 and AL –Sukkar and Hassan, 2005, Nath et al, 2001). Having mobile phones as ATMs for banking services at anytime from anywhere help generate more revenue through higher service usage and reduces operating expenses, (Gemalto, 2011). The cost of processing a transaction is 10 times lower than via an ATM and 50 times lower than through a
branch, (Johnston, Bercum and Piscini, 2010). For instance a bank with a footprint of 100 branches, 250 ATMs and an average daily deposits/withdrawal volume of 165 branch transactions and 65 ATM transactions could save up to 5 million a year if the bank is able to convert 20% of its clients to mobile banking, (Johnston et al, 2010).

The offering of mobile banking facilities makes banks realize operational efficiencies by adopting an integrated channel strategy, (Bradley et al, 2003, Rotchanakitumnuai et al, 2003, Jayawadhera and Foley 2000, Nath et al, 2001, AL-Sukkar and Hasan 2005, and Singh 2004, Corrocher 2002, Sullivan et al, 2005). It also offers the advantage of immediacy, security and efficiency. Its power is in the transforming the economies of service delivery by reducing the costs of financial transactions. The mobile phone can serve as a virtual bank card where customer and institution information can be stored securely thereby avoiding the distribution of cards to customers thus cost reduction.

Brand differentiation is evident through increased marketing and communication, (Jayawadhera et al, 2000, Karem 2003 and Corrocher 2002). It also increases customer base (Bradley et al, 2003, Jayawadhera et al 2000, Jen-Her Wu et al, 2006 and Singh 2004, Corrocher 2002) through the reduction of geographical constraints and offers a costless expansion strategy to commercial banks while creating win win partnerships between banks and ICT operators which can foster banking penetration in the continent.

2.3.3.1b. i) Opportunities for partnerships and taking the bank to clients

Mobile banking offers the chance for partnerships between banks, non-bank financial institutions, mobile telephone and enables MFIs and IFIs and increase access to finance, especially in rural areas for households and SMEs. In addition mobile banking enables innovation and development of noncore businesses. Provision of mobile banking has offered an opportunity to serve the “unbanked”; as only 20% of African families have bank accounts. Financial institutions and mobile phone providers have introduced resourceful methods of bringing unbanked population into the formal economy using mobile phones. Commercial banks will have the capabilities of
reaching everywhere and be reached from anywhere. Mobile banking offers the chance to deliver saving services to billions of people worldwide who have cell phones but no bank accounts.

2.3.3.1c) Benefits to End-users

The benefits that are experienced by the customer include, the availability of the bank offering round-the-clock information, alerts, transactions and products. Customers have access to an intuitive and personalized mobile app and to do banking services whenever and wherever, in a speedy, self service manner. It is one single app for all financial needs, including banking, payment, money transfers and financial management, (Gemalto, 2011).

2.3.3.1c. i) Reduction of Transaction costs

Competition for clients results in reduction in financial transaction costs that benefits SMEs and overall private sector performance. Mobile money services can be part of people’s day today transactions and money transfer services are quite easier and cheaper at cost. For example in Ghana one can deposit money in his or her wallet and transfer it either to a mobile money subscribers or non money subscribers. This reduces the time spent in travelling long distances, queuing at the banks before making deposits or using unsafe methods like sending money through the bus services for recipients in other villages and towns, (Au and Kauffman, 2007; Heyer and Mas, 2009). Mobile money reduces risks of loss inherent in handling cash. M-money transfers can be made by just pressing a few keys on the mobile phone and the recipient receives the money instantly. Clients benefit from the virtual element of mobile money, hence most consumers like the convenience and ease of use of the service and payments from their mobile phones, (Au et al, 2007).

2.3.3.1c. ii) Funds storage

Mobile services allow users to store funds either in a bank account held with a traditional bank or an account held with the mobile network operator, (Solin and Zerzan, 2010). Consumers are able to transfer money from their bank accounts to their -wallet accounts and vice versa. It is
convenient to save money in e-wallets than in banks because of the there are no monthly charges and mobile money has proven to increase saving opportunities for instance in Kenya. The poor use their mobile wallets to save funds at least for short periods of time and are more likely to be able to have cash when emergencies occur, (Jack et al, 2011). Funds storage facility help boost savings through expansion of financial services to the poor and rural population. Funds storage is the second most popular means of saving in Tanzania and Kenya, (Jack et al, 2011).

2.3.3.1c. iii) Domestic and International Remittances

Domestic money remittance is funds transfer from one person to another where both parties are in the same country, (Solin et al, 2010). In Zimbabwe telecommunication companies provide e-wallet services to enable people to transfer money to one another at their convenience. Mobile money transfer can be done by either registered or non registered users to either parties and what differs is the cost associated. On the other hand International remittances refer to transfers across borders typically composed of transfers from migrant workers abroad to their family members in their home country or parents sending money to their children studying abroad, (Solin et al, 2010). This service is delivered through integration of money transfer services such as Western union and the mobile money service like Ecocash which was introduced recently in Zimbabwe and between Mukuru and Smartmoney in the case of CBZ Bank.

2.3.3.1c. iv) Convenience and Efficiency

Consumers can use mobile money to pay for goods and services at merchants. Mobile money service also enables users to pay for utility services such as electricity, water, DSTV subscriptions, which provides greater convenience and efficiency for consumers of these services, (Solin et al, 2010). Using mobile money to pay for utilities can be done either at the offices of the utility company, at banks, at the outlets of specialized payments networks or retail shops that have an agency agreement with the utility companies, (Amrik and Mas, 2009). Consumers can easily pay utility bills and avoid the inconvenience of traditional methods of payment. Mobile money can be used to pay for public transport, (IFC, 2011) which is another recent innovation by Econet Wireless in Zimbabwe. Middle to high income countries such as Brazil, Sri Lanka, Thailand and
United States Of America (USA) use mobile money for paying for their transport fares (IFC, 2011).

2.3.3.1d) Increased Government revenue (Benefit to Government)

Consumers view mobile money as an easy and convenient way to remit government taxes and fees. Mobile money leads to increased revenue for the government as a result of increased corporate revenue from booming mobile banking, increased corporate earnings and through taxes.

2.3.4. CASE STUDIES ON MOBILE BANKING AS DELIVERY CHANNELS

2.3.4.1 Mobile banking in Malaysia

InMobi, (2011) carried out a study to analyse factors that influence uptake of mobile banking in Malaysia. The study revealed that mobile banking was the top media choice for Malaysians using the Web and Mobile banking was expected to increase across demographics. As of January 2012 Malaysian banks that offered mobile banking are Al Rajhi banking and investment corporation, Simpanan Nasional, CIMB, AM, Bank of Islam, Citibank, Hong Kong Leong, Malayan banking and OCC. Daud et al, (2011) examined critical success factors that influence adoption of mobile banking by extending the re-owned framework of Technology Acceptance Model (TAM). They found out that factors that are positively related to intention to adopt mobile banking include perceived ease of use (PEOU), perceived usefulness (PU), relative advent ages (RA) and personal innovativeness.

2.3.4.2 Mobile Banking in Korea

Lee and Chung (2009) studied factors that influence uptake of Mobile banking in Korea. Key findings of the study showed that information quality, system quality and interface design quality are predictors of trust. The findings also suggested that trust is an important predictor of mobile banking satisfaction. Another study carried in Korea, Gu (2009) revealed that situation normality, structural assurance and calculative based trust are determinants of trust in mobile banking, (Zhou, 2011). The study focused on the web technology and the mobile banking provider as the
trustee. The study discovered that information and system quality significantly predict initial trust in mobile banking. It was also found out that structural assurance and trust propensity of the trustor significantly predict initial trust. A study carried in Taiwan by Lin, (2011) also emphasized the importance of trust in mobile banking by confirming that knowledge based trust measured in terms of competence, benevolence and integrity are predictors of mobile banking adoption.

2.3.4. 4 Mobile banking in Tanzania

Vodacom Tanzania in collaboration with Vodafone launched Vodafone M-Pesa a version of M-Pesa in Kenya in April 2008, Vodacom, (2008). In 2009 Airtel introduced AirtelMoney which enables merchants to move large sums of money and is interlinked to several banks. A study carried out in Tanzania revealed that there is security risk in developing markets as mobile banking service providers depend on agents for customer acquisition and for managing liquidity. These agents access customer sensitive information like mobile number, user name and other credentials that are used for authentication and identification and these agents are not well equipped to preserve customer sensitive information and can easily lead to information leakage. They emphasized that any loss of control over sensitive or protected information by service providers is a serious threat to business operations and potentially to customer security. Security risk may be due to stealing of sensitive information from user, destruction of stored information, activated or deactivate applications or disable a device. The study also revealed the risks associated with mobile money as users share their PINs with other persons like the agent or close relatives or spouses and other users do not know how to change PINs, (InterMedia, 2012).

2.3.4.5 Mobile Banking in Kenya

A study done on mobile banking in Kenya revealed that an appropriate environment is considered a key pillar as well as an enabler of economic growth, (Koivu, 2002). Further mobile banking in Kenya has been facilitated by the fact that it has resolved issues relating to access to finance due to lower costs of rolling-out and the economies of handling low value transactions, account opening and other transactions are done online which made it easy to subscribe and accounts for high customer concurrence of 91%. Banks operate 876 branches in Kenya but 314 are in Nairobi and this has enabled transformational finance to rural people who were considered unbanked and
have been given access to formal finance. The rapid uptake has ensured that the critical mass required as a threshold for sustainable expansion is reached. Sustained introduction of new mobile based banking services complement existing services.

Kenya has become an example of success in the implementation of mobile banking because its consumption is characterized by multiple strategies, implying that mobile banking service is utilized for any need depending on the ability to pay at any given time and they have managed to offer beyond traditional and limited approaches and instead explore innovative and value oriented application. Focus is on patterns that play a role on economic advancement of users.

According to Njenga the study revealed that the demands of vibrant mobile banking revolve around improved network coverage, quality connections and reduced costs to ensure affordability to all prospective partakers.

### 2.3.4.6 Mobile banking in South Africa

Mobile banking was first introduced by Wizzit Bank in 2005, (Makore M, 2013). The study revealed that mobile banking came as a complementary service to formal and informal products and it was driven by strengths and weaknesses of financial service namely convenience, affordability, safety, flexibility and trust. Vendors in informal business found mobile banking handy because sometimes their business is low and high transaction costs are detrimental to their profitability and there is no need for them to leave their stands unattended to go and do banking at the bank. This confirms findings by Mbogo, (2010) that individuals are motivated to use mobile banking if it fits well with their business operations and contributes to profitability. The study also revealed that social relationships play a bigger role in determining adoption, usage and contexts of use of mobile banking platforms as the older and technologically challenged are willing to use the service to facilitate transactions through the assistance of younger family members, social groups, wiz kids and agents. This shows that mobile banking services are highly dependent on human interaction for adoption and use. Further it revealed that the designing of mobile banking solutions and the human component of efficient agent network is critical in the life cycle of mobile financial services. In addition the study finds that favourable regulatory environment is essential for successful adoption and usage of mobile banking. It shapes the services and products
that the banking sector and MNOs offer to the unbanked and under banked masses and impacts on the usage and determines the success of mobile led financial inclusion strategies.

2.3.4. (vi) Mobile banking in Zimbabwe

An exploratory study carried out in Zimbabwe on adoption and use of SMS/Mobile banking services by Dube T. et al in 2011 revealed that SMS was first launched in 2004. Research findings confirmed the findings by Amin et al, (2005), Donnar and Tellez, (2008) for developing countries where mobile banking is an effective banking and financial service solution as it addressed challenges of affordability, poor accessibility and narrow customer base. Cranknel, (2004) has shown that accessibility and affordability are the major drivers of adoption and usage in developing countries. In addition it strengthened the findings by Brown and Molla’s, (2004) that the adoption of internet and perceptions of internet banking among internet users were significantly different from those of SMS banking among mobile phone users which implies that the success of internet banking is not directly linked to the success of mobile banking.

The study also revealed that mobile banking has a greater potential for success because of the anywhere, anytime aspect and the fact that mobile phones have higher penetration rate than internet banking, Shetty, (2005). Lack of supportive mobile banking regulation in Zimbabwe remains a major drawback for mobile banking adoption and use. It needs to be addressed to ensure customer trust and make it more effective. Similar observations on regulation and policy problems were made in Malawi, Saidi, (2008). Generally it can be concluded that developing countries lag behind as far as technology regulation is concerned which impacts negatively on adoption of technology that would otherwise improve on customer service.

CHAPTER SUMMARY

Previous studies show that connectivity, demographics, privacy, trust, security, awareness, user friendliness of systems and ease of use are key factors that determine consumer adoption and usage of mobile banking delivery channels.
CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter discusses the research methodology that was used to conduct the study. It outlines the research design, strategy, population and sample size, sampling methods, data collection and analysis methods that were used. Methodology refers to the activity of the research that is, how it precedes, how to measure its progress and what constitutes its success (Chapman, 1988). Saunders et al (2009) noted that methodology in research includes theory of research subject being conducted, that is theoretical and philosophical assumptions upon which the research subject being conducted and that is impact of method or methods followed for the research process. Saunders et al. (2009) further pointed out that research requires a systematic approach to providing solutions or answers to the stated research problem.

3.2 RESEARCH DESIGN

A Thesaurus business dictionary defines a research design as a detailed outline of how an investigation will be carried out. Other authors define research design as a map or plan outlining how the research is going to be conducted to find acceptable answers to the problem. (Kumar, 2005) defines research design as a master plan that specifies the approaches methods and procedures for collecting, measuring and analyzing of the collected information. In addition he noted that the choice of the appropriate research design is determined by the objectives of the research, the available data sources and the cost of obtaining data. The above definitions concur with Ader and Mellenbergh, (2008), who postulated that research design encompassed methodology and procedure employed to conduct scientific research. It is used to structure the
research, showing how all major parts of the research project samples, measures, programs and methods work together in an attempt to address the research question.

3.3 RESEARCH PHILOSOPHY

A research philosophy is a belief about the way in which data about a phenomenon should be gathered, analysed and used. Saunders et al (2009) and Yin (1994), concur in that there are two main research philosophies namely the epistemology (what is known to be true) as opposed to doxology (what is believed to be true), in the classification and analysis of primary data, thus positivism (also known as scientific) and interpretivist (also known as anti-positivist), (Galliers, 2002). The philosophy one adopts contains important assumptions about the way one views the world and these assumptions underpin the research strategy and the methods one chooses as part of the strategy. Further the philosophy which a researcher adopts depends on characteristics of data collected in the research process. The main difference between the two philosophies is how the numbers and statistics are used. The choice of the research philosophy of a research study is governed by the research problem or research questions.

3.3.1. Positivism

This research takes a positivism approach. Positivists believe that reality is stable and can be observed and described from an objective viewpoint, (Levin, 2004) without interfering with the phenomena being studied. They prefer to work with observable social reality and the results obtained can be law-like generalisations similar to those produced by physical and natural scientists, (Saunders et al, 2009). They believe that phenomena should be isolated and that observations can be repeated and produce similar results. This usually involves manipulation of reality with variations in a single variable in order to identify regularities and form relationships between some of the constituent elements of the social world.
3.3.2 Phenomenological Philosophy

Phenomenology refers to the way in which human beings make sense of the world around them, Saunders et al. (2009). Humans are in the continual process of interpreting the social world around them, interpret and make adjustments where necessary. Zikmund (2003) highlighted that the phenomenological philosophy (qualitative research) provided greater understanding of a concept or crystallizes a problem rather than providing precise measurement or quantification. It focuses on words and observations and not on numbers. Deductive reasoning is applied to data collected in order to arrive at possible explanations in quantitative research. Qualitative research approach mainly deals with finding out what is going on in a person’s mind. A major shortfall of studying human behaviour following the phenomenological philosophy is that it is not easily measured, Postlethwaite, (2005). It involves less structured questions and observations of respondents Schmidt and Hollensen, (2006). The researcher used the quantitative research approach.

3.3.3 Research Paradigms

3.3.3.1 Qualitative Versus Quantitative Approach

Two broad approaches to research that are commonly adopted in the classification of studying primary data in science research studies are quantitative and qualitative research approaches, (Tewksbry, 2009). Quantitative research is typically considered to be more scientific and it focuses on specific definitions and carefully operationalising the meaning of particular variables and concepts. It deals with numerical representation and manipulation, observation with the aim of describing and explaining the phenomena that observations reflect. It uses large samples and structured surveys sample, (Zikmund, 2003). The questions are numerically and statistically analysed and results from the sample can be used to make generalizations about a specific
population. Contrary, qualitative research involves non-numerical representation and interpretation of observation with the aim of discovering the underlining patterns of relationships. The process and the mean are not thoroughly examined in terms of quantity, frequency or amount of intensity, (Malapo, 2008). Emphasis is not on the number but rather on words or observations, Zikmund, (2003). Qualitative research provides more emphasis on interpretation and providing consumers with complete views, looking at contexts, environmental immersion and depths of understanding concepts, (Tewksbry, 2009). In addition qualitative research aims to find out what is going on in a person’s mind. It involves less structured questions and observations of the respondent. Considering the approaches discussed and the objectives, the researcher adopted the quantitative research approach as the data investigated perceptions of customers using a structured questionnaire. The data collected from the sample was analyzed and generalized to the population.

3.3.3.2 Deductive Approach

The deductive approach sometimes referred to as the top-down approach is a research study in which a conceptual and theoretical structure is developed, (Hussey and Hussey, 2002). It involves the logic process of deriving the conclusion from unknown primacy and the search to explain causal relationships. It is the dominant research approach in natural sciences, where laws present the basis of explanation, allow the anticipation of phenomena, predict their occurrence and therefore permit them to be controlled, Collins and Hussey, (2003). The approach uses structured methodology to facilitate replication, Gill and Johnson, (2005), as a way to ensure reliability. Deduction dictates that the researcher should be independent of what is being observed as a way of pursuing the principle of scientific rigor, Saunders, (2009). Other characteristics of deductive approach include operationalisation in a way that enables facts to be measured quantitatively, reductionism where problems are reduced to the simplest possible elements and generalisation in order to generalise statistically about regularities in human social behaviour it is necessary to select samples of sufficient numerical size. The approach is appropriate where there is a lot of literature about the research topic where a theoretical framework can be defined. Since the study adopted a quantitative research approach, the researcher followed the deductive approach.
3.3.3.3 Inductive Approach

Inductive approach refers to a study in which theory is developed from the observation of empirical reality to which general inferences are deduced from given circumstances, (Hussey et al, 2002). It focuses on gaining an understanding of the meanings humans attach to events hence it is concerned with the context in which events are taking place and usually involves a small sample. It has a more flexible structure which permits changes of research emphasis as the research progresses, Saunders, (2009). This approach involves collecting data and developing theory as a result of the data analyses. The researcher used the deductive approach.

3.3.3.4 Objectivity and Subjectivity

Subjectivity and objectivity are considered critical elements in research paradigms. Objectivity in research refers to independence in the execution of the field work, (Easterby-Smith et al, 2001). Other authors view objectivity as a position that social entities exist in reality external to social factors. On the other hand, subjectivists view is that social phenomena are created from perceptions and consequent actions of social actors, (Saunders, 2009). In other words subjectivity refers to the involvement in or having influence on the result of a study. In addition Easterby-Smith et al, (2001) pointed out that objectivity is associated with positivism. Therefore, the research must be completely independent if the results are to be validated. It is widely acknowledged that the phenomenological approach is subjective. As such, the researcher used the objectivity research approach.

3.4 CLASSIFICATION OF RESEARCH PURPOSE

Research purpose can be classified as exploratory, descriptive or explanatory depending on the nature of the research problem and a study can adopt more than one strategy, Saunders et al (2009).
3.4.1 Exploratory Research

Exploratory research is an important means of finding out what is happening by seeking new insights, asking questions and assessing phenomena in a new light, Robson, (2002). Sheppard et al, (2002) say an exploratory research design seeks to define the research question and form hypotheses. Further Saunders et al. (2009), argue that methods of conducting exploratory research include search in literature, consulting from experts in the subject of research and conducting focus group discussions. Exploratory research is useful if one wishes to clarify understanding of a problem like when one is not sure of the precise nature of the research problem and it is flexible and adaptable to change, Saunders et al. (2009). It is also applicable where the research problem is difficult to delimit. The study did not use the exploratory research purpose.

3.4.2 Descriptive Research

Descriptive research seeks to provide accurate description of observation of a phenomenon. It portrays an accurate profile of persons and events of a situation by going further, deeper and trying to describe different characteristics of phenomenon, Saunders et al., (2009)). It is used in cases where the research problem is known but the researcher is not fully aware of the situation. This shows that a descriptive case study will require theory to guide data collection. This study was classified as a descriptive study as it sought to assess Bank customer’s perception of mobile banking as a banking delivery channels based in the Extended Technology Appliance Model and Unified Theory of Acceptance and Use of Technology.

3.4.3 Explanatory Research

According to Saunders et al (2009) explanatory research establish casual relationships between variables and the emphasis is on studying a situation in order to explain the relationship between
variables. As this study seeks to understand the customers’ perceptions of mobile banking as banking delivery channel, the research is considered partly exploratory in nature hence adopted in the study. Table 3.1 gives a summary of the three different types of research purposes. It displays the circumstances under which each research approach is used and common research questions that relate to each research purpose.

3.5. RESEARCH STRATEGY

According to Saunders et al, (2009), there is no strategy which is more superior or inferior than the other. Yin (2003), concur with Saunders et al, (2009), when they highlighted that the most important is not the label attached to a particular strategy but whether it answers one’s particular research questions and meet chosen objectives. Research question and objectives, the extent of existing knowledge, the amount of time and other resources available as well as philosophical underpinnings are the determinants of a research strategy to be adopted in a research process and these strategies are not mutually exclusive. There are five main research strategies to use when collecting and analyzing empirical evidence in the field of social science namely experiments, surveys, archival analysis, history and case studies, (Nachmias, 1996). As noted by Yin (2003) each research strategy is conditioned by the following, type of research questions being posed, the extent of control which the investigator has over actual behavioral events, the degree of the focus on contemporary as opposed to historical events, relevant situation for different research strategies. Yin (2003) summarized the relationship between each condition and five different strategies as shown in Table3.2 in Appendix.

The strategy to be used depends on the stated research questions. According to Yin (2003) the common questions stated are who, what, when where, how, and why. The researcher can take advantage of experimental, case study and historical study when how and why questions are used. She further outlined that the basic rationale for using a case study is to assemble information as comprehensively and systematically about the selected case firm. The advantage of a case study research approach is its ability to provide rich descriptive detail, conveying it like it is and to experience an organization or event or problem from an inside point of view. Moreover, Yin
(2003) propounded that a case study approach also allows the discovery of grounded theory and the comparison of existing theory and literature with what is obtained on the ground or reality.

3.2.2.1 Surveys

A survey is associated with the deductive approach. A sample of subjects or elements are drawn from a population and studied in order to make inferences about the whole population, Canhao and Keogh, (2000). In the same vein, Nesbary (2000) and Canhao et al, (2000) defined a survey as the process of collecting representative sample data from a large population and infer the attributes of the entire population using that sample. It is used to answer what, where, who, how much and how many questions. The authors above noted that descriptive and analytical surveys are the available types used for exploratory and descriptive research. From the above definitions, one can conclude that it is possible to use statistical techniques to show the likelihood that the characteristics of the sample will also be found in the population. A descriptive survey is concerned with identifying and counting the frequency of a specific population either at one, point in time or at various times for eventual comparison. Such surveys are frequently adopted in business research involving attitude surveys and are common for political elections, Canhao et al, (2000). Canhao et al, (2000) went on to define an analytical survey as where the intention is to determine the existence or non existence of a relationship between different variables. Surveys allow the collection of a large amount of data from a sizeable population in a highly economical way, Saunders et al, (2009). A survey is allows one to collect quantitative data which one can analyse quantitatively with the use of descriptive inferential statistics. Further data collected using a survey strategy can be used to suggest possible reasons for particular relationships between variables and to produce models of such relationships. Identification of the independent, dependent and extraneous variables is important in this method. As such, the researcher adopted the survey approach as it enabled the researcher the opportunity to use a sample to make inferences about CBZ Bank customers on their perceptions of mobile banking.

3.2.2.2 Case Study

Robson (2002) define a case study as a strategy for doing research that investigates a contemporary phenomenon within its real life context with the use of multiple sources of evidence. Other authors like Burns, (2000) define a case study as a study of social phenomenon in
one of its manifestations in its natural surroundings during a certain period. A case study is an appropriate way to answer broad research questions by providing a thorough understanding of the phenomenon under study. A boundary between the phenomenon being studied and the context within which it is being studied is not clearly evident. It has the ability to generate answers to the questions what, how and why. The main purpose of a case study is to understand a subset as a distinct whole in its particular context.

According to Yin (2003), case studies can be categorized into four classes which are descriptive case studies, exploratory case studies, illustrative case studies and experimental case studies.

A case study can provide rich descriptive information and bring out the experience of a problem from inside the organisation. Banoma, (1985), propounds that case studies allow discovery of grounded theory and the comparison of existing literature and theory with what really happens in reality. Burns, (2000) pointed out that the researcher can provide deep and undertake intensive analysis of the case subject. Contrary, a case study has a major shortfall of relating to narrow focus. According to Isaac and Michael, (1995), it is difficult to make generalizations about population because of the un-representativeness of study elements. The possibility that the generalizations can be manipulated to suit personal views, agendas or settle vendettas exists. Tapererwa, (2009), further pointed out that case studies are considered as subjective because the investigator maybe selective in interpreting results and making conclusions that may be easily checked or verified. The study used banks in Harare as the case study to investigate why bank customers in Zimbabwe are not utilizing mobile banking as a banking delivery channel.

3.3.2.1 Population

According to Wegner, (2007), population is an object which has data on research phenomenon under study. Other authors like Yount, (2006) propound that population refers to an aggregate of all individuals or totality of all elements under investigation or units of interest to a researcher; there is no available data for almost all individuals in a population. The researcher used a population of 150 people.

3.3.2.2 Sampling

According to Yount, (2006), sampling is a process of selecting a group of subjects for a study in such a way that the individuals represent the larger group from which they were selected. A
sample is a subset of individuals in a population, there is data available for individuals in a sample. Samples are important because within many models of scientific research it is impossible to study all the members of a population for a research project from a resource and strategic perspective, (Yount, 2006). A few participants are selected to make a representative of the population and results from the sample are inferred to the population. The research population for this study consists of CBZ Bank and other banks customers and non-banking customers from Harare who are registered as users of electronic banking delivery channels and Ecocash customers. As such, the target population for this study includes individuals, clients, bank employees, SMEs clients and corporate clients.

### 3.3.2.3 Sample Size

According to Zikmund (2003) sampling is the process of using a small number of elements or units of a bigger population to make general inferences about the whole population. The target populations for this study are bank and non-bank mobile banking clients in Harare who are registered as users of mobile banking delivery channels. The study used a sample size of 120 mobile banking customers from Harare. The sample size of 120 was chosen as it allowed reasonable statistical representation of the mobile banking users. The sample break down was as follows: 50 individual customers, 10 corporate clients, 15 SME clients, 15 bank tellers, 10 client relationship managers (CRM), 5 bank managers and 15 non-bank clients.

### 3.2.2.4 Sampling Methods

Sampling methodology is defined as the method used to choose elements for research analysis. There is probability and non-probability sampling methods of sampling. Non-probability sampling refers to a situation where research elements being chosen while probability sampling exposes every element to an equal chance of being selected, (Malapo, (2008). From the discussion above on non-probability and probability sampling methods and the objectives of this study, this study used stratified sampling approach since the target population is clearly segmented into stratum. Stratified sampling permits the researcher to identify sub groups within a population and create a sample which mirrors these groups by randomly choosing subjects from
the stratum, (Yount, 2006, Field 2009, Wegner, 2007). The sampling units for this study were classified as bank managers, customer relations managers, bank tellers, SME clients, corporate clients, individuals who do not operate bank accounts and bank clients as shown in Table 3.1 below.

Table 3.1 Sample Distribution

<table>
<thead>
<tr>
<th>Stratum</th>
<th>Sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank Managers</td>
<td>5</td>
</tr>
<tr>
<td>Customer relationship managers</td>
<td>10</td>
</tr>
<tr>
<td>Bank tellers</td>
<td>15</td>
</tr>
<tr>
<td>SME clients</td>
<td>15</td>
</tr>
<tr>
<td>Corporate clients from all bank</td>
<td>10</td>
</tr>
<tr>
<td>CBZ and non CBZ Individual bank clients</td>
<td>50</td>
</tr>
<tr>
<td>Non-bank clients</td>
<td>15</td>
</tr>
<tr>
<td>Total sample</td>
<td>120</td>
</tr>
</tbody>
</table>

3.4 SOURCES OF DATA

The study used both primary and secondary sources of data.

3.4.1 Primary Data

Primary data refers to the data that is created at the time of the research subject, about the research subject by the researcher from source of data for a specific problem under study, Concordia library, (2010). Saunders at al. (2003) defines primary data as data generated for the first time and are always given in the form of raw materials and originals in character which need the application of statistics methods for the purpose of analysis and interpretation. The information is reliable and accurate. However, the major disadvantage with primary data is that it requires a lot of expenses and time.
3.4.2 Secondary Data

Secondary data refer to data which has been collected by someone other than the researcher and have gone through statistical machines and have been refined of the raw materials, Saunders et al. (2009). The data can be raw or published summaries which could be qualitative or quantitative and could have been collected for other purposes and not for the challenge at hand. The data can be used for exploratory or descriptive studies. The major advantage of secondary data is that it is readily available and the problems associated with original data collection are eliminated and can be accessed with minimal or no additional costs. The major shortfall is that the data was collected for a specific research problem and may be less useful to the current research hence researchers need to locate data sources that maybe useful given their own research problem. Examples of secondary data sources include journal articles, textbooks, annual reports, bulletins, reports and price list. The researcher used journal articles in developing the contextual framework for this study.

3.5 Data collection Procedures (Research Instruments)

3.5.1 Interviews

Face to face interviews were used to collect data from Visa cardholders. These accorded the researcher the opportunity to explain and probe further and gave the respondents the opportunity to describe what is important to them. Face to face interviews results in high response rate. Self-administration was used to collect data from bank managers, corporate clients, SMES and bank tellers because this stratum is made up of people who are busy during working hours.

3.5.2 Questionnaire

A questionnaire is a data collection technique in which each respondents is asked to respond to the same set of questions in a predetermined order, deVaus (2002) cited in Saunders et al. (2009). Bell, (2005) and Oppenheim, (2000) argue that a good questionnaire enables a researcher to
collect precise data which address the research objectives; hence the design of a questionnaire is a very critical stage in a research process. The researcher must therefore decide questions to be asked and how each question should be phrased. The use of a questionnaire enables the researcher to collect data from a large sample prior to quantitative analysis. This study used a questionnaire with structured and unstructured questions to collect customers’ perceptions of mobile banking as a banking delivery channel.

The questionnaire used in this study was divided into 3 sections. The first section is made up of the respondent’s demographic profile and mobile banking usage. The second section consists of 45 questions on client perceptions as follows: six questions on security, six on trust and reliability, three on quality of connection, six on quality of service, three on innovativeness, four on convenience and mobility, three on cost, three on communication, three on ease of use, four on usefulness and three on attitude. The last section has four unstructured questions on challenges encountered by respondents while using banks mobile banking products and recommendations for improving service and usage of mobile banking as a banking delivery channel. These questions were developed with guidance from the following studies (Dixit and Datta 2010, Kaleem, 2008, Lallmahamood, 2007, Molapo 2008, and Srivastava, 2007). The research used Likert scales and the respondents were asked to respond by way of ticking how strongly they agree/disagree with the statements that ranged from very negative to very positive thereby revealing their attitudes. As noted by Schmidt and Hollensen (2006), Likert scales are used to measure character and personality traits of respondents. The researcher conducted a pre-test to establish the relevance and accuracy of the research tool in capturing the essence of the research objectives. Twenty questionnaires were printed and distributed to CBZ holding Treasury staff and customers. Respondents for the pre-test were randomly picked from Treasury and International and customers from these units were excluded from the final survey to avoid interviewing the same respondents.

3.6 DATA ANALYSIS

The researcher captured and analysed collected data in this research in Statistical Package for Social Scientists (SPSS). Descriptive statistics (frequencies, percentages and means) are presented in tables. Likert scale rankings were presented as percentages of responses. Factor analysis was
used to find the factors influencing the users’ perceptions of mobile banking as a banking delivery channel.

3.6.1 Cronbach Alpha Test

Cronbach Alpha Test is a statistical measure which is used to test internal consistency or reliability of a survey (Anthony, 2011). Reliability refers to the fact that a scale should consistently reflect the construct it is measuring. For instance on a questionnaire if it is completed at two different points in time (test-retest reliability) It checks the proportion of variability in survey responses whether it is due to differences in responses or confusion in interpreting the questions. Alpha values close to zero, imply that the questions are not addressing the same issues, values close to one show that questions are addressing the same issue. Values between 0.7 – 0.8 are generally acceptable as adequate (Field, 2009). The researcher used the Cronbach Alpha test to test the consistency of questions under each variable before data analysis.

3.6.2 KMO Test Bartlet’s Test of Sphericity

The Kesier-Meyer-Olkin measure of sampling adequacy is used to measure the strength of the relationship among variables. Field, (2000) and Anthony, (2011) concur in their argument that Kesier-Meyer-Olkin is used for comparing the magnitude of observed correlation coefficient in relation to the magnitude of the partial correlation coefficient. This measure explains whether the relationship between variables can be explained by other variables. KMO value which is greater than 0.5 indicates that relationship between variables can be explained by other things and one can proceed to do factor analysis. However, when a KMO value is less than 0.5, the relationship between variables cannot be explained by other variables hence one has to consider dropping one of the variables from the analysis. The researcher used KMO and Bartlet test to validate the data for factor analysis.

The Bartlet’s test of Sphericity is another indication of the strength of the relationship among variables. It tests the null hypothesis that the correlation matrix is an identity matrix, in which all diagonal elements are ones and all off diagonal elements are zero (Fiedel, 2005, Field, 2009).
When the level of significance in a Bartlet’s Test of Sphericity is 0.05, variables are perfectly correlated with each other and have some relationships with other variables so that they can be part of the same factor.

3.6.3 Factor analysis principal component analysis

Factor analysis is a statistical procedure that is used to reduce the number of variables, group variables with similar characteristics together and produce a small number of factors from a large number of variables which is capable of explaining observed variance in the large number of variables (Anthony, 2011). According to Fiedel (2010), explanation of the variance-covariance structure is done through a number of linear combinations of original data. There are three stages in factor analysis that were used by the researcher. First, a correlation matrix was generated for all variables. This is a rectangular array of the correlation coefficient of the variables with each other. Second factors were extracted from the correlation matrix based on the correlation coefficients of the variables and last but not least, factors were rotated in order to maximise the relationship between the variables and some of the factors. Factor analysis was used for data reduction, revelation of relationships that would not have been suspected and to guide interpretation that would have ordinarily resulted. Factor analysis is based on Eigen values, the communality values, and the factor components to either drop or keep a dimension of an attribute. Fiedel (2005), propounds that Eigen values show total variance accounted for by the common factor whereas the communality of a variable reveal the proportion of variance accounted for by the common factor of a variable. The factor with an Eigen value less than one does not have enough total variance to represent a unique factor. Last but not least, principal components used in factor analysis display linear combinations of observed variables that account for the variance in the sample. According to Fiedel,( 2005) a variable is retained if its community value is greater than 0.5, and an Eigen value which is greater than one and its factor loading is above 0.7

3.7 Research Limitations

The research covered mobile banking services for the population in Harare only and inferences were done for the whole population in Zimbabwe which is a shortfall. The research may not reveal all the sentiments of all the people of Zimbabwe.
The researcher suffered from resources shortage in terms of time. Time was needed to distribute more questionnaires to corporate clients who did not have time to complete questionnaires during the day. The other challenge that was encountered was failure to get some research questionnaires back. Some potential respondents collected questionnaires and they did not return them.

3.8 RESEARCH ETHICS AND DATA CREDIBILITY

3.8.1 Reliability

Reliability refers to the degree to which a measurement technique can be depended upon to secure consistent results upon repeated application. Yount (2006), define reliability as the extent to which repeated measurements (interviews) made on the same materials (respondents) by the same measuring instruments (interviewer) would yield the same results. Joppe, (2002) define reliability as the extent to which data collection techniques or analysis procedures will yield consistent findings.

According to Robson (2002) cited in Saunders et al. (2009), there are four threats to reliability namely subject reliability, observer reliability, situational reliability and data processing reliability. Subject reliability error occurs when different results are obtained from similar observations at different times which may be due to fatigue or the person’ mood. The researcher can choose neutral times to conduct the research. Situational bias occurs when the respondents tell the researcher what they think the researcher wants them to say. This normally happens when there is fear of reprisals or insecurity after giving a particular answer. Observer reliability error occurs when the researcher influences the respondents because there is a view that they want to come out. This error can be overcome by using a structured questionnaire.

Instrument reliability error occurs when an instrument like a questionnaire has poorly worded questions and does not probe correct answers. The last threat to reliability is data processing reliability. This error happens when data is not handled properly due to miscoding. If a wrong code is assigned to the system, the system will accept but the results will be wrong at the end of the day. The study used the Cronbach Alpha to test for the consistency of responses that is, are the differences in responses a result of differences in respondents and not multiple interpretations of the same questions.
3.8.2 Validity

Validity is concerned with the extent to which any instrument is measuring what it is designed to measure (Saunders at al. 2009). For instance, does the IQ test measure intelligence? There are several threats to validity which are mortality, history, maturation, testing and ambiguity about causality direction. Mortality occurs when participants drop out of the study or die. The threat of history happens when different groups may have been affected by significant and different unique historical events such that respondents’ answers could be affected by memory and emphasis is put on past experience rather than a level judgment on the subject matter. Maturation occurs when changes in the subject or respondents other than those associated with independent variable that occur over time and cause a change from the initial measurements to the later measurements. Respondents’ could get tired or have been exposed to things which changed their opinions, feelings or attitudes about the behaviour under study. Testing threat to validity occurs when there are unintended effects as a result of following instructions. Ambiguity in direction of causality happens when the researcher is not certain about what causes what. This study is not affected by mortality, maturation and history. However, the researcher used KMO and Bartlet’s Test of Sphericity to test if there are relationships between the dimensions under each attribute. These tests were to test for the validity of the data for Factor analysis.

3.8.3 Research Ethics

According to Saunders (2009) ethics are norms that guide moral choices about people’s behaviour and their relationship with others. Cooper et al (2008) define ethics as the norms or standards of behaviour that guide moral choices about our behaviour and our relationships with others. Research ethics therefore relates to questions about how we formulate and clarify our research topic, design our research and gain access, collect data and write up our research findings in a moral and responsible way. The researcher considered the following ethics when conducting the research.
3.8.4 Informed Consent

This principle of informed consent states that the potential respondent has a right to decide on whether or not to participate in the research. The respondent must be free to decide whether to take part in the research or not without duress, coercion or under influence. The potential respondent has the right to know the name of the researcher, the reason for the study, why information is needed, how information will be used and their right to confidentiality. The potential respondents were informed of the purpose of the study and how the collected information would be used through the researcher’s introductory letter.

3.8.5 Privacy and Confidentially

The researcher must safeguard anonymity and confidentiality of information given by respondents by not disclosing any information that could lead to social harm or distress. The researcher did not ask respondents to write their names or any unique identifiers on the questionnaire that may link the response to the respondents as a way to preserve anonymity and privacy. Information collected from respondents was kept under lock and key and only tables, reports and publications discuss the findings in the aggregate.

3.9 CHAPTER SUMMARY

This chapter discussed the methodological aspects of the research which include research design, research strategy, sampling, data sources, research instruments, data credibility (reliability and validity), data analysis and research ethics. The chapter provides a minor literature review of the methodological concepts and shed more light on reasons relevance and adequacy for the research design adopted for this study. The next chapter presents the results of the study.
CHAPTER FOUR

RESEARCH PRESENTATION, ANALYSIS AND DISCUSSIONS

4.1 INTRODUCTION

Chapter four presents the empirical results on the study on customers’ perceptions on the uptake of mobile banking as a banking delivery channel.

4.2 RESPONSE RATE

The statistics presented in this study are based on 120 respondents as shown on table 4.2.1 below. The survey contemplated on 150 respondents but out of 150, 120 responded. However, upon checking the questionnaires the researcher discarded four questionnaires which were regarded unsuitable as they were not completed well.

4.2.1 Response Rate Table

<table>
<thead>
<tr>
<th>Responses</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Useful responses</td>
<td>120</td>
<td>80%</td>
</tr>
<tr>
<td>Unreturned</td>
<td>30</td>
<td>20%</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>100%</td>
</tr>
</tbody>
</table>

Figure 4.2.1 on the next page shows the study response rate from questionnaires distributed and rate of response was 80 percent.
4.2.2 DEMOGRAPHIC INFORMATION OF RESPONDENTS

This section covers the socio demographic characteristics of the survey respondents. The researcher considered the following profiling variables namely gender, age, educational level, gross monthly income, employment status and level of computer literacy. Table 4.2.2 below show the gender distribution where 62 females responded as compared to 58 male counterparts. See figure 4.2.2 in appendix which show the visual presentation of the information on a bar graph.

Gender

Table 4.2.2: Demographic information for sample

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Response Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>male</td>
<td>58</td>
<td>48.3</td>
<td>48.3</td>
<td>48.3</td>
</tr>
<tr>
<td>female</td>
<td>62</td>
<td>51.7</td>
<td>51.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Figure 4.2.1 Response Rate Information
Demographic results of respondents’ profiles are shown in table 4.2.2 and see figure 4.2.2 in appendix. From the results it is evident that the number of female respondents’ of 52.5% is higher than the number of male respondents which was 47.5%. This is contrary to the previous studies by Rogers (2003) and Dixit et al (2010) who noted that males are more likely to use mobile banking channels than females. Study findings reveal that female customers use more of mobile banking facilities as compared to males.

**Age**

**Table 4.2.3 Frequencies and age of respondents**

<table>
<thead>
<tr>
<th>Valid</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-25</td>
<td>16</td>
<td>13.3</td>
<td>13.3</td>
<td>13.3</td>
</tr>
<tr>
<td>26-30</td>
<td>22</td>
<td>18.3</td>
<td>18.3</td>
<td>31.7</td>
</tr>
<tr>
<td>31-35</td>
<td>35</td>
<td>29.2</td>
<td>29.2</td>
<td>60.8</td>
</tr>
<tr>
<td>above 35</td>
<td>47</td>
<td>39.2</td>
<td>39.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Figure 4.2.3 in appendix and Table 4.2.3 above show results of respondents’ age. The presentations show that 13.3 percent of respondents are in the 21 – 25 age group, 18.30 percent of respondents are in the 26 -30 age group, 29.20 percent of respondents are in the 31 -35 age group and most of the respondents making 39.2% are above 35 years of age. Respondents above 35 years dominate the group maybe because they are the ones who are working and generally have higher incomes. This is contrary to previous studies that say young people are more likely to adopt mobile banking, (Dixit et al, 2010). The above 35 age group is not influenced by technology very much as compared to the younger age groups who spend much of their time on social networks and looking for cheaper ways of transacting hence its easier for them to adopt and use once they are enticed through positive word of mouth from friends and relatives and this has the power to reinforce behaviour.
4.2.4 Level of education

Education level results show that of the surveyed respondents from table 4.2.4 above, 0.8 percent have no formal education, 0.8 percent have primary education, 5 percent have secondary education and 20.8 percent have high school education. Some respondents have professional qualifications where 17.5 percent have technical education and 53.3 percent have university education. An analysis of the results show that most respondents are educated and they understand issues that are related to mobile banking transactions. The explanation for a higher usage of telecommunication mobile services may be explained by the fact that since these people are literate they know options that they have at their disposal and they can use the ones that are more convenient to them at any particular time. This notion is supported by findings by Gerrad et al, (2006) who confirmed that learned clients are more likely to use mobile banking channels compared to the low literate clients. Figure 4.2.4 of education information shows the visual representation of the level of education data.

Table 4.2.4: Level of education

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>no formal education</td>
<td>1</td>
<td>.8</td>
<td>.8</td>
<td>.8</td>
</tr>
<tr>
<td>primary education</td>
<td>1</td>
<td>.8</td>
<td>.8</td>
<td>1.7</td>
</tr>
<tr>
<td>secondary</td>
<td>7</td>
<td>5.8</td>
<td>5.8</td>
<td>7.5</td>
</tr>
<tr>
<td>high school</td>
<td>26</td>
<td>21.7</td>
<td>21.7</td>
<td>29.2</td>
</tr>
<tr>
<td>university</td>
<td>64</td>
<td>53.3</td>
<td>53.3</td>
<td>82.5</td>
</tr>
<tr>
<td>technical education</td>
<td>21</td>
<td>17.5</td>
<td>17.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

4.2.5 Income

Figure 4.2.5 below in appendix show the monthly gross income for the surveyed respondents which ranged from below USD 500 to above USD 5000 per month. Table 4.2.5 below of statistics from the surveyed respondents show that, 2,5 percent earn below USD500, 51.7 percent earn a monthly gross income of between USD500 – USD999, 25.8 percent earn between USD1 000 – 1,999, 10 percent range between USD 2000 – 2,999, 4.2 percent earn between USD 3 000 – 3, 999 and the remaining 2.5 percent earn above USD 5000. The analysis reveal that 87.5 percent of the respondents which encompass the greater working population in the high income
bracket who earn between USD500 and USD2,999. These people are likely to adopt and use mobile banking services as banking delivery channels more than from the lower income bracket as supported by Fkavian et al. (2006) and Rogers (2003) who propounded that people with high incomes are more likely to use mobile banking delivery channels.

**Table 4.2.5: Gross income**

<table>
<thead>
<tr>
<th>Gross Income</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>500-999</td>
<td>62</td>
<td>51.7</td>
<td>51.7</td>
<td>51.7</td>
</tr>
<tr>
<td>1000-1999</td>
<td>31</td>
<td>25.8</td>
<td>25.8</td>
<td>77.5</td>
</tr>
<tr>
<td>2000-2999</td>
<td>12</td>
<td>10.0</td>
<td>10.0</td>
<td>87.5</td>
</tr>
<tr>
<td>3000-3999</td>
<td>5</td>
<td>4.2</td>
<td>4.2</td>
<td>91.7</td>
</tr>
<tr>
<td>4000-4999</td>
<td>4</td>
<td>3.3</td>
<td>3.3</td>
<td>95.0</td>
</tr>
<tr>
<td>above 5000</td>
<td>3</td>
<td>2.5</td>
<td>2.5</td>
<td>97.5</td>
</tr>
<tr>
<td>none</td>
<td>3</td>
<td>2.5</td>
<td>2.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

**4.2.6 Employment Information**

**Table 4.2.6 Employment status**

<table>
<thead>
<tr>
<th>Employment Status</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>not working</td>
<td>4</td>
<td>3.3</td>
<td>3.3</td>
<td>3.3</td>
</tr>
<tr>
<td>own business</td>
<td>20</td>
<td>16.7</td>
<td>16.7</td>
<td>20.0</td>
</tr>
<tr>
<td>student</td>
<td>4</td>
<td>3.3</td>
<td>3.3</td>
<td>23.3</td>
</tr>
<tr>
<td>part time</td>
<td>6</td>
<td>5.0</td>
<td>5.0</td>
<td>28.3</td>
</tr>
<tr>
<td>full time employment</td>
<td>86</td>
<td>71.7</td>
<td>71.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
The analysis in table 4.2.6 presents the survey respondents’ status of employment, of which 3.3 percent are not working, 16.7 percent own businesses, 3.3 percent are students, 5.0 percent work part time and 86 percent are employed full time. The results in table 4.2.7 reveal that most of the survey respondents (71.7%) are employed full time, 5.0 percent are employed part time, 3.3 percent are students, 16.7 percent own businesses while 3.3 percent are not working. Since the majority of the survey respondents are working they are capable of using banks mobile banking as a banking delivery system given enough incentives and positive word of mouth. Figure 4.2.6 is a visual presentation of the information.

### 4.2.7 Computer literacy information

<table>
<thead>
<tr>
<th>Table 4.2.7 Computer literacy</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>does not know how to use a computer</td>
<td>3</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>beginner</td>
<td>24</td>
<td>20.0</td>
<td>20.0</td>
<td>22.5</td>
</tr>
<tr>
<td>advanced</td>
<td>70</td>
<td>58.3</td>
<td>58.3</td>
<td>80.8</td>
</tr>
<tr>
<td>expert</td>
<td>23</td>
<td>19.2</td>
<td>19.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

From the survey results in table 4.2.7 it shows that only 2.5 percent of respondents do not know how to use a computer, 24 percent are beginners while 70 percent have advanced knowledge of computers and last but not least, 23 percent of respondents are experts. There is a greater chance for the respondents to adopt and use mobile banking technology because they understand issues to do with time and cost saving on financial transaction. The issue here is banks need to advertise more and train their staff so that they sell the usefulness and ease of use of banks mobile banking products to customers. Figure 4.2.7 is an illustration of the results.
4.3 TYPES OF SERVICES ON MOBILE BANKING

Table 4.3.1 Types of services

<table>
<thead>
<tr>
<th>Service Type</th>
<th>Count</th>
<th>Percent</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecocash</td>
<td>40</td>
<td>33.33</td>
<td>33.3</td>
</tr>
<tr>
<td>Visit bank branch</td>
<td>29</td>
<td>24.17</td>
<td>57.47</td>
</tr>
<tr>
<td>Other banks mobile services</td>
<td>11</td>
<td>9.17</td>
<td>66.65</td>
</tr>
<tr>
<td>Internet banking</td>
<td>10</td>
<td>8.33</td>
<td>74.98</td>
</tr>
<tr>
<td>Point of Sale</td>
<td>10</td>
<td>8.33</td>
<td>83.31</td>
</tr>
<tr>
<td>ATM</td>
<td>8</td>
<td>6.67</td>
<td>89.99</td>
</tr>
<tr>
<td>Telephone banking</td>
<td>5</td>
<td>4.17</td>
<td>94.16</td>
</tr>
<tr>
<td>TextaCash</td>
<td>5</td>
<td>4.17</td>
<td>98.33</td>
</tr>
<tr>
<td>Smartmoney</td>
<td>2</td>
<td>1.67</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>120</td>
<td><strong>100</strong></td>
<td></td>
</tr>
</tbody>
</table>

The table above shows the results of services that are accessed by the survey respondents. 33 percent respondents use Ecocash, 24.17 percent Visit the bank, 9.17 percent use other mobile banking services not mentioned on the table, 8.33 percent use internet banking, 8.33 percent use point of Sale, 6.67 percent use ATMs which is very low given the investment and attention given to these facilities, 4.17 percent use telephone banking, 4.17 percent use Textacash, and 1.67 percent use smart money. The information is also presented in the pie chart on figure 4.3.1 on the next page.

![Mode of accessing service](chart.png)
Figure 4.3.2 Modes of accessing service

Results of the survey in figure 4.3.2 show that 44.17 percent of respondents use mobile phones to access banking services, 24.67 percent use withdrawal slips, 20 percent use debit or credit cards and the remaining 11.16 percent use computers. The results reveal that people prefer using their mobile phones more for banking maybe because they are handy and are with the owners almost always.

4.3.3 Services accessed

![Services accessed](chart)

Figure 4.3.3 Services accessed by individuals

Figure 4.3.3 above show the services that are accessed by clients. The results show that 33 percent do person to person transfers, 20 percent use bank to wallet services, 12 percent use bill payment, five percent perform balance enquiries, four percent view mini statements, nine percent withdraw cash, seven percent do purchases, three percent process inter account transfers, three percent perform wallet to bank transfers and one percent access other services.
4.3.4 Preferred service

Research findings from figure 4.3.4 on the next page reveal that 60 percent of the respondents prefer telecommunication mobile money services and 40 percent prefer bank mobile banking services. This may be explained by agents proximity, ubiquity and convenient operating hours.

![Preferred service provider](image)

Figure 4.3.4 Preferred service provider

4.4 Reliability tests

Overall

Table 4.4.1 Reliability statistics

<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.792</td>
<td>26</td>
</tr>
</tbody>
</table>
Prior to the analysis of data, reliability test was done using the Cronbach Alpha test on five attributes (20 dimensions) of mobile banking as a banking delivery channel to test the validity of the questionnaire, thus, do variables measure the same dimensions of the customer’s perceptions of mobile banking as a banking delivery channel. The results in table 4.4.2 show that the value of the Cronbach Alpha is 0.792. According to Fiedel, (2010) the recommended correlation coefficient for Cronbach test is between 0.6 – 0.9 the results in table 4.3.2 show that the dimension in the questionnaire are reliable hence the whole test is internally consistent for using data for this study.

4.5 FACTOR ANALYSIS

Factor analysis of multi-item variables was used to interpret the variance-covariance structure of linear combinations of original data. Factor analysis was used for data reduction, guide interpretation and reveal relationships that exist between variables which could not have been suspected. A factor loading of 0.7 or greater has been used to interpret all measures of item reliability.
4.5.1 Keiser-Meyer-Olkin (KMO) and Bartlett's Test of sphericity

Table 4.5.1 Keiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of sphericity

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | .761 |
| Bartlett's Test of Approx. Chi-Square | 750.754 |
| df | .90 |
| Sig. | .000 |

Bartlett’s Test of Sphericity and Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy were used in the study to justify data suitability for Factor Analysis. KMO test of sampling adequacy is used to compare the proportion of variable that may be caused by underlying factors. High KMO values close to one indicate that factor analysis is useful with the data and values less than 0.5 indicate that the researcher should not proceed with factor analysis, Fieldel, (2005). On the other hand, the Bartlett’s Test of Sphericity tests the hypothesis that the correlation matrix is an identity matrix, in which all diagonal elements are ones and all off diagonal elements are zero. A level of significance of less than 0.05 indicates that variables are unrelated hence unsuitable for structure detection, Field, (2009). Results in Table 4.5.1 show a KMO score of 0.761 while the Bartlett’s test is significant at 0.9 percent. The decision rule for conducting factor analysis states that the score for the KMO Measure of Sampling Adequacy should be above 0.6 and the upper limit for significance of the Bartlett’s Test of Sphericity is 5 percent. The results in Table 4.4.1 indicates that the researcher could proceed with factor analysis. A large KMO value indicates that the correlations between pairs of variables can be explained by other variables.

4.5.2 Communalities

Table 4.5.2 on the next page presents the results of the communalities of the 20 variables (questions) from the five attributes. Communalities are for correlation analysis which is the proportion of variance accounted for in each variable by the rest of the variables. Extraction communalities are estimates of the variance in each variable accounted for by factors in the factor
solution. Small values below 0.5 indicate that variables do not fit well with the factor solution and should be dropped from the analysis. Table 4.5.2 shows that most of the communalities for all dimensions of attributes are above 0.5 except two which are bank reachable by phone always and payment through mobile which is a good sign that the extraction communalities for this solution are acceptable as most variables show that they fit well with others hence all questions asked are necessary and relevant to the study as their extraction values are high and should not be dropped as shown by the communalities table below.

<table>
<thead>
<tr>
<th>Table 4.5.2 Communalities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>bank provides telephone contact details</td>
</tr>
<tr>
<td>banks have knowledgeable support staff online always</td>
</tr>
<tr>
<td>bank accessible by telephone or whatsapp always</td>
</tr>
<tr>
<td>banks resolves encountered problems quickly</td>
</tr>
<tr>
<td>branch banking has long queues</td>
</tr>
<tr>
<td>m-banking makes banking easy</td>
</tr>
<tr>
<td>convenient-can be accessed anytime, anywhere</td>
</tr>
<tr>
<td>m-banking saves time</td>
</tr>
<tr>
<td>m-banking has lower transaction cost</td>
</tr>
<tr>
<td>use it because of bank promotions</td>
</tr>
<tr>
<td>m-banking is consistent with my-self image</td>
</tr>
<tr>
<td>m-banking has positive word of mouth</td>
</tr>
<tr>
<td>m-banking is easy to use</td>
</tr>
<tr>
<td>platform has easy to follow instructions</td>
</tr>
<tr>
<td>m-banking screen is user friendly</td>
</tr>
<tr>
<td>aware of mobile banking usefulness</td>
</tr>
<tr>
<td>intention to use m-banking in future</td>
</tr>
</tbody>
</table>
Table 4.5.3 below shows that the total variance is explained by the initial solution. All the six factors have Eigenvalues which are greater than one and they account for 62.6% of the variability in the original variables. Eigenvalues represents the total variance that is explained by each factor. Low Eigen value means that, that particular factor does not explain much of the variance in the variable and can be removed from the instrument. The results suggest that all six variables influences are associated with the adoption and usage of mobile banking as they are greater than one but there is also room for a lot of unexplained variation. The second section of Extraction Sums of Squared Loadings reveals the variance explained by factors before rotation. The cumulative variability which is explained by these factors in the extracted solution is also 62.6%. This shows that there are no latent factors unique to the original variables and there is no variability which can be explained by the factor model hence all the components are also necessary as cumulative variance is about 62.6% which above 60%.

### 4.5.3 Total Variance Explained

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigenvalues</th>
<th>Extraction Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of Variance</td>
</tr>
<tr>
<td>2</td>
<td>2.170</td>
<td>10.850</td>
</tr>
<tr>
<td>3</td>
<td>1.489</td>
<td>7.447</td>
</tr>
<tr>
<td>4</td>
<td>1.424</td>
<td>7.119</td>
</tr>
<tr>
<td>5</td>
<td>1.286</td>
<td>6.429</td>
</tr>
<tr>
<td>6</td>
<td>1.189</td>
<td>5.947</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.
4.5.4 Scree plot for customer perceptions dimensions

Figure 4.5.4 Scree plot for customer perceptions dimensions

Figure 4.5.1 above shows screen plot for dimensions of customer’s perceptions and confirms the choice of the variables in the data set. The screen plot indicates that knowledgeable staff, telecommunications networks, informative adverts and customer perceptions influence mobile banking adoption and uptake by bank customers. All the questions are necessary since the graph levels after component 20. The study findings are consistent with of Dixit et al, (2010) findings.
4.5.5 Normality Test

<table>
<thead>
<tr>
<th>Table 4.5.5 Tests of Normality</th>
<th>Kolmogorov-Smirnova</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
<td>df</td>
</tr>
<tr>
<td>Internal Barriers</td>
<td>0.252</td>
<td>120</td>
</tr>
<tr>
<td>Knowledgeable Staff</td>
<td>0.227</td>
<td>120</td>
</tr>
<tr>
<td>Telecommunications Networks</td>
<td>0.165</td>
<td>120</td>
</tr>
<tr>
<td>Informative Adverts</td>
<td>0.144</td>
<td>120</td>
</tr>
<tr>
<td>Customer Perception</td>
<td>0.263</td>
<td>120</td>
</tr>
<tr>
<td>Mobile Banking Uptake</td>
<td>0.228</td>
<td>120</td>
</tr>
</tbody>
</table>

The researcher used Shapiro-Wilk test to assess the normality of data. Shapiro-Wilk was used because N<2000. Shapiro-Wilk calculates a processing error and it tests whether a sample is normally distributed or not and is represented by a p-value. A p-value that is less than 0.5 is a sign of normal distribution in the data set. Results show that non-parametric tests will be performed because p<0.05.

4.5.6 Correlation Analysis

Correlation measures the strength and direction of the linear relationship between numeric variables. The strength of the association is determined by the correlation coefficient, p, whose values range between minus one to plus one. The closer the value to minus one means the association is weak and when the p value is near plus one, it shows that the association is strong.

The study revealed the following that there is significant moderate positive correlation between Knowledgeable Staff and Mobile Banking Uptake thus p=0.000<0.05. Statistically there is also significant strong positive correlation between Telecommunication Networks and Mobile Banking Uptake that is p=0.008<0.05. The study shows that there is a statistically significant weak positive correlation between Informative Adverts and Mobile Banking Uptake p=0.000<0.05.in addition statistically there is significant strong negative correlation between negative Customer Perceptions and Mobile Banking Uptake thus p=0.003<0.057.
4.5.7 Regression Analysis

Regression analysis is a statistical technique that is used to determine the linear relationship between two or more variables, Campbell and Campbell, (2008). The researcher used regression analysis for prediction and causal inferences. The researcher used customer perception, informative adverts, telecommunication networks and knowledgeable staff as the predictors of mobile banking uptake.
4.5.7 Overall Regression Analysis

Table 4.5.7 Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.438a</td>
<td>.257</td>
<td>.224</td>
<td>.54841</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Customer Perception, Informative Adverts, Telecoms Networks, Knowledgeable Staff

ANOVA\textsuperscript{b}\n
Table 4.5.8 ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>2.076</td>
<td>4</td>
<td>.519</td>
<td>81.726</td>
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<tr>
<td></td>
<td>Residual</td>
<td>34.587</td>
<td>115</td>
<td>.301</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>36.663</td>
<td>119</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Customer Perception, Informative Adverts, Telecoms Networks, Knowledgeable Staff

b. Dependent Variable: Mobile Banking Uptake
Table 4.5.9 Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardised Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>4.982</td>
<td>.456</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledgeable Staff</td>
<td>.122</td>
<td>.076</td>
<td>.129</td>
<td>.283</td>
</tr>
<tr>
<td>Telecoms Networks</td>
<td>.324</td>
<td>.118</td>
<td>.290</td>
<td>1.892</td>
</tr>
<tr>
<td>Informative Adverts</td>
<td>.112</td>
<td>.050</td>
<td>.124</td>
<td>2.47</td>
</tr>
<tr>
<td>Customer Perception</td>
<td>.182</td>
<td>.090</td>
<td>.200</td>
<td>9.11</td>
</tr>
</tbody>
</table>

ANOVA is a statistical technique that is used to determine whether the differences between the samples are due to random or sampling error or whether there are systematic treatment effects that causes the mean in one group to differ from the mean in the other group. It is based on comparing the variations between data samples to variations within each particular sample. If the variation between is much larger than the variation within it means the different samples will not be equal, and if they are of approximately the same the sample size then there will not be significant difference between the sample means. The study shows that 25.7% of the changes in Mobile Banking Uptake are explained by Customer Perception, Informative Adverts, Telecommunication Networks and Knowledgeable Staff. (R Square).

(i) Telecommunications Networks versus Mobile Banking Uptake

The study reveal that there is a statistically significant positive relationship between Telecommunication Networks and Mobile Banking Uptake ($\beta=0.290$, $p<0.05$) This notion supports the findings by Kleirock (2002) who noted that customers want mobility as this allows them convenience to access their accounts anytime and anywhere hence the decision rule is to accept the null hypothesis.

Decision Rule: Accept H1: Telecommunication networks have a positive impact on mobile banking uptake.
(ii) Informative Adverts versus Mobile Banking Uptake

Study findings confirms that there is statistically significant positive relationship between Informative Adverts and Mobile Banking Uptake ($\beta$=0.124, p<0.05). The findings supports the findings by Manuel,(2007) that says mass media channels are more effective in creating knowledge about innovation and interpersonal channels are more effective in changing people’s attitudes towards a new idea hence the decision rule is to accept the H2 hypothesis.

Decision Rule: Accept H2: Informative adverts have a positive influence on mobile banking uptake.

i. Knowledgeable Staff versus Mobile Banking Uptake

The study also show a statistically significant positive relationship between Knowledgeable Staff and Mobile Banking Uptake ($\beta$=0.139, p<0.05). The results support findings by Rogers, (2003) that Awareness knowledge motivates the individual to learn more about the innovation and eventually to adopt it. These findings also supports the notion that positive word of mouth go a long way in changing people’s attitudes and perceptions, Divaris, (2007), thus perceived usefulness enhance one’s job performance. The decision rule is to accept the H3 hypothesis.

Decision Rule: Accept H3: Knowledgeable staff positively influence mobile banking uptake

Decision Rule: Accept H3: Knowledgeable staff positively influence mobile banking uptake

(iii) Customer Perceptions versus Mobile Banking Uptake

There is a statistically significant positive relationship between negative Customer Perceptions and Mobile Banking Uptake ($\beta$=0.200, p<0.05). The result confirms the notion by Jahangir et al, (2008) that says positive attitudes have a strong direct effect on the user’s intentions to perform behaviour. This shows that customer perceptions play a major role in the uptake of mobile banking as a banking delivery channel hence the decision rule is to accept the H4 hypothesis.

Decision Rule: Accept H4: Negative perception has an effect on mobile banking uptake.
4.7 CHAPTER SUMMARY

Chapter four has presented the analysis and discussion of data that was collected from 120 respondents using a structured questionnaire that was administered through face to face and self administration. The interpretation and analysis of data was guided by the methodological approach discussed in chapter 3. The study findings customers prefer mobile banking services offered by telecommunication companies to that offered by banks. The results show that knowledgeable staff, telecommunications networks informative adverts and customer perceptions have an impact on the uptake of mobile banking as a banking delivery channel. Other factors identified by the study that influence adoption and usage of mobile banking are mobility, security, trust, quality of service, speed, demographics, income, connectivity and accessibility of mobile banking systems. The next chapter presents the conclusion and recommendations from the study.
CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter spells out research conclusions on Bank customers’ perceptions of mobile banking as a banking delivery channel in Zimbabwe. The chapter also submits recommendations as to what Banks can do to increase adoption and usage of mobile banking as a banking delivery channel and what banks need to do so that customers prefer their mobile banking services to those offered by telecommunication companies. The chapter concludes by suggesting further areas of research on customers’ perceptions of banks mobile banking as a banking delivery channel.

5.2 CONCLUSIONS

The following conclusions are made on the study;

5.2.1 Adoption and use of mobile banking

The study concluded that knowledgeable staff, telecommunications networks, informative adverts and customer perceptions have an impact on the adoption and uptake of mobile banking as a banking delivery channel. Other factors identified by the study that influence adoption and usage of mobile banking are interoperability, financial regulation, business models, agent proximity and ubiquity, education level, income, pricing alternative channels, specific market context products, security, trust, mobility, demographics, and operating environment of mobile banking systems. The study also realised that bank clients prefer mobile banking services offered by telecommunication companies to those offered by banks. The researcher also concluded that there is low usage of mobile banking delivery channels among Bank customers.
5.2.2 Adoption of mobile banking

The study discovered that despite the high transactions costs for over the counter transactions and telecommunication companies’ charges for sending and receiving money, bank customers prefer to use these platforms more than mobile banking services offered by banks with lower transaction costs. Clients prefer to use services like person to person transfers, bill payments and cash out on the telecommunication companies’ platform. The study affirms that the communication infrastructure used by banks in Zimbabwe plays a major role in the adoption and uptake of mobile banking services.

5.2.3 Factors influencing usage or adoption of mobile banking

The study concluded that bank customers do not have sufficient knowledge of the usefulness and ease of use of mobile banking products offered by banks. Bank customers do not have the how-to knowledge that contains information about how to use innovation correctly hence trust in the banks mobile banking system is low because of negative experience on accessibility and connection challenges.

Although banks in Zimbabwe banks and RBZ are advocating for use of mobile banking technologies such as POS, Telephone banking, ATMs, Textacash, Smartcash as well as Internet banking as banking delivery channels, this study concluded that the uptake of these services is low compared to mobile money that is offered by Telecommunication companies.

1.3 VALIDATION OF THE RESEARCH PROPOSITION

In view of the study findings, the researcher accepted the proposition that bank customers have a negative perception of mobile banking as a banking delivery channel.
1.4 RECOMMENDATIONS

5.4.1 Communication infrastructure

In order to reduce operational costs, the study recommends that banks come together at industry level and acquire a telecommunication company like Telecel or set up a telecommunications network of their own in the same way that they did with Zimswitch to enable them to access uninterrupted communication service. There is need for interoperability which will help banks to alleviate connection challenges as they are currently relying on third party networks from telecommunications companies who are now a source of stiff competition to their products and these telecommunication companies may sabotage them so that their products work out perfectly well compared to bank products. This will also help in reducing transaction costs.

5.4.2 Use of agents

The study recommends that banks improve on their proximity to their potential customers. This can be achieved through opening agents in remote parts of the country and or in residential areas where their footprint is invisible as well as deploying tellers in busy supermarkets who operate until shops close rather than sticking to the banking hours of eight in the morning to three o’clock in the evening.

5.4.3 Advertising and promotions

The study also recommends banks to use intensive advertising and road shows to raise product awareness, staff training on the mobile banking usefulness and benefits through e-learning platforms as a way to motivate adoption and usage as positive word of mouth go a long way in changing people’s attitudes.
The study recommends banks to use the strategy of lowering or not charging at all for ten transactions and above that are done through mobile banking services to entice people to use the system until such time when people are addicted to the service and hike fees for over the counter services that are available on mobile banking and bank to wallet charges.

5.4.4 Innovative products on mobile banking

Banks need to invest in research and development in order for them to provide products that address the specific market context instead of waiting to copy and paste what telecommunication companies have introduced. The study recommends that banks introduce innovative products that serve the needs of people in their particular market and not introduce a one size fits all kind of product. They need to provide full throttle services to the unbanked and open connectivity with other payments system. They should have a WAP and USSD technology of their own available to all account holders and e-wallet money transfer services that enable Corporate, Commercial and Public sector clients to electronically pay their unbanked recipients directly to their cell phones. This could go a long way to improve usefulness of mobile banking at industry level. The other option is for banks to offer mobile banking which is WAP based or with wireless internet gateway (WIG) technology which is enabled through a secure SMSes. WIG technology allows clients to download the banking menu to their SIM card which allows for a convenient selection of transactions and the secure transmission of encrypted information between cell phone and the bank. Banks also need to have mobile detection such as those that redirect to an app store, redirect to a mobile specific website or provide mobile banking options for the user to choose from.

5.4.4 Factors influencing mobile banking adoption and usage

On influencing adoption and usage, the study recommends that banks upgrade their mobile banking systems to improve on accessibility, availability, connectivity and speed. System upgrade
will enhance mobility which in turn improves customers’ perceived trust, convenience, quality of service and security which will result in adoption and usage.

5.4.5 Strategic partnerships

The study recommends banks to make strategic partnerships with other companies like service stations like Total where clients can use their debit or credit cards to pay for fuel instead of using cash and they could earn reward points which can be redeemed after using the mobile banking service for a number of times.

5.4.6 Regulatory authority

The study also recommends the regulatory authority the Reserve Bank of Zimbabwe to come up with enabling financial regulations which enable a conducive environment that stimulate adoption and usage of mobile banking as banking delivery channels.

1.5 AREAS FOR FURTHER STUDY

Since this study is on Bank customer’s perceptions of mobile banking as a banking delivery channels in Zimbabwe, study findings cannot be generalised for the whole country, it has only focused on Harare clients only. Another area for future studies is to consider customers’ perceptions of mobile banking in other cities and towns. The other area of study that one can look at intensively is what can be done by banks so that their services are preferred to those offered by telecommunication companies. The information will be key for strategy formulation on ways that banks can use to improve service quality.
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APENDIX 1: INTRODUCTORY LETTER

December 2014

Dear Sir/Madam

This questionnaire is in partial fulfillment of the requirements of the MBA program to establish the causes of low uptake in mobile banking as a banking delivery channel in the Zimbabwean banking industry. Your responses are important in enabling me to understand where banks are lagging and what they can do better to improve their mobile service and its uptake.

The questionnaire should take you about five (5) minutes to complete. Please answer all questions in the spaces provided. The information will be treated in the strict confidence and your identity will remain anonymous hence you are not asked to write your name on the questionnaire.

The answers from your questionnaire and others will be used as the main data set for my research project for my Master in Business Administration at the University of Zimbabwe. I hope you will enjoy completing this questionnaire. Please return the completed questionnaire as soon as possible. If you have any questions or would like further information, please do not hesitate to telephone me on 0774 132 365 or on my e-mail address: Sylvia.machingaidze@gmail.com

Thank you for your help.
APPENDIX 2: RESEARCH QUESTIONNAIRE

Customers’ perceptions of mobile banking as a banking delivery channel (ATMS, Point of Sale machines, Internet Banking, Smart cash Textacash and others forms)

Questionnaire number

1. Respondent’s age (number of years)
   1 20-25yrs 2 26-30yrs 3 31-35yrs 4 above 35yrs

2. Respondents’ gender 1 male 2 female

4. Respondent’s highest level of educational level? 1 no formal education 2
   Primary education 3 Secondary 4 High schools 5 University
   6 Technical education

5. What is your monthly gross income?
   1 500-999 2 1000-1999 3 2000-2999 4 3000-3999
   5 4000-4999 6 above 5000

6. What is your employment status?
   1 not working 2 own business 3 student 4 part time 5 full time employed

7. What is your computer literacy level?
   1 don’t know how to use computers 2 Beginners 3 Advanced
   4 Expert

B.1. MOBILE BANKING SERVICES (ATMs, Point of Sale, Ecocash and SmartCash, etc)

1. What do you use to access mobile banking services?
   1 Mobile phone 2 ATM card 3 Computer 4 Other

2. Which service do you access more through mobile banking?
   1 balance enquiry 2 mini Statement 3 withdrawal 4 Bill Payment
5. person to person transfer 6. internal transfers 7. bank to wallet transfer
8. wallet to bank 9. interbank transfer 10. other specify

3. What type of service do you use most?
   1. Ecocash 2. Visit bank branch 3. Funds storage 4. ATM
   5. internet banking 6. telephone banking 7. Point of Sale
   8. TextCash 9. Smartmoney 10. other

4. Which mobile services do you prefer, between those offered by banks and those offered by telecommunication companies
   1. banks 2. telecommunication companies

Use the scale provided to indicate your disagreements or agreement with the following statements about mobile banking delivery channels (MBDCs) in Zimbabwe

<table>
<thead>
<tr>
<th>C1</th>
<th>KNOWLEDGEABLE STAFF</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>My bank’s mobile banking channels provide telephonic contact details</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>The bank’s mobile banking have knowledgeable customer support staff available online and telephonically always</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>My bank is accessible by telephone/ WhatsApp</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>My bank quickly resolves problems which I encounter with mobile banking transaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C2</th>
<th>TELECOMMUNICATION NETWORKS</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Branch banking involves too much queuing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Mobile banking channels enable me to do my banking from anywhere</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Mobile banking enables me to do banking anytime, (7 days a week, 24 hours a day, 365 days a year)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Mobile banking serves time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>I use mobile banking channels because of lower or no transactions fees compared to over the counter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>transactions</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
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<td>---</td>
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<td>---</td>
<td></td>
</tr>
<tr>
<td><strong>C3</strong></td>
<td><strong>INFORMATIVE ADVERTS</strong></td>
<td>Strongly disagree</td>
<td>Disagree</td>
<td>Neutral</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
<tr>
<td>1</td>
<td>I use mobile banking because of bank promotions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I feel mobile banking is consistent with my self-image</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>I use mobile banking because of positive word of mouth</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>C4</strong></td>
<td><strong>CUSTOMER PERCEPTION</strong></td>
<td>Strongly disagree</td>
<td>Disagree</td>
<td>Neutral</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
<tr>
<td>1</td>
<td>Mobile banking is easy to use</td>
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<td></td>
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</tr>
<tr>
<td>2</td>
<td>My bank provides instructions on the mobile banking platform</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>It is easy for me to find what I want on mobile banking platform</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>I am aware of the usefulness of mobile banking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>I feel using mobile banking improves efficiency and I intend to use it in future</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>C5</strong></td>
<td><strong>MOBILE BANKING UPTAKE</strong></td>
<td>Strongly disagree</td>
<td>Disagree</td>
<td>Neutral</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
<tr>
<td>1</td>
<td>Mobile banking uptake has been increasing in Zimbabwe over the last 5 years.</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>2</td>
<td>Customers rarely visit the banking hall to withdraw cash.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Customers often do payments through mobile.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix 3: Extended Technology Acceptance Model

Figure 2.2 extended Technology Acceptance Model

Source: Davis, 2013
APPENDIX 4: Unified Theory of Acceptance and Use of Technology

Figure 2.3: Unified Theory of Acceptance and Use of Technology

Source: Venkatesh, 2003
Appendix 5

Figure 4.2.2: Gender Information
Appendix 6

Figure 4.2.3: Education Information

![Histogram of age of respondent](image1)

- **Frequency**
- **Age of Respondent**
- **20-25**
- **25-30**
- **30-35**
- **Above 35**

![Histogram of level of education](image2)

- **Frequency**
- **Level of Education**
- **No formal education**
- **Primary education**
- **Secondary**
- **High school**
- **University**
- **Technical education**
Appendix 7

Figure 4.2.4: Education Information

Figure 4.2.5: Income Information

Figure 4.2.6: Respondent’s employment Information
Figure 4.2.7: Respondent’s Computer Literacy Information