THE ADOPTION OF MOBILE BANKING SYSTEM TO FINANCIAL INSTITUTIONS: A CASE OF NBC BANK LTD
THE ADOPTION OF MOBILE BANKING SYSTEM TO
FINANCIAL INSTITUTIONS:
A CASE OF NBC BANK LTD

By
Lilian Loiruck Paul

A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree
of Master of Business Administration in Corporate Management (MBA-CM) of
Mzumbe University.

2014
CERTIFICATION

We, the undersigned, certify that we have read and hereby recommend for acceptance by the Mzumbe University, a thesis entitled; *The Adoption of Mobile Banking System to Financial Institutions: A Case of NBC Bank Ltd*, in partial fulfillment of the requirements for award of the degree of Master of Business Administration in Corporate Management (MBA-CM) of Mzumbe University.

________________________________________
Major Supervisor

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Internal Examiner

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I, Lilian Loiruck Paul, declare that this dissertation 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.

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ACKNOWLEDGEMENT

First I would like to thank God the Almighty for giving me power to complete this work. I am beholden to my Supervisor, Dr. D. Mutalemwa for the encouragement, and support that shaped the outcome of this dissertation. Much appreciation goes to respondents whose willingness to participate in this study enabled me to obtain requisite information.

I am also beholden to my beloved parents Mr. and Mrs. Loiruck Paul for their parental care they offered to me since I was born, to my brothers, sisters, nephews, nieces, in laws and other relatives for their support and prayers during my studies.

Last but not least, my thanks are owed to all lecturers and my fellow MBA students of the 2012/2014 for their advice and support which proved to be vital in the accomplishment of this study. Many have obviously helped me to produce this dissertation but like every writer, the final responsibility for what has been produced rests with me.
DEDICATION

This work is dedicated to my beloved parents Mr. and Mrs. Loiruck Paul for the education foundation they laid down for me, also for their help, prayers and encouragement. They have significantly contributed to the successful completion of this work.
### ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATM</td>
<td>Automated Teller Machine</td>
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<tr>
<td>GCASH</td>
<td>Globe cash</td>
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<tr>
<td>GSM</td>
<td>Global System for Mobiles</td>
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<tr>
<td>IT</td>
<td>Information technology</td>
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<td>MDG</td>
<td>Millennium Development Goal</td>
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<td>MMT</td>
<td>Mobile Money Transfer</td>
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<td>MNO</td>
<td>Mobile Network operator</td>
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<td>MPESA</td>
<td>Mobile Money</td>
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<tr>
<td>NBC</td>
<td>National bank of Commerce</td>
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<tr>
<td>PDA</td>
<td>Personal Digital Assistant</td>
</tr>
<tr>
<td>SMS</td>
<td>Short message service</td>
</tr>
<tr>
<td>UNCTAD</td>
<td>United Nation Conference on Trade and Development</td>
</tr>
<tr>
<td>UTAUT</td>
<td>Unified Theory of Acceptance and Use of Technology</td>
</tr>
<tr>
<td>WAP</td>
<td>Wireless Access Point</td>
</tr>
<tr>
<td>ZAP</td>
<td>Money Transfer Technology</td>
</tr>
</tbody>
</table>
Mobile banking is growing at a remarkable speed around the world. In the process it is creating considerable uncertainty about the appropriate regulatory response to this newly emerging service. Tanzania is the one among the sub-Saharan country in Africa in which Mobile banking services are operated. This study seeks to explore the adoption of mobile banking system to financial institutions. A case study design was used. NBC bank being the key area of the study. Specifically, the study aimed at determining the strategies used by NBC bank in adoption of Mobile banking services. To find out the significance of Mobile banking as well as to identify the challenges faced on the performance of M-banking at NBC bank. The strategies includes; training strategies, research strategy, promotion strategy and expert strategy. Sampling techniques used were purposive and snowball sampling. Data collection methods were included; self administered questionnaires as well as interviews were used.

Result of this study revealed that; improving access of Mobile banking network services by providing good infrastructures facilities will improve the service and attracting more customers. Most of the people in Tanzania live in rural areas that are denied with financial services and more than half of the country’s GDP comes from agriculture. The use of M-Banking system could now be use as alternative way to promote the poor in accessing financial services. The significant of this study includes; reduce risk of carrying money to the bank, Mobile bank is convenience services, save time, convenience service, give the customer full control of money and reduce paperwork. Some challenges were noted including; system failure, cost of managing Mobile banking system and customer experience. Finally, the study recommends that; NBC bank should also understand their customers and make sure that their services are convenient, affordable and should also consider the easiness in usage of the technologies introduced. NBC bank together with Mobile money provider should provide good infrastructures on network services so that the service can be available 24/7 days, this will help NBC bank to improve its performance and attract more customers.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>CERTIFICATION .......................................................... i</td>
</tr>
<tr>
<td>DECLARATION AND COPYRIGHT ........................................... ii</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENT ....................................................... iii</td>
</tr>
<tr>
<td>DEDICATION ....................................................................... iv</td>
</tr>
<tr>
<td>ABBREVIATIONS ............................................................... v</td>
</tr>
<tr>
<td>ABSTRACT .......................................................................... vi</td>
</tr>
<tr>
<td>TABLE OF CONTENTS ........................................................ vii</td>
</tr>
<tr>
<td>LIST OF TABLES ............................................................... x</td>
</tr>
<tr>
<td>LIST OF FIGURES .............................................................. xi</td>
</tr>
</tbody>
</table>

## CHAPTER ONE .................................................................. 1
INTRODUCTION .................................................................. 1

1.1 Background Information to the Problem .......................... 1
1.2 Statement of the Problem ............................................. 2
1.3 Research Questions ...................................................... 4
1.4 Objective of the Study .................................................. 5
1.4.1 General Objectives .................................................... 5
1.4.2 Specific Objectives .................................................... 5
1.5 Significance of the Study .............................................. 5
1.6 Delimitations of the Study ............................................ 6

## CHAPTER TWO .................................................................. 7
LITERATURE REVIEW ....................................................... 7

2.1 Introduction ................................................................. 7
2.2 Conceptual Definitions .................................................. 7
2.4 Mobile Money Transfer (MMT) in Tanzania ..................... 10
2.5 Methods used to describe mobile money transfer services .... 13
2.5.1 The Basic Method ................................................... 13
2.5.2 The Network Operator Centric Method ......................... 13
2.5.3 The Service Aggregator Centric Method ....................... 14
2.5.4 The Service Provider Centric Method ......................... 15
2.6 Categorization of Mobile Money Transfer services .............. 15
2.7 Mobile Banking System in Tanzania .............................. 16
2.8 NBC Mobile Banking Services ...................................... 17
2.8.1 Features of NBC Mobile Banking .............................. 17
2.8.2 Registration for Mobile Banking at NBC Bank ............... 17
2.9 Theory Relevant to this Study ........................................ 18
2.10 Theoretical Framework ................................................. 20
2.10.1 Strategies for Building Mobile Banking Application ....... 21
2.10.2 Significance of Mobile Banking ................................. 24
2.10.3 Challenges of Mobile Banking Adoption ..................... 25
2.11 Mobile Banking Customer Satisfaction ........................... 27
2.12 Empirical Studies ......................................................... 28
2.13 Conceptual Framework ................................................................. 30
2.14 Research Gap ............................................................................. 31

CHAPTER THREE ................................................................................. 32
RESEARCH METHODOLOGY ............................................................... 32
3.1 Introduction ..................................................................................... 32
3.2 Research Design ............................................................................ 32
3.3 Area of Study .................................................................................. 32
3.4 Population of the Study ................................................................. 32
3.5 Sampling Design ............................................................................. 33
3.6 Sample Size ..................................................................................... 33
3.7 Sampling Procedures ...................................................................... 33
3.7.1 Purposive Sampling .................................................................... 34
3.7.2 Snow ball Sampling ................................................................... 34
3.8 Type of Data Sought ....................................................................... 34
3.9 Data Collection Methods ............................................................... 35
3.9.1 Interviews .................................................................................. 35
3.9.2 Self-Administered Questionnaires ............................................. 35
3.9.3 Documentary Review ................................................................. 36
3.10 Data Analysis ................................................................................ 36
3.11 Limitation of the Study ............................................................... 36

CHAPTER FOUR ...................................................................................... 38
DATA ANALYSIS AND FINDING OF THE STUDY ................................ 38
4.1 Introduction ..................................................................................... 38
4.2 Respondents of the Study ............................................................. 38
4.2.1 Age .......................................................................................... 38
4.2.2 Sex ............................................................................................ 40
4.2.3 Marital Status of the Respondents .......................................... 40
4.2.4 Education Level of the Respondents ...................................... 41
4.2.5 Occupation of Respondents .................................................... 42
4.2.6 Quality of Service Provided by M-Banking ............................. 43
4.2.7 Efficiency of NBC Bank on M-banking Services ..................... 44
4.3 Factors Considered in Adoption of Mobile Banking at NBC Bank Ltd. 45
4.3.1 Organizational Factor ............................................................... 45
4.3.2 Technological Factor ............................................................... 47
4.3.3 Strategic Factor ......................................................................... 47
4.3.4 Functional Factor ...................................................................... 48
4.3.4 Economic Factor ....................................................................... 48
4.4 Strategies in Adoption of Mobile Banking at NBC Bank ............. 49
4.4.1 Training Strategy ...................................................................... 49
4.4.2 Research Strategy ..................................................................... 50
4.4.3 Promotion Strategy .................................................................... 51
4.4.4 Service Strategy ....................................................................... 52
4.4.5 Expert’s Strategy ....................................................................... 52
4.5 Significant of Mobile banking services to NBC bank Ltd .......... 53
4.6 Challenges Faced by NBC bank Ltd on the Adoption of Mobile Banking ................................................................. 56
4.7 Chapter Summary ......................................................................................................................... 58

CHAPTER FIVE .................................................................................................................................................. 60
SUMMARY, CONCLUSION AND POLICY IMPLICATION ........................................ 60
5.1 Introduction .................................................................................................................................................. 60
5.2 Main Conclusion ......................................................................................................................................... 60
5.2.1 Strategy, significant and challenges in adoption of M-banking at NBC. 60
5.3 Recommendations ................................................................................................................................... 63
5.3.1 NBC Bank Ltd .................................................................................................................................... 64
5.3.2 Other Stakeholders ............................................................................................................................ 65

REFERENCES ................................................................................................................................................. 66

APPENDICES .................................................................................................................................................. 78
Appendix 1: Budget ........................................................................................................................................... 78
Appendix 2: Interview guide for Management staffs at NBC bank Ltd .................................. 79
Appendix 3: Questionnaires for NBC bank Operations staffs .............................................. 81
Appendix 4: Questionnaires for Customers at NBC bank .................................................. 83
LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 3.1</td>
<td>Sample Size of Population</td>
<td>33</td>
</tr>
<tr>
<td>Table 4.1</td>
<td>Age of Respondents</td>
<td>39</td>
</tr>
<tr>
<td>Table 4.2</td>
<td>Sex of the Respondents</td>
<td>40</td>
</tr>
<tr>
<td>Table 4.3</td>
<td>Marital Status of the Respondents</td>
<td>41</td>
</tr>
<tr>
<td>Table 4.4</td>
<td>Education Level of the Respondents</td>
<td>42</td>
</tr>
<tr>
<td>Table 4.5</td>
<td>Occupation of Respondents</td>
<td>43</td>
</tr>
<tr>
<td>Table 4.6</td>
<td>Quality of Service Provided by NBC bank Ltd on M-banking</td>
<td>44</td>
</tr>
<tr>
<td>Table 4.7</td>
<td>Efficiency of NBC Bank on M-Banking Services</td>
<td>45</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Conceptual Framework</td>
<td>30</td>
</tr>
<tr>
<td>4.1</td>
<td>Age of the Respondents</td>
<td>40</td>
</tr>
<tr>
<td>4.3</td>
<td>Marital Status of the Respondents</td>
<td>41</td>
</tr>
<tr>
<td>4.4</td>
<td>Education level of the Respondents</td>
<td>42</td>
</tr>
<tr>
<td>4.5</td>
<td>Occupation of Respondents</td>
<td>43</td>
</tr>
<tr>
<td>4.6</td>
<td>Respondents on Quality of Services (M-banking)</td>
<td>44</td>
</tr>
<tr>
<td>4.7</td>
<td>Respondents on Efficiency of Services (M-Banking)</td>
<td>46</td>
</tr>
</tbody>
</table>
CHAPTER ONE

INTRODUCTION

1.1 Background Information to the Problem

In the last decade computer and telecommunication technologies have created the mobile communications industries and have recently begun to dismantle other industries including the banking industry (Luarn et al, 2005). Mobile Banking has marked this decade as the latest technological advancement in financial sector. The motive behind adopting this technology is to provide customers ease of use and swift banking services at their door step (Zohra & Kashif, 2011). Siau et al (2001) point out that mobile commerce adoption strongly depends on the user infrastructure (user-accessible mobile devices) and on the available network infrastructure (mobile telecommunications networks).

Pitruzzello (1998), Lan et al (2000), Guardini et al (2000), Kiesnoski (2000) argue that commerce applications, including mobile banking, cannot be implemented successfully without an integrated and seamlessly converging underlying infrastructure, and suggest approaches towards achieving coexistence and transparent handoff in a global coverage perspective. Therefore mobile banking has emerged as a promising new application of the next generation electronic commerce - mobile commerce. Bansai (2001) asserted that a co-factor for the successful adoption of mobile banking is the timely development of value-added mobile banking services.

Aliyu (2012) asserted that; in Africa for a long time to come, technology will continue to dominate the scope of human activities all over the world. The science of getting things done in the most efficient ways will therefore continue to be a popular study and generate much interest. The banking environment is constantly changing. The financial services industry is in transition and the emerging economy and technology is profoundly changing the nature of financial services.
The majority of the population in Africa has no access to banking services, with only 20% of African families having bank accounts (Dovi, 2008). For instance, in 2007, only about 30% of households in Kenya had bank accounts; and in Benin, with a population of 7 million had only 35 bank branches in 2006 (Mwangi & Njuguna, 2009). The limited access to financial services in Africa stems particularly from deficient infrastructure, physical-geographical isolation or inaccessibility, financial illiteracy, all of which culminate into exceedingly high cost of providing banking services.

Ethiopia, Uganda and Tanzania for instance, each have less than one bank branch per every 100,000 people compared to 100 in Spain. This ratio however shows a high disparity across the continent, with Namibia having more than four, Zimbabwe more than three and Botswana nearly four bank branches per 100,000 people. Sub-Saharan Africa (SSA) has the lowest deposit institution penetration in the world standing at an average of 16.6% compared to 63.5% in developed countries (Financial access, 2010).

The use of Mobile phone has spread in a very broad manner, becoming the first communications technology in developing countries like Tanzania. With mobile communications, mobile banking (M-Banking) has great potential for extending the provision of financial services to unbanked people through a technology that is both familiar and widespread. Across the developing world, there are probably more people with mobile handsets than with bank accounts (Porteous, 2006). Mobile banking is creating opportunities for the poor to have access to the wider financial services sector in developing countries in Africa and elsewhere (Frank, 2011).

1.2 Statement of the Problem

Mobile banking has experienced a fast growth globally. Over the years, banking has transcended from a traditional brick-and-mortar model of customers queueing for services in the banks to modern day banking where banks can be reached at any point for their services. In today’s business, technology has been on the predominant indicators of growth and competitiveness (Archana & Vineet, 2012). The banking
industry today is in the industry of it revolution. The combinations of regulatory and competitive reasons have lead to increasing importance of total banking automation in the banking industry. Information technology has basically been used under two different avenues in banking. One is communication and connectivity and other is business process. Reengineering both, basically focusing on increasing its customer reaches. Information of technology enables sophisticated product development, better market infrastructures, implementation of reliable techniques for control of risks and helps the financial intermediaries to reach geographically distant and diversified markets (Sreelatha & Chadra, 2012).

In an attempt to increase their customer base and reduce costs, financial institutions constantly look for new and better delivery channels for their services. As customers demand faster, and convenient services; financial institutions turn to new technologies to expand their customer relationships to compete with other financial service providers. Therefore provides a convenient mobile service for bank customers to transact business with their financial institution with the use of their mobile phones, taking into cognizance the vital issue of security (Victoria, 2011). The impact of mobile banking technology on financial institutions had ultimately highlighted as a great potential on increasing access of financial services to the unbanked population (David & Puneetha, 2011). According to Ewe & Yap (2012), the mobile banking phenomenon, has significantly impacted the bank’s operational efficiency, value delivery and also customer services. While it has received a great deal of attention in developed nations, its adoption among developing nations including Africa and Malaysia is still very low (Bank Negara Malaysia, 2012).

In the developing economies, there are more mobile phone users than bank account owners. Sixty percent of mobile phone users live in the development world (UNCTAD, 2008). As mobile phone use has expanded in developing countries, banking agents now play an important role in facilitating mobile banking. Banking agents are third party retail outlets that process financial transactions on behalf of banks and other licensed-deposit taking institutions (Mas and Siedek, 2008). Inspite of using of mobile money services as informal savings instruments, mobile phone
now, facilitate banking services, such as merchant payments and loan disbursements, in addition to both domestic and international remittance transfer services, provides bill payment and loan disbursement services (GSM Association, 2010).

In case of M-PESA, Kenya is not the first country where mobile phones have made financial services more available to poor people. In the Philippines, where 75 percent of the country was without access to formal financial services in 2009 two mobile money services produced by communications companies predate M-PESA. Smart Communications’ SMART Money and Globe Telecom’s. GCASH Mobile was launched in 2001 and 2004 respectively. For Kenyans it is clearly an amazingly successful technology, and has generated all sorts of interesting opportunities for people who often live isolated rural lives or do not have access to the traditional banking structure. In neighboring Tanzania, M-PESA has been in the market for over a year. Yet it is not garnering the same level of media attention. Despite the close proximity of Tanzania and Kenya, the mobile banking landscape in each is quite different (Pickens, 2009). In addition to that; Tanzania have been adopted mobile banking services, using mobile device, banks has very large potential to offer mobile banking services to people living in remote villages where only few computers are connected to the internet. This is due to the fact that Mobile banking saves time as well as reduces risk of carrying money to the bank, but yet its growth is still very low due to the fact that most of the people in rural areas are unbanked and like better using mobile money. Therefore this study it is thought to assess the adoption of Mobile banking system at NBC bank as one among the financial institutions in Tanzania. In light of this, the study answered the following basic research questions:

1.3 Research Questions
   
   (i.) What are the strategies used by stakeholders in adoption of mobile banking at NBC bank Ltd?

   (ii.) What is the significance of Mobile banking to NBC bank Ltd?

   (iii.) What are the challenges faced by NBC bank Ltd on the performance of mobile banking system?
1.4 Objective of the Study

1.4.1 General Objectives
To investigate the adoption of mobile banking at NBC bank Ltd.

1.4.2 Specific Objectives
(i.) To identify the strategies used by stakeholders in adoption of mobile banking at NBC bank Ltd.
(ii.) To find out the significance of Mobile banking to NBC bank Ltd.
(iii.) To identify the challenges faced by NBC bank Ltd on the adoption of mobile banking system.

1.5 Significance of the Study
Mobile Banking was creating dramatic changes for the banking industry. The study was beneficial to the bank it’s self to help in increasing awareness to customers, especially poor people in rural areas in Tanzania where most of the people who have no bank accounts (un - banked) to know the importance of mobile banking services; where by banking financial activities such as bill payment, bank transfer, account balance, loan payment, transactions from the bank account was done through phone. Also the study was important in order to meet the MDG target, accelerate efforts to combat poverty, hunger, disease and illiteracy in a bid to meet the Millennium Development Goals (MDGs) as mobile banking save time, improve performance, convenient to users at any time any place, increasing customer reaches and control risk.

(i.) The study was beneficial to the stakeholders and organization it’s self by identifying areas of weakness; hence corrective measures be imposed to solve the problem at NBC bank Ltd in mobile banking services.

(ii.) The study was beneficial to the stakeholders of the financial institutions to expand their business by providing good and quality services to its customers hence improving efficiency and performance.
(iii.) The study was important to me because it was about adding more knowledge and also was the requirement for the award of Master Degree in Business Administration.

1.6 Delimitations of the Study

The study ensured that, the sample size was big enough to be able to make generalisations in spite of the fact that, only one institution was covered. The study confined itself to NBC bank Ltd located at Sokoine Drive Azikiwe Street in Ilala Municipality. The choice of NBC bank Ltd limits generalization of other financial institutions that are equally provide mobile banking services to its customers.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction
This chapter covers definition of terminologies and various theories, strategies, significance and challenges of mobile banking as well as theoretical and empirical aspects related to the topic under investigation.

2.2 Conceptual Definitions
Banking can simply be expressed as the business of keeping, lending, exchanging and issuing money (Barnhart and Barnhart, 2000). It can also be expressed as the business of bankers. Mobile banking can be defined as the ability to conduct bank transactions via a mobile device / personal digital assistant (PDA), or more broadly to conduct financial transactions via a mobile terminal (Drexelius & Herzig, 2001). This definition is a suitable working one as it includes not only basic services such as bank account statements and funds transfer but also electronic payment options as well as information based financial services (e.g. alerts on account limit or account balance, access to stock broking).

In the broadest sense, Mobile Banking can be considered as a traditional banking services accomplished by portable devices. In a stricter sense, Mobile Banking is a channel for customers to interact with a bank via mobile device with the emphasis being on data communication. Mobile Banking precludes voice or telephony banking that forms part of call center operations (Barnes and Corbett, 2003). Currently, the three most popular channels of mobile banking are data – centric services (Infogile, 2007): Short Message Service (SMS), Wireless Access Protocol (WAP) and Standalone Mobile Client Application. Mobile Banking (MB) means a financial transaction conducted by logging on to a bank’s website using a cell phone, such as viewing account balances, making transfers between accounts, or paying bills. It is a term used for performing balance checks, account transactions, payments etc. via a mobile device such as a mobile phone. In recent time Mobile banking is most often
performed via SMS or the Mobile internet but can also use special programs called clients downloaded to the mobile device (Porteous, 2006).

Mobile payment refers to the “process perspective” mobile payment is just one method of transferring monetary value among people for example M-PESA in Tanzania and Kenya (Kuttner & Mc Andrews, 2001). Information Technology (IT) is defined as a critical resource for creating organizational value (Kohli and Devaraj, 2004). It also has the capability to transform the nature of products, processes, companies, industries, and even competition itself (Porter and Millar, 1985).

Mobile Money Transfer (MMT) services are financial transactions undertaken using mobile device such as a mobile phone (Allen, 2003). MMTs are a small but growing subset of the broader world of electronic payments (E-payments). MMTs are simply the transference of value from payer to payee, as in a remittance or bill payment (Krugel, 2005).

Mobile money transfer services (MMT), are experiencing rapid adoption in many markets, in response to steady growth in remittances, the worldwide ubiquity of cell phones, and the need for an electronic payment alternative to paper-based mechanisms like cash and checks. More than a billion people worldwide lack access to traditional financial services, particularly in emerging countries, although they have mobile phones. As of 2009, 68 percent of the world’s population had mobile cellular subscriptions (Pickens, 2009).

Mitchell (2001) defines electronic commerce as “much more than buying and selling on the Net: (electronic commerce) is about doing businesslectronically, both within enterprises and externally, using computer networks and mobile communications”. This definition is general enough to be used as a reference point. E-commerce consists of sharing business information, keeping up business relations and making transactions through tele-communications networks (Zwass, 1996). E-Commerce can assume many forms, depending on how virtual the products and services offered are, in the process and in the delivery agent (Turban et al, 1999)
According to Varshney et al (2000) and Siau et al (2001) Mobile commerce is different from electronic commerce: electronic commerce is conducted via stationary-networked devices while mobile commerce is supported by mobile wireless networked devices. Mobile commerce is characterised by the opportunity it provides for a personalised and immediate purchase, and by the opportunity to conducting bank transactions using money funds.

Mobile commerce is the use of cell phone technology for communications and transactions between an organization and its various stakeholders to improve organizational performance. Stakeholders include customers, suppliers, governments, financial institutions, managers, employees, and the public at large. Increasing profitability, gaining market share, improving customer service, and delivering products faster are some of the organizational performance gains possible with m-commerce (Watson et al. 2000).

It was further illustrated by Freeman & Reed (1983) that; Stakeholder is any identifiable group or individual who can affect the achievement of an organizations objectives or who is affected by the achievement of an organizations objectives.

2.3 **Forms of Mobile Banking**

There is no universal form of M-banking; rather, purposes and structures vary from country to country. The systems offer a variety of financial functions, including micropayments to merchants, bill-payments to utilities, Peer to Peer transfers between individuals, and long-distance remittances. Currently, different institutional and business models deliver these systems. Some are offered entirely by banks, others entirely by telecommunications providers, and still others involve a partnership between a bank and a telecommunications provider (Porteous, 2006). Regulatory factors, which can vary dramatically from country to country, play a strong role in determining which services can be delivered via which institutional arrangements (Mortimer-Schutts, 2007).
Most m-banking/m-payments systems in the developing world enable users to do three things: First; store value (currency) in an account accessible via the handset. If the user already has a bank account, this is generally a question of linking to a bank account. If the user does not have an account, then the process creates a bank account for her or creates a pseudo bank account, held by a third party or the user’s mobile operator. Secondly; convert cash in and out of the stored value account. If the account is linked to a bank account, then users can visit banks to cash-in and cash-out. In many cases, users can also visit the GSM provider’s retail stores. In the most flexible services, a user can visit a corner kiosk or grocery store perhaps the same one where he or she purchases airtime and transact with an independent retailer working as an agent for the transaction system (Schutts, 2007).

Third; transfer stored value between accounts. Users can generally transfer funds between accounts linked to two mobile phones, by using a set of SMS messages (or menu commands) and PIN numbers. The new services offer a way to move money from place to place and present an alternative to the payment systems offered by banks, remittance firms, pawn shops, etc. The uptake of m-banking/m-payments systems has been particularly strong in the Philippines, where three million customers use systems offered by mobile operators Smart and Globe (infoDEV, 2006); in South Africa, where 450,000 people use Wizzit (“the bank in your pocket”) (Ivatury & Pickens, 2006) or one of two other national systems (Porteous, 2007); and in Kenya, where nearly two million users registered with Safaricom M-Pesa system within a year of its nationwide rollout (Ivatury & Mas, 2008; Vaughan, 2007).

2.4 Mobile Money Transfer (MMT) in Tanzania

MMT is offered by several service providers in Tanzania. As one of them is M-PESA that has the largest customer base and is covered more extensively by background material, they centre more on M-PESA than on other providers. Although this dominance may be changed, Vodacom – that offers the M-PESA service - is to date the MMT service provider that has reached the widest market acceptance. Also banks are offering mobile services. In general, they tend to offer mobile banking solutions as an additive channel (Porteous, 2008), hence customers get
“a new door” to the same services (or similar) as they would have received over the counter. These services have not been particularly aimed at previously unbanked market segments. Indications however suggest that this is about to change. Banks are showing an increased interest towards the previously unbanked market segments, and we also see new types of alliances evolve.

NMB of Tanzania e.g. has its own mobile platform that competes with M-PESA though it requires both sender and receiver to hold NMB accounts. In Kenya, where the MMT development is ahead of that in Tanzania, M-PESA have partnered with Equity Bank to jointly offer bank account service (branded M-KESHO). M-KESHO users can transfer money back and forth in between their mobile M-PESA account, and their bank account residing at Equity Bank. In addition, other services related to micro-credits and micro insurances are offered. This is a development that is highly likely to spread, both in terms of development of the content and sophistication of services as well as geographically to other markets.

Vodacom launched M-PESA in April 2008 in Tanzania. Although, the market diffusion has been slower than in neighboring Kenya, there are today approximately 1.5 M users and 6,000 agents in Tanzania. (In June 2009, there were 280 000 registered users and 1000 agents). Recent data from Audience Scapes data (2010) point to even higher penetration and states that there 2.75 million MMT users in Tanzania. Safaricom of Kenya claims that there 10 million users in 2010. The objective of presenting the case of M-PESA Tanzania is not to analyze its success or impact in relation to Kenya, but to independently evaluate the use of MPESA among people in Tanzania. (Retrieved from audiencescapes@intermedia.org on 31st March 2014)

Vodacom is the largest MNO in Tanzania competing with Zain, Tigo, and Zantel. (Zain was acquired by Bharti and re-branded into Airtel in late 2010.) Vodacom’s current market share is 39% (Citizen, March 24th, 2010). The market for mobile payments has been totally dominated by Vodacom as both Z-Pesa and ZAP have failed to build a customer base (Rotman, 2009). ZAIN and Zantel have reportedly
had technical issues and weak support to dealers, which partly explains the slow growth. Zantel has more or less pulled out of the market and allocates no resources to a re-entry for the time being. The recent entry by Tigo that launched Tigo Pesa in early September 2010 is the arrival of a real contender in the market. Tigo’s business model is similar to that of Vodacom’s. M-PESA in Tanzania was launched after successful introduction in Kenya and the M-PESA roll out in Tanzania was built on the lessons learned in Kenya.

Both Safaricom of Kenya and Vodacom used the existing dealer network for airtime to develop an M-PESA agent network, though later entrants show a much more diversified profile than just selling airtime. The emphasis on a tiered structure in Kenya with super-dealers and ‘aggregators’ in which many agents are recruited solely for M-PESA (and not for airtime distribution) has grown slower in Tanzania (Camner et al., 2009). The rationale for not combining airtime vending with MPESA is Vodacom’s intention to promote M-PESA as a means to top up airtime rather than buying vouchers. Maintaining the airtime dealer network is more costly than letting user’s top op on their own airtime from their M-PESA accounts (Voogt, 2010).

In general, aggregators can play an important role in balancing agents’ liquidity and float levels. An aggregator can be responsible for a group of agents’ ability to look after customer needs to transact. Aggregators can have staff employed to transport cash to and from agents, and also electronic tools to monitor its agents’ cash/float balance. In Tanzania, Vodacom’s “masteragents” have mobile phone numbers that are toll-free for “their” agents so that agents can call in and report shortages of cash or float (Davidson and Leishman, GSMA, 2010). The M-PESA money transfer network was designed for person-to-person remittance, and consequently not designed to take the specific needs of customers into account. However, as many customer/MSEs/business are very small companies in which owner and manager is the same person, the payment to the owner is by default the same as paying to the MSE.
2.5 Methods used to describe mobile money transfer services

Mobile Money Transfer services namely; Basic, Network Operator Centric and Service Content Aggregator methods. These methods are relevant to this study because they describe various means through which Mobile Money Transfer services can be provided. Panagiotakis et al (2005) demonstrated four methods used in transferring mobile money. Although the methods are classified on three grounds namely; who is legally responsible for the deposit, where can cash be accessed and who carries the payment instruction.

2.5.1 The Basic Method

In the basic method the third-party services and application providers are separated from the cellular network providers. This leads to more business opportunities from the market point of view, as well as more available services from the customers’ point of view. In this method, the Network providers provide the platform and equipment, while vendors are responsible to provide the services (Panagiotakis, et al, 2005).

An example of the Basic Method is the M-Pesa service whereby, Vodacom provides the platform for provision of Mobile Money Transfers actually carrying out the payment instruction, while M-Pesa agents (vendors) serve as points where cash can be accessed and are responsible for deposit taking and making payments. In essence, Vodacom itself is not responsible for deposit taking or cash payments but provides storage for virtual money in virtual M-Pesa accounts.

2.5.2 The Network Operator Centric Method

In this method, the user subscribe to a mobile network operator, which is responsible to provide users with telecommunication services, and in addition, delivers services and applications offered by a third party. The mobile network provider only charges a fee for facilitating Mobile Money Transfer or transactions made over the network (Panagiotakis, et al, 2005). In this method, the mobile network operator is responsible for facilitating the payment but does not issue the payment instruction.
An example of this Mobile Money Transfer method is the one operated by the National Microfinance Bank (NMB) known as “NMB Mobile” where by the bank issues payment instruction to pay money from one account to another and the mobile phone operator carries out the instruction. One notable limitation is that this method does not allow money to be paid only between NMB bank accounts.

2.5.3 The Service Aggregator Centric Method

In this method, the service provider is responsible for providing users with its own services and applications. The mobile phone operator on the other hand allows payments to be made over the phone for services offered by the service provider through the mobile network. It is assumed that the service aggregator comes into directly agreement with a network provider for delivering payments through the network’s infrastructure (Panagiotakis, et al, 2005). Vivid examples of the Service Aggregator Centric Method of Mobile Money Transfers are the current arrangements made by service providers such as Tanzania National Electric Supply Company (TANESCO), Dar es Salaam Water and Sewage Company (DAWASCO) and Multichoice that allow their customers to make payments for electricity bills or purchase electricity, water bills and digital satellite Television subscription through Vodacom’s M-Pesa.

Under this method, users have to subscribe to both, the service provider and the mobile network provider. However, choice of the mobile network provider is made independently from choice of the service provider. Based on the subscription, the service provider defines the prices, collects the charging information and charges the user based on both transport part and services and contents parts (Panagiotakis, et al, 2005). Then, the apportioning of revenues among mobile network providers and service provider is performed based on the agreements reached among the players. This means that in this method, service and content aggregator undertakes the role of billing and payments providers (Panagiotakis, et al, 2005).
2.5.4 The Service Provider Centric Method

In this method, instead of the service and content aggregator, the service and content providers come directly into agreement with network provider for delivering their applications and services through the latter’s telecommunication infrastructure. The service and content providers define the pricing and payment policies and charge the users based on their usage of transport and services and content (Panagiotakis, et al, 2005).

According to this method, the users come to subscription agreement with the service and content provider, which incorporates the roles of service and content aggregator and billing and payment provider. Furthermore, the service and content provider collects and apportions the revenue among the involved players according to business agreements. The possibility the network operator to charge the user separately for the transport part is not precluded (Panagiotakis, et al, 2005).

2.6 Categorization of Mobile Money Transfer services

Mobile Money Transfer s and M-banking method differ according to the roles played by the main providers in an M-banking solution: the bank, the mobile phone company and/or a possible third party entity. According to Mobey (2006), M-banking methods are defined by using two critical roles as (i) the issuer of the security element (such as the SIM) used to authenticate and authorize; and (ii) the platform manager. Different scenarios exist where banks and mobile phone companies fill these basic roles in different configurations.

Mobey (2006) believes that the biggest potential for international growth of m-banking exists when personalization bureaux (such as chip/SIM card issuers) take on the role of platform manager, which owns the cryptographic keys that enable service providers to download an application to the security element.
2.7 Mobile Banking System in Tanzania

Mobile banking was started in Tanzania in 2009 with the launch of ZAP, a mobile banking partnership between Standard Chartered Bank and Airtel. ZAP is a payment system that allows Airtel customers to deposit, transfer and withdraw money at their convenience through their Airtel handsets, at any place where mobile coverage exists. The introduction of mobile banking in Tanzania has helped extend banking facilities to both the banked and unbanked community. Vodacom M-pesa is now Tanzania’s leading mobile payment services provider (Microned, 2011). M-pesa enjoys widespread influence with over TZS. 17 billion monthly transactions and 4 million subscribers served by 4,700 M-pesa agents and Voda shops around the country. Other providers offering mobile money services include Zain’s Zap, Tigo Cash and Zantel Z-pesa.

Mobile phone users can use their phone to make deposits, withdrawals, check balances, transfer, pay utility bills, purchase airtime etc. The uptake of mobile payment solutions in Tanzania has been a bit slower than in neighbouring Kenya (Microned, ibid). This is partly due to technical differences (e.g. M-PESA in Kenya is technically more user-friendly) and partly due to weaknesses in the communication and marketing strategies. Nevertheless, as supported by evidence from Kenya, mobile banking is expected to revolutionize microfinance and the financial sector at large (Microned, 2011).

The majority of Tanzania’s 41 million inhabitants live on less than $2 a day and only 12 percent have a formal bank account. But almost half of Tanzanians own a mobile phone, through which they can save money and handle financial transactions without needing a bank account (Abbie & Laugtug, 2010).

The July 2010 estimates of Tanzania total population was estimated to be 41,892,895, thus the population under which Tanzania has registered mobile subscribers occupies 49.58% of the total population. The number of mobile subscribers under the above Telecommunication company with M-Banking system
occupies 48.9% of the total population i.e 20,489,781 of which 16,391,824.8 i.e. 39% of total population are rural people living under poverty (TCRA, 2011)

2.8 NBC Mobile Banking Services
According to NBC bank; Mobile banking is a service that enables customers to manage their accounts from wherever they are through their mobile devices.

2.8.1 Features of NBC Mobile Banking
According to findings the features include; Account Balance Inquiry & Mini Statement, Fund Transfers to Own Linked Accounts, NBC Accounts, Fund Transfers to Mobile Account (mWallet) MPESA (we are working on having the other services available), Purchase Prepaid Airtime (Vodacom, TIGO, Airtel, Zantel) Manage Beneficiaries, Term Deposits, Request for Statement, Request for balance, Request for Cheque book, Change PIN and Select preferred language.

2.8.2 Registration for Mobile Banking at NBC Bank
About 25% of respondents narrated that; Mobile banking involves simple and quick steps in registration; first customer should have an existing account with NBC bank. Secondly; visit any NBC Branch and fill in the Mobile Banking form, thirdly; sign the form and submit the form to the Customer Service personnel. Your account will be created and you will receive a random generated Mobile Banking PIN and once you access the mobile banking account, please change your PIN immediately. It takes 24 working hours before the customer will receive a Mobile Banking registration message. Starting using Mobile banking customer should Dial *150*55# to access his/her mobile banking account.

Moreover; if a customer forgets his/her PIN number, she/he should visit nearest branch, and fill in the Mobile Banking form and tick Password and Reset on the Mobile Banking section. If the contact details have changed, and want to update his/her Mobile Banking Account, he/she should go to the nearest branch, and fill the Mobile Banking form and tick amendments on Mobile Banking section. Sometime the phone can be stolen; the customer also should visit the nearest branch, fill in the
Mobile Banking form and tick amendments on Mobile banking section (NBC field data, 2014).

2.9 Theory Relevant to this Study
This study employed the Unified Theory of Acceptance and Use of Technology (UTAUT) to elaborately investigate what affecting individuals to adopt Mobile Banking system. Based on their longitudinal studies, Venkatesh et al. (2003) developed UTAUT as a comprehensive synthesis of prior technology acceptance. UTAUT includes four key constructs (i.e., performance expectancy, effort expectancy, social influence, and facilitating conditions) that influence behavioural intention to use a technology and/or technology use. This definition is coming from UTAUT to the consumer technology acceptance and use context. Here, performance expectancy is defined as the degree to which using a technology will provide benefits to consumers in performing certain activities; effort expectancy is the degree of ease associated with consumers’ use of technology; social influence is the extent to which consumers perceive that important others (e.g., family and friends) believe they should use a particular technology; and facilitating conditions refer to consumers’ perceptions of the resources and support available to perform a behavior (e.g., Brown and Venkatesh 2005; Venkatesh et al. 2003).

According to UTAUT, performance expectancy, effort expectancy, and social influence are theorized to influence behavioural intention to use a technology, while behavioural intention and facilitating conditions determine technology use. Also, individual difference variables, namely age, gender, and experience are also included. This study chooses UTAUT as a theoretical foundation to analyze the effect of mobile banking in a financial institution by analysing performance expectancy, effort expectancy, social influence and facilitating conditions at NBC bank Ltd.

Another theory is social cognitive theory; it was the theory that was proposed by Ratten (2011) and it focused on learn-ing and suggests that a person learns through exposure to different information. People learn through responding to stimuli in their
environment. As people react to their environment this is a form of cognitive learning as people respond to and make changes based on their assessment of environmental variables. Cognitive processes are integral to social cognitive theory as it deals with the complex nature of human behavior that is often hard to understand (Bandura, 1986). Environmental variables include internal factors such as a person’s belief in the ability and external factors such as exposure to advertising. The basis of social cognitive theory is that both these internal and external factors determine a person’s ability to learn new things. As technological innovations require people to learn and adapt to different things, social cognitive theory provides a unique way to examine which of these factors is the most influential in explaining the technological adoption process.

Social cognitive theory is a comprehensive theoretical framework that includes both internal and external environmental factors. Social cognitive theory focused on the reciprocal interaction between a person's environment and their behavioral intention (Ratten, 2008). Moreover, it acknowledges that people are influenced by environmental factors but also experience and events that motivate their desire to learn about new technologies (Compeau et al., 1999). Social cognitive theory tries to examine how people learn and how their current and future behavior will be influenced by their actions (Kock, 2004).

In addition, social cognitive theory focuses on the social role individuals have in sharing and disseminating information about new technologies. Often people learn by observing others in their social group and try to emulate this behavior by adopting the same technological innovations (Pincus, 2004). Therefore, social cognitive theory is a type of social learning model that determines the efficiency at which a person will adopt a technological innovation. Social cognitive theory focuses on the learning skills a person requires in order to adopt a technological innovation (Compeau et al., 1999).

Unified Theory of Acceptance and Use of Technology (UTAUT) is relevant in Tanzania, because of inversion of different technology particularly Mobile banking
system at NBC bank. Mobile banking provides ease management of customer account and transactions but yet its growth is still very low in Tanzania. This is because some financial institutions are not using Mobile banking technology.

2.10 Theoretical Framework

The recent explosion in mobile phone growth and use, resulting from consumers' "love affair" with their mobile phones and tremendous advances in data connection speeds and other mobile technologies, offers unprecedented opportunities for banks and other financial institutions to provide their customers with a convenient anytime and anywhere access to mobile banking and payment (Wilfred, 2011).

Mobile banking is going to be the most important mobile commerce application. Viewed as an additional channel to enhance customer relationship management, mobile banking enables both financial institutions and telecommunication network operators to strengthen their relationship with existing customers, to extend their general user-base and at the same time to target specific, more lucrative niche market segments (Horton, 2001).

Porteous (2006) separated M-banking into two categories; additive and transformational, where the additive model uses M-banking as an extra access channel for existing clients. This model is the most commonly used amongst retail 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 previ- ously unbanked segments.

According to Barrett (1997) many banks globally have started to take initiatives to set in place more cost-effective alternative service delivery systems in form of internet and mobile banking. It has been estimated that the average cost of service delivery at typical bank ranges from 285 to 350 basis points per dollar of deposits which is far higher than that for non-bank competitors.
The financial institutions, which have had difficulty providing profitable services through traditional channels to poor clients, see m-banking/m-payments as a form of “branchless banking” which lowers the costs of serving low-income customers. Government regulators see a similar appeal but are working out the legal implications of the technologies, particularly concerning (Ivatury & Mas, 2008).

Mobile Banking features, such as SMS Text alerts offers a simple way of helping customers manage their finances; 85 per cent of Mobile banking users think that it helps them manage their money more efficiently, secondly, the market for smart phones, and particularly the iPhone ,that enable Mobile banking has risen spectacularly, with 34.4 percent owning a device in 2010 (up from 21 percent in 2009); thirdly, there is strong demand from consumers to use their mobile phone to manage their finances and high levels of satisfaction and recommendation from Mobile banking users (Graham et al, 2012).

2.10.1 Strategies for Building Mobile Banking Application

There is no doubt that strategy around mobile banking are in the top five priorities for any financial institution. Even with this focus, many bankers have a difficult time making the paradigm shift that is required to build a great mobile banking application. According to Scott (2013) have to accept that; mobile is not the answer. Instead, there are real ‘human’ factors that create the foundation for mobile as a viable delivery tool for banks.

He pointed out nine strategies; first is Get out of the building; Banking interactions don’t happen at your desk. Crafting an experience inside the office, you’ll struggle to develop the necessary empathy for the customer, their context and their goals. The best mobile banking applications can’t be built in an innovation lab. They need to be built with the input of real people who can validate your design assumptions and engagement potential in the real world. You need to understand where and why people choose to engage your mobile application.
Secondly; Enlist partners, you can think you know everything about building on mobile, or you’re apprehensive to engage service providers. This is typical for most banks. The challenge for most banks is mobile banking applications built by bankers will look like banking on a phone which can be boring, uninspiring and lacking creative thinking of new perspectives. Engage open application designers, partners and thought leaders early in your journey to help leverage the successes from other industries to build a truly delightful mobile banking experience. Thirdly; Remove strings; you should think about the applications on your smart phone that you use daily, very few of them required you to pay or make a commitment before you understand their value.

Let your customers test your application before they engage, either through trials, open features or freemium models. Clearly show the ease of navigation, the experience and entertainment appeal of your mobile banking app so they will want to sign-up. Fourthly; leverage personal context; in the digital world, our lives are bombarded with clutter, whether its organizations trying the ‘one-size fit all’ model, or advertisers trying to get our attention. Not everything is relevant to everyone. So why not support some intelligence in ensuring you understand some context before jamming credit card ads in someone’s face. Create experiences that support the user’s expectations for personalization.

Fifth; Build engagement; if you’ve been in the industry for some time, then there is a fair chance your psych is used to traditional engagement models, full of push messages, brand campaigns and sales messages. In the digital world, brand becomes a two way conversation, and consumers only want to hear from brands when they can add value. There is a difference between being engaging and being intrusive. Allow customers to set their alert notifications based on their needs and the way they will use your application. Don’t use the app to push unnecessary communication to the customer, but leverage insight to provide valid offers as needed.

Sixty; Make mobile banking simple; this one is linked very closely with point 4. Complex, over communicating applications tend to scare off people. In the digital
world, people only want to see or experience what’s relevant to them. Banking as a whole is a complex industry, so mobile banking apps can quickly become too complicated, risking lost customers. Mobile banking applications should be driven from a simple platform of what the customer is looking for and executed flawlessly against that concept. Start with the functions that provide real value to potential users and then deliver that value in the easiest, most intuitive way possible.

Seven; Build an application unlike your Website; this has been baking’s biggest mistake replicating the content and feature of their web presence on mobile. Mobile applications should not just replicate your website. If you’re thinking that your application should just be your website, in app form, just create a mobile-optimized site. Use of mobile applications is fundamentally different than use of websites

Eight; Test and Learn; the best quote for mobile development comes from boxing bad boy Mike Tyson, “Everybody has a plan, until you get punched in the face”. Each punch may come as a setback or challenge, but real opportunity lies in the punches you take. Each is a valuable lesson that helps you understand your customer deeper; giving you the best chance to delight them in the future. Mobile banking users change the way they interact with their apps over time.

Nine; Focus on performance; Guess how many banking apps there are on the mobile app stores thousands. Mobile banking users have a bewildering number of choices for conducting business. Your mobile application has to compete with traditional and non-traditional mobile banking sites as well as function-specific sites like PayPal, Square, Google, etc. Therefore, performance is the easiest and best way to stand out. Mobile banking at NBC Bank cannot be accomplished without having good strategies that should be implimented in order to acquire the good outcomes. Strategies at NBC bank were; Training strategy were NBC bank train its staff to abroad countries e.g. South Africa after every three months to make them familiar enough for the product (Mobile banking system) so as they can deliver the best services to its clients/customers. Training is important to bank because effective training has a direct impact on individual performance. Secondly is research strategy;
research strategy is invaluable to NBC bank because they help to see what the best the industry are doing. Beyond rankings, this research also provides extensive innovative mobile banking applications at NBC bank and advanced functionality. Another strategy includes; Promotion strategy, Service strategy and Expert strategy.

2.10.2 Significance of Mobile Banking

The new technology has become an increasingly important factor in the highly competitive banking and financial services. Mobile banking services through a variety of electronic pipeline to serve the consumer to create more opportunities, and has also been made to create added value for customers (Coelho and Wood, 2003; Suoranta et al., 2005). Compared with the traditional banking services, mobile banking services has more benefits to more convenient for mobile users. Mobile banking services initiate customer value as a result of being not the limit of time and place (Mallat et al, 2004). Mobile banking system brings new information and opportunities to provide smart phone user, and services to keep another realm.

According to Donner et al (2008) Mobile banking services have the following advantages for customers; People save time, because they do not have to go directly to the bank in order to conduct their financial needs. Moreover, they do not need to search for parking space, which is very important today due to the lack of parking space in all major cities. On the other hand, people in rural areas often do not have access to bank, so with mobile banking they are able to conduct financial transactions without going to the bank in a town. This also increases security for people from rural areas, because they do not have to take their cash with them.

As already mentioned, people do not need to go directly to the bank, so they are also saving money for fuel, parking etc. Mobile banking enables people to conduct financial transactions 24 hours a day and seven days in a week. So they can ignore office hours of the bank. Mobile banking offers people accurate information about their account and their transaction history. So they can plan their financial needs.
The findings shown that; Mobile banking at NBC bank was a convenience services; it enable NBC bank customers to access their financial services anywhere, anytime. Mobile banking services improve safety and security of cash and make payment more convenient. Moreover Mobile banking gives a customer full control of money; through mobile banking NBC customers were able to get full accessibility of their money/account at any time they wish, regardless it is day or night (Field data, 2014).

2.10.3 Challenges of Mobile Banking Adoption
The m-banking services offered are not uniform as there is no universal form of m-banking, for the purposes and structures vary from country to country. The Regulatory framework of the countries, which vary, from country to country, plays a strong role in determining which service can be delivered via which institutional arrangements (Schutts, 2007). There are several approaches bringing banks and MNOs together with varying degrees of success.

Secondly set of challenges of mobile banking adoption is brought by frictions in inter-organizational relationships between banks, mobile operators, credit card companies, telecommunication operators and retailers. Each of these players has distinct core competencies (Kim et al. 2009). For example, banks are eager to supplement traditional banking with additional channels such as offshore and mobile banking. However, they do not have adequate telecommunications infrastructure. Conversely, telecommunications service providers are looking to leverage their infrastructure with new business opportunities, but they normally have inadequate financial knowhow. Thus, such players come together to form a value network. However, they may have somewhat selfish motives that may inhibit their mutual complementation in providing mobile banking services (Mallat et al. 2004).

Thirdly, propositions have been underpinned by user’s perception of parameters such as technological innovation (Akturan and Tezcan 2010), demographics and elitism (Crabbe et al. 2009), trust (Kim et al. 2009), security (Laforet and Xiaoyan 2005), gender (Riquelme and Rios 2010), and income levels (Medhi et al. 2009). Fourthly, the marked variations in these perspectives indicate that the context of geography has
considerable effects on them. The parameters have been studied in the context of particular countries and geographical zones such as Ghana (Crabbe et al. 2009), Brazil (Cruz et al. 2010), China (Laforet and Xiaoyan 2005), and Finland (Suoranta 2003). Thus, the potential mobile banking adopter’s societal circumstances, affecting his or her perceptions, will also affect his or her adoption.

Other challenges in implementation of mobile banking are as follows; first we have to keep in mind that the majority of payments in developing countries are cash-based. Payment by cash has a number of advantages including no transaction costs, privacy and immediacy. However payment using mobile devices presents a number of issues. Every transaction causes costs for the sender, which he would not have if he paid by cash. Secondly, paying by mobile phones causes a privacy concern since every transaction leaves a trace of someone’s habits and lifestyle. This possibility can be used, e.g. by the government, in order to trace back financial transactions in order to investigate tax evasion. Additionally, processing of payment may result in delays. For example, if a person receives electronic money, he or she has to go to an agent in order to receive cash, which causes delays due Network (Said, 2010).

Moreover, we have to consider that mobile banking is a new phenomenon. People exist much longer, so they have already habits in conducting formal and informal financial transactions. Therefore, mobile banking is a competitor on the financial market. It has to face competitions from channels, as for example, bus companies, the post office, Western Union, hand carrying by friends and family, underground money transfer mechanism, such as China. If a bank or another organisation wants to establish a mobile banking system, it has to analyse the local market in detail and analyse why are people using a certain instrument for conduction financial transactions (Donner, ibid).

The findings revealed that; at NBC bank the challenges were System/Network failure; this is when the Mobile banking service is limited when the system break down or collapse, this is a big challenges at NBC bank that affects many customers especially who are in need for the time being. Furthermore was cost of managing
Mobile banking technology at NBC bank is high; since it is a new technology a lot of experience is needed to operate it. In additional to that is customer experience and awareness; adaptation of new technology needs training in order to make the staffs and customer aware of that new technology, due to the fact that Mobile banking services is still a new concept to other customers at NBC bank, therefore the bank is still have massive work to provide awareness to its customers (Field data, 2014).

2.11 Mobile Banking Customer Satisfaction
Arbore & Busacca (2009) summarized that, determinants of customer satisfaction in a banking services include (i) functional quality – reliability, speed, accuracy, functionality (ii) relational quality – responsiveness, assurance, friendliness, courtesy, commitment, communication (iii) convenience – opening hours, travel distance, queuing time, parking places, ATM availability (iv) economics – interest rates, price quality, ratio, price fairness (v) tangibles – physical layout and furniture, physical facilities, decoration of branch environment, atmosphere of branch environment, cleanliness, size and furnishing of customer space, dress of the personnel (vi) problem – handling and recovery. In the context of mobile banking, Saleem & Rashid (2011) found that antecedents of mobile banking satisfaction are organizational factors, technological factors, strategic factors and functional factors.

According to Gaffar (2009), mobile banking may help in increasing customer satisfaction ratio by adopting the following means (i) innovative “anywhere, anytime” services customized for individual preferences and the current geographical location of the customer provide value-added to the customer, (ii) more attention and better consulting for individual customers due to automation of routine processes, and (iii) streamlining of business processes to increase efficiency. In a survey involving 500 respondents in Malaysia showed that 48% indicated that their confidence in the banking industry in Malaysia has increased in the last 12 months (Ernst & Young, ibid). However, the same study also concluded that 21% of customers want their bank to improve the online and mobile banking services.
About 47% of customers at NBC bank said that: “...We are satisfied with the service provided by the bank, the respondents rated that; the service was very good, since it is quality, convenient and fast service, free and secured way to check account balances review transaction history and transfer funds between accounts, it gives the customers full control of his/her money...”

Furthermore it was highlighted that;

“...Mobile banking services improve safety and security of cash, save time, reduce paperwork, offer great potential to expand financial services particularly payment services to the poor...” Said by one customer at NBC bank

2.12 Empirical Studies

A study by Sripalawat et al. (2011) examined positive and negative factors affecting m-banking acceptance in Thailand. Subjective norms, perceived usefulness, perceived ease of use, and self-efficacy were considered as the positive factors, and device barrier, perceived risk, lack of information, and perceived financial cost as the negative factors. They found that the positive factors have more influence than negative factors towards the acceptance of mobile banking. Among the positive factors, subjective norm is the most influential factor in m-banking adoption in Thailand.

According to the research of Michael & Colin (2011) on Mobile Banking and Financial Inclusion it shown that; the significance of mobile banking goes well beyond developing countries and financial inclusion. By providing a clear disaggregation of the components of banking, it throws light on the nature of financial services in general. In particular, it brings out the distinction between payments and banking. The study suggests that; much of the debate on the reform of banking in developed economies in relation, for example, to the separation of commercial and investment banking has been confused. By identifying the different components of financial services so clearly, mobile banking helps to establish where the focus of regulation should lie in all financial systems.

A research done by Crabbe et al. (2009) examined the impact of social and cultural characteristics on m-banking adoption in Ghana. They showed that social and cultural factors in the form of perceived credibility, facilitating conditions, perceived
elitisation and demographic factors play an important role in influencing adoption and sustained usage. In addition, perceived credibility and facilitating conditions also influence attitudes towards the technology.

Empirical studies showed that; the solution for the poor is to rely on informal financial services which are more expensive than formal financial and often times unsafe (Coyle, 2007; Donner, 2007; Porteus & Wishart, 2006). By filling a financial vacuum for the poor it offers the possibility of gaining access to savings, microcredits and receiving remittances; in this sense mobile banking is portrayed as a transformative resource towards economic development.

Researches done by Madirisha (2011) suggest that, Mobile phone banking as being used for money transfer and information sharing this system will frees up consumer from traditional banking system, as now through mobile phone banking the account holder can access certain information through his/her mobile phone. This service has enabled the service to be easy for money transfer hence to faster the service. The service has reached unbanked persons in rural and urban areas in Tanzania where agents happens to be airtime distributors or retail outlets for handsets that manage cash transaction during money transfer as it is for NBC mobile services or NMB mobile services. The research showed that; it is through this situation banks has to establish new approach which will enable to reach their services more and more in rural areas where mobile money transfer services already being in place.

Researches done by David (2010) suggest that, While it cannot be argued that M-banking is the best for an improved banking service in developing countries, it is, however, certain that traditional banking service alone may not result in any significant improvement in providing the un-banked community with access to financial services. The research showed that; the speed and efficiency with which money can be transferred and monitored, through such mobile platforms, is likely to be far greater and higher as compared to a cash-based system. Apart from extending customer reach, financial institutions are able to reduce operational costs, which would have otherwise been incurred on disbursement and loan collection. By
leveraging operator's retail ecosystem comprising distributors, retailers, and street resellers, they are able to streamline operations. The customers will also benefit by having better and close access to loans and lower borrowing costs.

2.13 Conceptual Framework
Mathew e t al (1994) defined a conceptual framework as a visual or written product, one that “explains, either graphically or in narrative form, the main things to be studied the key factors, concepts, or variables and the presumed relationships among them.” A key feature of Mobile banking includes; bill payment, domestic transfer, international transfer, loan payment, salary disbursement, multicurrency and universality of account. A further feature of mobile banking is the way in which it facilitates the development of relations of trust where previously there was no basis for it. In particular, mobile banking provides an instantaneous and traceable record of transactions that were otherwise anonymous and unverifiable through cash. For example, mobile banking permits the keeping of records and accounts on payments that contribute over a period to the total cost of a delivery of a service. Regular savings for education and health services become possible in a way previously difficult or expensive to monitor.

Figure 2.1: Conceptual Framework

Source: Author’s Manipulation (2014)
The study was guided by the conceptual framework shown in the figure 2.1. NBC bank give hand to the government by providing financial services. This is considered as an independent variable. On the other hand, NBC bank alone cannot meet the need of customers as far as Mobile banking services are concerned. An intervention through collaborating efforts with experts and other financial institutions (banks) is required to activate its NBC bank performance in providing Mobile banking services. This combined effort has resulted on the performance of Mobile banking services such as deposit and withdraw of money, salary disbursement, bank updates, domestic transfer, accounts alerts, bill payment and account balance at NBC bank as a dependent variable.

2.14 Research Gap

A number of people in different countries have attempted to conduct research on the impact of mobile banking to financial institutions. The studies unveiled that very few have attempted to study the impact of mobile banking in underdeveloped countries like Tanzania. Simply because the concept is still very current compared to developed countries. Only few banks adopt this system. The gap remains on adopted strategies of Mobile banking at NBC bank.
CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction
Research methodology refers to a systematic way applied to solve the research problem (Kothari, 1999). This chapter described the methodology that was used in conducting this study. Specifically, it focused on the research design, population, sampling design, sample size, sampling techniques, data collection methods, as well as data analysis and procedures.

3.2 Research Design
Research design is a conceptual structure within which research is conducted; it constitutes the blue print for collection, measurement and analysis of data (Kothari, 2004). This study employed a case study design. This case study design was used since it was allowing intensively study of few cases in the environment. According to Yin (2009) a case study design was used in order to study one source in detail; also it was convenient and flexible on the use of various methods of data collection such as interview, questionnaires, and documentation. The study was designed to look at specific practices within NBC as far as the effect of mobile banking was concerned.

3.3 Area of Study
National Bank of Commerce Ltd. was formed on 1st April 2000 when NBC (1997) Ltd. was privatised and sold to ABSA Group Ltd. (now called Barclays Africa Group Limited) of South Africa. NBC (1997) Ltd. was itself born out of the nationalization of banks and financial institutions in Tanzania in 1967. Tanzania later deregulated banking in 1991. The study was conducted at NBC Ltd headquarter located at Sokoine Drive Azikiwe street in Dares Salaam.

3.4 Population of the Study
Population is the collection of all elements to be studied and about which one tries to draw conclusion (Saunders et al, 2007). The population of NBC Ltd includes
Management staffs, Operations staffs and customers. The staffs were made up of Human resource Managers, Bank Tellers, Loan officers, Relationship Managers, Manager Treasury, and Head of departments. A total sample of sixty four (64) respondents from NBC Ltd was considered.

3.5 **Sampling Design**

Sampling design is the designing process of obtaining information from a subset (sample) of a larger group (population). The results for the sample are then used to make estimates of the larger group. It includes sampling unit, sample size, sampling frame and sampling procedures (Kothari, 2002). This study used sampling size and sampling procedures.

3.6 **Sample Size**

According to Kothari (1990), a sample of over 30 would be sufficient for most purposes. Sixty four (64) respondents were selected for this study, made up of 8 holding Managerial positions, 29 Operations staffs and 27 customers. The Samples size comprises Management staffs, Operations staffs and customers of the Target Population.

<table>
<thead>
<tr>
<th>Target population (staffs)</th>
<th>Total number of Respondents(N=64)</th>
<th>Percentage of sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management staffs</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>Operations staffs</td>
<td>29</td>
<td>45</td>
</tr>
<tr>
<td>Customers</td>
<td>27</td>
<td>42</td>
</tr>
</tbody>
</table>

*Source: Author’s Manipulation (2014)*

3.7 **Sampling Procedures**

Sampling is the process of selecting units (e.g. people, organizations) from a population of interest so that by studying the sample we may fairly generalize our results back to the population from which they were chosen Trochim, (2006). The methods used in picking the sample was, purposive sampling and snow ball sampling respectively.
3.7.1 Purposive Sampling
According to Kothari (2004), purposive sampling, is the type of sampling where by items for the sample were selected deliberately by the investigator; the choice concerning the items remains supreme. In other words, under this sampling the organisers of the inquiry purposively choose the particular units of the universe for constituting a sample on the basis that the small mass that they so select out of a huge one was typical or representative of the whole. Thus, the judgement of the organisers of the study plays an important part in this sampling design. In such a design, personal element has a great chance of entering into the selection of the sample. The investigator selected a sample which yields results favourable to his point of view and if that happens, the entire inquiry gets vitiated. The investigators should be impartial, work without bias and have the necessary experience so as to take sound judgement; the results obtained from an analysis of deliberately selected sample was tolerably reliable. Only 8 staffs from the NBC Ltd management were selected.

3.7.2 Snowball Sampling
According to Kothari (1990), Snowball sampling is a non-probability sampling technique that used by researchers to identify potential subject in studies where subjects are hard to locate. The study used this sampling method because the sample for study was limited to a very small subgroup of the population. This type of sampling technique works like chain referral. After observing the initial subject, the investigator asked for assistance from the subject to help identify people with a similar trait of interest. There are many reasons why the investigator used snowball sampling at NBC bank however snowball sampling employed to identify the effects of mobile banking at NBC Ltd by taking 12 operation staffs and 18 customers of NBC bank.

3.8 Type of Data Sought
Two types of data were collected for this study, namely primary data and secondary data. Secondary data are data used for a research project that were originally collected for some other purposes (Saunders and Thornhill, 2009). Secondary data
for this study was collected through review of documentary sources, in which books, journal articles and reports, both published and unpublished, were reviewed. Online sources were also consulted. Primary data were collected through the interviews and questionnaires.

3.9 Data Collection Methods
In this study data was collected between April and May. The study used the following methods to collect the required data.

3.9.1 Interviews
Face to face interviews were used for this study. The study opted interview method because it enables face to face discussion, where more information on particular question was obtained for the study. Interviews were administered to 8 Management staffs at NBC Ltd. This was because Management staffs are people who were responsible for coordinating mobile banking system. An interview is advantageous because it has high return rate (Kidder, 1981). It helps to clarify ambiguous responses and fill in missing gap. Close ended questions was used for demographic data, as well as open ended questions.

3.9.2 Self-Administered Questionnaires
Questionnaires were used for this study. A questionnaire required respondents to fill out the form themselves; therefore it needs someone who is skilled. The study opted questionnaire method because it gave the respondents enough time to think about their answers and large numbers of respondents were reached more easily. Questionnaires were administered to 29 operations staffs and 27 customers at NBC Ltd. According to Kidder (1981), questionnaires are advantageous in terms of economy, lack of interviewer bias, and the possibility of anonymity. Both close-ended questions and open-ended was used in order to increase the validity of the responses.
3.9.3 Documentary Review

Bailey (1982) stated that; a documentary review includes institutional memoranda, reports, census publications, government pronouncements and proceedings, diaries and innumerable other written, visual and pictorial sources in different forms and so on. This study was used various reports of NBC Ltd as to collect secondary data concerned with this study. All information and data were cross-checked by this study and obtained from reliable secondary sources and authority to ensure reliability (NBC Presentation report, 2013).

3.10 Data Analysis

Measurement of variable are involved and assignment of number to the variables. The relationship between independent variable, intervening variable and dependent variable was measured at NBC Ltd. Collected data from the field was planned, organized and controlled so as to facilitate the preparation of this report. Data was sorted to get the relevant one, corrected; edited and coded to facilitate analysis and report writing. This study employed different analytical methods including quantitative and qualitative. Quantitative Analysis, This involved the use of percentages and presentation of statistics into a simple way.

Qualitative Analysis, This is the type of data analysis that involves the use of non-numerical examination and interpretation of observation for the purpose of discovering underlying meaning of patterns of relationship. e.g. age, marital status and educational qualifications was used.

3.11 Limitation of the Study

The following were the limitation during the study.

(i.) Financial constraints- Getting all the data required in the study was expensive, extra expenses like a lot of documentation (photocopying and printing) was incurred.

(ii.) Time: Time to allocate for the study was too short to obtain information from respondents.
(iii.) Poor response / biased data: Presumably this also affected the quality of data collected, for example data collection techniques especially interview may have a lot of limitations such as some staff gave the wrong or false replies, this leads to biasness of the data that was collected and finally; biased generalization the study. The study used various ways to get the required information by explaining the importance of the study to the interviewer.
CHAPTER FOUR

DATA ANALYSIS AND FINDING OF THE STUDY

4.1 Introduction
This chapter is composed of five sections. Section one presents the characteristics of respondents, in term of age, sex, marital status, occupation and level of education. Section two discusses strategies used by stakeholders in adoption of mobile banking at NBC bank Ltd, Section three explores the significance of Mobile Banking to NBC bank ltd. Section four identifies challenges faced by NBC bank Ltd on performance of Mobile banking system.

4.2 Respondents of the Study
The basic characteristics of respondents recorded were age of the respondents, marital status of the respondents, sex of the respondents, marital status of the respondents, education level of the respondents, as well as occupation of the respondents. The respondents include Management staffs, Operations staffs and Customers of NBC bank Ltd.

4.2.1 Age
The study interviewed the respondents on their age and the responses were grouped on five years range from 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-55 and those who were above the age of 55 years old. The results are shown in the table 4.
Table 4.1: Age of Respondents

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Frequency (N=64)</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-24</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>25-29</td>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td>30-34</td>
<td>20</td>
<td>31</td>
</tr>
<tr>
<td>35-39</td>
<td>12</td>
<td>19</td>
</tr>
<tr>
<td>40-44</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>45-49</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>50-54</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Above 55</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: Field Data, 2013

The respondents who were aged between 20 – 24 years old were 13%, those aged between 25–29 were 16% and those who were aged between 30 – 34 years old were 31%. Furthermore, other respondents were aged between 35 – 39 years of age were 19%, those aged between 40 – 44 years old were 10%, those aged between 45 – 49 years old were 6% and the respondents who were aged between 50 – 54 years of age were 3%.

Moreover, 2% of the respondents were aged above 55 years old. As the study findings showed, majority of the respondents interviewed were aged between 20 – 44 years of age, and this group constituted 89% of the total respondents interviewed by the study. The age of respondents is also depicted in figure 4.1.
4.2.2 Sex

Majority of the respondents were males. This constituted 33 out of 64 (52%). The remaining 31 out of 64 (48%) respondents were females. This implies that male is involved much on mobile banking services as they use for business activities which much involve the use of mobile money such as M-Pesa, Tigo-Pesa and Airtel money services as for buying of materials for business transactions. Female has been using M-banking services to cover various transactions including shopping, paying for Electricity bills, water bills and other domestic uses.

Data on number of respondents’ by sex is shown in table 4.2

Table 4.2: Sex of the Respondents

<table>
<thead>
<tr>
<th>Sex</th>
<th>Frequency (N=64)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>31</td>
</tr>
<tr>
<td>Male</td>
<td>33</td>
</tr>
</tbody>
</table>

Source: Field Data (2014)

4.2.3 Marital Status of the Respondents

53% of the total respondents interviewed were married, 28% were single and 6% of the respondents were divorced. Other respondents interviewed were either separated (9%) or widowed (3%). These results are presented in table 4.3
Table 4.3: Marital Status of the Respondents

<table>
<thead>
<tr>
<th>Status</th>
<th>Frequency(N=64)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>34</td>
</tr>
<tr>
<td>Single</td>
<td>18</td>
</tr>
<tr>
<td>Divorced</td>
<td>4</td>
</tr>
<tr>
<td>Separated</td>
<td>6</td>
</tr>
<tr>
<td>Widow</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: Field data (2014)

This shows that respondents interviewed who were Management staffs, Operation staffs and Customers were divided into marital statuses, from being single, married, divorced, separated or widowed, and hence the study succeeded in getting a diverse mixture of respondents. Marital status of the respondents is also reflected in figure 4.3

Figure 4.3: Marital Status of the Respondents

Source: Field Data (2014)

4.2.4 Education Level of the Respondents

Most of interviewed respondents could read and write, few of them had at least the basic primary school education, and others to university education. According to the study findings, 3% of the respondents did not attend schools this are customers of NBC bank, 8% of the respondents had basic primary education, 14 % had secondary education and 28% had post secondary education. Furthermore, 47% of the total
respondents interviewed had university education. (See table 4.4 and figure 4.4) respectively.

**Table 4.4: Education Level of the Respondents**

<table>
<thead>
<tr>
<th>Education</th>
<th>Frequency (N=64)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illiteracy</td>
<td>2</td>
</tr>
<tr>
<td>Primary Education</td>
<td>5</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>9</td>
</tr>
<tr>
<td>Post Secondary</td>
<td>18</td>
</tr>
<tr>
<td>University</td>
<td>30</td>
</tr>
</tbody>
</table>

*Source: Field Data (2014)*

The education level of respondents is also depicted in figure 4.4

**Figure 4.4: Education level of the Respondents**

*Source: Field Data (2014)*

### 4.2.5 Occupation of Respondents

This includes all peoples who were participated in data collection. This included Management staffs, Operation staff and Customers of NBC bank.
Table 4.5: Occupation of Respondents

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Frequency (N=64)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed</td>
<td>42</td>
</tr>
<tr>
<td>Self employed</td>
<td>15</td>
</tr>
<tr>
<td>Un employed</td>
<td>7</td>
</tr>
</tbody>
</table>

**Source:** Field Data (2014)

Results from table 4.5 show that, the majority of the respondents were employed who were 66%, following by self employed 23%, and unemployed 11%. These results are also summarised in figure 4.5

**Figure 4.5:** Occupation of Respondents

![Occupation of Respondents](image)

**Source:** Field Data (2014)

4.2.6 Quality of Service Provided by M-Banking

The respondents were asked to rate the quality of service provided by NBC M-banking service. If the rate was ‘poor’ the respondents were asked to highlight the most common problems they encounter in relation with M-Banking services (see table 4.6 and figure 4.6 respectively).
### Table 4.6: Quality of Service Provided by NBC bank Ltd on M-banking

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency (N=64)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>13</td>
</tr>
<tr>
<td>Very good</td>
<td>30</td>
</tr>
<tr>
<td>Average</td>
<td>14</td>
</tr>
<tr>
<td>Poor</td>
<td>7</td>
</tr>
</tbody>
</table>

**Source:** Field Data (2014)

20% of the respondents rated the quality of service of NBC M-banking as excellent, 47% rated very good, 22% rated average and 11% rated the quality of service of NBC M-banking as poor. This implies that most of the respondents show that; the quality of service of NBC M-banking through Mobile money transfer such as M-PESA, Tigo-Pesa and Airtel Money is acceptable within the society (Field data, 2014). The category of respondents for quality of service is also depicted in figure 4.6

### Figure 4.6: Respondents on Quality of Services (M-banking)

![Pie chart showing quality of service responses]

**Source:** Field Data (2014)

#### 4.2.7 Efficiency of NBC Bank on M-banking Services

Respondents’ shows that the use of NBC M- Banking is more efficiency and it enable customers to interact on transactions effectively in timely manner by
overcoming the ques. Respondents were asked to rate the service if it was ‘poor’, 
average, very good or excellent.

Table 4.7: Efficiency of NBC Bank on M-Banking Services

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency (N=64)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>21</td>
</tr>
<tr>
<td>Very good</td>
<td>25</td>
</tr>
<tr>
<td>Average</td>
<td>15</td>
</tr>
<tr>
<td>Poor</td>
<td>3</td>
</tr>
</tbody>
</table>

Source: Field Data (2014)

As shown in the table 4.7 above, according to findings it is revealed that; NBC 
Mobile-banking service is an efficiency service. 33% of the respondents rated the 
service to be excellent efficient, 39% rated the service to be very good efficient, only 
23% rated the service to be average efficient and only 5% of the respondents rated 
the service to be poor efficiency. From the above data in the table above NBC bank 
Mobile-banking service said to be efficient service to users. Both sender and receiver 
have satisfied with the service.

Senders has been using very short time for the service to either send money without 
no delay accessing their accounts and then sends to Mobile money users (receivers) 
and the receivers has satisfied with the service through receiving money either by M- 
pesa, Tigo pesa and Airtel Money. All these group of customers they confirmed to 
satisfy with the service delivery by NBC bank. It is through Mobile banking services 
where Mobile money users can be benefited. Therefore there is the connection 
between Mobile banking services and mobile money services; though an access to 
Mobile banking services at NBC bank needs someone to have an account. The 
category of respondents for efficiency of service is also depicted in figure 4.7
Findings on respondent’s characteristics reveal that, the majority of respondents consisted of mainly young and middle aged people who were either married or still single. Furthermore; most of the respondents are employed, and few of them are unemployed. Similarly age cohorts were also influenced by majority of respondents being at the reproductive age (15-39 years). Also majority of men’s using mobile banking services compared to women. Education levels ranging from primary school education to university level of education. This included NBC staffs and customers who are enjoying Mobile banking system. In additions to that; Mobile-banking service in NBC bank are thought to be efficient service as well as acceptable quality to users/customers.

4.3 Factors Considered in Adoption of Mobile Banking at NBC Bank Ltd

Numbers of factor were considered during the adoption of Mobile banking at NBC bank.

4.3.1 Organizational Factor

About 20% of respondents demonstrated that; “...organization is the factor that was considered in adoption of Mobile banking at NBC...Organizations include size; this
refers to the capacity, number of personnel, outputs (customers, sales), and resources. ...According to findings; in complex and uncertain environments, typically organizations differentiate so that each unit faces a smaller, more certain problem. Mobile banking is in the growing phase of the organizational life cycle...”

NBC bank follow different programs related to organizational development like employee training and development and hiring IT professionals. Competent staff is recognized by their expertise and qualification. Organizational development can be achieved through effective training and development which improve employee’s performance, skills and knowledge. The reason of providing training is to make the employee eligible for the changing role of the organization. The belief behind this is to increase employee’s efficiency and capacity which result in financial gains. Thus, organizational factor contributes to easy adoption of technology.

4.3.2 Technological Factor

Moreover 25% of respondent’s revealed that; “...Technological factor should be considered when adopting M-banking... Technological progress was improved the quality of NBC banking services... Financial sector firms have to ensure the privacy, security and integrity of customers detail in all aspects... Risk of fraud, loss or theft may discourage people from relying on the bank...”

Thus, mobile banking as technology advancement in electronic banking has to offer reliable security measures to ensure adoption by the customers. The most important is confidentiality which means to ensure that only authorized entities have access to the content of the exchanged information. This leads to the assumption that higher technological advancement enhances technology adoption.

4.3.3 Strategic Factor

Over 30% of respondents said that; “... when adopting mobile banking the bank should be plan for future. Customer loyalty and customer retention has importance over customer acquisition...”

The value of customer relationship management has become apparent in the competitive technological innovation. Trust is the backbone of any business. If NBC bank fails to provide the services accurately as promised, the trust of the customer is broken which creates anxiety. As mobile network is an open network, the concerns
increase intrinsically. Typical concerns include fraud (loss as the result of unauthorized transactions), loss of privacy (through inadequate data protection) and even loss of service. Therefore, strategic endorsement leads to increasing rate of technology adoption at NBC bank.

4.3.4 Functional Factor
When customers evaluate the quality of service provided by NBC bank, their satisfaction depends upon the service features delivered. Thus, it is important to analyze the level of services offered to customers. One Manager narrated that;

“...versatility in service offering is very important to attract customer... The number of services must always increase as well as the quality must improve...”

Features offered on SMS based alerts like on time delivery of SMS, authentication, reply option etc. and on WAP-enabled online internet access like navigation speed, download, content, design, interactivity and security features are added for the convenience and ease of users. While, problems such as slowness, poor navigational possibilities, and low interactivity with the service settings and critical incidents such as lack of help and empathy by service providers in service encounters all trigger considerable switching and anxiety in customers. This suggests that enhanced functionalities lead to higher technology adoption at NBC bank.

4.3.4 Economic Factor
Cost paid by a customer to adopt technology usage comprises of three types: Direct cost which a customer invests to use a technology, indirect cost which incurs when the technology does not fulfil its function properly as desired and the third is psychological cost which a customer has to pay due to the fear that he might face a problem while executing. Moreover 50% of respondents demonstrated that;

“...customer satisfaction level increases as the cost to carry out a technology innovation decreases...”

The findings emphasize that; adoption of mobile banking enhances the performance of NBC bank in terms of reduction in costs such as cost of transaction, administration
and promotion. This requires an environment which supports the technological innovation.

4.4 Strategies in Adoption of Mobile Banking at NBC Bank

Clarifying the bank’s mobile banking strategy will help prioritize the features and functionality required and the order in which can roll them out. The successful strategies will help the NBC bank to adopt changes especially in a new system particularly Mobile banking system.

“...Strategic management is critical to the development and expansion of all organizations, as it represents the science of crafting and formulating short-term and long-term initiatives directed at optimally achieving organizational objectives...” said by Chief executive officer

Strategy and a company's mission statement and vision are inherently tied, and constitute the core concepts that allow a company to execute these goals. Following this, the company strategy must constantly be edited and improved to move in conjunction with the demands of the external environment.

As a result of its importance to the business or company, strategy is generally perceived as the highest level of managerial responsibility. Strategies are usually derived by the top executives of the company, and presented to the board of directors in order to ensure it is parallel with the expectations of stakeholders of the company (particularly in public companies, where profitability and maximizes shareholder value is the central company mission). Also of high importance is the implication of the selected strategy, which is illustrated through achieving high levels of strategic alignment and consistency, both relative to the external and internal environment. In this way, NBC bank use strategies that will enable the company to maximize internal efficiency while capturing the highest potential of opportunities in the external environment.

4.4.1 Training Strategy

NBC bank train its staff to abroad countries e.g. South Africa after every three months to make them familiar enough for the product (Mobile banking system) so as
they can deliver the best services to its clients/customers. Training is important to
bank because effective training has a direct impact on individual performance. In
turn, an organization’s ability to achieve performance excellence is directly related to
the efficacy of employee training. Successful bank mergers depend on a training
methodology that creates empowered, skilled and knowledgeable employees. Poor
training, or a lack of training, is costly in terms of rework, errors and employee
morale. Changes brought about by the implementation of new products or services,
such as those due to system conversions or industry consolidation, create additional
performance pressures. Training takes on even more importance in these situations.

“...Keeping pace with ongoing changes within an organization, industry dynamics
such as system conversions and organizational consolidations increase the need to
manage employee performance... In NBC bank training becomes absolutely critical
to a smooth conversion especially on Mobile banking system...” said by one
respondent from NBC bank.

NBC bank creates a complete training program to their staff with the education and
knowledge necessary to produce results quickly. NBC bank educates customer-
-facing staff on the value of mobile banking so they can actively promote that value to
new and existing customers. Also NBC bank teaches employees how to enroll new
customers or members into mobile banking as part of the account opening procedure
as well as to encourage enrolment for existing customers. Provide employees with
convenient and self-directed training options such as training demos. NBC bank
designate team members as “mobile banking experts” to serve within each branch
and call center location people that both customers and co-workers can approach
with questions.

4.4.2 Research Strategy
Mobile banking has moved quickly beyond being simply online banking using a
phone. It is at the hub of the customer relationship and is quickly becoming a point of
differentiation and a potential source of revenue for progressive banks. To assist
NBC bank with the development and implementation of a successful mobile banking
strategy, extensive research is being compiled around marketplace assessment,
mobile strategy development, optimal organizational structures, technology
selection, best practices, measurement benchmarks and ways to continuously improve the mobile banking experience. As it was explained by Scott (2013) that; test and learn was the best quote for mobile development. “Everybody has a plan, until you get punched in the face”. Each punch may come as a setback or challenge, but real opportunity lies in the punches you take. Each is a valuable lesson that helps you understand your customer deeper; giving you the best chance to delight them in the future and this can be accomplished through research strategy. Mobile banking users change the way they interact with their apps over time.

This research strategy is invaluable to bank because they want to see what the best the industry are doing. Beyond rankings, this research also provides extensive innovative mobile banking applications at NBC bank and advanced functionality. One Chief executive officer narrated that;

“...Making researches to other successful banks which use the same service help NBC bank to observe the good methods that can be used, so as NBC bank can create a successful environment on Mobile banking services...”

### 4.4.3 Promotion Strategy

Promotion is the direct way that NBC bank tries to reach its publics or is the direct way in which an organization communicates the product or service to its target audiences. Its purpose is to create awareness of bank’s name and to advertise the different services it is offering. Since NBC bank are serving a mass of people. Promotion is performed through the five elements of the promotion mix, i.e advertising, sales promotion, personal selling, public relations, and direct marketing.

With the growing importance of the financial sector particularly on Mobile banking services, pressures are escalating for more effective marketing management of the financial services at NBC bank.

“...NBC bank is realized that; their established promotion practices are in adequate for new market conditions as level of customer’s defection in the sector grow... NBC bank has tried to reach out to everyone in the community of Tanzania... through broadcasting and advertisement to the media on how to use Mobile banking service offered, so as to make awareness to all clients/customers...” Said by one respondent from NBC bank
4.4.4 Service Strategy
Availability of call centres services which are accessible for twenty four hours a day and seven days of the week (24/7). A call center also increases the ability of the bank to reach customers outside the bank geographical market areas because of the easy access. Call center allows the NBC bank to package its services particularly Mobile banking services and products, and then target its customers with these packages.

“...The customer data can be shared across the combined organization to provide new selling opportunities for both call centres and agents...” Said by one respondent from NBC bank

The efficiency of a call center depends on the methods used to generate and retrieve data as well as the database and interface needs of the bank. Call centres have already played a considerable part in the restructuring of the banking and financial services sector, in particular by facilitating the development of telephone-based. ‘direct’ banking.

4.4.5 Expert’s Strategy
Transforming and maintaining core banking systems, banks are constantly seeking to refresh and enhance their core systems. New distribution channels such as mobile-banking and product innovations are emerging all the time and existing technology platforms must keep pace, with continual change. Recruiting expert helping the NBC bank to reduce its operational costs and maintained its market niche in Mobile banking services, also in order to make the service provision and easy to the customers. Expert helped NBC bank to reduce user/system reported problems and improve the quality of its Mobile banking services.

One officer explained that;

“...No matter how efficient or effective the systems is in place, the bank is only as good as its ability to store, manage and manipulate data to provide the insight required for effective business intelligence processes, the experts ensured that; information is available and reliable for all current business needs, whether it’s achieving a single view of the customer or analyzing bank risk position...”
4.5 Significant of Mobile banking services to NBC bank Ltd

Mobile banking is a convenience service; it enable NBC customers to access their financial services anywhere, anytime. Mobile banking services improve safety and security of cash and make payment more convenient. As demonstrated by Mallat et al (2004) compared with the traditional banking services, mobile banking services has more benefits to more convenient for mobile users. Mobile banking services initiate customer value as a result of being not the limit of time and place.

One customer highlighted that;
“...Mobile banking is a fast service, free and secures way to check account balances, review transaction history and transfer funds between accounts...”

Further it was also highlighted that;
“...With 24/7 services through Mobile banking, from your phone... banking convenience is at your command. So you can stay connected to your accounts and your money like never before...”

Full control of money; through mobile banking NBC customers were able to get full accessibility of their money/account at any time they wish, regardless it is day or night. Mobile banking services shifted people from card services like prepaid and debit to mobile wallet. Mobile banking gives the customer control over his/her money.

One customer demonstrated that;
"...You don't have Internet connections everywhere you go. But you do have a mobile connection. ...You knew where you stood at any moment... For example, you can be sitting on an airport pitch checking your account balance or looking at recent transactions...”

Mobile banking reduce risk; having Mobile banking at NBC, clients/customers can avoid the risk of carrying money to the bank as they can just transfer as much as they can from one account to another. Since deposit of cash were made in the banking halls or any permitted premises as approved by the bank where everyone can see, which is very risk. Mobile banking seems to be an alternative, now day’s the service
is different at NBC bank customers deposit their money /processed their money virtually and people are not able to see the process.

One staff explained that;

"...Mobile banking services provide a security and offer multiple downloadable applications ...banks typically let you access accounts via texting, texting is the simplest method for many...it's the least sexy, but it plays an important role...Mobile banking has a long way to go...”

Mobile banking save time; at NBC bank customers are able to conduct many financial transactions directly and without involving bank employees. If customers could save some of the time spent visiting and queuing in banking halls provided mobile deposit, therefore Mobile banking can speed up financial transactions and customers were glad to adopt Mobile banking services since; customer can transact mobile banking through their mobile phones at any time. NBC bank provide mobile banking services for reducing their cost of operation and providing more easily accessible and faster services to customers.

Customers can use mobile banking facilities to inquire about the updates of account balance, statement request, details of the last few transactions and management of pension and insurance policy. In addition to these, customers can request the bank to activate alerts, if a threshold limit is crossed, or to set a minimum balance alert. Mobile banking has also made fund transfer, both national and international quite simple and fast. Customers can order or request a check book and card, and pay bills with the help of mobile banking. Some other services of mobile banking include portfolio management services, personalized alerts, and notifications on security prices, mobile recharging, monitoring of term deposits.

Nonbanking banking hours; this phenomenon has been a major issue with regards to banks mobilizing deposits form customers after close of day business as well as Saturdays and Sundays which the banks don’t work at all expect a few on Saturdays. This also applies to customers who by the nature of their business will need to
deposit money within the nonbanking hours which has always been a challenge. Mobile banking deposit seems to be the alternative to arrest this situation.

“...I worked with my business even on Saturdays and Sunday; it was difficult and risk because I travelled home with money, I didn’t have any place to deposit, but now days through NBC Mobile banking I can deposit money any time, any day ...” said by one customer at NBC bank

Mobile banking reduce paper work; through traditional way of depositing or withdrawing money from bank, the bank was used a lot of printings copies and photocopies, but through modern way Mobile banking system, no photocopies no printing copies is used. People use mobile device to make all transactions needed, therefore it reduce the cost of managing the services at NBC bank.

Banking can also serve as a source of revenue. NBC Mobile services can be offered on a premium basis. The price, in this case, should be reasonable enough so that customers are willing to pay them but at the same time they should be from a financial point of view higher than the costs incurred by the bank. Additional revenues can be generated in two ways: Offering innovative, premium services to existing customers; Attracting new customers by offering innovative services. Whereby new customers contribute to revenue generation not only by utilizing mobile services but also by using other conventional distribution channels.

In addition to that; economists in Tanzania said that, “...spending on banking and telecommunications services may help to 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 banking and mobile payments spares members the trip to the nearest town to pay for supplies is a way to protect the capital and savings (Laugtug, 2010).

Therefore Mobile Banking as a innovative approach to banking transactions has created a strong connectivity between customers, mobile money provider and the bank as both transact with minimum cost and in minimum time. It is a timely and its
cost effective services can deliver mobile money to non-banked poor people and induce economic growth of the country. Also Mobile banking services offer great potential to expand financial services, particularly payment services, to the poor.

4.6 Challenges Faced by NBC bank Ltd on the Adoption of Mobile Banking

The continuing evolution and adoption of mobile banking requires that; NBC bank to overcome challenges and potential roadblocks most of which can be mitigated by taking a disciplined and focused approach. As the case of emerging markets, the speed of change is rapid, and NBC bank must be prepared to adopt accordingly. The following are challenges on adoption of M-banking at NBC bank.

System/Network failure; this is when the Mobile banking service is limited when the system break down or collapse, this is a big challenges at NBC bank that affects many customers especially who are in need for the time being. As confirmed by Said (2010) that; processing of cash payment may result in delays. For example, if a person receives money through Mobile banking, he or she has to go to an agent in order to receive cash, which causes delays due Network.

One customer reported that;
“...By the time when mobile banking network is down, people suffer on how they can get money easily...”

Cost of managing Mobile banking technology is high; since a lot of experience is needed to operate it.

One staff narrated that;
“...Mobile banking is costfull since the bank has to use a lot of money in adaption of that new technology such as installing new software... buying a lot of new machine for replacement and doing researches before the adaptation of technology...” said by NBC manager

Most of banks have failed to build up comparable levels of technological capability, and few have reached a level where they could compete directly with other banks. The business environment was often inhospitable to some banks, and was riddled with high transaction costs.
Mobile banking system requires specialized experts for the best outcome. Importing expert from outside the country is expensive, NBC bank import expertise on managing Mobile banking system so as can help them to provide good and quality services to its customers.

Customer experience and awareness; adaptation of new technology needs training in order to make the staffs and customer aware of that new technology, due to the fact that Mobile banking services is still a new concept to other customers at NBC bank, therefore the bank is still have massive work to provide awareness to its customers. Other customers are unaware of the powerful value proposition that Mobile banking channel affords. NBC bank require high convincing power to customers as some believe that join the service will risk/lost their money. Consumers who use mobile banking appreciate the value that it provides, but the majority of consumers still lack knowledge about what mobile banking is and the benefits it offers.

Complex integration and partnership model; to achieve operational efficiencies and realize the full growth potential, NBC bank need to integrate their existing bank platforms including core banking, customer relationship management, and payment hubs with mobile banking solutions. NBC bank also need to manage a multitude of partners, such as telecommunication providers, social media outlets, data analytics providers, retailers, payment networks, mobile device manufacturers, and many other stakeholders. NBC banks need to foster retail relationships to push mobile payment solutions to merchants and educate them on the benefits of Mobile banking. Increasing pressure from competitors; differentiating capabilities from other banks and service providers is increasingly difficult.

However, early adopters of mobile banking may still gain a competitive advantage in attracting new customers. Moreover, NBC bank will face growing competition in the coming years from other banks using the M-banking services such as NMB bank and CRDB bank. Other competitors include; telecommunications providers and other mobile money offering services that compete with mobile banking. Consequently, NBC bank needs to take steps to differentiate mobile banking from alternative
services so that consumers can regard to bank offerings as superior. This is because here in Tanzania Mobile money covers the wide range especially to unbanked population; hence it is difficult to use Mobile banking.

Transactions costs due to multiple vendor charges, especially when a customer needs money for payment. Transferring money from banking account using mobile banking service then transferring that money to another account by using mobile money services such as Tigo pesa, M-pesa or Airtel Money need charges, therefore through Mobile banking the customers can pay multiple vendors. According to findings; it showed that; the biggest problem is lack of collaboration by the mobile operators thus limiting the expansion mobile banking in Tanzania due to the fact that all stakeholders see mobile banking as a customer retentions service.

4.7 Chapter Summary

According to findings; there are numbers of factors that were considered in adoption of Mobile banking at NBC bank, this includes; organizational factor, technological factor, strategic factor, functional factor and economic factor. Also NBC bank was adopted strategies in adoption of Mobile banking system, these strategies includes; training strategy, training is important because it has a direct impact on individual performance. Research strategy; as Mobile bank has moved quickly beyond being simply online banking using a mobile phone, extensive research is needed to compile around market place assessment.

Promotion strategy; this is the direct way where by NBC bank communicates the services to its targeted audiences. Services strategy; call centres should be accessible for twenty four hours a day and seven days of the week (24/7). Expert’s strategy; recruiting expertise helping the NBC bank to reduce its operation costs. Significant includes; convenience services, help the customer to manage its account everywhere, full control of money, M-banking gives the customer control over his/her money, it reduce risk of carrying money to the bank, it serve time, M-banking is a non banking hours and also it reduce paperwork.
Despite of the significance of M-banking, the challenges were noted; this include network failure, cost of managing M-banking technology is high, require specialized experts, M-banking needs customer experience and awareness. M-banking is the complex integration and partnership model. Increasing pressure from competitors and transactions cost due to multiple vendor charges.
CHAPTER FIVE

SUMMARY, CONCLUSION AND POLICY IMPLICATION

5.1 Introduction
This chapter presents conclusion and recommendations in accordance with the research questions, specific objectives and the data collected through questionnaires, interviews and documentary method of data collection.

5.2 Main Conclusion
It is truly that, Mobile banking services is the one among the services provided by NBC bank. The concept of Mobile banking in Tanzania is still very current since few banks provide the services. Mobile banking enable customers to request for their cheque book, Purchase prepaid Airtime (Vodacom, Tigo, Airtel Zantel) Fund transfer to mobile account (M-pesa, Tigo pesa) Change Pin, Time deposit, Fund transfers to own linked accounts, NBC account Balance enquiry and mini statement. According to findings, most of the people who are using Mobile banking are those who have banking accounts, and most of them are those who are living in towns especially Dares salaam, Arusha and other areas in Tanzania.

There are more mobile phone users than bank account owners in Tanzania and most of the people in rural areas are unbanked and like better using mobile money. NBC bank has very large potential to offer mobile banking services to people living in remote villages where only few have banks account.

5.2.1 Strategy, significant and challenges in adoption of M-banking at NBC
Various strategies have been put in place involving various stakeholders in adaptation of Mobile banking at NBC bank. Major strategies realized include; training strategy, educating employees on how to interact with the system. Effective training has a direct impact on individual performance as well as the organization performance. NBC bank train its staff to abroad countries e.g. South Africa after every three months to make them familiar enough for the product (Mobile banking
system) so as they can deliver the best services to its clients/customers. Another strategy includes; research strategy, doing a research helps to solve the problem. Before introducing and after introducing a new system or new products in an organization (NBC bank), a research should be done first. To assist NBC bank with the development and implementation of a successful mobile banking strategy, extensive research is being compiled around marketplace assessment, mobile strategy development, optimal organizational structures, technology selection, best practices, measurement benchmarks and ways to continuously improve the mobile banking experience.

Promotion strategy, help to give awareness to customers about Mobile banking and how to use it. Promotion is the direct way that NBC bank tries to reach its publics or is the direct way in which an organization communicates the product or service to its target audiences. In addition to that; is service strategy; Availability of call centres services which are accessible for twenty four hours a day and seven days of the week (24/7). A call center also increases the ability of the bank to reach customers outside the bank geographical market areas because of the easy access. Call center allows the NBC bank to package its services particularly Mobile banking services and products, and then target its customers with these packages. Not only but also expert’s strategy; any successful organization should hire an experts. Transforming and maintaining core banking systems, banks are constantly seeking to refresh and enhance their core systems. New distribution channels such as mobile-banking and product innovations are emerging all the time and existing technology platforms must keep pace, with continual change. Recruiting expert helping the NBC bank to reduce its operational costs and maintained its market niche.

According to findings, Mobile banking added value to number of aspects this includes; convenience services; Mobile banking enables NBC customers to access their financial services which improve safety and security of cash and make payment more convenient. Mobile banking helps to manage finances anywhere, anytime with Mobile banking services; another significant include; full control of money; through mobile banking NBC customers were able to get full accessibility of their
money/account at any time they wish, regardless it is day or night. Mobile banking reduce risk; having Mobile banking at NBC, clients/customers can avoid the risk of carrying money to the bank as they can just transfer as much as they can from one account to another. Since deposit of cash were made in the banking halls or any permitted premises as approved by the bank where everyone can see, which is very risk. Mobile banking seems to be alternative services. In addition to that is; Mobile banking save time; at NBC bank customers are able to conduct many financial transactions directly and without involving bank employees. If customers could save some of the time spent visiting and queuing in banking halls provided mobile deposit, therefore Mobile banking can speed up financial transactions and customers were glad to adopt Mobile banking services.

Furthermore include; Nonbanking banking hours; this phenomenon has been a major issue with regards to banks mobilizing deposits form customers after close of day business as well as Saturdays and Sundays which the banks don’t work at all expect a few on Saturdays. Through Mobile banking customer can make a transaction at anytime. Lastly is Mobile banking reduce paper work; through traditional way of depositing or withdrawing money from bank, the bank was used a lot of printings copies and photocopies, but through modern way Mobile banking system, no photocopies no printing copies is used. This reduces the cost of managing the businesses.

Despite the significance of Mobile banking, a number of challenges were noted; Network failure; this is when the Mobile banking service is limited when the systems break down or collapse, this is the serious problem that most of the customers faced. Another challenge includes; Cost of managing Mobile banking technology is high, since Mobile banking is a new technology to the country like Tanzania, to adopt the technology is expensive. Mobile banking system requires specialized experts for the best outcome. Importing expert from outside the country is expensive, NBC bank import expertise so as to improve the performance of Mobile banking services.
In addition to that is customer experience and awareness; adaptation of new technology needs training in order to make the staffs and customer aware of that new technology, due to the fact that Mobile banking services is still a new concept to other customers at NBC bank, therefore the bank is still have massive work to provide awareness to its customers. Another challenge includes; complex integration and partnership model; to achieve operational efficiencies and realize the full growth potential, NBC bank need to integrate their existing bank platforms including core banking, customer relationship management, and payment hubs with mobile banking solutions.

Pressure from competitors is another challenge; differentiating capabilities from other banks and service providers is increasingly difficult. However, early adopters of mobile banking may still gain a competitive advantage in attracting new customers. Moreover, NBC bank will face growing competition in the coming years from other banks using the M-banking services such as NMB bank and CRDB bank. Other competitors include; telecommunications providers and other mobile money offering services that compete with mobile banking.

Lastly is; transactions costs due to multiple vendor charges, especially when a customer needs money for payment.

5.3 Recommendations

Based on the study findings; the following recommendations are made for improving Mobile banking performance at NBC bank. Most of the people in Tanzania live in rural areas that are denied with financial services and more than half of the country’s GDP comes from agriculture. The use of M-Banking system could now be use as alternative way to promote the poor in accessing financial services; hence the policy makers should now see this opportunity for the country and come up with supportive policy to ensure growth of the economy in the financial sector as well as for rural financial development.
5.3.1 NBC Bank Ltd

NBC bank should also understand their customers and make sure that their services are convenient, affordable and should also consider the easiness in usage of the technologies introduced. Education should be provided to all employees and customer, so as to provide good and quality Mobile banking services to its customers, this is because employees also play a vital role in technology adoption. Resistance shown by the employees to adopt a new technology can lead to poor adoption and malfunctioning. Employees must be willing to learn and adopt with the shifting environmental needs so as it can be easy for them to interact with the system as well as to help customers during registration. NBC bank should now consider the security of M-banking system looked by customers as it reflects their trust in the technology usage behaviour.

Cost of managing new technology; technology may appear to be expensive at the implementation stage; but may save money in the long-term, particularly where a low-cost technological solution can be found to replace a high-cost. If the expenses needed to acquire and maintain the new technology is high compared to the expenses needed to maintain the old system, that technology cannot meet the need of the company. NBC bank should acquire the new technology particularly mobile banking features which is cost effective.

Importing specialized experts from abroad on a new technology is expensive; hiring qualified expert is important to any organization particularly in banking. NBC bank should hire an expert whom can be paid at the lowest cost. In addition to that; is customer awareness and experience, the NBC bank is still having massive work to provide awareness to its customers. Other customers are unaware of the powerful value proposition that Mobile banking channel can affords. NBC bank should provide high convincing power to customers as well as educating them on the benefit of mobile banking services; some believe that join the service will risk/lost their money. Also NBC bank should create a mobile banking solution to meet the identified needs of the customers.
5.3.2 Other Stakeholders

Network failure or slowness of the services to both Mobile payment and Mobile banking services. This may limit customers to interact with the Mobile banking services; NBC bank together with Mobile money provider, should provide good infrastructures on network services so that the service can be available 24/7 days, this will help NBC bank to improve its performance and attract more customers. NBC bank 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. When Bank is unable to meet the performance and reliability expectations may lose customer confidence.

Complex integration and partnership; integrating with other stakeholders such as telecommunication providers, NBC bank should integrate with other stakeholders to create the strong relationship so as to provide the good and quality Mobile banking services to its customers. Furthermore is, increasing pressure from competitors; NBC bank needs to take steps to differentiate M-banking from alternative services so that consumer can regard to bank offerings as superior.
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APPENDICES

Appendix 1: Budget

This research was financed by myself. The overall budget used in this research was shown in the table below:

<table>
<thead>
<tr>
<th>Item</th>
<th>Stationeries</th>
<th>Cost in Tanzania Shillings (Tshs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notebook</td>
<td></td>
<td>12,000.00</td>
</tr>
<tr>
<td>Pen</td>
<td></td>
<td>3,500.00</td>
</tr>
<tr>
<td>Files</td>
<td></td>
<td>30,000.00</td>
</tr>
<tr>
<td>Secretarial services Typing</td>
<td></td>
<td>150,000.00</td>
</tr>
<tr>
<td>Photocopying</td>
<td></td>
<td>100,000.00</td>
</tr>
<tr>
<td>Materials for review</td>
<td></td>
<td>70,500.00</td>
</tr>
<tr>
<td>Final draft photocopying</td>
<td></td>
<td>70,000.00</td>
</tr>
<tr>
<td>Binding 6 copies</td>
<td></td>
<td>37,000.00</td>
</tr>
<tr>
<td>Printing</td>
<td></td>
<td>150,000.00</td>
</tr>
<tr>
<td>Transport to and from the town</td>
<td></td>
<td>150,000.00</td>
</tr>
<tr>
<td>Meals</td>
<td></td>
<td>160,000.00</td>
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<tr>
<td>Emergency</td>
<td></td>
<td>100,000.00</td>
</tr>
<tr>
<td>Grand total</td>
<td></td>
<td>1033,000.00</td>
</tr>
</tbody>
</table>

Source: Author’s Manipulation (2014)
Appendix 2: Interview guide for Management staffs at NBC bank Ltd

(Fill the blank space as particular question requires.)

1. Age of the respondent

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2. Education Qualification

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3. Marital status

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4. How long have you been working with NBC bank Ltd?

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5. What are the strategies used by stakeholders in adoption of mobile banking at NBC bank Ltd?

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6. What is the significance of Mobile banking system to NBC bank Ltd?

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7. What are the challenges faced by NBC bank Ltd on the performance of mobile banking system?

8. What should be done to overcome the challenges?

9. What is the difference between Mobile commerce, Electronic commerce and Mobile banking? Explain

10. Do you know the meaning of Information technology? (Circle the correct answer)
    (a.) Yes
    (b.) No

11. If the answer is Yes, Explain the Meaning of IT
Appendix 3: Questionnaires for NBC bank Operations staffs

(Fill the blank space and circle the correct answer as particular question requires.)

1. Age (tick in the respective box)

<table>
<thead>
<tr>
<th>Age in years</th>
<th>18-35</th>
<th>36-45</th>
<th>46-55</th>
<th>&gt;55</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>V</td>
</tr>
</tbody>
</table>

2. Marital Status (tick the right position).

<table>
<thead>
<tr>
<th>Status</th>
<th>Single</th>
<th>Married</th>
<th>Separated/Divorced</th>
<th>Widow</th>
<th>Cohabiting</th>
</tr>
</thead>
<tbody>
<tr>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. What is your highest level of education? (Circle the correct answer)

(a.) Secondary Education
(b.) College / Vocational
(c.) Ordinary Diploma
(d.) Advanced Diploma
(e.) University Degree

4. Do you know the word mobile banking system?

(a.) Yes
(b.) No

5. If the answer is Yes, then define the word mobile banking system

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6. What are the impacts of mobile banking services at NBC bank?

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7. How long have you been working at NBC bank Ltd? (Circle the correct answer)
   (a.) One Year to Two years
   (b.) Three years to four years
   (c.) Five years to six years
   (d.) Seven years and above

8. What are Significant of mobile banking system at NBC bank?
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   ................................................................................................................................................
   ................................................................................................................................................
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9. What are challenges in adoption of mobile banking at NBC bank Ltd?
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Appendix 4: Questionnaires for Customers at NBC bank

1. Age (tick in the respective box)

<table>
<thead>
<tr>
<th>Age in years</th>
<th>18-35</th>
<th>36-45</th>
<th>46-55</th>
<th>&gt;55</th>
</tr>
</thead>
<tbody>
<tr>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Marital Status (tick the correct answer).

<table>
<thead>
<tr>
<th>Status</th>
<th>Single</th>
<th>Married</th>
<th>Separated/Divorced</th>
<th>Widow</th>
<th>Cohabiting</th>
</tr>
</thead>
<tbody>
<tr>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. What is your highest level of education? (Circle the correct answer)

(a.) Secondary Education
(b.) College / Vocational
(c.) Ordinary Diploma
(d.) Advanced Diploma
(e.) University Degree

4. Are you satisfied with the mobile banking services provided at NBC bank? (Circle the correct answer)

(a.) Yes
(b.) No

5. If the answer is yes, give the reasons

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6. If the answer is No, Give the reasons

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7. What are the different between Mobile banking services and Mobile money services?
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8. What are the challenges of using mobile banking services?
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9. How do you interact with your bank?
   (a.) Go to bank’s branch
   (b.) Using mobile banking
   (c.) Speak to bank personnel
   (d.) Using ATM
   (e.) Using Internet banking
   (f.) Others

10. Have you use internet banking?
    (a.) Yes
    (b.) No

11. How do you know about mobile banking? Explain
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12. What is the efficiency of NBC bank on Mobile banking services? (Circle the correct answer)
   (a.) Excellent
   (b.) Very good
   (c.) Average
   (d.) Poor

13. Does the quality of services provided by NBC bank (Circle the correct answer)
   (a.) Excellent?
   (b.) Very good?
   (c.) Average?
   (d.) Poor?