EFFECTIVENESS OF MOBILE BANKING ON CUSTOMERS’ SATISFACTION IN BANKING SERVICES: THE CASE OF KCB BANK MOROGORO BRANCH, TANZANIA

By
Jane Haonga

A Dissertation submitted in Partial fulfillment of the Requirement for the Award of the Degree of Master of Business Administration (MBA-Corporate Management) of Mzumbe University

2015
CERTIFICATION

We, the undersigned, certify that we have read and hereby recommended for acceptance by the Mzumbe University, a dissertation entitled “Effectiveness of Mobile Banking on Customers Satisfaction in Banking Industry: A Case of KCB Bank Morogoro”, in partial fulfillment of the requirements for award of Master degree of Business Administration at Mzumbe University.

________________________________________
DEAN SCHOOL OF BUSINESS

Major Supervisor

________________________________________
Internal Examiner

Accepted for the board of School of Business

________________________________________
DEAN SCHOOL OF BUSINESS
DECLARATION

AND

COPYRIGHT

I, Jane Haonga, declare that this thesis is my own original work and that it has not been presented and will not be presented to any other university for a similar or any other degree award.

Signature____________________________________

Date ________________________________

© 2015

This dissertation is a copyright material protected under the Berne convention, the copyright Act 1999 and other international and national enactments, in that behalf, on intellectual property. It may not be produced by any means in full or part, except for short extracts in fair dealings, for research or private study, critical scholarly review or discourse with an acknowledgment, without the written permission of Mzumbe University, on behalf of the author.
ACKNOWLEDGMENT

It is not unusual for someone to be proud and blissful for making a certain success. This is very realistic on my side. This study makes me to realize this joy that has come to an end. However, the accomplishment of this thesis is a result of collective efforts of many people whom my joy will have no meaning if I fail to accord my heartfelt appreciation for their support.

Glory is to Almighty God for giving me a chance and enabling me to perform this work. I also convey special gratitude to my supervisor Simon Kitilla for his outstanding guidance, advice, assistance, encouragement and constructive criticism throughout the study, may God bless you.

The heartfelt thanks go also to my precious family especially my husband Jackson, my children Jorden and Jacelyn, my mother Eliakira for their prayers, moral support and encouragement not to give up from this opportunity, may God bless you all abundantly.

I would also like to thank leadership and all members of KCB for permitting and assisting me to carry out my study in areas under their jurisdiction comfortably. Thanks also go to all the respondents who accepted my request of interviewing them. Their cordial cooperation rendered to me during data collection is highly appreciated, may God bless you all.
DEDICATION

I dedicate this work to Almighty God who enabled me to reach where I am, Glory to him. Also to my loving husband Jackson, my mother Eliakira, my children Jorden and Jacelyn.

Lastly to my lovely aunt Tumaini for her constant encouragement without which this assignment would not be possible.
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATM</td>
<td>Automatic Teller Machine</td>
</tr>
<tr>
<td>IT</td>
<td>Information Technology</td>
</tr>
<tr>
<td>IVR</td>
<td>Interactive Voice Response</td>
</tr>
<tr>
<td>KCB</td>
<td>Kenya Commercial Bank</td>
</tr>
<tr>
<td>SMAC</td>
<td>Standalone Mobile Application Clients</td>
</tr>
<tr>
<td>SMS</td>
<td>Short Messaging Service</td>
</tr>
<tr>
<td>TAM</td>
<td>Technological Acceptance Model</td>
</tr>
<tr>
<td>TCRA</td>
<td>Tanzania Communication Regulatory Authority</td>
</tr>
<tr>
<td>WAP</td>
<td>Wireless Application Protocol</td>
</tr>
</tbody>
</table>
Abstract

This study aimed at assessing the effectiveness of mobile banking on customers’ satisfaction in banking services with reference to KCB Bank, Morogoro branch. It dealt with three specific objectives which included, identifying mobile banking accessibility by KCB customers; assessing the efficacy of mobile banking services on customers’ satisfaction and identifying the challenges facing KCB customers in using mobile banking services. The study involved 110 KCB customers and 10 KCB officials. The sample was obtained through simple random and purposive sampling techniques. The sample size for the study was 120 respondents. Primary data was collected using questionnaires. Data collected were analyzed and processed through descriptive analysis, organized and presented using tables, charts.

The results showed generally that; mobile banking services are accessible to KCB customers through Vodacom, Airtel and Tigo users. Additionally the study found that mobile banking services has great efficacy on customers’ satisfaction. Thirdly the results found that challenges facing KCB customers in using mobile banking services include network problems, delays of transaction and sometimes customers send funds to wrong mobile numbers which becomes difficult to recover them.

The study showed the effectiveness of mobile banking on customers’ satisfaction using a case of KCB Morogoro branch. It is therefore recommended that first, the owners of mobile phone companies, KCB management and all stakeholders in this industry should work together to resolve network problems. Additionally both parties should work together to ensure that customers transaction are processed on time to avoid delays and complains.
# TABLE OF CONTENTS

CERTIFICATION ........................................................................................................... i
DECLARATION ................................................................................................................. ii
COPYRIGHT .................................................................................................................... ii
ACKNOWLEDGMENT ....................................................................................................... iii
DEDICATION ................................................................................................................... iv
ABBREVIATIONS AND ACRONYMS ........................................................................... vi
ABSTRACT ..................................................................................................................... vii
TABLE OF CONTENTS .................................................................................................... viii
LIST OF TABLES ............................................................................................................. xii
LIST OF FIGURES .......................................................................................................... xiii

**CHAPTER ONE .......................................................................................................... 1**

**INTRODUCTION ........................................................................................................ 1**

1.0 Background Information ....................................................................................... 1

1.2 Statement of the Problem ..................................................................................... 4

1.3 Research Objectives ............................................................................................. 5

1.3.1 General Objective ........................................................................................... 5

1.3.2 Specific Objectives ........................................................................................ 5

1.4 Research Questions .............................................................................................. 5

1.5 Scope of Study ...................................................................................................... 6

1.6 Justification of the Study .................................................................................... 6

1.7 Organization of the Dissertation .......................................................................... 6
CHAPTER TWO ........................................................................................................... 8
LITERATURE REVIEW .................................................................................................................. 8

2.0 Introduction .................................................................................................................... 8

2.1 Theoretical literature review .................................................................................................. 8

2.1.1 Definitions of the Concepts ................................................................................................. 8

2.1.1.1 Customer Satisfaction ...................................................................................................... 8

2.1.1.2 Mobile Banking Services ................................................................................................ 8

2.2 Mobile Banking services and Customers’ Satisfaction .............................................................. 10

2.2.1 Reliability and Customers’ Satisfaction.................................................................................. 11

2.2.2 Security and Customers’ Satisfaction .................................................................................... 11

2.2.3 Responsiveness and Customers’ Satisfaction ........................................................................ 11

2.2.4 Ease of Use and Customers’ Satisfaction .............................................................................. 11

2.2.5 Usefulness and Customers’ satisfaction ................................................................................ 12

2.2.6 Cost effectiveness and Customers’ Satisfaction .................................................................... 12

2.2.7 Awareness and Customers’ satisfaction ............................................................................... 12

2.2.8 History of M-Banking ........................................................................................................ 13

2.2.9 Services Provided by M-Banking Systems .......................................................................... 20

2.2.10 Financial Services Accessibility in Tanzania ...................................................................... 24

2.2.11 M-Banking and Financial Inclusion .................................................................................... 24

2.2.12 M-Banking and the Poor .................................................................................................... 25

2.2.13 Importance of M-Banking in Tanzania .............................................................................. 26

2.2.14 M-Banking and the Central Banks ..................................................................................... 28

2.2.15 M-Banking and the Rest of the World ............................................................................... 29
4.2.1 Gender of Respondents........................................................................................................42
4.2.2 Age of Respondents ............................................................................................................44
4.2.3 Education level of Respondents ..........................................................................................45
4.2.4 Time that a Respondent has been a customer at KCB .......................................................46
4.3 Mobile banking accessible by KCB customers ..........................................................................48
4.4 Efficacy of mobile banking services on customers’ satisfaction ............................................48
4.4.1 Increase in customer satisfaction .........................................................................................49
4.4.2 Managerial Satisfaction .......................................................................................................49
4.4.3 Increase in revenue ...............................................................................................................50
4.4.4 Operating efficiency ............................................................................................................51
4.4.5 Improvement in market share position ................................................................................51
4.5 Challenges facing KCB customers in the usage of mobile banking services .......................52

CHAPTER FIVE ........................................................................................................................................54
SUMMARY, CONCLUSION AND RECOMMENDATION ..................................................................54
  5.0 Introduction ...............................................................................................................................54
  5.1 Summary ..................................................................................................................................54
  5.2 Conclusion .................................................................................................................................54
  5.3 Recommendation ......................................................................................................................55
  5.4 Delimitations of the Study .........................................................................................................55
  5.5 Area for Further Research ........................................................................................................56

REFERENCES .....................................................................................................................................57
APPENDICES ......................................................................................................................................61
LIST OF TABLES

Table 3.1: Study respondents ................................................................. 38
Table 4.1: Gender of Respondent ............................................................. 43
Table 4.2: Age of Respondents ................................................................. 44
Table 4.3 Education level of Respondents ............................................... 46
Table 4.4: Number of years as a customer at KCB .................................. 47
Table 4.5: The mobile banking services .................................................. 48
Table 4.6: Increase in customer satisfaction ............................................ 49
Table 4.7: Increase in Managerial satisfaction ....................................... 50
Table 4.8: Increase in revenue ................................................................. 51
Table 4.9: Increase in operating efficiency .............................................. 51
Table 4.10: Improved market share position .......................................... 52
Table 4.11: Challenges faced by KCB customers in the usage of mobile banking .... 53
LIST OF FIGURES

Figure 2.1: Conceptual Framework ................................................................. 35
Figure 4.1: Gender of Respondents ................................................................. 43
Figure 4.2: Age of Respondents ..................................................................... 45
Figure 4.3: Education level of Respondents ................................................... 46
Figure 4.4: Number of years as a customer at KCB ...................................... 47
CHAPTER ONE

INTRODUCTION

1.0 Background Information

Today, financial sector firms are competing for profit share in the market. Among these firms, banks, have radically shifted from traditional banking to branchless mode of banking. Adoption of latest technology has enabled banks to extend their customer base, where electronic banking has proved to be the chief advancement (Cruz and Laukkanen, 2009). Mobile banking can be categorized as the latest advancement in electronic banking, which has widened customers’ access to banks accounts through wireless channels. Mobile banking is considered as the provision of banking services to the customers on their mobile phones and other mobile devices. Mobile banking is used for operation of the bank in case of current and deposit or savings account. This is because mobile phones and other handheld devices have been established firmly as an alternative form of payment in the technological advanced societies (Saoji and Goel, 2013).

According to Cruz and Laukkanen (2009) mobile phone would be a frontline technology in banking as it provides consumers facilities to get done their banking services through electronic channels. There are many different mobile banking facilities such as account balance retrieval, transaction history retrieval, transfer of funds between an individual’s own accounts or third party accounts, portfolio management, and bill statement etc. There are many advantages that mobile banking brings to customers. Among those benefits, ease of use, low cost, privacy, and convenience. From customers’ perspective adopting mobile banking services benefit in terms of convenience to perform banking transactions anytime and anywhere, with ease to use. Security is ensured, as banking transactions are encrypted and password-protected (Saoji and Goel, 2013). Scholars have gone further and confirm that mobile banking has many benefits to both the customers and banks. In most cases mobile banking helps in receiving and sending of
messages, access of subscription, prepaid and instructions. Similarly, mobile banking helps to facilitate withdraws, deposits and the transfer of money between the two parties. The services of mobile banking can also improve operational performance and also increase the amount of data processing (Laukkanen and Lauronen, 2005; Hernandez, 2011).

The links between mobile banking and customers’ satisfaction stems on the basis that information and communication are two important aspects of banking and customers activities (Gaffar, 2009; Ensor, et al, 2012). Mobile banking increases customer satisfaction ratio by adopting the innovative services customized for individual preferences and the current geographical location of the customer provide value-added to the customer, more attention and better consulting for individual customers due to automation of routine processes, and streamlining of business processes to increase efficiency (ITU, 2012). In view of this, the innovative services due to mobile banking help both customers and banks to deliver communication, financial information, and transactions such as checking of account balances, accessing the other banking services and products transferring funds at any time, from anywhere (Gaffar, 2009; Ensor, et al., 2012; ITU, 2012).

According to Arbore and Busacca (2009) determinants of customer satisfaction in a banking services include functional quality (reliability, speed, accuracy, functionality); relational quality (responsiveness, assurance, friendliness, courtesy, commitment, communication); convenience (opening hours, travel distance, queuing time, parking places, ATM availability); and economics (interest rates, price quality, ratio, price fairness). This implies that via mobile banking all these determinants can be enhanced simply because mobile banking are functional and relational quality as well as convenient to customers. However, the effectiveness of mobile banking services on customers’ satisfaction is basically determined by reliability, security, responsiveness, ease of use, usefulness, cost effectiveness and awareness of the services (Venkatesh and
Davis, 1996; Mattila, 2002; Venkatesh et al., 2003; Wang et al., 2006; Porteous, 2006; Khan, 2010; Safeena et al., 2011). In this regard, it is evident that mobile banking contributes to customers’ satisfaction.

Tanzania has a successfully growing economy as its telecommunication industry has advanced tremendously in the recent years (ITU, 2012). Tanzania’s mobile technology, which has started to grow strongly over the last few years, rocketed to 27 million subscribers by 2014 and is gearing up for further growth. The mobile population has been increasing at a remarkable rate of 58% with mobile companies operating in Tanzania (TCRA, 2014). People belonging to all income groups are using this technology as a result of foreign investment in Tanzania and reduced telecommunication rates. In view of this, mobile banking is the only available feasible means to provide mass market alternative to branch banking in Tanzania. With the current four deployments (Tigo Pesa, M-Pesa, Ezy-Pesa and Airtel Money), mobile banking presents the potential to extend beyond traditional bank coverage to include rural area. Statistics from BOT (2014) show that there are over 30 million mobile banking subscribers whereas over 700 million transactions worth of US$12.3 billion has been conducted since mobile money was launched. Currently, the mobile banking market share is dominated by Vodacom’s M-Pesa with 53% followed by Tigo-Pesa with 18% and AirtelMoney with 13% (Masamila, 2014). Customers’ adoption of mobile banking is promising, as a result scholars (Saoji and Goel, 2013) content that such adoption is the main reason for the success of mobile banking across the world. Nevertheless, studies on the impact of mobile banking in the developing world are scarce (Maurer, 2008)

Kenya Commercial Bank is a fully fledged commercial Bank offering savings and lending services to individuals, entrepreneurs and companies of all sizes. In 1997, KCB set up business in Tanzania before expanding further to Southern Sudan in 2006 and Uganda in 2007. The mobile banking services offered by KCB include checking KCB account balance, buying credit/airtime, sending money to M-Pesa account, transfer funds
to other KCB accounts, withdraw cash, get mini statements, service request such as cheque book request, foreign exchange rates, full statement request and stop cheque and paying bills. Albeit, there is no empirical evidence in Tanzania to substantiate the effectiveness of mobile banking services offered by KCB to customers’ satisfaction. The study aims at assessing the effectiveness of m-banking on customers’ satisfaction in banking services with reference to KCB Bank, Morogoro branch.

1.2 Statement of the Problem
Satisfaction is the customer’s evaluation of a product or service in terms of what product or service has met their needs and expectations. However, almost every Tanzanian bank encounters problems in meeting customer’s expectations of services and customer satisfaction. For instance, the issues of depositing and withdrawing money in banks are among the major problems that customers of certain banks have been made to experience. The long queues and huge crowds in the banking halls can be highly devastating and discouraging most of the times, especially when salaries have been released. In most cases, these long queues occur despite the fact that majority of Tanzania banks have adopted mobile banking to enable customers withdraw and deposit money without necessarily attending the banking premises (Masamila, 2012). One of the benefits banks derive from the current mobile banking services in banking operations especially with respect to service delivery is improved efficiency and effectiveness of their operations so that more transactions can be processed faster and most conveniently by customers (Kumbhar, 2011).

Customers on the other hand, stand to enjoy the benefit of quick service delivery, reduced frequency of going to banks physically and reduced time spent in long queues. However, these developments of mobile banking services in the Tanzanian banking industry seem not to have achieved their aims. Queues are still seen in the banking halls, bank customers still handle bulky cash, and hardly do people talk about mobile banking services that are available in most of the banks. This raises a research question on the effectiveness of these mobile banking services on customer’s satisfaction. A number of
studies have been conducted (Bangens and Soderberg, 2011; Senso and Venkatakrishnam, 2013; Kalimang’asi et al., 2014; Ngilangwa and Venkatakrishnan, 2014) in Tanzania on regard to mobile banking. However most of these studies focused on mobile phones usage and SMEs’ result and have not shown evidence about the effectiveness of mobile banking on customers’ satisfaction. In that regard, this study assessed the effectiveness of mobile banking on customers’ satisfaction using a case of KCB bank in Morogoro, Tanzania.

1.3 Research Objectives

1.3.1 General Objective

The general objective of this study was to assess the effectiveness of Mobile Banking on Customers’ satisfaction in banking services with reference to KCB Bank, Morogoro Branch

1.3.2 Specific Objectives

(i) To identify mobile banking services accessibility by KCB customers
(ii) To assess the efficacy of mobile banking services on customers’ satisfaction at KCB Bank
(iii) To identify challenges facing KCB customers in using mobile banking services

1.4 Research Questions

(i) What types of mobile banking services are accessible to KCB customers?
(ii) What is the efficacy of mobile banking services on customers’ satisfaction at KCB bank?
(iii) What are the challenges facing KCB customers in using mobile banking services?
1.5 Scope of Study
The study was conducted in Morogoro municipality to assess the effectiveness of Mobile Banking on Customers’ satisfaction in Banking Industry. Specifically, the study examined the customers’ access and usage of mobile banking services in the study area; identify the challenges associated with the utilization of mobile banking services; and determine the extent mobile banking influence customers’ satisfaction.

1.6 Justification of the Study
Literature (Bangens, 2011; Masamila, 2014) discloses that mobile banking services have been adopted in many ways in Tanzania. However, their contributions to the customers’ satisfaction are less known. In this regard, the study findings are useful to policy makers, banks and researchers to understand utilization of mobile banking in enhancing the customers’ satisfaction. Therefore, the findings of this study could act as drivers to device appropriate strategies for effective utilization of mobile banking services for enhancing customers’ retention in commercial banks.

1.7 Organization of the Dissertation

The study has been organized in five chapters.

Chapter One: entails the purpose of the researcher to decide to undertake this particular research and not another. Chapter one provides preliminary information about the nature of the research and what was exactly done.

Chapter Two: reveals literature sources which the researcher passed through when developing his idea about the research. Other people’s ideas were incorporated with the aim understanding well the research topic. The purpose was to know how other researchers, readers, organizations and governments say about the problem in question.

Chapter Three: Is the methodology part. This section explains the way the research has been conducted. The methods and techniques adopted.
Chapter Four: This chapter presents and discusses the findings. Instruments like, charts, per cent, tables and figures were used to present similarities and differences of the research findings. Similarities, differences and magnitude of the results are discussed.

Chapter Five: Is the summary, conclusion, recommendation and limitations of the study and areas for further research. The researcher makes summary of what has been done, observed and presented, implications of the findings and recommendations to policy makers.

The last part presents the bibliography and the appendices.
CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction
This chapter presents the literature review from different scholarly works. The chapter starts with presenting the theoretical literature review. The next in the chapter is the link between mobile banking services and customers’ satisfaction, followed by theoretical framework. The last chapter presents conceptual framework for this study.

2.1 Theoretical literature review

2.1.1 Definitions of the Concepts

2.1.1.1 Customer Satisfaction
Customer satisfaction is commonly defined as the full meeting of one's expectations (Oliver, 1980). According to East (1997), customer satisfaction is the feeling or attitude of a customer towards a product or service after it has been used. The satisfaction of the customer especially in the service business had a great importance because the satisfaction of the customer directly linked with the customer loyalty or the repetition of using the services the modern banking has provided (Ravichandran et al., 2010). However, Levesque et al. (1996) points out that the major gains in customer satisfaction are likely to come from improvements in service quality, service features and customer complaint handling. Therefore, in the context of this study, customers’ satisfaction entails meeting customers’ expectations when rendering services via mobile banking.

2.1.1.2 Mobile Banking Services
Mobile banking or M-banking entails the financial services delivered via mobile networks using mobile phones. Normally, such services include depositing, withdrawing, sending and saving money, as well as making payments (Bångens and
According to Amin et al. (2007) m-banking is defined as a form of banking transaction carried out via a mobile phone. The technologies generally used for mobile banking are Interactive Voice Response (IVR), Standalone Mobile Application Clients (SMAC), Short Messaging Service (SMS) and Wireless Application Protocol (WAP) (Tiwari and Buse, 2006). According to Asfour and Haddad (2014), mobile banking services entail the services provided by the bank that enables the user to receive information, make payment and transfer to third parties based on orders sent via mobile phone. In the context of this study, mobile banking connotes financial services via mobile phones such as depositing, withdrawing, sending and saving money and making payments.

The objective of mobile financial transactions is to improve the efficiency of microfinance by using mobile technology to make transactions faster, cheaper and more secure (Gaffar, 2009). It involves account transactions, balance checks and payments. Accordingly, Premalatha and Sundaram (2012) note that mobile phones technology has made it easier for SMEs to conduct their financial transactions. This is because mobile phone financial transactions saves time and provides a safer means of handling money transfer. Additionally, mobile technology can be used to reach more customers and facilitate exchange of information and decision making. According to Saoji and Goel (2013), the launch of M-PESA in Kenya by the telecommunication company Safaricom has enabled SMEs to expand and grow. This is because the service provides them with efficient and easier ways of paying and receiving payments for goods and services thereby facilitating their trading activities. Cruz et al (2009) observes that the M-PESA service allows users to deposit and withdraw money in their accounts as well as to send money using SMS technology. Therefore, mobile financial transactions provide SMEs with a means through which they can reduce their operating costs as well as increase their ability to extend their business networks thus enabling them to increase their performance.
In the study by Amin et al (2007) use of MMTS was perceived to enhance profitability moderately. Also, Davis (2007), evaluating the multiplier effect of a cash transfer programme in Malawi notes that when cash is injected in a region from outside and used to make purchases of goods and services produced in the region, will stimulate local sales hence better performance for local businesses. In their study on MMT use among MSEs in Tanzania, Bångens & Söderberg (2011), focused on business usage such as paying suppliers or receiving payments from customers. The results were based on MSEs mainly located in Dar es Salaam but partly in Morogoro, Singida, and Mwanza, the impact was mainly seen in time saved and improved logistics though there were indirect effects on liquidity; Pagani (2004), states that accessibility (ability to reach the required services) is one of the main advantages of mobile payment services. The micro-business operators go to the bank less often and spend more time running their businesses. Equally, many unbanked Kenyans can now receive or send money wherever they are in the country (Gaffar, 2009). Majority of the micro business operators are familiar with the use of the mobile payment services as they are easy to use and require no formal training before use. With more time in the business, more customers are served leading to increased sales and therefore growth of the business. The transaction costs of sending money through the mobile payment technology are lower than those of banks and money transfer companies (Porteous, 2009). The cost of the mobile payments is affordable to most of the micro business operators and far below what the banks normally charge for their bank transactions. The reduced cost of transactions positively influences the growth of the business.

2.2 Mobile Banking services and Customers’ Satisfaction
The effectiveness of mobile banking to customers’ satisfaction has sparked significant debate within the literature. Thus, available literature presents divergent views on the link between mobile banking and customers’ satisfaction. There are those who see mobile banking services as necessary for contributing to customers’ satisfaction (Ngilangwa and Venkatakrishnan, 2014). On the other hand, other scholars argue that mobile banking services do not contribute to customers’ satisfaction (Kalimang’asi et
al., 2014). However, the point of departure is that mobile banking services are reliable, speedy, friendliness and convenience. In this regard, with these attributes, it is difficult to separate mobile banking and customers’ satisfaction.

2.2.1 Reliability and Customers’ Satisfaction

The feature of reliability defines providing the accurate and promised service at all times of transaction. Users of mobile banking want to obtain the right quality and right quantity of service at all times, as it is promised by the banks. In addition to this, customers have a preference to accurate billing of their accounts (Khan, 2010).

2.2.2 Security and Customers’ Satisfaction

Security and trustworthiness of a service is identified as one of the most important factors within every target customer segment when deciding on the use of a banking service delivery channel. Thus Mattila (2002) agrees that using mobile phone in banking is trustworthy. In this regard, previous researchers (Suoranta, 2003; Laukkanen and Lauronen, 2005) argue that security issues are not major obstacles for consumers in adopting mobile banking.

2.2.3 Responsiveness and Customers’ Satisfaction

The responsiveness feature of service quality of electronic banking is relates to the capability of staff of bank to deliver the agreed services accurately, dependably, timely and promptly. The preference of customers is to resolve their objections expeditiously (Karjaluoto et al., 2002). According to Khan (2010), the main dimensions of service quality of automated banking include ease of use, reliability, privacy, responsiveness and convenience.

2.2.4 Ease of Use and Customers’ Satisfaction

Short message service (SMS) is used to support mobile banking service as the main medium. Reasons for mobile and SMS usage are largely saving time, varying location
and convenience (Venkatesh et al., 2003). It is quick and easy for users to become familiar with the mobile banking service.

### 2.2.5 Usefulness and Customers’ satisfaction

Usefulness is a key factor in recognizing the links related to information system and computing and it is same for the area of Mobile commerce. Therefore, if the mobile banking is useful customers can be motivated to use the facilities and services very frequently and thereby improve their satisfaction level (Venkatesh and Davis, 1996; Wang et al., 2006).

### 2.2.6 Cost effectiveness and Customers’ Satisfaction

Mobile banking is indeed effective on cost and dispenses services to the unbanked due to the fact that there is no need for branches physical establishment to aid the customers. It is simply a branchless bank model that has the capabilities of handling limited bank dealings through the mobile phone (infoDEV, 2006). M-banking is a cost effective way to provide banking services to the unbanked because there is no need to set up physical branches to facilitate customers it called as it is branchless banking. It is branchless bank model includes enhanced ability to carry out limited banking transactions via mobile phone (Porteous, 2006).

### 2.2.7 Awareness and Customers’ satisfaction

Studies have proved that awareness about the services of mobile banking is major factor affecting the mobile banking adoption and ultimately customer’s satisfaction (Safeena et al., 2011). Similarly, studies also have proved that awareness is most important thing that should be focused by managers to satisfy customers. This will create a good image on modern banking and customers will shift from retail banking to online and mobile banking (Srivastava, 2007).
2.2.8 History of M-Banking

The earliest mobile banking services were offered via SMS with the introduction of the first primitive smart phones with WAP support enabling the use of the mobile web. In 1999, European banks started to offer mobile banking on this platform to their customers. Mobile banking until 2010 often been performed via SMS or the Mobile Web (Masamila, 2014). The M-Banking system operates in such a way that a specific sequence of SMS messages will enable the system to verify if the client has sufficient funds in his or her wallet and authorize a deposit or withdrawal transaction at the agent. Also, when depositing money, the merchant receives cash and the system credits the client's bank account or mobile wallet. In the same way the client can also withdraw money at the merchant: through exchanging SMS to provide authorization, the merchant hands the client cash and debits the merchant's account (Adams, 1992). Mobile banking (m-banking) is a term used for performing banking transactions via mobile device such as mobile phones (Asfour and Haddad, 2014). Cruz (2009) define mobile banking as any transaction, involving the transfer of ownership or rights to use goods and services, which is initiated and/or completed by using mobile access to computer-mediated networks with the help of an electronic device. They further indicate that mobile banking refers to provision and availment of bank-related financial services with the help of mobile telecommunication devices. The scope of offered services may include facilities to conduct bank and stock market transactions, to administer accounts and to access customized information from the bank.

Mobile banking is most often performed via short message services (SMS) or mobile internet, but can also be used by special programs called clients downloaded to the mobile device. Over the past few years, advancement in information technology has changed the way organizations operate and conduct their business (Arbore and Busacca, 2009). Technological advancement has brought about the evolution of m-banking and online banking in the banking industry which has revolutionized the manner in which commercial banks conduct their business. Internet and m-banking has not only made
financial organization provide banking services online and via mobile but has also provided customer with easy access to financial services and other benefits. The movement from traditional branch banking to mobile banking has caused banks to come up with strategies to attract more customers and retain existing ones. The desire to reduce both operational, administrative cost and competition has driven banks to adopt mobile banking. However cost reduction is only realizable with an increase in customer adoption (Geoffrey, 2012).

Technological advancements in the area of telecommunications and information technology have continued to revolutionize the banking industry. The delivery of financial services has experienced major changes during the past few years. A feature of the banking industry across the globe has been that it is increasingly becoming turbulent and competitive thereby forcing commercial banks to innovate for survival. Banks, aided by technological developments, have responded to the challenges by adopting new strategies which emphasize on attempting to build customer satisfaction through offering better products and services and at the same time to minimize operation costs (Hernandez, 2011). An appropriate banking environment is considered a key pillar as well as enabler of economic growth (Masamila, 2014). The banking industry has been subject to this technological change (Khan, 2010). In order to be in line with the changes in the operating environment, it is apparent that bank in Kenya and other financial institution have to embrace mobile banking in meeting customer demands (Mathieson et al, 2001). Providing banking through internet has proved fruitful in terms of cost control by employing automated ways of transacting other than the traditional method of labour intensive therefore higher productivity and profitability. Consequently, growing partnership in financial institution and other service providers has lead to an increase in m banking as customers can transact and clear utility bills through their mobile. The perceived low level of demand, low levels of bank of income, high bank fees, untailored products and services and limited geographical reach ensured only a small percentage of Kenyan population had access to banking services (Mbogo, 2010). Banking was driven
by income generated from fees for services rendered, interest earned deposits and interest received from loans. The move from traditional banking to agency banking and currently mobile banking has been beneficial to both the banks and customers as it reduces operating cost of the institution and its convenient and cheap as lesser fees are charged on mobile transaction.

Mobile banking is the provision or availment of banking services with the help of mobile devices. The advent of M-banking was fostered by competition from telecommunication industry mainly safaricom with their Mpesa services to their customers and Zain (formerly Airtel) with Zap services. These services facilitated the customers to deposit money into their account, transfer money to other user for instance sellers of goods and services, relatives and friend; this brought convenience (Mbogo, 2010).

The banking sector has had to adopt technological change to remain competitive. In search of competitive advantages in the technological financial service industry, banks have acknowledged value of differentiate themselves from others financial institution through new service distribution channels (Srivastava, 2007). Banks bureaucratic process of account opening cut out many rural poor as they could not qualify to own accounts. With competition banks had to simplify the process and had to come up with innovative ways of doing so. Quite a number of banks have innovated various M-banking products for example Equity bank M-kesho, KCB Mobibank, Family bank Pesapap and more recently M-Shwari of Commercial bank of Africa.

Mobile banking provides a number of advantages for both banks and customers. Mobile banking removes geographical limitation to customers and therefore bringing convenience. There is no time limitation i.e. banking maybe performed throughout the day and in any place. Mobile banking also provides efficient cash management and security of cash. Concerning the nature of its functions and services, the banking sector is relatively open to innovative technologies. This may be due to the fact that
competition has increased and banks have recognized the importance to differentiate themselves from other financial institutions by offering services online via different distribution channels (Wang et al., 2006). On the other hand online banking services provide cost saving opportunities for banks and value added for customers (Wang et al., 2007). The wide penetration and rapid diffusion of mobile phones has opened mobile service opportunities for the banks. Indeed, value-adding mobile services are becoming increasingly important in gaining a competitive edge in the market place (Wang et al., 2006). Currently mobile banking offers financial transactions and information services such as viewing account balances, making transfers between accounts, or paying bills by using a mobile device like cell phone, PDA, or a smart phone.

Previous studies have shown that mobile banking users perceive that it increases efficiency and convenience in bill paying, for example, as the service can be used wherever wanted enabling time savings and immediate reactions to unexpected service need (Cruz et al, 2009). Despite the rapid rollout of mobile services over the past decade, mobile transactions, including mobile banking and payments, have not been used as much as expected (Asfour et al., 2014). Despite certain prognoses claiming a resounding success, it has become clear that the real usage of financial mobile applications lags way behind the projected scenarios (Geoffrey, 2012). Basic mobile services (SMS, MMS, music downloads, games and news services) are popular in Europe (Geoffrey, 2012); however, more advanced services, such as mobile banking, have yet to find their way into the everyday lives of consumers (Khan, 2010). Thus more research is needed in order to better understand what determines non-adoptions behaviour in this context. The diffusion perspective, including the motivating factors of adoption and characteristics of innovation adopters has up until now represented the mainstream of the literature on innovations (Karjaluoto, 2002), while at the same time, the reasons that hamper or postpone the diffusion of an innovation appear to have been somewhat neglected in the academic literature (Khan, 2010).
It is argued that resistance may occur even in the case of successful innovations (Gaffar, 2009). In addition, even though adoption and resistance may also coexist, before adoption may begin the initial resistance must first be overcome (Khan, 2010). Thus, in order to reduce the possibility of product failures, it is of essence for managers and firms in general to identify the sources of resistance to innovations (Khan, 2010). Besides practical interests, resistance as a phenomenon also raises academic significance to understand those individuals who resist innovations and the reasons that slow down the adoption process. Thus the objective of this study is to identify those variables that explain mobile banking non-adoption behavior. A set of variables related to innovation resistance, consumer demographics and other background variables were derived from the earlier literature and inputted as independent variables in logistic regression analysis. In the following these variables are explained in more in-depth.

Banking services using mobile phones (M-banking) have been available in developing as well as developed countries for several years, but it is not until recently new modalities of applying M-banking have started to diffuse rapidly to previously unbanked people. The main driver for the rapid development is the new M-banking services that are less expensive and have a geographical footprint defined by the reach of mobile networks in contrast to services offered by traditional retail bank branches that are out of reach for many people in rural areas from both an economic and geographical perspective. The main benefits to rural users are affordable, fast and secure transactions. The topic is interesting as M-banking access amongst previously unbanked groups is believed to have a direct, positive effect on users, positively affect a transition from informal to formal transactions and hence alleviate poverty and add lubricant to the overall economic development machinery.

Mobile banking, or M-banking, is the term we use to describe financial services delivered via mobile networks using mobile phones. Normally, such services include depositing, withdrawing, sending and saving money, as well as making payments. (Using a laptop and an Internet connection as the link to the bank would instead be
referred to as Internet banking.) M-banking is by Porteous (2006) separated into two categories; additive and trans-formational, where the additive model uses M-banking as an extra access channel for existing clients. This model is the most commonly used among the tail banks. The transformational category is according to Porteous categorized by business models that draw upon existing telecom and agent/representatives infrastructure, run by new or alternative banking actors, and has a geographic coverage and pricing with the potential to attract previously unbanked segments. Further, it may also have a transformational effect in terms of formalising previously informal transactions and hence bringing people and their financial assets into the formal economy.

Branch based retail banking services are usually outside of geographic and affordable scope for the average rural user in Sub-Saharan Africa, and more advanced M-banking services offered by retail banks would typically require a handset that also is too costly for most people. Rather, in parts of Asia, Latin America and Africa, transformational models have evolved. In e.g. Sub-Saharan Africa, transformational M-banking markets in South Africa, Kenya, and Democratic Republic of Congo (DRC) have been growing fast, but there are few successful initiatives elsewhere (Porteous, 2006). M-banking initiatives in Sub-Saharan Africa are generally launched by banks, telecommunication operators (telcos), by an independent entrepreneur or by any combination of the above. Besides revenue, telcos also have another motive; their clients are less likely to switch operator if they are hooked up to an operator-specific banking service. The transformational services currently launched in sub-Saharan Africa are cheaper to produce, hence cheaper to buy, and do not require expensive handsets. What really makes them inexpensive compared to conventional retail banking services is that they are not backed by bank branches, but by an agent network that clients interface with to sign up, deposit or withdraw money (Porteous, 2006).
Transformational M-banking is still in many aspects virgin land; business models are still to prove themselves, policy making and regulating bodies are still to formulate appropriate frameworks, and a sense of careful, tentatively positive trial period attitude is noticed as M-banking market figures slowly are picking up. “Transformational” M-banking is the main focus of this paper, and when we discuss “M-banking” further on, we normally refer to M-banking services with the transformational characteristics as defined by Porteous mentioned above. M-banking has increasingly been heralded as the tool for bringing financial services to the largely unbanked population of Africa. Its potential to transform the livelihood of people – who previously have been outside the formal financial sector – is the key rationale put forward. Firsthand it will provide affordable and secure services that will facilitate financial transactions, primarily money transfer, for the previously unbanked. This is much more convenient for rural users, compared to today’s more time-consuming options. It may even serve as the inroad or eye-opener to large segments of the population that are accustomed to a cash-based economy. Hence, they will gradually become a part of the formal financial systems which potentially will turn them into bank customers, which led to the term “transformational banking.” The rationale hinges on the assumption that once included in modern financial systems, poverty can be addressed in a more efficient manner (Porteous, 2006).

As a word of warning or caution, there is little evidence yet to verify the prospects of serving unbanked through M-banking models and their impact on poverty alleviation. There is still a monumental gap between the visions and the mundane “financial reality” of poor people in sub-Saharan Africa. The harsh reality is that only 1% of the sub-Saharan population is banked and a substantial part of the rest lives in a cash-based, subsistence, barter-trade economic environment. Relying on GDP per capita data from the region, the majority survives on less than one USD per day, which means there is an extremely small window for savings. The North-South and urban-rural divide has created a need for distribution of wealth through remittance; mostly within extended
families but also between friends. E.g. even in the most developed economy in Sub-Saharan Africa, South Africa, 45% have nothing remaining when the monthly bills are paid (Porteous, 2006). A second observation is the low reliance on formal employment as a source of income; only 4% in Tanzania has earnings that easily could be trans-acted through the bank systems (Porteous, 2006). Most people are self-10 employed, selling produce from the farm or work in the informal sector which typically all are cash-based in sub-Saharan Africa. To sum up, two lines of thought can be discerned in the ongoing debate on M-banking for development; one side argues that by providing more structured financial services to the unbanked, socio-economic development will follow in its track. Then there is a strand that merely views banking and financial services as pieces of a larger puzzle that need to co-exist with other components in a synergistic manner to trigger development. That is, there is no single quick fix for development. Actual usage of M-banking services and impact are of course issues of immense importance; for this small project we were however able to draw such knowledge from existing sources (Porteous, 2006). Although usage data do exist to some degree, relevance to poverty alleviation and actual impact to date has been little discussed in the openly avail-able sources we have come across. Hence, in existing documentation and research we have reviewed, there is a lack of an in-depth and balanced analysis of whether or not M-banking activities to date have had any impact on poverty alleviation amongst previously unbanked groups. We will discuss this further in our final chapters. To the layman, interested organisations and individuals new to the topic, this paper as a whole may serve as an introduction, while the final chapters also may be of benefit to more experienced M-banking executives, policy makers, regulators, consultants and civil society (Saoji and Goel, 2013).

2.2.9 Services Provided by M-Banking Systems

Mobile banking can offer services such as account information, mini statements, checking of account history, alerts on account activity (passing of set thresholds) monitoring of term deposits, access to loan statements, access to card statements, mutual
funds (equity statements, stop payment on cheque, ordering cheque books, balance checking in the account. Also, it can do payments, Deposits, Withdrawals, and Transfers such as domestic and international fund transfers, micro-payment handling, mobile recharging, commercial payment processing, bill payment processing, peer to Peer payments, withdrawal at banking agent, deposit at banking agent (Masamila, 2014). Mobile banking offers millions of people a potential solution in emerging markets that have access to a cell phone, yet remain excluded from the financial mainstream. It can make basic financial services more accessible by minimizing time and distance to the nearest retail bank branches (Senso and Venkatakrishnan, 2013) as well as reducing the bank's own overheads and transaction-related costs. Mobile banking presents an opportunity for financial institutions to extend banking services to new customers thereby increasing their market (Senso and Venkatakrishnan, 2013).

Hernandez (2011) suggests that e-banking is driven largely by the prospects of operating costs minimization and operating revenues maximization. A comparison of online banking in developed and emerging markets reveal that in developed markets lower costs and higher revenues are more noticeable. While Safeena et al (2011) finds no systematic evidence of a benefit of internet banking in US click and mortar banks, Mathieson et al (2001) find that federally chartered US banks had higher ROE by using the click-and-mortar business model. Mathieson et al (2001) also examine the determinants of internet banking adoption and observe that more profitable banks adopt internet banking after 1998 but yet they are not the first movers. Saoji and Goel (2013) show that internet banking results in cost and efficiency gains for banks yet very few banks are using it and only a little more than half a million customers are online in U.K. Several studies have been conducted on the effects of mobile banking and the performance of commercial banks. Srivastava (2007) sought to find out whether mobile phones really work to extend banking services to the unbanked using empirical lessons from Selected Sub-Saharan Africa Countries. This study sought to discuss how mobile phones could be used to extend banking services to the unbanked, poor and vulnerable
population. The study noted that poor, vulnerable and low-income households in Sub-Saharan Africa (SSA) countries often lacked access to bank accounts and faced high costs for conducting basic financial transactions.

The mobile phone presented a great opportunity for the provision of financial services to the unbanked. In addition to technological and economic innovation, policy and regulatory innovation was needed to make these services a reality. Wang et al (2006) studied the factors affecting Malaysian mobile banking adoption from the point of an empirical analysis. This study aimed at extending the Technology Acceptance Model (TAM) to investigate mobile banking acceptance in Malaysia. More specifically, the objective of this study was to examine the relationships between constructs of perceived usefulness, perceived ease of use, social norms, perceived risks, perceived innovativeness, and perceived relative advantages towards behavioural intention in adopting mobile banking. The findings of this study revealed that perceived usefulness, perceived ease of use, relative advantages, perceived risks and personal innovativeness were the factors affecting the behavioral intention of mobile users to adopt mobile banking services in Malaysia. Meanwhile, the social norms were the only factor found to be insignificant in this study. Ravichandran et al (2010) did a study on mobile banking and economic development where they sought to link adoption, impact, and use. The study established that through offering a way to lower the costs of moving money from place to place and offering a way to bring more users into contact with formal financial systems, m-banking/m-payments systems could prove to be an important innovation for the developing world. However, the true measure of that importance required multiple studies using multiple methodologies and multiple theoretical perspectives before answering the questions about adoption and impact. Ravichandran et al (2010) studied mobile banking as business strategy: impact of mobile technologies on customer behaviour and its implications for banks. The study sought to examine the opportunities for banks to generate revenues by offering value-added, innovative mobile financial services while retaining and even extending their base of technology-savvy customers.
According to Mbogo (2010) uptake of mobile phone in Kenya has been unprecedented. Mobile banking in Kenya affects performance of organization, behavior and decision making of the entire economy. The trend of continued reliance on mobile devices to execute monetary transaction is steadily gaining momentum. Mobile banking is one innovation which has progressively rendered itself in pervasive ways of cutting across numerous sectors of economy and industry. Porteous (2006) studied the impact of mobile banking on transaction costs of microfinance institutions where he found out that by then, mobile banking had reduced transaction costs considerably though they were not directly felt by the banks because of the then small mobile banking customer base. Saoji and Goel (2013) sought to determine the impact that mobile banking bore on transactional costs of microfinance institutions. Tiwari and Buse (2006) studied the relationship between electronic banking and financial performance of commercial banks in Kenya where he paid keen attention on the microfinance Institutions in Nairobi.

Tiwari and Buse (2006) looked at the wider electronic banking whereas this study will only concentrate on mobile banking. Mbogo (2010) studied the application of mobile banking as a strategic response by equity bank Kenya limited to the challenge in the external environment. Mbogo (2010) reviewed the concept of mobile banking as a strategic response where its effects on financial performance were not considered. Premalatha and Sundaram (2012) discovered that mobile banking in developing world was an object of skepticism among financial insiders while proponents argued that cell phones could revolutionize personal finance in poorer country, regulators warned of money laundering and most bankers worried that low customer balances wouldn’t be worth transaction costs. From the above discussion of empirical literature, this study hypothesizes that mobile banking supports the delivery of mobile banking services in an economy.
2.2.10 Financial Services Accessibility in Tanzania

The research findings carried out in Kenya and Tanzania by ODI (Overseas Development Institute, 2009) on financial inclusion household investment and growth through Fin Scope Survey shows that there is higher usage of informal mechanisms than formal financial services. Rural inhabitants save and borrow more for an agricultural investment while in urban money is used for starting business. In Tanzania, men are more likely to save or borrow to invest than women. However, most people have never been able to go into a bank because of the minimum deposits to be so high. It can be the first step into the formal financial system for low-income people with mobile phone operators to connect their payment customers to Opportunity Bank operated out of trucks and storage containers across 21 countries in Africa at a cost of 3% or 4% transaction (Geoffrey, 2012). Microfinance Focus (2010) says that, “Microfinance and cash agents will continue to play a major role in the successful implementation of the pilot and indeed the mobile branchless banking value chain,” Securing the mobile branchless banking value chain against fraud is a major challenge for the region. Fraud reduction is high on the agenda across Central Banks in Africa. New security requirements for mobile financial management insist both the financial institutions and their distribution networks take a high level of responsibility in protecting the end user, the report said.

2.2.11 M-Banking and Financial Inclusion

The survey conducted by Tele World across Africa, Latin America and Asia, the number of people who do not have a bank account but do have a mobile phone is set to grow from 1 billion today to 1.7 billion by 2012. These ‘unbanked mobile’ individuals represent a compelling market opportunity for operators (Masamila, 2014). Tanzania and Malawi were the African countries mentioned where mobile telephones are taking a first step into the formal financial system. Almost 23 million active customers in Tanzania use mobile-phone payments to transfer funds to relatives, buy supplies, pay doctors and save money for future emergencies. However, lack of access to finance and
banking services has been consistently reported to be the biggest factor blocking firms and entrepreneurs in developing countries from growing or launching new business ventures. Banking rates are notoriously low in developing economies, but mobile penetration rates are high and climbing steadily. Mobile banking provides a platform from which to offer more opportunity and stability to lower and middle-class citizens in these developing nations, helping to reach development goals in an equitable manner.

Mobile banking in the developing world is emerging not as an addition to regular banking as it is in the developed world (allowing customers to use their phones to check balances or pay a bill). Instead it is an alternative to limited or non-existent bricks and mortar banks, which frankly don’t want very poor people as customers anyway. Poor people are supremely innovative, especially when it comes to scarce resources like money. It didn’t take long for them to figure out that they can use airtime loaded on their cell phones through scratch cards as a form of currency in Senegal. In emerging markets around the world, the “un-banked” began trading minutes or using them to make payments for goods and services and send remittances home from their urban jobs to rural family members. Mobile phone companies recognized the opportunity. For example, M-Pesa, launched by Safaricom in Kenya in 2007, has had tremendous growth as a cash transfer system quick, simple, and safe. Therefore, M-Pesa conducts millions of m-money transactions a day in Kenya, and there are five times as many M-Pesa agents (23,000) as there are banks and ATM machines combined in the country. Lack of literacy is not an obstacle, as M-Pesa clients quickly learn to text what they need on their phones (Masamila, 2014).

2.2.12 M-Banking and the Poor

Despite the low rate of use among the poor, they still make up nearly a third of those who said they have used m-money, and their presence among m-money users seems to be increasing. 36% of those m-money users who began using the service in the 6 months said they live on less than $2 a day. This is a significant demographic shift away from
the higher income profile of users have been using the service longer than six months. Only 23 percent of these earlier adopters have a daily income of $2 or less (Davis, 1989). Indeed, mobile money service providers have taken steps to make these services more accessible and convenient. For example, Tanzania’s M-PESA (operated by Vodacom) partnered with the GSMA to tackle the problem of agent liquidity; Bharti Airtel (formerly Zain’s Zap service) continues its work towards creating a cash-free ecosystem.

The Tanzania Audience Scapes survey pointed to a recent, sharp increase in the number of registered users: 63 percent of people who had used m-money said that they first began using a service in the past 6 months. This corroborates recent supply-side statistics and points to a m-money market poised for further expansion (Masamila, 2014). The Tanzania survey queried respondents in the research Analyst with InterMedia’s Audience Scapes project as to why they have not started using m-money. The main reason cited for not using m-money was a lack of knowledge about how to use it. At the same time, respondents expressed interest in learning more about it. Since many agents are already airtime sellers and kiosk operators, agents are in a position to inform existing and prospective customers about m-money. Understandably, lacking access to an agent is a substantial problem in rural areas of which 93% of respondents who said they do not have access to a network agent are rural residents (Masamila, 2014). Tanzania, in particular, faces this problem as nearly three-quarters of its population reside in rural areas. These regions are often the last to see an agent network roll out due to a lack of prospective storefronts that can support an agent.

2.2.13 Importance of M-Banking in Tanzania

The research conducted by the University of Dar es Salaam, indicates that there is 10% increase in penetration rate of telecommunications services in Tanzania that had pushed a country's gross domestic product (GDP) up by 1.2% (Adams, 1992). Furthermore, Economists in Tanzania say spending on telecommunications may help nurture the growth of a country's economy even though the growth depends on a number of factors
such as ownership of the telecommunication firms, investment guidelines and the level of transparency in operations of the companies. The convenience of mobile payments spares members the trip to the nearest town to pay for supplies is a way to protect the capital and savings (Amin et al, 2007). The new system of mobile payments has made it possible for individuals to save as little as $1 or $2 at a time, amounts too small for deposits to formal banks given the 30% cost of a deposit, said Dennis Ripley (A senior vice president at Opportunity International, 2010).

In Tanzania, the cost of transportation can be a barrier to receiving health care but a hospital in Dar es Salaam that wanted to figure out a reliable way to cover patients’ costs has been done using a mobile phone system called Vodafone M-PESA. This simplified payment mechanisms. However, the rise of banking transactions through mobile phones is giving a whole new meaning to pocket money in parts of the developing world that lack banks or cash machines. Mobile money applications are emerging as potent financial tools in rural and remote areas of the globe, allowing people with no bank accounts to get paid, send remittances or settle their bills. The Mobile World Congress in Barcelona says that, there is a very big opportunity in M-Banking system. Mobile banking began to emerge six years ago in the Philippines and South Africa, where 8.5 million and 4.5 million people, respectively, use such services. Today, 40 million people worldwide use mobile money, and the industry is growing, according to the GSMA. There are 18,000 new mobile banking users per day in Uganda, 15,000 in Tanzania and 11,000 in Kenya, according to the report. Mobile phones can offer a wide range of banking solutions, from sending transfers to a relative to buying goods in a store or putting money aside for a rainy day, all by dialing a few numbers on one’s phone. Mobile banking can also make life easier for people in parts of Africa where paying a simple bill can be time-consuming, said Reg Swart, regional executive of Fundamo, a company that makes banking applications.
2.2.14 M-Banking and the Central Banks

The negative and positive experience on credit programs for the poor has been accumulated in low income countries and many of the lessons learned are relevant for any country wishing to pursue the deliberate policy. The evolution of public policy has not been different in other developing nations where poverty is so conspicuous. Moreover, leaving behind the basic needs paradigm of the 1970s for most of the developing world in the 1980s were a decade of structural adjustment dominated by stabilization efforts designed to bring national expenditure in line with national income (or output) as well as by attempts to increase national income, through policy reforms that have promoted a more efficient use of resources (Amin et al, 2007).

Furthermore, the Government should come in and come up with fiscal policies that will lessen the hurdles that applicants in financial service face. The tax regime should be favorable to all players in the market whose objective is to serve the poor people. In this case, in addition to encouraging formal financial service providers, the country will promote informal players as well. According to the open letter from Presidio Graduate School’s Sustainable MBA program in San Francisco, the appropriate policy and regulations provide an environment in which mobile banking systems and firms can thrive. Best practices for mobile banking policies include:

• Electronic banking and signatures should be legally recognized.

• Customers must be protected against fraud by implementing disclosure and dispute resolution requirements for vendors. Formation and enforcement of cyber fraud laws will also provide vendor and customer protection.

• Integration of mobile banking platforms should be encouraged to ensure consumer choice, payment system access for agents, and protect against harmful monopolies.

• Remote account customers should not be discriminated against and account opening procedures should be risk-based.
• Non-bank agents (such as stores) should be allowed to provide remote cash withdraw services for greater access and utility for users and agents.

However, it is the deliberate policy of most central banks to relax some of these legal requirements so as to maximize the numbers of the players in the market, especially those whose operational objectives is to serve the unbaked to come up with other programs explicitly designed to assist the poor. In this regard there is a need to take stock of all antipoverty policies that have worked and which have not. We need complimentary policies that will support on the promotion of financial inclusion.

2.2.15 M-Banking and the Rest of the World

The main reason that mobile phones are being pressed into so many important services is that they provide a cheap and effective work-around to weak or non-existent alternatives. Take mobile banking, which is spreading across Africa, South Asia, and Latin America. Mobile banking, also referred to as mobile finance, or even mobile money (m-money for short), with Tamara Cook, program officer for the Financial Services for the Poor initiative at the Bill and Melinda Gates Foundation, and Mary Ellen Iskenderian, president of Women’s World Banking. This part of the mobile commerce is also very popular in countries where most of their population is unbaked. In most of these places banks can only be found in big cities and customers have to travel hundreds of miles to the nearest bank. Countries like Sudan, Ghana and South Africa received this new commerce very well.

In Latin America countries like Uruguay, Paraguay, Argentina, Brazil, Venezuela, Colombia, Guatemala and recently Mexico started with a huge success. In Colombia was released with Redesign. In Iran banks like Parsian, Tejarat, Mellat, Saderat, Sepah, edbi and bank melli offer this service (Hernandez, 2011). Mexico released the mobile commerce with Omnilife, Bancomer and a private company (MPower Ventures). Kenya's Safaricom (Part of the Vodafone Group) has had the very popular M-Pesa Service mainly used to transfer limited amounts of money, but has been increasingly
used to pay utility bills. Zain in 2009 launched its own mobile money transfer business known as ZAP in Kenya and other African countries.

2.2.16 Challenges for a Mobile Banking Solution

On January 2009, Mobile Marketing Association (MMA) in their Banking Sub-Committee that was chaired by Cell Trust and VeriSign Inc published the Mobile Banking Overview for financial institutions in which it discussed the advantages and disadvantages of Mobile Channel Platforms (Short Message Services (SMS), Mobile Web, Mobile Client Applications, SMS with Mobile Web and Secure SMS). The following were published:

**Handset operability**

There are a large number of different mobile phone devices and it is a big challenge for banks to offer mobile banking solution on any type of device. Some of these devices support Java ME and others support SIM Application Toolkit, a WAP browser, or only SMS.

**Security**

Security of financial transactions, being executed from some remote location and transmission of financial information over the air, are the most complicated challenges that need to be addressed jointly by mobile application developers, wireless network service providers and the banks' IT departments. The mobile banking infrastructure has to handle exponential growth of the customer base. With mobile banking, the customer may be sitting in any part of the world (true anytime, anywhere banking) and hence banks need to ensure that the systems are up and running as a result customers will find mobile banking more and more useful, their expectations from the solution will increase. Banks unable to meet the performance and reliability expectations may lose customer confidence. Mobile devices have become both ubiquitous and indispensable for consumers and business people alike. Although these devices are relatively small and
inexpensive, they are powerful with multiple functions (Masamila, 2014). The mobile devices have specialized built-in hardware, such as cameras, accelerometers, Global Positioning System (GPS) receivers, and removable media readers. Furthermore, they are integrated with multiple wireless communication technologies such as Wireless Fidelity (Wi-Fi), Bluetooth, Near Field Communications (NFC), and a cellular interfaces (that can be reconfigured to choose between CDMA or GSM) that provide network connectivity across the globe. These devices can be used for sending and receiving email, browsing the web, online banking and commerce, social networking, storing and modifying documents, remotely accessing data, recording audio and video, and as navigation aids.

According to Masamila (2014) greater the number of functionality a mobile phone has, the more vulnerable mobile phones become to the same types of threats that plague our laptops and desktops computers. Current model of mobile devices are designed to make it easy to find, acquire, install, and use third-party applications. This poses obvious security risks, especially for mobile device platforms that do not place security restrictions or other limitations on third-party applications. These applications can be easily infected with mobile malware. Mobile malware, according to Masamila (2014), are typically targeted more toward handheld devices for which an SDK is available than those without one, since code development is easier to perform. With multiple communication networks, mobile viruses and other form of malware can be delivered handheld devices from multiple channels. For instance, mobile malware may also be received during synchronization with desktop computers and via tainted storage media. Malware in mobile devices can be spread in a variety of ways, including the following common ones:

**Internet Downloads:** A user with WAP or Wi-Fi enabled mobile phone may download an infected file via an Internet connection. The file could be disguised to trick the user. It
appear as a game, security patch, utility, or it may be posted as a free or shareware download.

**Messaging Services:** Malware attachments can be appended to electronic mail and MMS messages delivered to a device. Instant Messaging (IM) services supported on many phones are another means of malware delivery. In this attack, the user is forced to open the attachment, which subsequently the malware that will eventually infect the mobile phone.

**Bluetooth Communications:** Bluetooth technology provides a means to link devices in close proximity for information exchange. Bluetooth device can be configured in discoverable or invisible mode. In discoverable mode, the device can be seen by other Bluetooth enabled devices from which communication can be established. Mobile phone malware can be delivered through this channel especially when the mobile phone is left in discoverable mode. The consequences of mobile phone malware are wide. They can potentially eavesdrop on user activities, steal sensitive information, destroy stored information, deactivate or activate applications or disable a device. Mobile phone malware can initiate local or close proximity communications and propagate into other mobile devices or send via a mobile network (GSM/CDMA) premium rates text messages to services where the user is not subscribed or subscribed on other service rates (Masamila, 2014).

Other security concerns worth discussing in mobile banking ecosystems are: Larger network that have emerged as the result of consolidation are prone to security implications. Applications for mobile payment solutions are complex in nature with mismatching set of possibilities that are caused by the involvement of multiple players. The lines differentiating these players have become blurred with the crossover of mobile phone. The benefit of consolidation and sharing infrastructure are apparent, but the costs of poor security are often distributed. Proliferation of mobile banking technologies has
led to lack of cohesive technology standards that can provide a universal mode of mobile banking. This lack of common standard creates local and fragmented version of mobile banking offered by different stakeholders, which leads to lack of end-to-end security. In developing markets, mobile banking service providers depend on agents for customer acquisition and for managing liquidity. They access customer sensitive information such as the user name, mobile number and other credentials that are used for identification and authentication purpose. These agents are not well equipped to preserve customer sensitive information and can easily lead to information leakage (Masamila, 2014). Any loss of control over protected or sensitive information by service providers is a serious threat to business operations as well as, potentially, customer security.

2.2.17 Other Approaches to Address Challenges in M-Banking

Around the globe, various initiatives use the mobile phone to provide financial services to those without access to traditional banks. Yet relatively little scholarly research explores the use of these m-banking/m-payments systems. Presenting illustrative data from exploratory work with small enterprises in urban India, it argues that contextual research is a critical input to effective “adoption” or “impact” research. Further, it suggests that the challenges of linking studies of use to those of adoption and impact reflect established dynamics within the Information and Communication Technologies and Development (ICTD) research community. There are systems such as Mobile Transaction Platform which allow quick and secure mobile that enables various banking services. Recently in India there has been a phenomenal growth in the use of Mobile Banking applications, with leading banks adopting Mobile Transaction Platform and the Central Bank publishing guidelines for mobile banking operations.

Application distribution

Due to the nature of the connectivity between bank and its customers, it would be impractical to expect customers to regularly visit banks or connect to a web site for regular upgrade of their mobile banking application. It will be expected that the mobile
application itself check the upgrades and updates and download necessary patches via phones (Gaffar, 2009). However, there could be many issues to implement this approach such as upgrade / synchronization of other dependent components. Mobile banking has come in handy in many parts of the world with little or no Infrastructure development, especially in remote and rural areas.

2.3 Theoretical Framework
This study is guided by the Technological Acceptance Model (TAM). TAM is specific to information technology (IT) usage (Mathieson et al., 2001) and valid in predicting the individual’s acceptance of various corporate IT systems (Adams, et al., 1992). TAM as explained by Davis (1989), the model suggests that when users are presented with a new technology, a number of factors influence their decision about how and when they will use it. These factors are perceived usefulness defined as the degree to which a person believes that using a particular system would enhance his or her job performance, and perceived ease of use defined as the degree to which a person believes that using a particular system would be free from effort. These two factors are considered to be the primary determinants for adopting and using a new technology and are influenced by other variables such as security concerns, cost, convenience, and satisfaction (Lu, Yu, Liu and Yao, 2003 cited by Mbogo, 2010).

2.4 Conceptual Framework
The conceptual framework under this study relates customer satisfaction/non satisfaction which is the dependent variable and service delivery, efficacy and challenges as the independent variables. This framework entails that mobile banking has some efficacy in banking industry although there some challenges in its service delivery (see Figure 2.1).
Customer satisfaction or non-satisfaction depends on service delivered to customers. This goes hand in hand with efficacy that the customers perceive on the services provided. However, in order to deliver good services, challenges that hinder the provision of services need to be eliminated as to have good services. This is in line with the TAM model.

**Source:** Researcher (2015)
CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction
In this section, the researcher depicts the research methodology which was used during field work for data collection. The structure of this chapter is sub-sectioned into different parts. The section starts with presenting the description of the study area, followed by research design. The next in the section is study population, followed by sampling procedures and sample size. The sixth section and seventh sections discuss the data collection methods and reliability and validity of the measurements. The last in the section in the chapter discusses the data processing and analysis.

3.1 Study Area
This study was carried out in Morogoro, Tanzania at the KCB Morogoro Branch. The KCB Morogoro branch was purposively selected because a few or no similar study has been carried using KCB as a case study. Moreover, there has been no promising evidence on how customers have been satisfied with m-banking services at KCB.

3.2 Research Design
Research design refers to a comprehensive plan for data collection in order to answer research questions (Kothari, 2004). In this study, a cross sectional research design was adopted, whereby data was collected at one point in time. The choice of this method is partly warranted by its ability to meet the objectives of the study but also due to available time and finance. The data under this study was collected only once from respondents. The research design was conceptual structure within which research was conducted. The researcher used case study design, whereby the answers to the research questions were obtained through questionnaires.
3.3 Study Population
The population for this study was made up of all KCB customers in the Morogoro region. In addition, key informants such as banking officials formed a part of the study population. The population was selected due to its characteristics of being among the KCB shareholders who provided relevant information from the selected mobile banking services.

3.4 Sampling Procedures and Sample Size
Sampling procedures in this study involved purposive and simple random sampling techniques in selecting in study area and respondents respectively. Whereas purposive sampling technique was used to select KCB Morogoro branch and simple random sampling technique was used to select study respondents (customers). The sampling units for the questionnaire-based survey were KCB customers. The formula used to calculate the sample size is according to Smith (2003).

\[ n = \frac{(Z_{a/2})^2 P(1 - P)}{\lambda^2} \]

Where
- \( n \) = Sample size
- \( Z_{a/2} \) = Z – value
- \( P \) = Percentage of KCB customers who use mobile banking services
- \( \lambda \) = Maximum error, buy using confidence interval of 95 % for the estimated population maximum error of 5 %

\( Z_{a/2} = 1.96 \)
\( P = 8.5\% = 0.085 \)
\( \lambda = 5\% = 0.05 \)

\[ n = \frac{(1.96)^2 \times 0.085 \times (1 - 0.085)}{(0.05)^2} \]

\[ N = 119.5 \approx 120 \]
A final sample size was 120 respondents from the above calculation. A total of 120 customers were randomly selected to form a sample size of this study (see Table 3.1). The basis for selecting this sample size of 120 is that Kish (1965) and Sudman (1976) content that the sample size of between 100 and 200 respondents is suitable for statistical analysis. A total of 110 respondents were KCB customers and 10 key informants (KCB officials) were purposively recruited based on mobile banking experiences.

Table 3.1: Study respondents

<table>
<thead>
<tr>
<th>S/n</th>
<th>Category</th>
<th>Population</th>
<th>Sample size</th>
<th>Method employed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>KCB Officials (Branch Manager, Relationship Officer, Operation Manager, Business Banker and Bank Officers)</td>
<td>25</td>
<td>10</td>
<td>Purposive</td>
</tr>
<tr>
<td>2.</td>
<td>Customers</td>
<td>Various</td>
<td>110</td>
<td>Convenience</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td><strong>120</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher’s own compilation (2015)

3.5 Data Collection Methods

Both primary and secondary data were collected in this study. Primary data was collected using questionnaires and informants. The questionnaire was administered verbally by the interviewers and has been selected because it presents all respondents with standardized questions which yield uniform and consistent responses; and it is good where respondents are scattered over a wide geographical area. On the other hand, the rationale for the choice of key informant interview method is that they help to capture in-depth information because participants are more willing to disclose and challenge opinions. In this study, secondary data related to community policing was largely obtained from National, regional and district community policing reports of 2013.
3.5.1 Data Collection Instruments

The main data collection instruments to be used in this study were a questionnaire schedule and personal interviews.

3.5.1.1 Questionnaires

The questionnaire was the main data collection instrument used in this study. One set of questionnaire with both open and closed questions were developed and administered to both KCB customers and workers. The questionnaire focused on issue of mobile banking and customers’ satisfaction in banking industry. The questionnaire was chosen due to its flexibility in data collection as it generates data that is simple to code for analysis particularly when closed ended questions are used. As observed by Kothari (2004), a questionnaire lends itself the best for collecting information on different dimness of opinions, which were in line with this study. Moreover, open ended questions allow respondents to make an independent analysis of a problem over and above the multiple choices provided by the researcher. However, the researcher was aware of the possible shortcomings of this method which included invalid and zero responses as well as loss of questionnaires by some of the respondents.

However, such shortcomings were addressed in advance by piloting to KCB customer the questionnaire before distribution. For the purpose of introducing the study and seeking permission to administer questionnaires as well as assuring respondents for confidentiality, a letter written by the researcher was attached to the questionnaires introducing the study. The confidentiality of respondents was assured as it was clearly stated in the introductory part of each questionnaire that “all responses supplied will be used only for academic research purposes”. Further, respondents filled the questionnaires voluntarily and were not supposed to write down their names. The questionnaires were physically distributed by the researcher to respondents concerned and each respondent was allowed two weeks to complete the questionnaire and agreements on the day and time of collecting it were made.
3.5.1.2 Personal interviews

Personal interview method requires interviewer asking questions generally in a face-to-face contact to the other person or persons, and the method of collecting information through personal interviews is usually carried out in a structured way calling the interviews structured interviews which involve the use of a set of predetermined questions, and of highly standardized techniques of recording (Kothari, 2004). Apart from the questionnaire, interview was used to collect data for this study. The study adopted the use of structure interviews, restructured interview allows respondents to talk about what is of their central significance to them and give their views; it also helps the interviewer to avoid losing structured questions thus, ensure all topics that are important for the study are covered (Bell, 2005).

The researcher carried out a direct conversation with KCB Officials and answers were recorded in researchers’ notebook. The interviews contained questions needed to fill the gaps that could not be filled by the questionnaires. Appointments for interviews with respective officers were not made in advance, but rather depend on the availability of ample time interviewees could get within their tight schedules at work. Notes were taken during interview and recorded in a notebook.

3.5.2 Pre-testing of Data Collection Instruments

Data collection instruments for this study were pre-tested in one village which has similar characteristics to the selected villages. Pre-testing the data collection instruments is inevitable in order to test the clarity, suitability and logical flow of questions.

3.6 Reliability and Validity of the Measurements

Validity and reliability of the collected data should be checked in order that the findings depict the reality and the desired outcome (Saunders et al, 2007). The validity and reliability has been highly considered in this research through the use of different
methods of data collections like questionnaires and Interview has been used. The combination of these methods enables any research to be meticulous, broad and precise. During the study, the researcher has made reasonable efforts to ensure validity by ensuring that data were collected in a valid way, reliable and accurate. For instance, Pretest as an opportunity to identify questionnaire items that tend to be misunderstood by the participants or do not obtain the needed information has been conducted through review by administrative staff and other people having capacity and idea of formulating questionnaires.

Emphasis has also put on pilot study. According to Aina (2002), state that; if possible the pilot study should be done to a group similar to the one that will form the population of your study. This study used the pilot study before formulation of the population group of my study. According to Bell (2005) state that all gathering instruments should be piloted to test how long it takes to complete them, to check that all questions and instructions are clear and to enable one remove any item which does not yield usable data.

3.7 Data Processing and Analysis
Before data analysis, editing and coding of the data was done to make the data amenable to analysis. Quantitative data was analysed using Statistical Package for Social Sciences (SPSS). Descriptive statistics including frequencies, percentages, means and standard deviations was calculated and used to summarize data into understandable and meaningful form.
CHAPTER FOUR

PRESENTATION OF THE RESULTS AND DISCUSSION

4.0 Introduction
This chapter presents and discusses findings of the study received through data collected in the field. It gives answers to the research questions which were raised before the research was conducted. This study aimed at assessing the effectiveness of mobile banking on customers’ satisfaction, a case of KCB Morogoro branch. Collection of these data was done using questionnaires which was administered to respondents, questionnaire involved closed and open questions. All figures in the table are numbers of frequencies distribution presented in percentages (%).

4.2 Characteristics of Respondents
Researcher was interested to know gender, age, education level of respondents and time that a respondent has been a customer at KCB in order to know the characteristics of the respondents.

4.2.1 Gender of Respondents
Findings shows that 50 (41.7%) respondents were male and 70 (58.3%) were female (see Table 4.1 and Figure 4.1). Majority of mobile bank users at KCB are female. These findings justifies that female in the study area are more involved in mobile banking services as compared to male. This indicates that effectiveness of mobile banking services may be more successful if a large proportion of both males and females are involved in the use of mobile banking services. Gender consideration in mobile banking services can be an important aspect to ensure the viability of mobile banking services at individual and household level. However these findings are not surprising in the sense that majority of KCB customers are female.
Table 4.1: Gender of Respondent

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>50</td>
<td>41.7</td>
</tr>
<tr>
<td>Female</td>
<td>70</td>
<td>58.3</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Research findings (2015)

The same information can be presented graphically as indicated below

Figure 4.1: Gender of Respondents

Source: Research findings (2015)
4.2.2 Age of Respondents

Results showed that 13 (10.8%) respondents had the age between 18 to 20 years, 60 (50%) had the age between 21 to 30 years, 28 (23.3%) had the age between 31 to 40 years and 19 (15.8%) had the age between 41 to 50 years (see Table 4.2 and Figure 4.2). Majority of respondents had the age between 21 and 30 years inclusive. This implies that the majority of the respondents who use mobile banking services are mature individuals who are either working or doing business in which it is very important to them having bank accounts for serving money or through which their employers pay them salaries.

Table 4.2: Age of Respondents

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 – 20 Years</td>
<td>13</td>
<td>10.8</td>
</tr>
<tr>
<td>21 – 30 Years</td>
<td>60</td>
<td>50.0</td>
</tr>
<tr>
<td>31 – 40 Years</td>
<td>28</td>
<td>23.3</td>
</tr>
<tr>
<td>41 – 50 Years</td>
<td>19</td>
<td>15.8</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Research findings (2015)
The same information can be presented graphically as indicated below

**Figure 4.2: Age of Respondents**

![Age of Respondents](image)

**Source:** Research findings (2015)

**4.2.3 Education level of Respondents**

Findings showed that 52 (43.3%) respondents had primary education, 28 (23.3%) had primary education, 11 (9.2%) had college education, 12 (10%) percent had university education, 7 (5.8%) had adult education and 10 (8.3%) had informal education (see Table 4.3 and Figure 4.3). Majority of these respondents had primary education. The impact of majority being primary school leavers on the quality of information is that the quality of information is poor in the sense that most of them use or frequently use Kiswahili as the medium of communication. Some of the mobile banking services are provided in English, for that matter it is suggested that mobile banking services should be given in Kiswahili in order to improve the quality of information.
Table 4.3 Education level of Respondents

<table>
<thead>
<tr>
<th>Education</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informal Education</td>
<td>13</td>
<td>10.8</td>
</tr>
<tr>
<td>21 – 30 Years</td>
<td>60</td>
<td>50.0</td>
</tr>
<tr>
<td>31 – 40 Years</td>
<td>28</td>
<td>23.3</td>
</tr>
<tr>
<td>41 – 50 Years</td>
<td>19</td>
<td>15.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>120</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Research findings (2015)

The same information can be presented graphically as indicated below

Figure 4.3: Education level of Respondents

4.2.4 Time that a Respondent has been a customer at KCB

Results showed that 43 (35.8%) respondents has been the customers at KCB for a period between 1 to 3 years, 57 (47.5%) has been customers for a period between 4 to 6 years, 12 (10%) has been customers for a period between 7 to 10 years and 8 (6.7%) has been
customers for more than 10 years (see Table 4.4 and Figure 4.4). Therefore majority of respondents has been customers for a period between 4 to 6 years. The period of 4 to 6 years is a good experience as a customer at KCB and for that matter it is a nice experience for the customer to tell his/her satisfaction with mobile banking services.

Table 4.4: Number of years as a customer at KCB

<table>
<thead>
<tr>
<th>Year</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 – 3 Years</td>
<td>43</td>
<td>35.8</td>
</tr>
<tr>
<td>4 – 6 Years</td>
<td>57</td>
<td>47.5</td>
</tr>
<tr>
<td>7 – 10 Years</td>
<td>12</td>
<td>10.0</td>
</tr>
<tr>
<td>More than 10 Years</td>
<td>8</td>
<td>6.7</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Research findings (2015)

The same information can be presented graphically as indicated below

Figure 4.4: Number of years as a customer at KCB

Source: Research findings (2015)
4.3 Mobile banking accessible by KCB customers

The mobile phone companies working with KCB in providing mobile banking services are Vodacom, Airtel and Tigo. The first objective was to identify mobile banking accessible by KCB customers. Responses were as follows; 72 (60%) respondents use mobile banking in cash withdrawal, 18 (15%) said they use mobile banking for balance inquiry and 30 (25%) percent use mobile banking for various bill payment (see Table 4.5). Therefore most customers’ access mobile banking services through Vodacom. The findings show us that in the study area there are three main mobile banking services which are cash withdrawal, bill payment and balance inquiry. The results showed further that the most accessible mobile banking service is cash withdrawal, this is due to the reason that majority of KCB customers are either employed or running their own business and for that matter their employers pay them through their KCB account, therefore the majority of respondents use mobile banking in cash withdrawal.

Table 4.5: The mobile banking services

<table>
<thead>
<tr>
<th>Mobile service</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash withdrawal</td>
<td>72</td>
<td>60.0</td>
</tr>
<tr>
<td>Balance inquiry</td>
<td>18</td>
<td>15.0</td>
</tr>
<tr>
<td>Bill payment</td>
<td>30</td>
<td>25.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>120</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Research findings (2015)

4.4 Efficacy of mobile banking services on customers’ satisfaction

The second objective was to assess the efficacy of mobile banking services on customers’ satisfaction. In order to know efficacy of mobile banking services on customers' satisfaction, researcher wanted to know the responses below.
4.4.1 Increase in customer satisfaction

Researcher wanted to know the increase in customer satisfaction. Responses were as follows; 9 (7.5%) respondents mentioned friendly internal process (reduced bureaucracy), 51 (42.5%) mentioned employee engagement and 60 (50%) respondents mentioned quick service (see Table 4.6). Majority of respondents said that mobile banking brought about quick banking services. These findings imply that to the majority mobile banking enabled them to user a shorter time when in need of banking services; that is instead of being in queues for a long time they use only a short time through mobile banking services. All the processes of checking balance, sending or receiving money and checking of mini statements is done in a short period of time not compared to time before mobile banking services. In that regard the study found that there was increase in customer satisfaction.

Table 4.6: Increase in customer satisfaction

<table>
<thead>
<tr>
<th>Customer Satisfaction</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friendly internal process</td>
<td>9</td>
<td>7.5</td>
</tr>
<tr>
<td>Employee engagement</td>
<td>51</td>
<td>42.5</td>
</tr>
<tr>
<td>Quick service</td>
<td>60</td>
<td>50.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Research findings (2015)

4.4.2 Managerial Satisfaction

Researcher wanted to know whether managerial satisfaction had increased in KCB officials. Responses were as follows; 1 (10%) respondents said that mobile banking reduced paper work, 4 (40%) respondents said mobile banking reduced long working hours and 5 (50%) respondents said that mobile banking reduced work load (see Table 4.7). Majority of respondents said that the mobile banking reduced workload. Instead of serving a huge number of customers in long queues in banks in demand of banking services, KCB officials use that time in doing other banking activities. This is because
majority of respondents use mobile banking services instead of going direct to banks. Managerial satisfaction in that regard has increased to the KCB officials.

**Table 4.7: Increase in Managerial satisfaction**

<table>
<thead>
<tr>
<th>Managerial satisfaction</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduced paper work</td>
<td>1</td>
<td>10.0</td>
</tr>
<tr>
<td>Reduced long working hours</td>
<td>4</td>
<td>40.0</td>
</tr>
<tr>
<td>Reduced work load</td>
<td>5</td>
<td>50.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>120</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

**Source:** Research findings (2015)

**4.4.3 Increase in revenue**

Researcher wanted to know whether revenue had increased at KCB bank as a result of their customers’ use of mobile banking services. Responses were as follows; 2 (20%) said that mobile banking brought additional services. The bank enters contract with mobile phone companies and what is received as charges to various services is divided between the bank and the mobile phone company in that regard revenue increases, 5 (50%) respondents said mobile banking has led to the increase in number of customers. Due to mobile banking customer may be away from the bank and yet access banking services and 3 (30%) said that mobile banking has led to increase in transactions.

Nowadays instead of going all the way to the bank from far away, banking services can still be obtained at finger hands; the act of getting banking services at finger tips has motivated customers to perform transactions several times (see Table 4.8). Majority of respondents said that mobile banking brought increase in number of customers. In using mobile banking services KCB enters contract with phone companies. For any use of a mobile banking service customers pays some charges which is shared with both mobile phone companies and the bank, in that way the bank gets revenue extra to its other revenues. By getting this revenue there is increase in revenue. In that way mobile banking is beneficial to KCB as well.
Table 4.8: Increase in revenue

<table>
<thead>
<tr>
<th>Increase in revenue</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional services (e.g. bill payment)</td>
<td>2</td>
<td>20.0</td>
</tr>
<tr>
<td>Increase in number of customers</td>
<td>5</td>
<td>50.0</td>
</tr>
<tr>
<td>Increase in number of transactions</td>
<td>3</td>
<td>30.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

**Source:** Research findings (2015)

4.4.4 Operating efficiency

Researcher wanted to know whether operating efficiency of KCB officials has increased. Responses were as follows; 3 (30%) respondents mentioned reliable system and 7 (70%) respondents mentioned secured system (see Table 4.9). Majority of respondents said that the system of mobile banking is more reliable and for that matter mobile banking has brought about increase in operating efficiency. The increase in operating efficiency to KCB officials implies that the service to customers is good. Better service to customers implies that mobile banking services are very effective.

Table 4.9: Increase in operating efficiency

<table>
<thead>
<tr>
<th>Operating efficiency increase</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secured system</td>
<td>3</td>
<td>30.0</td>
</tr>
<tr>
<td>Reliable system</td>
<td>7</td>
<td>70.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

**Source:** Research findings (2015)

4.4.5 Improvement in market share position

Researcher wanted to know whether there was improvement in market share position. Responses were as follows; 2 (20%) were neutral, 6 (60%) agreed and 2 (20%) strongly agreed (see Table 4.10). Majority agreed that there was improvement in market share
position. The improvement of market share position goes hand in hand with the effectiveness of mobile banking services; no improvement in market share position without effectiveness of mobile banking services as far as mobile banking services is concerned. Therefore the improvement of market share position is an indicator to the effectiveness of mobile banking services.

Table 4.10: Improved market share position

<table>
<thead>
<tr>
<th>Improved market share position</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral</td>
<td>2</td>
<td>20.0</td>
</tr>
<tr>
<td>Agree</td>
<td>6</td>
<td>60.0</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>2</td>
<td>20.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

**Source:** Research findings (2015)

Having gone through customer satisfaction, managerial satisfaction, increase in revenue, improved market share position and mostly increase in operating efficiency the study has showed that actually there is customer satisfaction. Therefore mobile banking has brought customer satisfaction for a great extent. By using mobile banking services customers do not waste a lot of time in queues in banks, so by using a short time for example and by doing transactions at any time they want beyond working hours and during weekends to customers will be more satisfied. Therefore mobile banking services has efficacy on customers’ satisfaction.

4.5 Challenges facing KCB customers in the usage of mobile banking services

The third objective was to assess challenges facing KCB customers in the usage of mobile banking services. Responses were as follows; 79 (65.8%) respondents mentioned system inaccessibility. They said that sometimes a customer may be in need of withdrawing money and they find that no network coverage. The problem of network coverage can be to both the bank system and the mobile phone company or to one of the
system, 24 (20%) said sometimes there are delays of transaction to complete on time and 17 (14.2%) mentioned wrong mobile number. It may happen that in the process of sending money, one may send money to a wrong mobile number (see Table 4.11). Majority of respondents said the main problem is network problems. Someone may be in the process of doing transaction and you may be told that network is not available. Some few cases also reported that it is not possible to access mobile banking service if one does not have credit on their mobile phones. For that matter mobile phone service providers in collaboration to KCB if they will work close together in findings solutions to those challenges it is obvious that effectiveness of mobile banking on customers’ satisfaction in banking services will increase.

Table 4.11: Challenges faced by KCB customers in the usage of mobile banking

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>System inaccessibility</td>
<td>79</td>
<td>65.8</td>
</tr>
<tr>
<td>Delay of transactions to complete on time</td>
<td>24</td>
<td>20.0</td>
</tr>
<tr>
<td>Wrong mobile numbers</td>
<td>17</td>
<td>14.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>120</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

**Source:** Research findings (2015)
CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.0 Introduction

This chapter presents the summary of the findings from the study, conclusion, and give recommendations in regard to findings. It presents the delimitations of the study and suggests areas for further research.

5.1 Summary

This study aimed at assessing the effectiveness of mobile on customers’ satisfaction using a case of KCB Morogoro branch. It explained all the three specific objectives which were first, identifying mobile banking services accessible by KCB customers; secondly to assess the efficacy of mobile banking services on customers’ satisfaction and thirdly to assess challenges facing KCB customers in the usage of mobile banking services.

These results showed generally that; the main mobile banking services accessible by KCB customers are balance inquiry, cash withdrawal and bill payment. Secondly the study found that mobile banking services has great efficacy on customers’ satisfaction. Thirdly the results found that challenges facing KCB customers in the usage of mobile banking services include system inaccessibility, delay in transaction to complete on time and wrong mobile numbers.

5.2 Conclusion

The major intention of this study was to assess the effectiveness of mobile banking on customers’ satisfaction using a case of KCB Morogoro branch. It is clear from the findings that mobile banking on customers satisfaction is very effective, however there are some challenges facing customers in the usage of mobile banking services. The main
challenge is network problems. And for that matter mobile banking service providers and all stakeholders should work together to overcome all these challenges.

5.3 Recommendation

In this study we have seen the effectiveness of mobile banking on customers’ satisfaction using a case of KCB Morogoro branch.

(i) Study found out that most customers use only three mobile banking services cash withdraw, balance inquiry and bill payment. This is number is too small when compared to the number of KCB customers. In order to improve effectiveness to customer satisfaction it is recommended that KCB should increase banking services to its customers such as ordering of cheque book, interbank transfer and exchange rate inquiry.

(ii) Study found that there is a network problem for both mobile banking system and service provider which is the telecommunication company. It is therefore recommended that the owners of Telecom companies and KCB plus all stakeholders in this industry should work together to resolve network problems. Doing this will enable customers to access mobile banking services more quickly which will attract more customers.

(iii) The bank needs to ensure that their customers are well trained while using mobile banking service so that they avoid cases of sending money to wrong recipients.

5.4 Delimitations of the Study

This research assessed the effectiveness of mobile banking on customers’ satisfaction. However, this study is not exhaustive on the role that banks should play in order to stop fraudulent activities in mobile banking industry.
5.5 Area for Further Research

Future researchers could work on investigating/assessing the role of banks in stopping fraudulent activities in mobile banking industry. In this case there is a need for a baseline survey data that will provide accurate, formative data on the roles of banks in stopping frauds in mobile banking industry.
REFERENCES


APPENDICES

Appendix 1: Questionnaire

Effectiveness of Mobile Banking on customers satisfaction in Banking industry; A case of Kenya Commercial Bank Morogoro Branch, Tanzania

Dear respondent,
I am a student pursuing Master degree in Business Administration at Mzumbe University. I am conducting this research to study Effectiveness of Mobile Banking on customers’ satisfaction in banking industry. Your response to these questions would remain anonymous. Taking part in this study is voluntary. If you choose not to take part, you have the right not to participate and there will be no consequences. Thank you for your kind co-operation.

A. General Information
1. Date of interview:_________________
2. Questionnaire No:_________________

B. Demographic Data
3. Sex of respondent
   (a) [ ] Male
   (b) [ ] Female
4. Age of respondent
   (a) 18 – 20 Years
   (b) 21 – 30 Years
   (c) 31 – 40 Years
   (d) 41 – 50 Years
   (e) More than 50 Years
5. Education level
   (a) [ ] Primary education
   (b) [ ] Secondary education
   (c) [ ] College education (certificate & diploma)
   (d) [ ] University education (Degree, masters etc)
   (e) [ ] Adult education
   (f) [ ] None (Illiterate)

6. How long have you been a customer at KCB bank
   (a) 1 – 3 Years
   (b) 4 – 6 Years
   (c) 7 – 10 Years
   (d) More than 10 Years

7. Do you use mobile banking services?
   (a) Yes
   (b) No

8. Which company is your mobile phone service provider?
   (a) [ ] Vodacom
   (b) [ ] Airtel
   (c) [ ] Tigo
   (d) [ ] Other (please specify)

9. What is the level of mobile phone network coverage in your area?
   (a) [ ] No network coverage
   (b) [ ] Very weak network
   (c) [ ] Moderate network
   (d) [ ] High network coverage
   (e) [ ] Very high network coverage
   (f) [ ] Others (please specify)
10. Effectiveness of Mobile Banking on customers satisfaction

[Effectiveness of mobile banking on customers’ satisfaction]

(Tick appropriate box that represents the respondents’ experience-
1=Strongly disagree 2=Disagree 3= Neutral 4=Agree 5=Strongly agree)

<table>
<thead>
<tr>
<th>Influence</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Customer satisfaction has increased</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ii) Managerial satisfaction has increased</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iii) Gross profit has increased</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iv) Revenue has increased</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(v) Sales volume has increased</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(vi) The rate of customer second visiting has increased</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(vii) The rate on visiting customers has increased</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(viii) Number of customers has increased</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ix) Operating efficiency has increased</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(x) improved market share position</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11. What challenges do you face as KCB customer in the usage of mobile banking services

........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................

Thank you for your cooperation