THE IMPACT OF MOBILE MONEY TRANSFER ON THE
PERFORMANCE OF BANKING INDUSTRY IN TANZANIA:
A CASE OF NATIONAL MICROFINANCE BANK (NMB) PLC

By
Neema Gilbert

A Dissertation Submitted to MUDCC in Partial Fulfilment of the Requirements
for the Award of the Degree of Master of Science in Human Resource
Management (MSc-HRM) of Mzumbe University.
CERTIFICATION

We, the undersigned, certify that we have read and hereby recommend for acceptance by the Mzumbe University, a dissertation entitled; *The Impact of Mobile Money Transfer on the Performance of Banking Industry in Tanzania: A Case of National Microfinance Bank (NMB) PLC*, in partial fulfilment of the requirements for the Degree of Master of Human Resource Management (MSc-HRM) at Mzumbe University.

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Major Supervisor

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Internal Examiner

Accepted for the Board of ......................
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AND
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I, Neema Gilbert, declare that this dissertation is my own original work and that it has not been presented, and it will not be presented to any other university for a similar or any other degree award.

Signature ____________________________

Date ________________________________

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DEDICATION

To Mr. and Mrs. Alila
**LIST OF ABBREVIATIONS**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>ATMs</td>
<td>Automated Teller Machines</td>
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<td>BAM</td>
<td>Business Activity Monitoring</td>
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<tr>
<td>DAWASCO</td>
<td>Dar es Salaam Water and Sewage Company</td>
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<tr>
<td>E-banking</td>
<td>Electronic Banking</td>
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<td>E-commerce</td>
<td>Electronic Commerce</td>
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<td>FNB</td>
<td>First National Bank</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>GSM</td>
<td>Geo Spatial Mapping</td>
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<td>ICT</td>
<td>Information and Communication Technology</td>
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<td>KPIs</td>
<td>Key Performance Indicators</td>
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<td>MMO</td>
<td>Mobile Money Operators</td>
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<td>NMB</td>
<td>National Microfinance Bank</td>
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<td>PAT</td>
<td>Profit after Tax</td>
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<td>PBT</td>
<td>Profit before Tax</td>
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<td>PIs</td>
<td>Performance Indicators</td>
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<td>POS</td>
<td>Point of Sale</td>
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<td>ROA</td>
<td>Return on Assert</td>
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<td>ROE</td>
<td>Return on Equity</td>
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<td>SMEs</td>
<td>Small and medium enterprises</td>
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<td>SMS</td>
<td>Short Message System</td>
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<tr>
<td>SPSS</td>
<td>Statistical Package for Social Science</td>
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<td>SSA</td>
<td>Sub-Saharan Africa</td>
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<td>STS</td>
<td>SIM Toolkit standard</td>
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<tr>
<td>TCRA</td>
<td>Tanzania Communication Regulatory Authority</td>
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<td>TDV</td>
<td>Tanzania Development Vision</td>
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<tr>
<td>TTCL</td>
<td>Tanzania Telecommunication Company</td>
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<tr>
<td>TZS</td>
<td>Tanzania Shillings</td>
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<tr>
<td>UK</td>
<td>United Kingdom</td>
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<tr>
<td>USA</td>
<td>United State of America</td>
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<tr>
<td>USSD</td>
<td>Unstructured Supplementary Service Data</td>
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<tr>
<td>UTAUT</td>
<td>Unified Theory of Acceptance and Use of Technology</td>
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<td>WBI</td>
<td>World Bank Institute</td>
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ABSTRACT

This dissertation focused on evaluating the impact of mobile money transfer on the performance of banking industry in Tanzania with reference to National Microfinance Bank (NMB). Specifically it aimed at to examine the banking performance indicators, to identify the factors affecting the performance of commercial banks, to determine the impact of mobile money transfer on the performance of commercial banks and to find out the challenges facing mobile banking in Tanzania. A case study research design was adopted. Data collection was done through questionnaires and interviews. Data were analyzed using the Statistical Package for Social Science (SPSS).

It was observed that there are various indicators which determine the performance of the bank. These were increase on the number of customers, growth in profit, bank expansion in terms of branches and customers, increase on the liability (deposits), increase in on the bank products and service, positive bank public reputation, return on assets and return on equity. Factors affecting the performance of commercial banks in Tanzania were inaccess to finances, high interest rates, the banking financial strategy and innovations, the world money markets, low public awareness on financial institution, lack of genuine citizens’ identification, inflation and fluctuation on exchange rate. Additionally; mobile money transfer has affected performance of commercial banks in Tanzania in terms growth of customers and increase on deposits, reduction of working load, financial conveniences, bank expansion and good customer services. However, the challenges facing mobile banking in Tanzania are fraud, money laundering, liquidity problems, inadequate credible agents, low adequate knowledge, network problems, lack of electronic commerce regulation and legal framework, high competition, and the delays in completing electronic transactions.

It was concluded that, mobile banking have enhanced electronic money transfer and other banking services. Various recommendations were made including Privacy and security standardization, commercial banks partnership, mobile extension, customer service oriented education and universal access and service.
TABLE OF CONTENTS

CERTIFICATION.......................................................................................................................... i
DECLARATION AND COPYRIGHT ............................................................................................. ii
ACKNOWLEDGEMENT................................................................................................................ iii
DEDICATION................................................................................................................................... iv
LIST OF ABBREVIATIONS ........................................................................................................... v
ABSTRACT..................................................................................................................................... vi
TABLE OF CONTENTS ................................................................................................................ vii
LIST OF TABLE ........................................................................................................................... viii
LIST OF FIGURES ........................................................................................................................ xi

CHAPTER ONE ............................................................................................................................... 1
BACKGROUND TO THE PROBLEM............................................................................................... 1
  1.1  Background Information ....................................................................................................... 1
  1.2  Statement of the Problem ..................................................................................................... 3
  1.3  General Objectives ............................................................................................................... 5
  1.3.1  General Objective ........................................................................................................... 5
  1.3.2  Specific Objectives ......................................................................................................... 5
  1.4  Research Questions ............................................................................................................. 5
  1.4.1  General Research Question .......................................................................................... 5
  1.4.2  Specific Research Questions ........................................................................................ 5
  1.5  Scope of the Study ............................................................................................................... 6
  1.6  Significance of the Study ................................................................................................... 6
  1.7  Limitation of the Study ....................................................................................................... 7

CHAPTER TWO ............................................................................................................................... 9
LITERATURE REVIEW .................................................................................................................. 9
  2.1  Introduction .......................................................................................................................... 9
  2.2  Theoretical Literature Review ............................................................................................ 9
  2.2.1  The Unified Theory of Acceptance and Use of Technology ........................................... 9
  2.3  Indicators of Bank Performance ......................................................................................... 9
  2.3.1  Components of Banks Total Revenue ........................................................................... 12
  2.3.2  Factors Affecting Performance of the Bank ................................................................. 13
  2.4  Empirical Literature Review ............................................................................................... 15
  2.4.1  The Status of Global Mobile Phone Sector ................................................................. 15
  2.4.2  Mobile Phone Industry in Tanzania .............................................................................. 17
  2.4.3  Mobile Money Services ................................................................................................. 18
  2.4.4  The Technology of Mobile Banking ............................................................................ 19
  2.4.5  Banking and Mobile Money Services .......................................................................... 20
  2.4.6  Performance of Bank in Tanzania ............................................................................... 26
  2.5  The Conceptual Framework .............................................................................................. 28
CHAPTER THREE .............................................................................................................. 30
RESEARCH METHODOLOGY ......................................................................................... 30
3.1 Introduction .................................................................................................................. 30
3.2 Research Design .......................................................................................................... 30
3.3 Targeted Population .................................................................................................... 31
3.4 Sample Size and Sampling Techniques ..................................................................... 31
3.5 Sampling Techniques/Procedures ............................................................................. 32
3.5.1 Purposive Sampling ............................................................................................... 32
3.5.2 Simple Random Sampling ..................................................................................... 33
3.5.3 Stratified Random Sampling ................................................................................ 33
3.6 Types of Data Collection Techniques and Instrumentation ................................... 33
3.6.1 Primary Data ......................................................................................................... 33
3.6.2 Secondary Data ..................................................................................................... 34
3.7 Data Collection Methods .......................................................................................... 34
3.7.1 Questionnaires ...................................................................................................... 34
3.7.2 Interviewing .......................................................................................................... 35
3.8 Reliability .................................................................................................................... 36
3.9 Validity ....................................................................................................................... 37
3.10 Data Analysis Plan .................................................................................................... 37

CHAPTER FOUR .............................................................................................................. 38
DATA PRESENTATION AND FINDINGS ........................................................................... 38
4.1 Introduction .................................................................................................................. 38
4.2 General Profile of the Respondents ......................................................................... 38
4.2.1 Gender of the Respondents .................................................................................. 39
4.2.2 Level of Education ............................................................................................... 39
4.2.3 Working Experience ............................................................................................. 40
4.2.4 Age of the Respondents ....................................................................................... 40
4.3 Indicators of Banking Performance ........................................................................... 41
4.3 Banking Performance Indicators .............................................................................. 41
4.3.1 Increase on Number of Customers ..................................................................... 42
4.3.2 Return on Assets (ROA) ...................................................................................... 42
4.3.3 Return on Equity (ROE) ...................................................................................... 42
4.3.4 Increase on Dividend per Share ......................................................................... 43
4.3.5 Increase on Profit .................................................................................................. 43
4.3.6 Banks Expansion .................................................................................................. 44
4.3.7 Increase in Liability (Deposits) .......................................................................... 45
4.3.8 Increase in Bank Products .................................................................................... 46
4.4 Factors Affecting the Performance of Commercial Banks in Tanzania ............... 46
4.4.1 In-Access to Finances ......................................................................................... 47
4.4.2 Financial Strategies and Innovations .................................................................... 48
4.4.3 Less Public Awareness on the Utilization of Bank Services ............................... 48
4.4.4 Exchange Rate Fluctuations ............................................................................... 49
4.5 The Impact of Mobile Money Transfer on the Performance of Commercial in Banks in Tanzania ................................................................. 49
4.5.1 Growth of Customers and Deposits .................................................................... 50
4.5.2 Reduction in Working Load ................................................................................ 51
4.5.3 Growth on Profit ................................................................. 52
4.5.4 Financial Conveniences ..................................................... 53
4.5.5 Banks Expansion ............................................................... 55
4.5.6 Improvement in the Customer Services ............................. 55
4.6 Challenges Facing Mobile Banking in Tanzania ............... 56
4.6.1 Fraud done by bank staffs and MMO ................................. 57
4.6.2 Liquidity Problems ............................................................ 58
4.6.3 Security (For Large Volumes of Transactions) ................ 59
4.6.4 Low Knowledge on ICTs to the Public and the Customers ... 59
4.6.5 Network Problems ............................................................ 60
4.6.6 Lack of E-Commerce Regulations and Legal Framework .... 61
4.7.6 High Competition with Other Banks ............................... 61
4.6.8 Delay to Complete Transfers ............................................ 62

CHAPTER FIVE .................................................................................................................................................. 63
SUMMARY, CONCLUSION AND RECOMMENDATIONS................. 63

5.1 Introduction .................................................................................. 63
5.2 Summary ...................................................................................... 63
5.3 Conclusion .................................................................................... 65
5.4 Recommendations ........................................................................ 65
5.4.1 Privacy and Security ............................................................... 65
5.4.2 Standardization ........................................................................ 66
5.5 Mobile Money Services Companies-Commercial Banks Partnership ... 66
5.6 More Mobile Extension ............................................................... 66
5.7 Customer Service Oriented Education ...................................... 66
5.8 Universal Access and Service ..................................................... 67
5.9 Further Areas of Study ............................................................... 67

REFERENCES ....................................................................................................................................................... 68

APPENDICES ....................................................................................................................................................... 81
Appendix 1: Questionnaire For NMB-GQ’s Staffs ............................. 81
Appendix 2: Questionnaire for Mobile Money Service/Banking Users and Agents ................................................ 84
Appendix 3: Interview Guide ............................................................................................................................... 87
LIST OF TABLE

Table 3.1: Population and Sample Size Distribution ........................................... 32
Table 4.1: General Profile of the Respondents ................................................... 38
Table 4.2: Gender of the Respondents ................................................................. 39
Table 4.3: Respondent’s Level of Education ....................................................... 39
Table 4.4: Respondents’ Working Experience ..................................................... 40
Table 4.5: Age of the Respondents ...................................................................... 41
Table 4.6: Banking Performance Indicators .......................................................... 42
Table 4.7: Bank’s Performance Indicators during the Year 31st December 2013.. 43
Table 4.8: Commission Earned by NMB from Mobile Banking (2011-2013)...... 44
Table 4.9: Factors Affecting the Performance of Commercial Banks in Tanzania 47
Table 4.10: The Impact of Mobile Money Transfer on the Performance of
Commercial in Banks in Tanzania .................................................................. 50
Table 4.11: Challenges Facing Mobile Banking in Tanzania .............................. 57
LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure 2.1: The Conceptual Framework</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 2.1: The Conceptual Framework</td>
<td>29</td>
</tr>
</tbody>
</table>
CHAPTER ONE

BACKGROUND TO THE PROBLEM

1.1 Background Information

A financial revolution is in progress under the engine of Information and Communication Technology (ICT’s). It is not happening under the skyscrapers of New York or on the streets of London. It is not taking place in Beijing or Mumbai but in the slums of Nairobi and in the market of Kariakoo in Tanzania (Mas, 2011). Information and communication technologies (ICT) fuel the greatest wave of technical innovation currently spreading across the globe, affecting new areas of social and economic activity. Unsurprisingly, financial businesses everywhere have been in the throes of organizational changes and innovation based on new possibilities opened up by ICT. Money, after all, is just information about who owes what to whom. Much innovation happens in advanced economies yet new technology has the potential to unleash radical change in developing economies.

Mobile banking is in its initial stages in developing countries such as Kenya, Uganda and Tanzania, few to mention. For instance in Kenya, a total population of 43 million people, with slightly lower than average income inequality measured by the Gini Coefficient at 47.7 compared to South Africa’s Gini coefficient 57.8; Brazil’s 55.0; Peru’s 49.6, Mexico’s 48.1 and India’s 36.8 (UNDP, 2009). This population needs continuous cash flow for development and mobile banking has been making waves. Mobile banking offers numerous benefits to SMEs and at individual as well as organizational level (Hassan and Semkwiji D, 2011). Small and medium enterprises (SMEs) and individuals can check account balances, transfer money, pay bills, collect receivables and ultimately reduce transaction costs and establish greater control over bank accounts. Consequently; financial security through saving is a key component in any development endeavor as it is believed to be the surest way of increasing income and boosting productivity in an attempt to break through the vicious cycle of poverty. At an individual level, curbing excessive consumption and making provision for personal future well-being is necessary both for maintaining
and improving the quality of life, as well as for relieving the burden to provide (Pettigrew et al, 2007).

Information, Communication and Technology (ICT) are key factors in socio-economic development. Access to relevant information and knowledge improves efficiency and productivity; enhances social services delivery; increases access to market opportunities; and improves government performance, among others (UNDP, 2001).

Innovations in ICT have revolutionized the financial sector resulting in novel delivery channels for financial products and services such as Automated Teller Machines (ATMs), cell phone banking, PC banking, and internet banking (Ahmad, 2006). These developments leveraged against ICT are termed as electronic banking (e-banking) which is a subcomponent of electronic commerce (e-commerce). E-banking has been very instrumental in improving the quality of service individuals with bank accounts receive from their financial institutions as well as lowering the costs of transactions (SSonko, 2010). People with bank accounts continue to enjoy the benefits associated with e-banking but the poorest of the poor who cannot open up bank accounts remain excluded. As a result, the lack of banking services has forced many people in the developing countries to rely on an often insecure cash-based economy. The desire by many developing countries’ governments to increase access to financial services as a tool of enhancing savings mobilization to reduce poverty has seen a number of solutions emerge. Apart from the traditional solution of microfinance, use of mobile phones to access financial services has been proposed and adopted as a means of expanding financial services to the poor who are almost unbanked.

The adoption of the mobile phone as a means of accessing financial services has been driven by the growing number of low income earners who own cellular phones, the pre-paid billing system sensitive to users’ incomes and improving technology. For these reasons, ICT - mobile phone technology included has been considered such vital that in most developing countries including Tanzania, as it has been
incorporated in the poverty alleviation and other socio-economic development strategies (Hassan and Semkwiji D, 2011). The exceptional growth of mobile telephony in Tanzania provides an opportunity that can be harnessed to expand access of financial services to the under-served and un-served segments of the population. As Ndiwalana and Popov (2009) point out that, mobile phone payments present a significant opportunity to integrate more users within Tanzania’s financial system at a reasonable cost. With the liberalization of the telecommunications sector and the commitment to the Government of Tanzania to e-government and overall utilization of ICT in fostering national development (Mulira, 2009), the onus is on the telecommunication companies and financial institutions to exploit the opportunity.

1.2 Statement of the Problem

Since 1990’s the telephone services in Tanzania was mainly depending on the fixed line, and was very unreliable. The service was provided by the Tanzania Telecommunication Company (TTCL) especially in large cities. However, since 1994 mobile phone technology started to improve. Different sources have explained this phenomenon, viz. mobile phone technology being one of the most important sources of GDP in both developed and developing countries (Waverman, 2005; Deloitte, 2008; Ovum, 2006 and McKinsey, 2007). To date, at least 110 money mobile systems have been deployed, with more than 40 million users. The most well-known system, M-PESA, started in Kenya and is now operational in six countries; with 20 million users who transferred $500 million a month during 2011 (Donovan K, 2011).

Mobile money service in Tanzania is growing fast since its introduction in the country in 2008 when Vodacom introduced mobile money service through M-PESA (Mwaikali, 2013). In June 2009, 14 months later M-PESA in Tanzania had 280,000 subscribers and 1,000 agents (Rasmussen 2009). The mobile money community watched the adoption of mobile money services in Tanzania with great interest. Thus, the mobile industry in Tanzania is known for evolving quickly, and mobile money service has been no exception (Rasmussen, 2009). According to the Tanzania
Communication Regulation Authority (TCRA), the mobile market in Tanzania is growing in a steadfast manner and has managed to break the 52% penetration barrier as of mid-June 2011. Beyond June 2011, it was estimated that over 22 million Tanzanians were connected via mobile phones (TRCA, 2011). Actually at the end of December 2011, the number of mobile subscribers in Tanzania stood at 25,827,518 covering 52% of the Tanzanian population which currently is about 44.9 million. In that perspective, 48% of the Tanzanian population is still untapped market or relied on other means of communication including fixed line subscriptions (TCRA, 2011). Thus, on December 2011 it was estimated that the number of subscribers stood as follows: Vodacom Tanzania 45%, Bhati Airtel 27%, Tigo 21%, Zantel 6%, TCCL 1%, Sasatel 0.03% and Benson Ltd 0.01% (TCRA, 2011).

Reports from donor and industry sources have highlighted the potential of mobile phone applications to address the financial needs of those currently unbanked or excluded from formal financial services in developing countries (World Bank, 2006). Also there have been regular calls from the Consultative Group to Assist the Poor (CGAP) to formal financial institutions in developing countries to access the poor who are the majority and look at their potentials (CGAP, 2008). In addition, the existing initiatives (e.g., Globe Telecom’s G-Cash in the Philippines; WIZZIT in South Africa; Safaricom’s M-PESA in Kenya and the Grameen Village Phone Programme in Bangladesh) have demonstrated the viability of formal financial institutions in accessing the unbanked through mobile money service (World Bank, 2006). Thus, mobile operators in Tanzania are in a very strategic position to enhance the growth of commercial banks because they have accessed over 25 million Tanzanians, and probably over ten million mobile money service subscribers who are using M-PESA, Airtel, Tigo PESA and Easy Pesa whereby a large number of whom are low income and undeserved by Tanzanian commercial banks and other financial institutions (TCRA, 2011).

While the benefits of mobile money payment systems are clear, observers remain divided over impact of the mobile money systems on the banking industry in Tanzania. It is from this context that this research aimed at assessing the impact of
Mobile Money Service on the Performance of Banking Industry in Tanzania with reference to NMB.

1.3 General Objectives

1.3.1 General Objective
To evaluate the impact of mobile money transfer on the performance of banking industry in Tanzania with reference to National Microfinance Bank (NMB)

1.3.2 Specific Objectives
(i.) To determine the banking performance indicators
(ii.) To determine the factors affecting the performance of commercial banks
(iii.) To determine the impact of mobile money transfer on the performance of commercial banks
(iv.) To find out the challenges facing mobile banking in Tanzania

1.4 Research Questions

1.4.1 General Research Question
What is the impact of mobile money transfer on the performance of banking industry in Tanzania?

1.4.2 Specific Research Questions
(i.) What are the banking performance indicators in Tanzania?
(ii.) What are the factors affecting the performance of commercial banks?
(iii.) What is the impact of mobile money transfer on the performance of commercial banks?
(iv.) What are the challenges facing mobile money transfer in Tanzania?
1.5 **Scope of the Study**

This study was conducted at NMB Tanzania Limited Headquarters in Dar es Salaam. The rationale behind the selection of the scoped area for the study is that; the bank offers a mobile application, “PesaFasta,” which allows its customers to use their mobile phones to send money to any person in Tanzania, who does not have a bank account. Among the services available to the users of m-money are domestic and international money transfers, mobile payments (airtime top-ups, merchant payments, utility bill payments, and salary transfers), and mobile banking (balance inquiries, withdrawals, deposits and credit services) (Inter Media, 2013). Therefore the bank is a relevant area for the study, and it was expecting to aid the researcher to get reliable data.

1.6 **Significance of the Study**

The successful completion of the research would have the following significances under the following dimensions.

(i.) **Academic**

The completion of this dissertation was required as partial fulfillment for the award of the Master of Science in Human Resource Management from Mzumbe University-Dar es Salaam Campus College. Also the report was expecting to save as an area of reference on matters pertaining to mobile money transfer and mobile banking, by propounding the benefits of mobile money transfer service. So it would add value to the body of knowledge.

(ii.) **Public**

It is an established fact that the economic development of a nation can be accelerated the improvement of the country’s ICT infrastructure. This is because ICT’s, if well harnessed, provide a platform for development across all sectors of the economy (Isiguzo I, 2010). ICT’s not only contribute to the development of commercial activities, education, health and governance, but are also key enablers of social economic development and sustainable for human development in a more general sense. Economic development depends on overall progression in a country’s ICT’s
sector, and that without such progress; both the economy and private enterprises suffer.

(iii.) Industry and firm

It is clear and evident that, companies that use ICT’s grow faster, and are more productive and profitable than those do not. Indeed, ICT networks are now making it possible for developing countries to participate in the world’s economy in ways that simply were not possible in the past. This reality is reflected in the rapid growth of telecommunications has been experiencing around the world. Under such tremendous ICT’s innovations, the research was expecting to show how the opportunity for banks and mobile providers to reach under-banked or unbanked customers using mobile banking through the offering of various mobile transaction services has been utilized. The research would also provide insight for banks and mobile providers into the behavior patterns of customers in terms of reaching low income markets, usefulness, ease of use, cost benefit customer’s trust in the service provider and the underlined challenges that are facing mobile money transfer through mobile banking.

Since the increased use of mobile banking services is growing very fast in Tanzania, this study would yield findings with important implications for both business and policymakers in order to enable the industry to be beneficial to both the mobile banking service provider and the users so as to reduce expenditures by limiting dependence on physical bank branches, enhancing online banking which in turn, users would benefit from reduced travel costs and more free productive time.

1.7 Limitation of the Study

(i.) The providers were not willing to participate in the study in fear of their competitors spying on them or in fear of exposing their financial performance to strangers where some of them would suspect that the researcher is a thief trying to identify some potential areas. This was overcome by explaining to them the intent of the study and issuing the transmittal letter from Mzumbe University.
(ii.) The data collection and analysis to take a long time as the researcher being the novice from the subject.

(iii.) Due to lack of documented information of Mobile Money Transfer and NMB mobile, the researcher was forced to cover some area when trying to carry out Literature Review.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction
The rationale of conducting a research activity is to come up with the new or additional knowledge. In this chapter, basically various literatures related to this study are reviewed in order to identify the knowledge gap. It is divided into four main parts namely, theoretical literature reviews, empirical literature reviews and the conceptual framework.

2.2 Theoretical Literature Review

2.2.1 The Unified Theory of Acceptance and Use of Technology
This theory was developed by Yu, (2012) on his study on Factors affecting individuals to adopt mobile banking in Taiwan. It tries to show the foundational factors on why people adopt mobile banking. In Unified Theory of Acceptance and Use of Technology (UTAUT), performance expectancy from mobile banking is driven from perceived usefulness, relative advantage, extrinsic motivates, job-fit, and outcome expectations. In mobile banking studies, Brown et al. (2003) empirically demonstrated that the greater the perceived relative advantage, the more likely mobile banking would be adopted. Similarly, Luarn and Lin (2005), Amin et al.(2008), Riquelme and Rios (2010), Sripalawat et al.(2011), and Dasgupta et al. (2011) identified perceived usefulness as a crucial factor, while Yang(2009) and Puscel et al. (2010) concluded that relative advantages significantly influence individuals intention to Adopt Mobile Banking.

2.3 Indicators of Bank Performance
An efficient banking system facilitates linkage between mobilization and use of resources, which accelerates the process of economic growth Nimalathasan (2009). It is a widely accepted belief that a banking system which relies on a wide array of banking products, is able to carry out this function because it increases the efficiency
of a banking systems to a large extent by offering a broader and flexible arrange of services to the benefits of both borrowers and investors.

Every organization measures them to some degree. Often these measurements are based on historical information. While there is certainly value in historical analysis, it is a fundamental principle of Key Performance Indicators (KPIs) to be current or forward-looking metrics. It is also critical that KPIs be closely aligned to strategic company goals and implemented in such a way as to support positive change. KPIs are financial and non-financial metrics used to help an organization define and measure progress toward organizational goals. KPIs can be delivered through business intelligence techniques to assess the present state of the business and to assist in prescribing a course of action.

Nimalathasan (2009) view KPIs as the quantifiable measurements, agreed to beforehand, that reflect the critical success factors of an organization. Whatever KPIs indicators are selected, they must reflect the organization's goals, they must be key to its success, and they must be quantifiable (measurable).

KPIs usually are long-term considerations. The definition of what they are and how they are measured do not change often. The goals for particular KPIs may change as the organization's goals change, or as it gets closer to achieving a goal. The act of monitoring KPIs in real-time is known as Business Activity Monitoring (BAM). KPIs are frequently used to "value" difficult to measure activities such as the benefits of leadership development, engagement, service, and satisfaction. KPIs are typically tied to an organization's strategy (as exemplified through techniques such as the Balanced Score Card).

Performance Indicators (PIs) have been implemented in many countries, from the United Kingdom (UK) to Australia labeled as essential management information (Sizer, 1990) and a management tool, as well as claimed to bring about numerous benefits such as improved accountability and planning. PIs are expected to be increasingly used by the governments of the future (Carter, Klein & Day, 1992;
Hughes, 1994). However, the literature on performance indicators suggests that their application may bring about dysfunctional effects. In particular, authors from countries such as the UK (Barnett, 1992), Australia (Marginson, 1995), United State of America (USA) (Porter, 1988), and the Netherlands (Vroeijenstijn & Acherman, 1990) had voiced their concerns that performance indicators could set the criteria for performance. Performance measurement and reporting is now widespread across the private sector particularly in the banking industry, as well as public sector of many industrialized and industrializing countries. The common tool that is used for this process, key performance indicators (KPIs), have been argued to provide ‘intelligence’ in the form of useful information about a public and private agency’s performance (Williams, 2003). So great is this faith in KPIs that many public and private agencies are now mandated by law or executive order to use them as one of the primary tools to account for their performance to main public accountability or reporting authorities, such as the Parliament, the Government auditor or the board of directors. It is apparent that, the way in which KPIs work to improve accountability is through the information they provide to the principal. Performance measurement systems assume that humans can use the information to make better decisions (Cavalluzzo & Ittner, 1999). This assumption is consistent with the rational comprehensive and bounded rationality perspectives on decision making (Simon, 1955, 1992). The former perspective describes information as directly related to organizational goals and the organizational methods by which to achieve these goals. It also views information as available, unambiguous and directly influential on decisions.

Many scholars have maintained that the implementation of performance measurement systems possesses important symbolic value (Modell, 2004; Moynihan, 2005; Vakkuri & Meklin, 2006). KPIs are viewed as a good and effective management device and a socially constructed tool that makes sense (DeKool, 2004 & Weick, 1995). The fact that KPIs tend to be quantitative has helped to promote their image of objectiveness and rationality. The image of KPIs is further enhanced by their widespread application across the private companies and the public sector of many industrialized countries. The importance of performance measurement is noted by
Ingraham (2005) it is important to expect that citizens, shareholders see and understand the results of government programs and private business respectively. It is necessary that public employees or customers and their leaders not play their thumbs when public dollars are wasted on poorly planned or unrealistic organizational programs (Nimalathasan, 2009).

2.3.1 Components of Banks Total Revenue

Usually banking industry do use its profit to provide various social and economic services such as creation of jobs directly and indirectly, creation of tax revenues and donate as well as various charitable works. Profits also expand the capital base of banks, which in turn maintains the stability of the system, ensuring the safety and security of customers’ deposits.

Revenues are the income generated from a business’ products and services before taxes and general expenses. Net income is left after all expenses and taxes are paid.

Being involved in a variety of businesses, banks have diverse revenue streams. This variety helps yield positive financial results, which makes for a secure and stable banking sector that contributes significantly to the economy of the country where the bank is operating.

Banks categorize their revenue into two broad areas based on how it is generated – interest income and non-interest or other income. As much as 55 per cent of bank revenues are earned mainly through lending activities.

Interest-based revenue is generated from what is known as the ‘spread’. The spread is simply the difference between the interest a bank earns on loans extended to customers and the interest paid to depositors for the use of their money. Banks extend loans to individuals to facilitate the purchase of homes, cars or vacations or to pay for an education. Loans to businesses facilitate purchases of new equipment or premises and allow for expansion into new markets. Interest income is also earned from securities the banks own, such as treasury bills or bonds.
Non-interest income accounts for 39.3 per cent of bank revenues. Banks earn this by providing a variety of value-added services, including trading of securities, assisting companies to issue new equity financing, commissions on securities and wealth management. Personal service fees for bank accounts make up about five per cent of total revenues. The fee for a particular service is based on the cost of providing it, staff time, technology and safety measures for any risks involved and the value-added benefit the customer receives.

Net income (after taxes and expenses) is paid to shareholders and also put to use within the banks to do many things, including:

(i.) Upgrading technology
(ii.) Expanding and improving products and services
(iii.) Training employees
(iv.) Expanding the capital base of the institutions so the stability of the system is maintained

2.3.2 Factors Affecting Performance of the Bank

Factors affecting commercial banks’ performance according to profitability are broadly categorized into two; internal and external factors, (Sehrish et al., 2011). Internal factors are mainly influenced by a bank’s management decisions and policy objectives (Staikouras and wood, 2004), whereas external factors focus on industry-related and macroeconomic variables reflected in the economic and legal environment where banks operate (Athanasoglou et al., 2006). Liquidity risk as a factor may arise from the possible inability of a bank to accommodate decrease in liabilities, since it becomes hard to raise funds for increasing demand for loans. This implies that Liquidity risk is a serious factor that has an impact on the performance of commercial banks. It needs further investigation in country specific situations. Loan loss provision to total loans is an indicator of asset quality in commercial banks. This implies that an increase in non-performing loans leads to increase in loan loss provision and ultimately a negative impact of profitability, and hence an increase in credit risk.
Capital adequacy refers to the sufficient amount of banks equity to absorb any shock that a bank may experience (Ong and Teh, 2013). Empirical studies of; Havrylchyk et al., (2006); Iannotta et al., (2007); Pasiouras and Kosmidou, (2007); Athanasoglou et al., (2008); Alexiou and Sofoklis (2009) and Garcia-Herrero et al., (2009) showed a positive impact of capital on bank profitability. On the other hand, studies of Hoffmann, (2011), showed a significant negative impact of capital on bank profitability. The contradicting empirical evidence suggests that higher capital ratio leads to lower profitability. This implies that, setting up high regulatory capital may have negative effects on profitability and ultimately bank performance.

Bank operating expenses should be considered as a determinant and prerequisite for improving bank performance, since expenditures are controllable expenses and if efficiently managed can contribute positively to the performance of commercial banks. The experience from South Eastern Europe banks is that banks lacked substantial competence in expenses management to the extent of failing to pass over the increased costs to customers so that banks maintain their profits (Athanasoglou et al., 2006). In addition, Interest expenses are part of bank expenses which implies that the higher the interest costs, the lower the rate of return on equity, which means that interest expenses are bank expenses which should be managed efficiently to improve on bank profitability. Moreover; deposits constitute a cheap and stable financial source of funding compared to other alternatives such as equity capital and borrowed capital (Bank of Uganda, 2010). The implication is that higher funding costs have a negative impact on bank profitability. Consequently, capital structure is among the main determinants of bank performance (Molyneux and Thornton, 1992; Chaudhry et al., 1995 and Goddard et al., 2004).

The impact of growing bank’s size on profitability can be positive up to a certain limit, beyond which the impact becomes negative on profitability (Eichengreen and Gibson, 2001). Diversification through non-interest income enhances bank profitability (Chiorazzo et al., 2008). However, other studies by; Acharya et al., (2000); De-Long (2001); Morgan and Katherine, (2003); Stiroh, (2004); De-Young and rice, (2004); as well as Stiroh and Rumbie, (2006), indicated that greater
diversification of the bank dealings does not necessarily transform into increased bank profitability, but may instead reduce profits, therefore optimum level of non-interest income activities must be set. The impact of inflation on bank profitability depends on whether inflation has been fully and correctly predicted by bank managers (Perry, 1992).

A current study by Fredrick (2014) in Uganda on Factors Affecting Performance of Commercial Banks in Uganda with reference to Domestic Commercial Banks found that, management efficiency; asset quality; interest income; capital adequacy and inflation are factors affecting the performance of domestic commercial banks in Uganda over the period 2000-2011.

Policy implications emerged for commercial banks’ management includes; efficient management; credit risk management; capital adequacy levels; diversification and commercial bank investment (Fredrick, 2014)

2.4 Empirical Literature Review

2.4.1 The Status of Global Mobile Phone Sector
A study by Hassan and Semkwiji, (2011) on The Role of Mobile Phones on Sustainable Livelihood showed that, mobile phones have become one of the main primary forms of telecommunication worldwide. It has been estimated that over 50% of the world’s population was expected to own a mobile phone and that 80% of the world’s population to be living within the range of a cellular network, by the end of 2008 (GSMA, 2007). Several factors have contributed to the rapid growth in mobile phone subscribers. These include: (i) the relatively low cost of adding new subscribers to the cellular network (mobiles are much more scalable than fixed-line phones), (ii) the high premium placed on mobility by consumers, (iii) the strong presence of the private investors in mobile phone provision, as rising demand by consumers has boosted profits for manufacturers and operators alike, and lastly (iii) the growing favorable regulatory environment fueling this exponential growth.
Moreover, the study showed that new opportunities for prosperity accompanying ICT development in general and mobile phones in particular, have been created that embody enormous knowledge for empowering people; significantly reducing business transaction costs, enhancing changes in the structures of markets and of public services and institutions, integrating global and local markets, freeing-up human resources and immediately increasing the potential of human capital. Furthermore, the technology promises to generate incomes to the households if it is used for such purposes and thereby help in reducing poverty in rural areas Hassan and Semkwiji, (2011).

However, despite the ICT development in general and the rapid rise of mobile phones in particular in Tanzania, the study indicated that, there is less certainty on the extent of mobile phone technology contribution toward poverty reduction.

According to Wireless Intelligence report-2, mobile phone connections in Africa passed 280 million in the opening quarter of 2008; overtaking the United States and Canada with their 277 million connections. In 2007, growth of 38% made Africa the fastest growing region in the world, ahead of the Middle East (33%) and the Asia-Pacific region (29%). On the other hand, two-thirds of Africa’s national markets for mobile telephony are in their early phase of development, with penetration rate below 30 percent at the end of 2007. Those markets represent 28 percent of the total connections in the region over the same period. In contrast, most European markets have penetration rate close to 100%. Most of the fastest growing markets in Africa are located in northern and western Africa, which represent altogether 63% of the total connections in the region. The most highly competitive markets include Nigeria, Zambia, Tanzania, the Democratic Republic of the Congo, Kenya, Tunisia, Algeria, Ghana and South Africa (Hassan and Semkwiji D, 2011).

A study by Tchouassi(2012) on Can Mobile Phones Really Work to Extend Banking Services to the Unbanked? Empirical Lessons from Selected Sub-Saharan Africa Countries indicated that; poor, vulnerable and low-income households in Sub-Saharan Africa (SSA) countries often lack access to bank accounts and face high
costs for conducting basic financial transactions. The rapid growth of mobile phones usage with E-banking can bridge the economic transformation and increase the bancarisation rate. Regression analysis was applied to identify the effects of mobile phones on bancarisation rate and, on poor and vulnerable populations in which it was reported that mobile phone is statistically significant at 1 per cent level, showing that the level of the mobile phone utilization in an economy at any given time impact the bancarisation rate. The coefficient of the explanatory variable showed that increasing in mobile phone result to about 46.8 per cent increasing in the bancarisation rate. Mobile phone is a specific electronic financial channel using in the 30 selected sub-Saharan Africa (SSA) countries to bank the unbanked. Thus, the mobile phone presents a great opportunity for the provision of financial services to the unbanked. In addition to technological and economic innovation, policy and regulatory innovation is needed to make these services a reality.

2.4.2 Mobile Phone Industry in Tanzania

Like in other developing countries in the world, in Tanzania ICT is regarded as an important tool for accelerating poverty reduction through its role in raising productivity, generating economic growth, creating jobs, facilitating learning, knowledge sharing and global information flows (ESRF: 2007). According to Tanzania Development Vision (TDV) 2025, Tanzania is expected to become a knowledge-based society, with a vision to have a universally accessible broadband infrastructure in ICT as well as expertise that enhance sustainable socio-economic development and accelerated poverty reduction; and to become the ICT development hub regionally (TDV 2025& Tanzania ICT-Policy, 2003). To date there is remarkable progress towards this goal (ESRF: 2007). Mobile phone technology in Tanzania has been growing at an amazing pace in terms of both the number of service providers as well as that of the users. Due to this growth, the Tanzanian government through the act of Parliament (2003) established the Tanzania Communication Regulatory Authority (TCRA) to regulate communication and broadcasting activities. By 2009, a total of six (6) mobile phone service providers were issued communication licenses by TCRA. These providers are TIGO, Zanzibar Telecoms (ZANTEL Mobile), Vodacom, Benson, TTCL (Mobile) and Celtel - now
known as Airtel. In addition to that, two fixed line companies that is, Tanzania Tele-Communication Limited (TTCL) and Zanzibar Telecommunications Limited (ZANTEL) have been operating along with the existing mobile phone service providers. The rapid expansion of mobile phone usage in Tanzania has been triggered by a highly competitive market and service diversification, with the operators now providing different mobile phone services such as voice and message transmission, data services, paging as well as Internet services. In terms of market shares, it shows that different companies, namely Vodacom and Zain (former Celtel) Zain/Airtel, tigo and others are faring quite well (Hassan and Semkwiji D, 2011).

In 2013, Inter Media Consult conducted a study in Tanzania concerning the Mobile Money in Tanzania focusing on Use, Barriers and Opportunities. The methodology of the study consisted of annual waves of face-to-face household surveys (N=2,980 households in Tanzania) and three telephone mini surveys per year with the same households, conducted between each annual wave. The study showed that; based on the current rate of access to mobile phones, the Tanzanian market shows potential for further mobile money adoption. Sixty-three percent of surveyed households have access to a mobile phone. Fifty-six percent of households own at least one active SIM card which is required for opening an m-money account. Even among rural, unbanked and poor households (those living on less than $2 a day), about one-half of households have access to a mobile phone and own a SIM card. Based on users’ perspectives, the leading challenge to mobile money uptake is the inconsistent service quality offered by m-money agents. The large majority of registered users reported they had encountered problems with agents. In particular, they cited agents’ absenteeism and insufficient e-float or cash to help with a transaction. Another impediment to m-money uptake suggested by the survey findings is an insufficient understanding of mobile money applications by potential and current users.

2.4.3 Mobile Money Services
Mobile money is the provision of financial services through a mobile device. Mobile phones are multifunctional devices that allow for a variety of communication methods. These range from ubiquitous voice and SMS channels to more
sophisticated means such as software applications or web browsers. To be a viable solution for mobile money, the channel should ideally be universally available (including the cheapest mobile phones) and must be secure. In practice, this requirement largely limits mobile money to using a standard network service, such as USSD (Unstructured Supplementary Service Data) or SMS (short message system), or an application preloaded on a unique SIM card. Since mobile operators control both of these channels, they remain essential gatekeepers in deploying mobile money. This broad definition encompasses a range of services, including payments (such as peer to peer transfers), finance (such as insurance products), and banking (such as account balance inquiries). In practice, a variety of means can be used such as sending text messages to transfer value or accessing bank account details via the mobile internet. Special contactless technologies are available that allow phones to transfer money to contactless cash registers.

Although mobile phones are central to all these uses, mobile money is more than just technology so long as it needs a cash-in, cash-out infrastructure, usually accomplished through a network of cash merchants (agents), who receive a small commission for turning cash into electronic value (and vice versa). Since the mobile money industry exists at the intersection of finance and telecommunications, it has a diverse set of stakeholders, with players from different fields in competition. Mobile network operators, banks, and increasingly new entrants, such as payment card firms, continue to catalyze the industry with innovative offerings, but to be sustainable. In areas where it has proved successful, mobile money has created a platform for start-ups to build upon (Kendall et al. 2011).

2.4.4 The Technology of Mobile Banking
Currently, in countries with mobile money service; mobile banking is implemented through three different technology solutions: browser-based applications, messaging-based applications and client-based applications (Kim et al., 2009; Tiwari and Buse, 2007).
The browser-based application is essentially a Wireless Access Protocol (WAP)-based internet access (Kim et al., 2009). This requires a compatible mobile phone which is WAP-enabled. The mobile phone is used to access banking portals through the Internet.

On the messaging-based applications, the communication between the bank and the customer is carried out via text messages. For example, by using a registered mobile number, the customer sends a predefined command to the bank then uses text messages to conduct transactions with the bank. An example of messaging-based applications is the Unstructured Supplementary Service Data (USSD), which has compatibility with most mobile phones. Existing mobile banking applications based on USSD includes WIZZIT in South Africa (WIZZIT, 2005), M-PESA in Kenya and Tanzania (Camner & Sjöblom, 2009), M-PESA in South Africa (Nedbank, 2010b) and FNB mobile banking (FNB, 2010).

On client-based applications, special software is installed in the mobile phone. An example of a client-based application is what is called the SIM Toolkit standard (STK) (Tiwari and Buse, 2007). For instance M-PESA in Kenya uses the STK technical platform (Safaricom, 2007; Camner and Sjöblom, 2009).

### 2.4.5 Banking and Mobile Money Services

Although people who do not have an account at a formal financial institution may lose out on the security and reliability that such a relationship provides, they often employ fairly sophisticated methods to manage their day to day finances and plan for the future (Kunt & Klapper, 2012). A growing number are using new alternatives to traditional banking made possible by the rapid spread of mobile phones.

The recent growth of mobile money sometimes a form of “branchless banking!”, has allowed millions of people who are otherwise excluded from the formal financial system to perform financial transactions relatively cheaply, securely, and reliably (Inter Media, 2013). Mobile money has achieved the broadest success in Sub-Saharan Africa, where 16% of adults report having used a mobile phone in the past
12 months to pay bills or send or receive money. In Kenya, where the M-PESA service was commercially launched in 2007, 68% of adults report using mobile money. Within Africa, in Eastern and Central Africa, more than 20% of adults report using mobile money. Many mobile money users are not otherwise included in the formal financial system. In Kenya 43% of adults who report having used mobile money in the past 12 months do not have a formal account in the financial institutions, but rely mostly on the mobile banking (Kunt & Klapper, 2012).

A study by Tchouassi (2012) in Sub-Saharan African countries (SSA) on the role of mobile phones in extending banking services to the unbanked indicate that there are significant reasons for not having a bank account such as lack of regular income and the perception that a bank account is not needed or too expensive. The transaction costs of maintaining a bank account as well as related costs like transports are far greater obstacle in these countries than in the developed world. This is due to the uncompetitive nature of the SSA countries banking sector. Sub-Saharan African banks typically require a deposit fee, for example when the account is opening. This is not incentive for poorer and vulnerable to take their savings to banks institutions. Hence it limits the funds that a commercial bank can raise from individual savers and channel into productive investment. Banks can increase their profitability and expand the number of account and their market in Sub-Saharan African countries by focusing on financial intermediation like mobile-banking, rather than transaction fees (Tchouassi, 2012).

There are many effects of mobile phone on unbanking population in sub Saharan countries as well as to those who are in the formal banking systems. For example a mobile banking solution whose motto is “banking the unbanked” has no opening fees, and though it’s linked to a bank account. The customer doesn’t actually need to go to a bank. If poor and vulnerable population don’t have bank accounts, it’s hard for them to conceptualize electronic banking. It can be difficult for the unbanked to see the benefits of mobile banking. But the advantages and impacts are many: it’s risky to carry cash, the account doesn’t get closed for inactivity, and it’s pay per transaction. Comninos, Esselaar, Ndiwalana and Stork (2008), who focuses on some
SSA countries, also pointed to the potential for mobile banking’s growth on economy because there are far more people in SSA with mobile phones than bank accounts.

Significant amounts of households are receiving remittances from another household, either in a different city or a different country. International remittances have great significance to national economies, with inward bound remittances being over three times the size of official development assistance in SSA as a whole. The cost of remittances however is a significant concern for those sending money home. International airtime transfer could be an efficient and cost saving solution. Several multinational mobile operators, such as Airtel, Vodafone already allow cross-country airtime transactions (Tchouassi, 2012).

Income levels and employment have the closest correlation to use of financial services, which means there are average threshold levels for stepping inside the formal banking sector. In Tanzania the transition takes place in earning levels per month around USD 80 whereas the crossover level is around USD 110 in South Africa. Lowering the entry level has also a clear effect on the diffusion of bank products.

Demand for mobile banking and payments are permanently increasing in SSA countries. In Kenya for example, which has one of the most successful mobile banking applications in Africa, that is M-Pesa operated by Safar Com has performed to the extent that; banks are complaining to the financial services regulator that mobile operators are unfairly competing against them. This is precisely the point of innovation which has often outsmarts regulation.

Ethiopians would trust mobile banking least. This could be explained by the low bank account and mobile penetration in Ethiopia. In Benin, Burkina Faso, Mozambique and Nigeria, it is reported that, they trust mobile banking more than banking via bank perse (Stork & Esselaar, 2006). Moreover, individuals’ attitudes to mobile banking in Botswana point to the opportunity for mobile operators and banks
to cooperate. Between 19.7 per cent and 26.3 per cent trust mobile operators and banks respectively (Tchouassi, 2012).

According to data from the GSM Association, as cited from the study carried out in Kenya by Donovan (2012) concerning Mobile Money in the Developing World: The Impact of Mobile Payment Systems on Development, Freedom, and Domination showed that; although the mobile money industry has achieved significant scale in only a handful of countries, a growing number of studies are establishing its impact in a variety of areas. Its potential advantages include benefits arising from the inherent characteristics of the services; benefits arising organically from widespread usage and network effects; and benefits arising from purposeful and innovative applications, either made by developers or created by people’s uses of mobile money services.

These advantages accrued from mobile money application are clarified here under.

(i.) **Inherent benefits**

Mobile money is often successful because it is considerably cheaper than other alternatives to cash such as formal banking. In an international comparison of 26 banks, McKay and Pickens (2010) found that branchless banking (including mobile money) was percent cheaper on average than alternative services. At low transaction amounts or for informal money transfer options, this difference more than doubled. In Kenya M-PESA was routinely one-third to one-half as expensive as alternative systems. Lower costs directly translate into money the poor can keep in Kenya the amount of money remitted increased when transferred using M-PESA compared with traditional forms of remittances. Conversely, where transaction costs are high, as in Botswana where the cost per transaction is a minimum of 8 pula ($1.07), mobile money has been slow to take root. Well supervised mobile money can be safer than alternatives, including cash. Early studies of M-PESA in low-income areas found that the risk of muggings declined, because cash was less evident. Since it is less visible than cash, mobile money also has consequences for privacy and autonomy. Research has found that women are able to have personal savings without seeking permission from their husbands (Morawczynski 2009), but, of course, this autonomy
holds true for both genders. The speed and liquidity of mobile money are also key benefits. The limited assets the poor own often take the form of valuable objects (such as livestock or gold), which are relatively illiquid. In times of crisis, such assets can be difficult to realize quickly, and their value may decline if the market floods with other families seeking to convert similar assets to cash at the same time. Moreover, sending gold bracelets or cash to a family or friend in need can be a risky enterprise. Mobile money can be an accessible and convenient medium for the delivery of financial services and more reliable than traditional, informal methods.

(ii.) Benefits from scale

In some jurisdictions, mobile money has achieved critical mass, so non-users are encouraged to adopt the systems used by their peers. When the poor are connected on a large scale, they are able to use mobile money to improve their livelihoods. The best data available on this point comes again from Kenya, where households with access to mobile money were better able than those without to manage negative shocks (including job loss, death of livestock, or problems with harvests). Whereas households that did not use MPESA saw consumption fall by 6–10 percent on average, M-PESA users were often able to fully absorb the shocks, because they received more remittances and lost less to transaction costs (Suri and Jack 2011). Evidence of such “livelihood strategies” was also evident during the violence following Kenya’s 2007 election, during which M-PESA “became one of the only means through which (residents of Nairobi’s informal Kibera settlement) could access cash” (Morawczynski 2009). Even in less tumultuous times, mobile money at scale can serve to meet the needs of the poor. Research in Kenya found that M-PESA was a useful means to access cash. Often the poor lack fungible sources of exchange such as cash, and through the network of cash agents and people’s contacts willing to send value, mobile money allows many to get cash when and where they need it (Stuart and Cohen 2011). Mobile money can also prove commercially significant for service providers, when it reaches scale. Although the transaction fees that mobile money providers charge are individually quite small, in total, they can represent an important revenue source. For example, Safaricom, the mobile operator that offers M-PESA, reported mobile money revenues for the first half of 2011 of K Sh 7.9
billion ($90 million). In addition, cash agents may also gain commercial benefit from the fees they receive.

(iii.) Benefits from innovation

Improving the ability of the poor to transfer money is certainly beneficial, but in isolation, mobile transfer services do not capture the full potential of mobile money to enhance financial inclusion. Early studies of South African mobile money found that while it had the potential to advance financial inclusion, it had not increased access to banking, especially compared with non-technological efforts, such as a particular type of bank account designed especially for the poor (Porteous 2007). In Kenya, for example, the predominant use of M-PESA is still sending money, although some people use it for savings (Stuart and Cohen 2011). Access and use of more sophisticated financial services such as savings, credit, and insurance could prove far more beneficial to the poor. To develop these services, businesses, governments, and other institutions must innovate actively on top of the payment services that are being deployed by mobile money operators. Some organizations are deliberately using mobile money to enhance their traditional offerings. For example, during a recent drought in Niger, a set of randomly selected households received cash transfers via mobile money (Aker et al. 2011). In comparison with physical cash, this trial found lower variable costs for senders, as well as lower costs for recipients. Over the course of the crisis, recipient households also enjoyed better diets and depleted fewer assets. Insurance, credit, and savings services are now being developed atop mature mobile money systems. In Kenya Kilimo Salama is a micro-insurance product that uses M-PESA to provide payouts to smallholder farmers whose crops fail. In its second year of operation, 12,000 farmers were insured, and 10 percent of those received payouts of up to 50 percent of their insured inputs (Sen and Choudhary 2011). Likewise, Equity Bank and Safaricom Kenya have partnered to offer M-Kesho, a mobile service that offers micro savings accounts, credit, and insurance. As individuals develop financial histories with mobile money, the ability to provide credit can expand because financial institutions will be able to analyze those histories and assign credit scores.
The impact of mobile money is also likely to extend to the public sector through increased efficiency and reach. Various governments’ adoption of mobile money is still in its infancy, but a study by McKinsey for the Gates Foundation estimates that connecting poor Indian households to an electronic payment system for cash transfers would have considerable impact through reduced leakages, transaction costs, and overheads (Lochan et al. 2010). It would also improve the government’s ability to monitor financial flows, collect tax revenues, and reduce illicit activity. Government use of mobile money such as salary disbursements could prove to be an enormous driver of the service throughout the economy on the whole (Donovan K, 2012).

Consequently, mobile phone banking has opened opportunities for many Sub-Saharan Africans and others in developing countries. The rapid growth of mobile phone banking in SSA is evidence of the great need for low-cost financial services in developing countries. This growth is expected to continue and to benefit other sectors of the economy and thus contributing to economic growth in SSA countries. Thus, ICT’s and its ongoing innovations, is extending financial services to poor and vulnerable which is alerting the respective authorities and regulators to ensure that oversight capacity does not lag behind innovations (Tchiassi, 2012).

2.4.6 Performance of Bank in Tanzania

The Tanzania Banking Survey Study conducted in 2012, showed that, Four new banks started reporting in 2011 Advans Bank, Amana Bank, First National Bank (FNB) and Njombe Community Bank which raised the number of banks to 45, that is 34 commercial banks and 21 licensed financial institutions. Total bank assets in Tanzania expanded by TZS 2.6 trillion from TZS 15.3 trillion to TZS 17.9 trillion between 2010 and 2011, representing growth of 17%. The deposit base also grew by TZS 2.2 trillion (17%) from TZS 12.4 trillion to TZS 14.6 trillion during 2011. Lending by the 45 reporting banks expanded by TZS 1.7 trillion (28%) from TZS 5.9 trillion to 7.6 trillion during 2011, with most of the growth coming from existing banks. New entrants added TZS 4 billion to the total by the end of the year. During the year, banks’ investments in government securities fell by TZS 340 billion (14%)
from TZS 2.37 trillion to TZS 2.0 trillion. Banks resorted to giving out more loans, reducing their appetite for government securities. The industry’s total revenues grew by 22% to TZS 1.46 trillion from TZS 1.2 trillion and net profits increased by 31% from TZS 230 billion to TZS 302 billion.

During 2011 the industry’s total paid-up share capital increased by TZS 116 billion (20%) with 50% of this increase coming from four new entrants into the banking sector, represented 8.3% of the industry’s total paid up share capital, and increased the number of reporting banks from 41 in 2010 to 45 in 2011. FNB, which invested TZS 28.6 billion, is currently ranked sixth on this indicator, while Amana Bank’s TZS 21.5 billion put it in thirteenth position.

FBME, CRDB and NMB maintained their position as the three largest banks by assets, with 48% of total industry assets, the same as in 2010. The next seven largest banks had 33% of the industry’s assets, while the remaining 35 banks held the other 19% of the total assets. The three largest banks by assets also had more than half of the industry’s deposits and government securities in 2011. However, they lost market share in the number of branches from 54% to 42%, and employees from 50% to 38%, mostly to the smaller 35 banks. The smaller banks also expanded their market share of the industry’s total capital (from 19% to 26%) and loans (from 20% to 23%). Tanzania’s banking sector performed better in 2011 compared to 2010.

Profit margins increased by two percentage points from 19% to 21% as a result of the increase in interest income. Banks did more lending in 2011 as shown by the loan-to-deposit ratio increasing from 47% to 52%. Conversely, the share of deposits invested in government securities fell from 19% to 14%. While this was a sizeable reduction of 5%, it may not reflect an overall strategic shift in the industry. Closer analysis shows that by pulling out some TZS 269 billion, NMB alone accounted for 84% of the TZS 321 billion decline in the banking sector’s holdings of government securities. The ratio of total shareholder funds to assets remained the same at 11% because both grew by 17% during the year. Even as lending expanded, the industry overall seems to have done a better job credit risk management. The bad debt
provisions as a percentage of total lending fell from 0.9\% on December 31, 2010 to 0.4\% on December 31, 2011.

2.5 The Conceptual Framework
The theoretical and empirical reviews done above have demonstrated the role of mobile services into two fold dimension. In one side it has shown that the introduction of mobile services accrued from ICT’s innovations has extended the financial services to those who were unbanked particularly in rural areas to the extent that it has made online financial transactions very possible. In fact it has brought the so called financial inclusion to the cadre of those who were unbanked. On the other hand, mobile money services has enhanced the so called mobile banking to the extent that those with bank accounts can access their bank accounts and perform various transactions without having the need to be on their bank branches physically. In fact it has created what can technically be called branchless banks or online banking. However, there were number of payments systems which were formerly being paid through banks, but nowadays are being carried out through mobile banking. From banking perception this can be viewed negatively, while from mobile services users it can be seen from positive perception as it has reduced queuing in the banks as well as serving time to receive various services. Therefore mobile money services can be viewed to have positive and negative effects to the commercial banks, but it’s not known which one overweigh the other. Thus the independent variable namely mobile money services has an influence on the performance of the banks. A slight change in mobile money services whether small or big has an impact on the performance of the banks either positively or negatively. Figure 2.2 below justifies the argumentation made above.
Figure 2.1: The Conceptual Framework

Mobile Technology
- Money Service
- Mobile Banking
- Purchase airtimes services
- Deposit and withdraw money
- Transfer money to other users and non users
- Payment of various utility bills such as electricity, water etc.
- Paying various payments such as fees and taxes
- Inter branch and inter network transfers of money

Affects the Performance of Banking Industry

Source: Researcher, 2014
CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction
This chapter described how the study was carried out towards data collection, analysis, presentation and report writing. The chapter specifically covered research design, population of the study, sample, sampling procedure, sample size, data collection methods, data processing and analysis plan.

3.2 Research Design
A research design is basically a chosen plan for achieving a particular study or research and it gives details on the type of data to be collected and the techniques that will be used in data collection (Kothari, 2004). It is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure, it includes an outline of what the researcher will do from writing the research proposal and its operational implication to final analysis of data. So it is a conceptual structure within which a research is conducted, it constitutes a blueprint for the collection measurement and analysis of data.

Research design depends on the type of problem that would be studied and the knowledge of the facts available about the problem. The function of the research design will be to observe and provide plan for the collection of relevant evidence with minimal expenditure of efforts, time and funds which enabled a research to fulfill the plan to the problem selected (Kothari, 2004).

For purpose of this a case study research design was employed. A case study is a comprehensive description and analysis of a single situation (Aaker et al, 2002). It places emphasis on the full contextual analysis of fewer events or conditions and their interrelations (Cooper and Schindler, 2003). Under such perception, case study design enabled the researcher to collect a greater amount of data from specific
samples; it also assisted the application of different research techniques and methods as well as the analysis and interpretation of the frequencies and the relationship of data that exist. However, the method is said to be more cost full than the other types of research designs

3.3 Targeted Population
According to Mugenda (1999), the target population means the population to which a researcher wants to generalize the results of the study. Krishnan, (2003) defined population as the target group to be studied in particular place. It is the aggregate of all units pertaining to the study. The population for this study is defined as all employees working at National Microfinance Bank (NMB) in Tanzania. However, due to lack of enough time and funds to conduct the study across the whole population mentioned, the researcher chose a sample from the population of NMB headquarters so as to conduct the study. The sampling plan for this study was randomly selected 60 employees whose results represented the whole population of NMB in Tanzania.

3.4 Sample Size and Sampling Techniques
Sample size is the exact number of items selected from a population to constitute a sample. It is recommended to use a large sample size to be able to generalize findings. This is because the larger the sample size, the lower the likely error in generalizing the population. But there is a trade off as the large sample size will also mean more resources such as money and time (Adam and Kamuzora, 2008). Researcher selected a sample size which was neither excessively large nor too small, also taking into account of parameter of interest in order to satisfy the requirement of efficiency, representation, reliability and flexibility. Since it was difficult to cover the whole population or employees at NMB headquarters, the study could not be able cover the total of the employees.

Thus the study managed to cove 10 managerial employees and 50 non managerial employees as shown detailed in table below.
Table 3.1: Population and Sample Size Distribution

<table>
<thead>
<tr>
<th>Department</th>
<th>Population</th>
<th>Sample size</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NMB Headquarters’ respondents- Dares Salaam</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managerial staff</td>
<td>20</td>
<td>10</td>
<td>20%</td>
</tr>
<tr>
<td>Non managerial staff</td>
<td>80</td>
<td>50</td>
<td>80%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>60</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: Researcher’s, 2014

3.5 Sampling Techniques/Procedures

Sampling is the procedure whereby the researcher uses to gather people, places, or things to study (Barbie, 1992). The sampling methods are classified as either probability or non-probability.

Kothari (2004) indicates two basic ways of choosing a sample sometimes referred to as types of sampling. Therefore sampling procedures are techniques that were used to determine the number of respondents that participated in the study so as to provide necessary data required for the study. In this research purposive, stratified and random sampling techniques were used in determining the required sample (60) respondents that are needed in the study.

3.5.1 Purposive Sampling

Cooper et al (2003), perceive purposive sampling sometimes known as judgmental sampling, as the researcher chooses only those elements which he believes were able to deliver the required data. In this regard respondents were selected purposively due to the positions they hold as well as the possibility of being able to provide inputs that are required in the study. The purposive sampling is useful as it ensures the balance of group sizes when multiple groups are to be selected Smith, (2000). In this method the researcher deliberately included and excluded as well some of the elements in the sample. The major criterion for including a person in a sample was possession of expertise or experience about the problem under investigation. This method is less expensive and quick for selecting a sample (Adam and Kamuzora, 2008).
The researcher purposively selected departments on the scoped area basing on the reliability. Such departments were for instance marketing, information technology (IT) accounts and finance as well as mobile banking department.

3.5.2 Simple Random Sampling
In simple random sampling, all members in the population have equal chance of being selected to form a sample (Saunders et al, 2000). This helped the researcher to select a sample at random from the sampling frame without replacement. Employees in each selected department were purposively selected to make a sample. This technique is appropriate where the sampling frame is not too large and each unit is easily accessible (White, 2002).

3.5.3 Stratified Random Sampling
If a population from which a sample is to be drawn does not constitute homogeneous group, stratified sampling technique is generally applied in order to obtain a representative sample (Kothari, 2009). Stratified random sampling is a sampling technique whereby the total population is divided into different groups or lagers before selection of the representatives (Adam &Kamuzora, 2008). Each group or layer is commonly known as strata. This is to ensure representation of all members of the population. In the sampling technique of this study, the employees at NMB were divided into various strata namely; finance and accounts department, marketing, IT, Mobile banking and well as the managerial staff. All these were strata from which the respondents were selected on under simple random basis.

3.6 Types of Data Collection Techniques and Instrumentation
There are various methods used to collect data depending on research type (Creswell, 2003). However, for the purpose of this study there were two types of data that were used. These are primary data and secondary data.

3.6.1 Primary Data
These are the main data that researcher collected for the first time to answer research questions. The primary data are those data which are collected afresh and for the first
time, and thus happen to be original in character (Kothari 2009). They are collected by research from the field for the purpose of answering a research question/issue (Adam & Kamuzora, 2008). The primary data were collected through observation, direct communication with respondents or through personal interviews. However observation, questionnaire and interview are common research tools used to collect primary data. These were the information gathered directly from respondents. They were collected through questionnaires, interviews, focused group discussions, observation and experimental studies. It involves creating new data. Data is collected from existing sources (Kombo and Tromp, 2006). This study included primary data.

3.6.2 Secondary Data
Secondary data are ready made or available data or information. Secondary data are cheap to find, inexpensive, easily accessible, saves time and efforts. They may be either published or unpublished. Secondary data sources include books, journal articles, newspapers, report and publications of various associations and organization as well as other documentary reviews from internet (Kothari, 2004). Thus; apart from the primary data, this study also included secondary data related to the subject under investigation.

3.7 Data Collection Methods
There are various methods used to collect data depending on research type whether it is descriptive research; explanatory research; constructive research empirical research and explanatory research (Creswell, 2003). For the purpose of this study there were two types of data that were used to collect data. These were as follows.

3.7.1 Questionnaires
A questionnaire consist of a number of questions printed or typed in a definite order in a form or set of forms. Kothari (2004). It is a series of questions, each providing a number of alternative answers from which the respondent can choose (White, 2002). Through this method, a questionnaire is sent usually to the persons/respondents concerned with a request to answer the questions and return the questionnaire. Hence questionnaire can be considered in general terms in which each person is asked to
respond to the same set of questions in a predetermined order. A questionnaire consists of a number of questions printed or typed in a definite order on a form or set of forms. It consist of Structured, unstructured and telephone questionnaires and those in which each person is asked to respond to the same set of questions as well as those in which the questions are answered without the researcher being around are inclusive (Adam and Kamuzora, 2008).

For the purpose of this study, the questionnaires were prepared on a single way basing on research questions. The questionnaires were administered by the researcher and the respondents were required to fill them under the underlined guidance. The questionnaires were of two main types: closed and open ended ones. The closed ended questions enabled the respondents to give out answers that were direct and brief. The open ended questions enabled the respondents to give out their views without limitations. In this case, the researcher were in a good position to select the appropriate and relevant answers during data analysis, presentations as well as writing the research report

3.7.2 Interviewing

Interview guide is another tool used to collect primary data in research studies. This entailed face to face conversation between interviewer and interviewees, with the aim of gathering certain data. This method is preferred because it enabled the interviewer to understand the respondents’ inner feeling about the problem (Kothari, 1990). The method also gives respondents freedom to ask for clarification in case of any difficulty. In addition the method also ensures a high response rate as compared to questionnaires as earlier provided by Babbie (1986). The main requirement for good interviewers during data collection is the ability to approach identified respondents in person or by telephone and persuade them to participate in the study (Kombo and Tromp, 2006).

This method was applied to gather information on the respondents’ views on the topic under study. The interview was conducted to the heads of the selected
departments as well as to some of the managerial staffs at the mentioned area for the study.

The interview included structured and semi-structured. The structured interview consisted of planned questions in advance in which the respondents were required to answer them. This type of interview is highly standardized and follows a rigid procedure, asking questions in a form and order prescribed (Kothari, 2004). Unstructured or semi structured interview does not have predetermined questions and it is not standardized. The semi-structured interview contained planned questions in advanced which were answered, but it provided an opportunity to the respondents to explore more on areas in which the questions were basing. This technique is used when one intends to explore a problem under investigation. It is flexible in nature and the interviewer has much freedom on how the questions are to be asked (Adam and Kamuzora, 2008). In this study, the interview schedule consisted of both structured and unstructured interview Therefore, these tools helped the researcher to get various information/views concerning the topic under the study.

3.8 Reliability
Reliability refers to the extent to which a scale produces consistent results if repeated measurements are made (Malhotra, 2005). Questions will be designed to probe sense and reliability from raw data. If a measurement device or procedure consistently assigns the same score to individuals or objects with equal values, the instrument is considered reliable. Reliability involves the consistency, or reproducibility, of test scores i.e., the degree to which one can expect relatively constant deviation scores of individuals across testing situations on the same, or parallel, testing instruments.

All threats related to reliability were observed by considering subject or participant error, subject or participant bias (Saunders et al, 2005). The data that were collected from the mentioned respondents on the scoped areas were valid so long as the researcher conducted a pilot study before starting the study officially. The bottlenecks that were encountered on the pilot study were used to improve the instruments for data collection so as to make them very reliable. This helped to avoid
inconsistence of the information derived as it is suggested that, an instrument must be reliable in order to be valid and it must also measure what it is intended to measure (Saunders et al, 2005).

3.9 Validity

Validity refers to whether the findings are really about what they appear to be about (Saunders et al, 2005). A great care was taken to ensure that findings are the reflection of the reality at NMB.

Validity has been defined by “the extent to which a test measures what it claims to measure” (Gregory, 1992, p.117). A measure is valid if it measures what it is supposed to measure, and does so cleanly without accidentally including other factors. The focus here is not necessarily on scores or items, but rather inferences made from the instrument, that is the behavioral inferences that one can extrapolate from test scores is of immediate focus. In order to be valid, the inferences made from scores need to be “appropriate, meaningful, and useful. The validity focus on whether the means of measurement are accurate and they are actually measuring what they are intended to measure.

3.10 Data Analysis Plan

Data analysis refers to the computation of certain measures along with searching for patterns of relationship that exist among data groups (Kothari 2004) Thus the process of analysis aims at determining whether the observations support the research questions formulated before going into the field to collect the information or reject them. The data were entered into the computer using a data base created in Ms. Excel. Then the data were transferred directly into Statistical Package for Social Science (SPSS), a data editor which provided both data and variable views. The data processing was initiated by invoking the analysis, the descriptive statistics and focusing on frequencies. The output cover graphical presentations (frequency and tables) as well as tabulated information as well as textual writing supported by other secondary literature to provide an objective report on the impact of mobile services on the performance of banks in Tanzania.
CHAPTER FOUR

DATA PRESENTATION AND FINDINGS

4.1 Introduction

This chapter is concerned with the presentation of the data analysis and the detailed discussion on the study which was undertaken to evaluate the impact of mobile money transfer on the performance of banking industry in Tanzania with reference to National Microfinance Bank (NMB). The study was guided by four specific objectives which were to determine the banking performance indicators, to determine the factors affecting the performance of commercial banks, to determine the impact of mobile money transfer on the performance of commercial banks and to find out the challenges facing mobile banking in Tanzania.

4.2 General Profile of the Respondents

At the beginning of the study, the target sample was 60 respondents in the form of 10 managerial employees and 50 non-managerial employees from NMB. Data from the field showed that, only 39 (65%) of the respondents took part in the study. About 21 (35%) of the respondents did not take part in the study. Managerial staffs were 3 (15%), while the non-managerial staffs were 36 (72%) as indicated on table 4.1 below. It can be concluded that data obtained from those who responded was sufficient enough to answer research questions.

Table 4.1: General Profile of the Respondents

<table>
<thead>
<tr>
<th>Category of the responders</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managerial Staffs</td>
<td>3</td>
<td>7.6</td>
<td>7.6</td>
<td>7.6</td>
</tr>
<tr>
<td>Non Managerial Staffs</td>
<td>36</td>
<td>92.3</td>
<td>92.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher; 2014
4.2.1 Gender of the Respondents
Data from the field showed that, about 20(51.2%) of the respondents were male, while 19(48.7%) were female (table 4.2). This implies that, the organization is an equal opportunity employer as far as gender is concerned.

Table 4.2: Gender of the Respondents

<table>
<thead>
<tr>
<th>Category of Gender</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid Male</td>
<td>20</td>
<td>51.2</td>
<td>51.2</td>
<td>51.2</td>
</tr>
<tr>
<td>Female</td>
<td>19</td>
<td>48.7</td>
<td>48.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher; 2014

4.2.2 Level of Education
Education among the respondents was an interesting area for the researcher as it has an influence on the nature of the data that were to be collected from the. Data indicated that, the respondents education ranged from the graduate level to the ordinary diploma, where by about 9(23%) of the respondents have acquired masters degree in various academic disciplines, while 23(58.9%) had acquired degree/advanced diploma. About 7(19.9%) of the respondents had ordinary diploma in education. Non of the respondents was had neither attained PhD level nor ended in primary or secondary education. Table 4.3 summarizes the level of education for the respondents who participated in this study.

Table 4.3: Respondent’s Level of Education

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>9</td>
<td>23</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>Master’s Degree</td>
<td>23</td>
<td>58.9</td>
<td>58.9</td>
<td>81.9</td>
</tr>
<tr>
<td>Degree/Advanced Diploma</td>
<td>7</td>
<td>17.9</td>
<td>17.9</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher; 2014
4.2.3 Working Experience

Years of experience within the study were also a key area in the study as it has an impact on the information to be provided. The years of experience of the respondents were requested by the researcher where by each respondents was required to provide a number of years that he/she has been working in the respective organization. Data from the field indicated that, 13(33.3%) of the respondents had worked in the banking industry for 1-7 years, 19(48.7%) has worked for years between 8 to 15, 4(10.2%) had worked for 16 to 23 years, while 3(7.6%) had also worked for 24-31 years as indicated on table 4.4. The research did not have any respondents for the ages below 18 years, 51-60 years and above 60 years

Table 4.4: Respondents’ Working Experience

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid 1 - 7 years</td>
<td>13</td>
<td>33.3</td>
<td>33.3</td>
<td>33.3</td>
</tr>
<tr>
<td>8 - 15 years</td>
<td>19</td>
<td>48.7</td>
<td>48.7</td>
<td>82</td>
</tr>
<tr>
<td>16 - 23 years</td>
<td>4</td>
<td>10.2</td>
<td>10.2</td>
<td>92.2</td>
</tr>
<tr>
<td>24 - 31 years</td>
<td>3</td>
<td>7.6</td>
<td>7.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher; 2014

Data on table 4.4 above implies that, the bank is well balanced in terms of employees’ working years with their experience, as it can help well in proving ideas and innovations in the banks’ development pipeline.

4.2.4 Age of the Respondents

The research showed that, about 3(7.6%) of the total participants were aged below 25 years, 14(35.8%) were aged between 25 years and 35 years, while 19(48.7%) of the respondents were aged between 35 and 55 years old. About 3 (7.6%) of the respondents were having 55 years and above (Table 4.5). The statistical data indicate that the majority of the participants in study area were aged 25 and 55 years which is
the required energetic cadre of employees who can contribute well on the growth and development of the organization.

### Table 4.5: Age of the Respondents

<table>
<thead>
<tr>
<th>Categories of Age</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 25 years</td>
<td>3</td>
<td>7.6</td>
<td>7.6</td>
<td>7.6</td>
</tr>
<tr>
<td>Between 25 and 35 Years</td>
<td>14</td>
<td>35.8</td>
<td>35.8</td>
<td>43.4</td>
</tr>
<tr>
<td>Between 35 and 55 years</td>
<td>19</td>
<td>48.7</td>
<td>48.7</td>
<td>92.1</td>
</tr>
<tr>
<td>Above 55 Years</td>
<td>3</td>
<td>7.6</td>
<td>7.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Researcher; 2014

#### 4.3 Indicators of Banking Performance

During the study the research had an objective of determining the indicators of bank performance in Tanzania with reference to NMB. Data from the field revealed that the respondents were quite much dispersed regarding this variable concerning the indicators of banking performance as they point various indicators/factors. These indicators were viewed in terms of increase on the number of customers 3(7.6%), growth in profit 7(17.9%), bank expansion in terms of its network coverage and branches 9(23%), increase on the liability (deposits) 2(5.1%), increase in on the bank products and service 7(17.9%), the nature of bank public reputation 3(7.6%), return on assets 4(10.2%) and return on equity 4(10.2%). Table 4.6 below provides a brief summary on the indicators of bank performance as were given by the respondents from the field of the study. However, the consistence of these factors on determining the performance of the bank differs from one factor to another.

#### 4.3 Banking Performance Indicators

From the Annual reports of 2009 to 2013 revealed that, increase in the banks’ customers, Return on Assert (ROA), ROE (Return on Equity), Increase in profit and Shared holder fund, and Increase on the dividend per share (DPS) are among the indicators showing the growth on the performance banks in Tanzania.
Table 4.6: Banking Performance Indicators

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase on the number of customers</td>
<td>3</td>
<td>7.6</td>
<td>7.6</td>
<td>7.6</td>
</tr>
<tr>
<td>Growth of Profit</td>
<td>7</td>
<td>17.9</td>
<td>17.9</td>
<td>25.5</td>
</tr>
<tr>
<td>Banks Expansion (network coverage)</td>
<td>9</td>
<td>23</td>
<td>23</td>
<td>48.5</td>
</tr>
<tr>
<td>Increase in Liability (deposits)</td>
<td>2</td>
<td>5.1</td>
<td>5.1</td>
<td>53.6</td>
</tr>
<tr>
<td>Increase in Bank Products</td>
<td>7</td>
<td>17.9</td>
<td>17.9</td>
<td>71.5</td>
</tr>
<tr>
<td>Banks public reputation</td>
<td>3</td>
<td>7.6</td>
<td>7.6</td>
<td>79.1</td>
</tr>
<tr>
<td>Return on Assert (ROT)</td>
<td>4</td>
<td>10.2</td>
<td>10.2</td>
<td>89.3</td>
</tr>
<tr>
<td>Return on Equity (ROE)</td>
<td>4</td>
<td>10.2</td>
<td>10.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>8</td>
<td>39</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Researcher; 2014

4.3.1 Increase on Number of Customers

Increase in the banks’ customer is one among the indicators showing the growth on the performance banks in Tanzania. Data from the field showed that, there has been growth of the customer base from 600,000 in 2005 to 1.8 million active customers in 2014. This is the evidence that, the bank is performing well.

4.3.2 Return on Assets (ROA)

Return on Assert (ROA) is the net income measured as a percentage of assert. Data from the field revealed that, NMB is leading with the highest net assets of Tsh431 billion during the third quarter of 2014.

4.3.3 Return on Equity (ROE)

ROE (Return on Equity) = ROA\(\times\)leverage measure income measured by Net Profit per Shared holder funds data from the field reveled that, there has been an increase on the profit. The research found that; NMB profit increased from 29.7% Billion in 2012 to 32.3% Billion in 2013 and Shared holders funds has increased form TZS 455.9 Billion in 2013 from TZS 356.3 Billion in 2012.
Both profit and Shareholder fund indicate increasing trend, but profit is increasing as accelerated rate compared to Shareholder fund that why ROE is higher in 2013 compared to 2012.

4.3.4 Increase on Dividend per Share

Data from the field showed that, there has been an increase on the dividend per share (DPS) since the establishment of the bank. The research found that; NMB’s earnings per share improved from TZS 95.10 in 2009 to TZS 107.96 in 2010. Accordingly a dividend of TZS 36 per share, or a total amount of TZS 18 billion, up 15% over 2009 were paid out to the shareholders in 2010. By 2011, dividends per share stood at 50 Tsh.

4.3.5 Increase on Profit

Data from the field showed that, the bank’s Profit before Tax (PBT) has grown to TZS 78 billion, and its Profit after Tax (PAT) reached TZS 54 billion. In 2013 NMB saw its after-tax profit for the third quarter grow to US$20.4 million, from the $17.5 million recorded in 2012. The NMB Ltd also registered a net profit after tax of Tshs 132.49bn during the year ended 31st December 2013 compared to a profit of Tshs 97.40bn recorded in the previous year. The performance reflects an increase of profit by 36.02%.

Briefly, the Bank’s performance indicators during the year ended 31st December 2013 are as shown below:

**Table 4.7: Bank’s Performance Indicators during the Year 31st December 2013**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Return on Average Total Assets</td>
<td>4.18%</td>
<td>3.89%</td>
</tr>
<tr>
<td>Return on Average Shareholders’ Funds</td>
<td>31.58%</td>
<td>29.77%</td>
</tr>
<tr>
<td>Non-Interest Expense to Gross Income</td>
<td>49.49%</td>
<td>52.82%</td>
</tr>
<tr>
<td>Interest Income to Average Earning Assets</td>
<td>14.01%</td>
<td>15.30%</td>
</tr>
</tbody>
</table>

*Source: NMB, 2014*
Moreover, data from the field showed that, the NMB bank has recorded a net profit of 44.33bn, during the quarter ended June in 2011, compared to 33.14bn registered in 2013.

Additionally the research revealed that, there has been improvement in terms of profit to NMB since the introduction of mobile money transfer. The figure is very high as NMB has been awarded as best bank in Tanzania and East Africa. It was seen that since 2011, the bank has been received a commission from mobile money transfer as shown on table 4.7

<table>
<thead>
<tr>
<th>S/N</th>
<th>Year</th>
<th>Commission Earned by NMB(Million Tsh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2011</td>
<td>3,980</td>
</tr>
<tr>
<td>2</td>
<td>2012</td>
<td>5,352</td>
</tr>
<tr>
<td>3</td>
<td>2013</td>
<td>5,215</td>
</tr>
<tr>
<td>Total</td>
<td>3</td>
<td>14,547</td>
</tr>
</tbody>
</table>

Source: NMB; 2014

A recent study by Obamuyi M T (2013) on Determinants of Banks’ Profitability in a Developing Economy in Nigeria showed that the relationship between profitability and capital is positive and statistically significant. This implies that that the banks with larger capital are able to diversify their business operations by strengthening their ability to assume risk and attract funds at low cost, which will enhance their liquidity position. The overall effect will be an improvement of their lending, with positive effect on profitability. As Athanasoglou et al. (2005) observed that a bank with a sound capital position is able to pursue business opportunities more respectively and has more time and flexibility to deal with problems arising from unexpected losses, thus achieving increased profitability.

4.3.6 Banks Expansion
Initially when the bank started in 2005, the branch network for the bank was 100 branches only nationwide. The research has revealed that, the banks have expanded
to 150 branches, by which it has managed to establish a branch in each district in Tanzania, with the growth of the ATM network from nil to over 500 ATM machines nationwide plus 1800,000 customers. These achievements portray the effective performance and the growth of the NMB bank in Tanzania, which owns about 13.3% of the market share in the banking industry (TCCIA, 2011).

Bank size or expansion accounts for the existence of economies or diseconomies of scale (Naceur & Goaied, 2008). The variable is measured as the natural log of total assets (Saona, 2011). Economic theory suggests that market structure affects firms’ performance (Haron, 1996) and that if an industry is subject to economies of scale, larger institutions would be more efficient and could provide service at a lower cost (Rasiah, 2010a). Also, the theory of the banking firm asserts that a firm enjoys economies of scale up to a certain level, beyond which diseconomies of scale set in. This implies that profitability increases with increase in size, and decreases as soon as there are diseconomies of scale. Thus, literature has shown that the relationship between the bank size and profitability can be positive or negative (Athanasoglou et al., 2005).

4.3.7 Increase in Liability (Deposits)

Deposits are the most common, and almost always the cheapest, source of loanable funds for banks. Accordingly, deposit growth gives investors a sense of how much lending a bank can do. There are some important factors to consider with this number. First, the cost of those funds is important; a bank that grows its deposits by offering more generous rates is not in the same competitive position as a bank that can produce the same deposit growth at lower rates. Also, deposit growth has to be analyzed in the context of loan growth and the bank management's plans for loan growth. Accumulating deposits, particularly at higher rates, is actually bad for earnings if the bank cannot profitably deploy those funds.

Data from the field indicated that, customer deposits by the first quarter of 2014 recorded an increased to 2.6tri/=, a slightly increase of 8% compared to 2.47trn/= in 2013 in the preceding period representing 4% of growth.
4.3.8 Increase in Bank Products

As a sign of expansion and good performance of the banks in Tanzania, NMB has been increasing the number of banking products and services to its customers since its establishment in 2005. Data from the field showed that, it started with savings and withdrawing. However, currently it has several products and services such as ATMS, internet banking services, point of sale devices, bonus account, fixed accounts and student accounts. It was further seen that, NMB is the pioneering launch of NMB mobile with over 400,000 active mobile banking customers and the recent launch of PesaFasta (card less ATM service) with the objective of reaching out to the unbanked. The introduction of NMB mobile service in July 2009 made NMB to be the first bank in Tanzania to introduce mobile banking services to its customers. This implies that the bank has not been very stagnant in its operations, the NMB’s products and services mentioned above suffice its performance.

4.4 Factors Affecting the Performance of Commercial Banks in Tanzania

Data from the field indicated that, there are number of factors that are affecting the performance of commercial banks in Tanzania. Data from the field indicated that, about 2 (5.2%) of the respondents mentioned about in-access to finances, 7 (17.9%) mentioned about high interest rates that are given out by the commercial banks, 4 (10.2%) commented on the banking financial strategy and innovations, 3 (7.6%) spoke of the world money markets, 7 (17.9%) of the respondents complained about low public awareness on the significance of making utilizations of financial institution in Tanzania and in special way commercial banks, 3 (7.6%) lack of genuine citizens identification cards, 7 (17.9%) high fluctuation on the interest rate(inflation) and finally 6 (15.3%) exchange rate fluctuations as depicted on table 4.9 below.
Table 4.9: Factors Affecting the Performance of Commercial Banks in Tanzania

<table>
<thead>
<tr>
<th>Factors affecting Performance</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid in -access to finances</td>
<td>2</td>
<td>5.2</td>
<td>5.2</td>
<td>5.2</td>
</tr>
<tr>
<td>Banking and Financial Strategies and Innovations</td>
<td>4</td>
<td>10.2</td>
<td>10.2</td>
<td>33.3</td>
</tr>
<tr>
<td>Less public awareness on the utilization of bank services</td>
<td>7</td>
<td>17.9</td>
<td>17.9</td>
<td>58.8</td>
</tr>
<tr>
<td>Exchange rate fluctuations</td>
<td>6</td>
<td>15.3</td>
<td>15.3</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>39</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher; 2014

4.4.1 In -Access to Finances

About 5.2% of the respondents argued that, argued that there are few aspects that arise making it hard for citizens to be able to have access to proper financing from Tanzania commercial banks. These things are such as collateral constraint, inadequate business plan, state of the economy and bureaucratic procedures in applying for loans/finances. Collateral constraint and bureaucratic procedures being cited mostly as major factors; these constrain the attainment of funding from financial institutions (Kuzilwa J.A 2005). In a poor country like Tanzania, it is quite hard to find an average citizen owning valuable land or other property that can be used to secure loans; if they do own one, most average Tanzanians don’t find it a merit to have title deeds citing the difficulties of plot valuing and measuring as reasons for not seeking title deeds for their lands.

Moreover, the bank where the study was conducted claim to have no problems on their side saying that most of the problems causing difficulties are either from the clients themselves (inadequate business plans, collateral constraint) or state of the economy such as inflation rates leading to high interest repayments plans for loans. Such situation does hinder the performance of the bank as expected.
4.4.2 Financial Strategies and Innovations

Data from the field has indicated that the level of management skills influences the strategy implementation in the bank to great extent. Literatures have established that product or service development that are radical, inventive and early offer greater rewards and performance improvement, use of technology innovation promotes a friendly and helpful staff hence customer satisfaction (Kirigwi, 2013). Product development is important in both the supply of the core product as well as in the support part of any offer, less time is required at the service point due to innovations in the bank, the bank remains open in good time to serve the customers efficiently. The bank’s product development strategy aims to hit many singles and the innovations ensure that the services given to customers are of high quality. The respondents emphasized that, NMB does market the right products/services on the right markets and, on the other hand, develop, produce, and distribute the products/services in the right way.

The study established that innovativeness is a key success factor in strategy implementation. It affects strategy implementation largely. Products developments that are radical, inventive and early offer greater rewards and performance improvement. Use of technology innovation promotes a friendly and helpful staff resulting to customer satisfaction

4.4.3 Less Public Awareness on the Utilization of Bank Services

The research has established that, most of people in the rural areas lack bank knowledge, they think that the banks and other financial institutions are for those who are educated while majority of them have just basic education. Looking at the economy of Tanzania 80% of people are engaging in agriculture activity and are contributing 56% of the economy; and they are in the rural areas. The reason to why they are excluded is because majority of banks and financial institutions are more commercial targeting to commercial traders than farmers. There is no proper awareness campaign to make them aware and participate in to financial sectors. NMB mobile has proved very effective in the urban areas and very low in the rural
areas. Thus Mobile banking entails vehicles that were used to extend financial services to the hard to reach areas where there was no established bank.

4.4.4 Exchange Rate Fluctuations
In this matter it is important to notice that most of these economic factors are hard to deal with since they are triggered by many outside factors (influenced by the world economy). For example changes in demand of products due to inflation, currency exchange rates affecting the exports or imports of a particular product and the underestimation of the rise of costs of production due to scarcity of resources etcetera.

4.5 The Impact of Mobile Money Transfer on the Performance of Commercial in Banks in Tanzania
Mobile money was the central objective in this study in terms of its role in enhancing the performance of commercial banks in Tanzania. Data from the field revealed that, mobile banking has impacted the performance of NMB in the following ways. About 4(10.2%) of the respondents mentioned of the growth of customers and increase on the bank deposits, 9(23%) reduction of working load to the banks, 5 (12.8%) of the respondents said that, mobile money transfer/ banking has brought about financial conveniences to the mobile subscribers and those with bank accounts, 8(20.5%) spoke of bank expansion and 7(17.9%) respondents argued that with the coming of mobile money transfer, there has been improvement on the customer services.
Table 4.10: The Impact of Mobile Money Transfer on the Performance of Commercial in Banks in Tanzania

<table>
<thead>
<tr>
<th>Impact of Mobile Money Transfer</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid Growth of Customers and Deposits</td>
<td>4</td>
<td>10.2</td>
<td>10.2</td>
<td>10.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduction in Working Load</td>
<td>9</td>
<td>23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Conveniences</td>
<td>5</td>
<td>12.8</td>
<td>12.8</td>
<td>46</td>
</tr>
<tr>
<td>Growth on Profit</td>
<td>6</td>
<td>15.3</td>
<td>15.3</td>
<td>61.3</td>
</tr>
<tr>
<td>Banks Expansion</td>
<td>8</td>
<td>20.5</td>
<td>20.5</td>
<td>81.8</td>
</tr>
<tr>
<td>Improvement in the Customer Services</td>
<td>7</td>
<td>17.9</td>
<td>17.9</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher; 2014

4.5.1 Growth of Customers and Deposits
Mobile money service in Tanzania and in other developing countries is not a threat for the growth of commercial banks but rather it contributes for the growth of commercial banks in the country. Studies done by Heyes and Mas (2009) confirmed that majority of the unbanked in developing countries have an access to mobile money service. Also according to the observation of Solin and Zerzan (2010) mobile money brings unbanked customers operating in a cash economy into the formal sector. Once they have developed trust in mobile money services, they start demanding traditional financial services, such as savings accounts (i.e. customers who are previously unbanked start to ask for savings after they have become sophisticated users of mobile money and can be handed over to banks and traditional banking services). Mobile money services therefore have an important function of bringing unbanked customers into the formal financial system. Thus, mobile money services have a unique 'domino effect' which brings the unbanked into the formal financial system. These observations above, translates an opportunity for growth on the side of commercial banks because the majority unbanked can be accessed as well. Also these findings tally with the report of TCRA which highlighted that
mobile operators in Tanzania are in a potential position to enhance the growth of commercial banks because they have accessed over 25 million Tanzanians, and probably over ten million mobile money service subscribers who are using M-PESA, Airtel, Tigo PESA and Easy Pesa (TCRA, 2011).

4.5.2 Reduction in Working Load

The research has indicated that, previously before the introduction of Mobile money service services such as money transfer, withdrawal, deposit, mini statement, balance inquiry, bills payment/utility bills, prepaid services, account freezing, changing the languages and their NMB mobile passwords were all done at the bank where by the customers were coming to the banking hall physically to perform those tasks with the bank tellers. Currently mobile banking services have been the best remedy and option for financial services as it saves time and location conveniences, no matter where the customer is for they can perform those financial transactions without being required to be at any NMB branch or premises.

Regards bill payment or utility bills various companies such as Dar es Salaam water and sewage company (DAWASCO), DSTV, Vodacom Tanzania Limited and Tanzania Revenue Authority have register with the NMB Mobile services in which their customers do pay utility bills for mentioned companies through NMB Mobile money transfer service that allows transfer between NMB account via Vodacom M-Pesa, TigoPesa and Airtel Money. This service allows NMB mobile customers to pay their bills for DStv, Vodacom Postpaid, Dawasco and pay taxes to TRA.

Thus NMB mobile service was introduced with the aim of helping customers perform different banking services without visiting NMB branches. This has created efficiency in financial transaction and time saving for customers in which the time that could be used for lining up within the NMB bank halls for those services are currently directed to other productive services. Therefore; convergence of telecommunication and financial services has created opportunities for the emergence of mobile banking solutions. Mobile banking services provide convenience and efficiency to customers, saving them time and money (Masinge and
The findings are similar to those of Pickens et al., (2008) that mobile banking services through have been seen as vitally important. This importance’s extend the reach of financial services beyond the physical bank branches and usually have two main objectives. The first is that it has managed to minimize the operational costs for the service provider. The second is that it has made the services more accessible to customers. This was seen both in terms of physical outreach and affordability. Most of these models rely on technology for the delivery of services. This includes automatic teller machines (ATMs), point of sale (POS) terminals and internet banking, and debit and prepaid cards. These technologies are manipulated in a variety of ways to decrease the cost per transaction and allow for scalability of services in which after subscribing, the customers have managed to receive the subscribed cash mobile money services such as M-Pesa. Agents have been vitally important for these models. This is mainly because they facilitate delivery outside of the branch. In many cases, the agents are located in places that are accessible to customers. This includes petrol stations, grocery shops, shopping malls and pharmacies. They are also located in places that cannot be easily accessed by traditional bank branches, either because of infrastructure or cost of building the branch. Hence; mobile financial services have contributed significantly towards broadening access to financial services in Tanzania given the high level of mobile phone usage (Claire and Eisenhart, 2013).

4.5.3 Growth on Profit
The research indicated that previously before the introduction of Mobile money service services such as money transfer, withdrawal, deposit, mini statement, balance inquiry, bills payment/utility bills, prepaid services, account freezing, changing the languages and their NMB mobile passwords were all done at the bank where by the customers were coming to the banking hall physically to perform those tasks with the bank tellers. Currently mobile banking services have been the best remedy and option for financial services as it saves time and location conveniences, no matter where the customer is for they can perform those financial transactions without being required to be at any NMB branch or premises.
Following the 7 percent increase in loans, advances and overdrafts during the first quarter of 2014, NMB Bank has posted a 28 percent increase in net profits. “The results reflect our growth in loan book due to an increase in the number of customers….the growth in customers is largely due to mobile phone money transfer platforms including M-Pesa and TigoPesa,” said the report from NMB.

According to the bank’s report, NMB posted a net profit of Tshs 38.181 billion during the first three months of this year – up from Tshs 28.828 billion net profit during a similar period last year.

The amount issued as loans, advances and overdrafts rose by 7 percent to reach Tshs 1,729.973 billion during the first quarter of 2014, according to a financial report.

Interest income - which is charged by the bank in the process of offering loans – went up by 19.9 percent during the quarter ending March 2014. It reached Tshs 97.143 billion from Tshs 81.008 billion during a similar period last year.

NMB did not record any bad debt that has the potential of being written off, indicating that bank’s management was employing measures that seek to hold losses at arm’s length.

Customer deposits with the National Microfinance bank increased by 3.9 percent to Tshs 2,664.833 billion while the value of total assets grew by 4.7 percent in the current quarter compared to a 3.7 percent growth last year.

**4.5.4 Financial Conveniences**

Data from the field indicated that, in July 2009, NMB was the first bank in Tanzania to launch mobile banking service, this service was launched in order to reduce queues and improve customer experience by allowing customers perform different transactions wherever they are and whenever convenient, when this product was launched services available were money transfer to another NMB account, balance check, airtime purchase and LUKU purchase. It was emphasized by one respondent
that; “performace of transactions was previously done at the banking halls, nowadays the same customer can do it anywhere through mobile banking” (Bank Reconcialliation analysit at NMB).

The findings are similar to the current study by Singh and Bamoriya (2014) on Issues & Challenges in Mobile Banking In India: A Customers’ Perspective which shows that, today many commercial banks have launched mobile banking using information and communication technology and now they can reach out to customers and provide them with not only general information about its services but also the opportunity of performing interactive retail banking transactions anytime, anywhere.

In April 2011 more services were extended to include mini statement and Pesafasta, the service that allows NMB mobile customers to send money to anyone with a mobile phone in Tanzania. NMB mobile service enables customers to transact money from an account to their mobile phones which saves time and speeds up service delivery. Although mobile money is not a panacea, the study has shown that it has facilitated access to financial services in a manner that cash simply cannot make it.

The mobile banking has been implicated in branchless banking strategies. This is mainly because the technology is becoming increasingly more pervasive as was seen in the field; through M-PESA, a large segment of the unbanked population has been provided with access to financial services through the application. But growth has been driven by remittances. This finding is interesting, especially in the context of the branchless banking. The usage that drove adoption is not one that dominates banking transactions. But it is one that is vitally important to informal financial practices. This means that the transformational potential of mobile banking lies not in their ability to formalize financial practices but rather in their ability to fit into the informal practices of everyday life. There is the assumption that access to financial services and the formalization of financial practices will translate to improvements in daily life. The literature argues that incomes will be higher, productivity enhanced and livelihoods improved (Morawczynski, 2010). Therefore, NMB mobile banking, if successfully managed, could provide banking services to millions of people who
would otherwise have no access to conventional retail banking. It is also of benefit to the banking industry as it offers a cost-effective mechanism to access a new marketplace.

4.5.5 **Banks Expansion in term of Customers.**

The research shows that, due to the coming of more customers following good corporate brand, TIGO and NMB Bank have launched an innovative service that enables customers of the bank and Tigo-Pesa services to deposit and transfer funds through a mobile phone.

It's argue "This extended cash deposit and transfer channel will enable around 1,000,000 customers registered with NMB Mobile to utilize TigoPesa agents to deposit or transfer directly into their bank accounts wherever they are."

There are more than 20,000 active TigoPesa agents countrywide according to the company Commercial Manager in all parts of the country, Pemba and Zanzibar included.

The report said the new service represents 'a partnership of strength' between Tigo and NMB noting that the art to do mobile money deposit and transfer service will significantly contribute to the social and economic wellbeing of Tanzanians.

"*Our plan is to integrate our mobile financial services with other sectors of the economy in the country so that at the end of the day bank account holders will no longer need to go to a branch to deposit or withdraw funds, but do it directly from their TigoPesawallet,*" MrSwanepoel said.

4.5.6 **Improvement in the Customer Services**

This research has shown that, there has been reduction on the ccongestion of customers in the NNMB banking halls following revised tariff sheet and increased use of ATMs, branch POS, and NMB Mobile services. In interview with one of the respondent at NMB bank, it was argued that, “*Mobile money transfer provides ease and convenience to the banks customers.* Customers who need to transfer or send
funds do not need to access the bank facility physically in order to accomplish it. Also it is more secured way of sending money or acquiring because users do not have to carry cash when sending to another person, it is just done online” (Market Risk Analyst at NMB).

For handling and authorizing payments and banking transactions along with the required security and convenience advantages as compare to electronic payments via personal computers, mobile banking devices are more efficient (Herr-hetg, 1998). Security and convenience are the two main reasons because of which, mobile based banking transactions have been increased not only in developed, well infrastructure countries but even in developing countries like India, Pakistan and Bangladesh (State Bank of Pakistan, 2013).

Furthermore, many of the branchless banking studies focus on integrating the unbanked into the financial sector and formalizing practices. However, the above findings have made clear that the major benefits are derived when financial mechanisms act as complements to others in the portfolio rather than as substitutes (Barr, 2004). This was made clear during the studies as some of the respondents had to tap into their informal savings mechanisms especially in public holidays and Sundays to get through the period because banks and other formal institutions could not be accessed. This finding makes clear that formal savings through mobile banking, when used in can meet the financial needs of the unbanked population. Literatures suggest that, mobile phone banking has opened opportunities for many of Sub-Sahara Africans (SSA) and others in developing countries (Tchouassi, 2012). The rapid growth of mobile phone banking in SSA is evidence of the great need for low-cost financial services in developing countries. This growth is expected to continue and to benefit other sectors of the economy and thus contributing to economic growth in SSA countries.

4.6 Challenges Facing Mobile Banking in Tanzania
The research has also a specific objective of evaluating the challenges that are facing mobile banking in Tanzania. The research came across different types of challenges
as were given out by the respondents. These were as follows: 2(5.1%) fraud done by bank staffs and mobile money operators, 5(12.8%) money laundering, 3(7.6%) liquidity problems, 2(5.1%) inadequate number of credible agents, 2(5.1%) low adequate knowledge of information and communication technologies (ICTs), 7(17.9%) spoke of network problems, 5(12.8%) lack of electronic commerce (e-commerce) regulation and legal framework, 3(7.6%) commented on the high competition among the commercial banks in Tanzania, 2(5.1%) cyber crimes and 3 (7.6%) complained on the delays in completing electronic transactions. Table 4.9 provide a brief summary on the challenges as expalined above.

Table 4.11:  Challenges Facing Mobile Banking in Tanzania

<table>
<thead>
<tr>
<th>The Challenges</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fraud done by bank staffs and MMO</td>
<td>2</td>
<td>5.1</td>
<td>5.1</td>
<td>5.1</td>
</tr>
<tr>
<td>Liquidity</td>
<td>3</td>
<td>7.6</td>
<td>7.6</td>
<td>25.5</td>
</tr>
<tr>
<td>Security for Mobile banking</td>
<td>2</td>
<td>5.1</td>
<td>5.1</td>
<td>35.7</td>
</tr>
<tr>
<td>Low of adequate knowledge on ICTs</td>
<td>5</td>
<td>12.8</td>
<td>12.8</td>
<td>48.5</td>
</tr>
<tr>
<td>Network Problems</td>
<td>7</td>
<td>17.9</td>
<td>17.9</td>
<td>66.4</td>
</tr>
<tr>
<td>Lack of e-commerce regulations and legal framework</td>
<td>5</td>
<td>12.8</td>
<td>12.8</td>
<td>79.2</td>
</tr>
<tr>
<td>High Competition with other banks</td>
<td>3</td>
<td>7.6</td>
<td>7.6</td>
<td>86.8</td>
</tr>
<tr>
<td>Cyber Crimes</td>
<td>2</td>
<td>5.1</td>
<td>5.1</td>
<td>92.4</td>
</tr>
<tr>
<td>Dealys to complete trsnsactions</td>
<td>3</td>
<td>7.6</td>
<td>7.6</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>39</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher; 2014

4.6.1 Fraud done by bank staffs and MMO

Fraud, theft/cheating and lack of trust in doing business on the other hand seem to have prevailed in the Tanzanian commercial banks. As evident in the study 5.% of the respondents have had a case of theft/cheating and lack of trust in his/her particular departments regarding fraud and lack of faithfulness to some of the mobile money operators (MNO), who misuse the customers security codes such as passwords to make withdraws from their bank account. The banking fraud and other theft is
now considered a thunderstorm which is about to blow across the national economy. Its effects have been a major setback not only for depositors, but also to the bank shareholders. Data from the field of the study showed that criminal groups are stealing money from other people's accounts through tracking down the victims' account number and personal identification number. This can be linked to the fact that the economy of the country isn’t as good, and some of the staffs want to make more money illegally so as to easily meet daily human needs and other development activities within a short period of time. A study by Mfaume (2004) shows a close relationship between, theft/cheating to corruption and bribery in affecting the performance of the commercial banks and in Tanzania. This is as such that people working in these financial institutions normally are looking to make money above their normal pay even if it means that they receive black money. People are ready to go as far as bankrupting the owners business so long as they are in a position to do so and earn a better living for them and their respective families.

4.6.2 Liquidity Problems
The amount of cash investment determines how a mobile money transfer business operates. When the cash investment is adequate float will be available and customers can transact up to any amount they wish to be it for withdrawals or deposits. When the cash investment is little, customers transactions will be limited thus the business will not run normally. The research found that some of the NMB mobile users encounter some difficulties in accessing cash particularly once they transfer money from their account, when they go to mobile money agents such as M-Pesa, they found them with no adequate float to pay them. This does create some inconveniences, as they decide to go to the nearby ATM to make other transactions.

These findings reflect those of a study in Tanzania by Söderberg and Bångens (2011) on Mobile Money Transfers and usage among micro- and small businesses in Tanzania which indicated that, the agents’ floats are not adequate in some districts to meet rising demand and vice versa cash stocks are not sufficient for withdrawals. Often customers have to visit three to four agents in order to finalize their transactions.
4.6.3 Security (For Large Volumes of Transactions)

The network availability largely influences the ability of NMB mobile banking and mobile money transfer providers to carry out transactions. When the network experiences delays, mobile transactions are slow thus this affects the number of transactions that are successful during that period. Once this happen does hinder their ability to complete a transaction and contributes to concerns about mobile banking money’s reliability. Thus the instability of the system making it unavailable sometimes has been an obstacle on the efficiency and effectiveness of the mobile money service. The study suggests that, many clients are still not comfortable with the accessibility of online services.

Banks industries should formulate strong policies in respect of security when it comes to mobile banking. They should make customers use the service confidently by providing adequate security of transaction back up of critical data files and alternative means of processing information. They should also ensure good connectivity and power base that will enable them serve customers faster and more conveniently. The banks should ensure that at no time should service cease as a result of network problem.

Government should provide adequate regulatory framework that will ensure customer protection, and security of transaction. That way, customers’ confidence in electronic banking would be secured. Finally, to remain competitive in the industry the banks should conduct periodic marketing research studies on their own customers.

4.6.4 Low Knowledge on ICTs to the Public and the Customers

BOT (2004) argued most online banks transactions services that banks offers in Tanzania are unreliable particularly in rural are at disadvantage group because of inadequate physical, fiscal awareness and human resources which limits the confidence level on online banking reliability. This finding is supported by Jean-Eric (2004) who observed that technology adoption climates in developing countries are first hampered by weaknesses of other key elements of knowledge-based economies
as defined in the World Bank Institute (WBI) four pillar frameworks, namely levels of educational attainment, the business environment and the information infrastructure. Educational levels are low in developing countries, and, this is a significant barrier to the development and diffusion of innovation in these countries.

4.6.5 Network Problems
The research showed that, 17.9% of the respondents claimed network problems to sometimes make the customers transaction not successful. The network availability largely influences the ability of NMB mobile banking and mobile money transfer providers to carry out transactions. When the network experiences delays, mobile transactions are slow thus this affects the number of transactions that are successful during that period. Once this happen does hinder their ability to complete a transaction and contributes to concerns about mobile banking money’s reliability. Thus the instability of the system making it unavailable sometimes has been an obstacle on the efficiency and effectiveness of the mobile money service. The study suggests that, many clients are still not comfortable with the accessibility of online services.

The study by Gerrard and Cunningham (2003) suggested that this level of disagreement is an indicator for poor performance by online services system. However, the study by Sugan thi (2001), identified the following as the causes of poor availability of the online services could be attributed to poor speed of download, old computing hardware and method of connection used to download information and slow response time after any e-interaction results in delay of service delivery and makes customers unsure whether or not the transaction is completed.

Moreover, earlier studies have shown that, progress made with mobile phone technology can lead to rapid improvements in connectivity, however it does not solve the necessity for greater internet penetration something which remains quite low in most developing countries (Irura, 2013).
4.6.6 Lack of E-Commerce Regulations and Legal Framework

Ignorance “Some of the users may be susceptible to give out information which could lead them to lose their money” (Market risk Analyst)

Government should provide adequate regulatory framework that will ensure customer protection, and security of transaction. That way, customers’ confidence in electronic banking would be secured. Finally, to remain competitive in the industry the banks should conduct periodic marketing research studies on their own customers.

4.7.6 High Competition with Other Banks

The greatest challenge facing commercial banks today is the ever-growing competition, the continuous increase in customer expectation and customer’s subsequent demands as service improves. Customers are becoming increasingly critical of the quality of service they experience. Customer demands and competition are forcing firms to cut loose from the traditional customer satisfaction paradigm, to adopt proactive strategies which will assist them to take the lead in the market place (Kandampully, 1998).

Competition on the other hand has been mentioned by the respondents as a barrier to growth for commercial banks in Tanzania. The nature of the market into which banks operates is a key influence upon its growth. In this particular study competition has been raised five times in the interviews, but no clear relationship can be drawn of competition limiting commercial banks to grow. Instead in the writer’s opinion competition should be a driving force for small banks to strive to perform better than their rivals hence favoring growth.

Moreover, Mobile Money Transfer services who are in locations that have little or no competition tend to have more profits compared to those that are located in a place that have several mobile money transfer locations with a lot of competitions (Muyange, 2012).
4.6.8 Delay to Complete Transfers

On the side of service providers due to increase of subscribers leading to network congestions, The network availability largely influences the ability of NMB mobile banking and mobile money transfer providers to carry out transactions. When the network experiences delays, mobile transactions are slow thus this affects the number of transactions that are successful during that period. Once this happen does hinder their ability to complete a transaction and contributes to concerns about mobile banking money’s reliability. Thus the instability of the system making it unavailable sometimes has been an obstacle on the efficiency and effectiveness of the mobile money service. The study suggests that, many clients are still not comfortable with the accessibility of online services.

Banks should formulate strong policies in respect of security when it comes to mobile banking. They should make customers use the service confidently by providing adequate security of transaction back up of critical data files and alternative means of processing information. They should also ensure good connectivity and power base that will enable them serve customers faster and more conveniently. The banks should ensure that at no time should service cease as a result of network problem.
CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction
These chapters focus on the summary, conclusion and recommendations for the study which was done to evaluate the impact of mobile money transfer on the performance of banking industry in Tanzania with reference to National Microfinance Bank (NMB). Specifically the study aimed to attain the following objectives which were; to determine the banking performance indicators, to determine the factors affecting the performance of commercial banks, to determine the impact of mobile money transfer on the performance of commercial banks and to find out the challenges facing mobile banking in Tanzania. Consequently; the sections below provide the overall summary for the study, conclusion, recommendations and the suggested area for further research.

5.2 Summary
Initially the targeted sample was 60 NMB bank. However data from the field showed that, only 39(65 %) of the respondents took part in the study, in which it was regarded as an objective unity of analysis which was very reasonable to answer the research questions.

With regards to the indicators of banking performance, to the indicators of bank performance the research has acknowledged that, there are various indicators which determine the performance of the bank. These were increase on the number of customers 3(7.6%), growth in profit 7(17.9%), bank expansion in terms of its network coverage and branches 9(23%), increase on the liability (deposits) 2(5.1%), increase in on the bank products and service 7(17.9%), the nature of bank public reputation 3(7.6%), return on assets 4(10.2%) and return on equity 4(10.2%). With regards to NMB bank in reference to these indicators, the research has established that, the bank is doing well especially in reference to the increase of customers(1,800,000), the growth of profit in which the banks profit has been
growing very progressive since the establishment of the bank in 2005, expansion of branches to 150 branches, with 500 ATMs nationwide. In terms of NMB, mobile it was seen that, the bank has been receiving a reasonable commission from the mobile phone’s subscribers, which has been part and parcel of the overall bank profit.

The research has also revealed that, there are number of factors that are affecting the performance of commercial banks in Tanzania. Among those factors were in -access to finances, high interest rates that are given out by the commercial banks, the banking financial strategy and innovations, the world money markets, low public awareness on the significance of making utilizations of financial institution in Tanzania and in special way commercial banks, lack of genuine citizens identification cards, high fluctuation on the interest rate (inflation) and exchange rate fluctuations. Some factors have been having positive impact on the performance, while other factors have been an obstacle on the performance of the banks.

Concerning the impact of mobile money transfer on the performance of Commercial in Banks in Tanzania; the research has revealed that mobile money has been of great significant role in enhancing the performance of commercial banks in Tanzania. the research further indicated that, mobile banking has impacted the performance of NMB in the following ways; growth of customers and increase on the bank deposits, reduction of working load to the banks, financial conveniences to the mobile subscribers and those with bank accounts, bank expansion and mobile money transfer has brought about improvement the customer services, which has led to the reduction of queues of customers in the NMB banking halls.

Despite the impact that mobile banking has on the performance of banks in Tanzania and in special way, NMB bank; the research has revealed that, still there are number of challenges facing mobile banking in Tanzania. These were fraud done by bank staffs and mobile money operators, money laundring, liquidity problems, inadequate number of credible agents, low adequate knowledge of information and communication technologies (ICTs), network problems, lack of electronic commerce (e-commerce) regulation and legal framework, high competition among the
commercial banks in Tanzania, cyber crimes and the delays in completing electronic transactions.

5.3 Conclusion
In the recent decade, it can be said that payments are developing rapidly by taking advantage of advancements in technologies since they are becoming available which not only enhance the integration of customers with processes of commercial banks even banks’ dialogue with customers in the provision of services and communications have become more interactive, efficient and very effective. Such is happened mostly because of the contribution by internet and mobile banking brought about by the immense development in information and communication technologies.

The study has provide remarkable evidence that, many of the characteristics that make mobile banking so promising its scale and impact, its varied uses, and the novelty of its role in enhancing electronic money transfer and other financial services. Therefore, ICT and mobile phone in particular have improved access to credit and deposit facilities, facilitate financial transfers, and boost financial inclusion to those who were unbanked.

5.4 Recommendations
In view of the findings of the research, the research was in position to amke the folllowing recommendations.

5.4.1 Privacy and Security
The commercial banks should keep on educating customers on this issue to raise their awareness. Especially for the customers’ worries like losing money if once mobile handset is lost substantial number of respondents worried about it. Secondly, the commercial banks and mobile operators companies are suggested to draft comprehensive joint policy regarding security and privacy so that customers can be assured at both banks and mobile operator’s levels while doing mobile banking
5.4.2 Standardization

Standardization’ is another major issue as lack of standardization of mobile banking services in the country resulted in increased complexity while using mobile banking services (especially when using mobile banking services of multiple banks). For resolving this issue banks are advised to develop mobile banking standards in guidance transaction charges. The same principle could also be applied to mobile money services, as each company is having its own peculiar transaction fee. Government through its respective ministry and in collaboration with telecommunication Companies, commercial banks should make deliberate efforts to minimize the cost of operating a mobile money service by encouraging the sharing of the available infrastructure among mobile phone providers so as to make the services more effective and efficient especially to the low income earners.

5.5 Mobile Money Services Companies-Commercial Banks Partnership

Majority of the unbanked in developing countries including Tanzania have an access to mobile money service. This translates an opportunity for growth on the side of commercial banks because the majority unbanked can be accessed as well. Therefore, this study assumes that mobile money service contributes for the growth of commercial banks in Tanzania. In addition to that, for mobile money service to function well, should partner with the commercial banks operating in Tanzania because the mobile money service cannot store large amount of money, it has to be deposited in the banks.

5.6 More Mobile Extension

Need for extending the network reach so as to enable maximum use of the mobile phones. With installation of M-Government, M-Health, M-Education, it will be possible to reach wider audiences, than concentration only on Mobile money transfers.

5.7 Customer Service Oriented Education

NMB Mobile and other mobile money subscribers company need to educate the mobile phone users on better and varied use of the mobile phone technology. Earlier
secondary literatures have concluded that that many people are not aware of the different services they could access from their cell phones other than SMS, receiving and making calls.

5.8 Universal Access and Service
The populations least likely to feel the benefits of mobile money are societies’ poorest citizens because they have the least connectivity, ability to pay, and requisite skills. Both mobile network operators and financial institutions find it commercially infeasible to operate in remote rural areas. In the realm of telecommunications, this market failure has led to universal access and service funds that aim to connect all citizens and the rationale for extending those to programs to mobile financial services should be considered. Because mobile money has been driven by for-profit entities, most transactions incur a fee that many poor find difficult to pay, even if they are willing to do so because of the convenience and speed of transfer. Regulators must ensure that the mobile money industry is competitive to allow well-functioning market forces to drive prices down.

5.9 Further Areas of Study
The researcher is suggesting another study on the role of mobile money transfer in enhancing financial inclusion to the unbanked in Tanzania.
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APPENDICES

Appendix 1: Questionnaire For NMB-GQ’s Staffs

Dear Sir/Madam

This intends to evaluate “the impact of mobile money transfer on the performance of banking industry in Tanzania with reference to National Microfinance Bank (NMB)”. The study is being undertaken as a partial fulfillment for the award of Master in of science in Human Resource Management (Msc-HRM) from Mzumbe University-Dar es Salaam Campus College, 2014. Please answer the questions as indicated. You may skip a question that you may see to be irrelevant to your position or department.

PART A: PERSONAL INFORMATION

1. Gender:
   (i) Male (    )
   (ii) Female (   )

2. Level of Education
   (i) PhD (   )
   (ii) Masters (   )
   (iii) Bachelor (   )
   (iv) Diploma (   )
   (v) Other Specify __________________________________________

3. What is your age category?
   (i) Below 25 years (   )
   (ii) Between 25 and 35 years (   )
   (iii) Between 35 and 55 years (   )
   (iv) Above 55 years (   )
4. What is your current position?
______________________________________________________________
______________________________________________________________

5. How long have you been worked with NMB Bank?
______________________________________________________________
______________________________________________________________

PART B: RESEARCH INFORMATION
1. What is the contribution of mobile money transfer on the performance of banks in Tanzania? Please answer this question with reference to NMB Bank
______________________________________________________________
______________________________________________________________

2. What is the nature (figure) of performance of NMB before and after the introduction of Mobile Transfer?
______________________________________________________________
______________________________________________________________

3. What are the types of transactions which are offered through mobile banking or mobile money transfer at NMB?
______________________________________________________________
______________________________________________________________

4. What are the challenges facing mobile money transfer in Tanzania?
______________________________________________________________
______________________________________________________________

5. As the number of NMB mobile customer increases, does it assist in reducing queues at the branches?
(i.) Yes ( )
(ii.) No ( )
If Yes, How

______________________________________________________________

______________________________________________________________

6. Do NMB provide the training/user guide to customers on the use of the NMB mobile services?
   (i.) Yes  ( )
   (ii.) No  ( )

If Yes; Explain Please

______________________________________________________________

______________________________________________________________
Appendix 2: Questionnaire for Mobile Money Service/Banking Users and Agents

Dear Sir/Madam

This intends to evaluate “the impact of mobile money transfer on the performance of banking industry in Tanzania with reference to National Microfinance Bank (NMB)”. The study is being undertaken as a partial fulfillment for the award of Master in of science in Human Resource Management (Msc.HRM) from Mzumbe University-Dar es Salaam Campus College, 2014. Please answer the questions as indicated. You may skip a question that you may see to be irrelevant to your position or department.

PART A: PERSONAL INFORMATION

1. Gender
   (i.) Male (              )
   (ii.) Female (              )

2. Level of Education
   (i.) PhD (              )
   (ii.) Masters (              )
   (iii.) Bachelor (              )
   (iv.) Advance Diploma (              )
   (v.) Diploma (              )
   (vi.) Certificate (              )
   (vii.) Vocational Education (              )
   (viii.) Secondary Education (              )
   (ix.) Primary Education (              )
   (x.) Specify ________________________________

3. What is your work/job occupation?
   ________________________________________________________________
   ________________________________________________________________
4. Mobile Money Service and the Performance of Banks in Tanzania

<table>
<thead>
<tr>
<th>S/N</th>
<th>Indicators</th>
<th>Yes</th>
<th>Neither Yes Nor No (Neutral)</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I am registered with NMB mobile /Other bank’s mobile services</td>
<td></td>
<td></td>
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<tr>
<td>2</td>
<td>I normally pay various Bills such as electricity, water, TV charges via mobile banking as and other form of mobile services Payment service</td>
<td></td>
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<tr>
<td>3</td>
<td>I normally do balance inquiry in my bank account through my mobile</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>4</td>
<td>I do transfer money from my NMB/ Bank account to other accounts or my mobile account via my mobile</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>I do purchase prepaid services such as air time top up from my bank account via my mobile</td>
<td></td>
<td></td>
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<tr>
<td>6</td>
<td>I do frequently visit NMB/bank for normal financial transactions</td>
<td></td>
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<td>7</td>
<td>I do mostly use NMB/other banks mobile services mostly</td>
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<td>8</td>
<td>Is it easy to use NMB/ banks mobile services</td>
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<td>9</td>
<td>I am very satisfied with NMB/other banks mobile services in terms of system availability, timely delivery of service, and confirmation of transactions by after completion</td>
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<tr>
<td>10</td>
<td>The NMB/other banks do provide the training/user guide to customers on the use of the mobile services?</td>
<td></td>
<td></td>
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<tr>
<td>11</td>
<td>Using mobile banking enable me to accomplish my financial tasks more quickly</td>
<td></td>
<td></td>
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<tr>
<td>12</td>
<td>Interaction with mobile banking does not require a lot of mental effort</td>
<td></td>
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<tr>
<td>13</td>
<td>Mobile banking service providers have the skills and expertise to perform transactions in an expected manner</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>14</td>
<td>When transferring money through mobile banking, I am afraid that I will lose money due to careless mistakes such as wrong input of account number and wrong input of the amount of money.</td>
<td></td>
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<td>15</td>
<td>I think that mobile banking is useful</td>
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<td>16</td>
<td>I’m worried about use mobile banking because other people may be able to access my account</td>
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<tr>
<td>17</td>
<td>I would not feel secure sending sensitive information across mobile banking</td>
<td></td>
<td></td>
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<tr>
<td>18</td>
<td>Mobile Money Transfer business Create access to financial assistance from Banks and other Financial Institution</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Mobile money services have enabled and included those who were unbanked into formal financial system</td>
<td></td>
<td></td>
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<tr>
<td>20</td>
<td>I can use withdraw money from my bank account and cover various payments such as school fees, pocket money, taxes and purchase- payments in the supermarkets</td>
<td></td>
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<tr>
<td>21</td>
<td>Mobile Money Transfer business has affected positively daily financial undertakings and other business?</td>
<td></td>
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<tr>
<td>22</td>
<td>I am satisfied with a rate of return from investment in Mobile Money Transfer business</td>
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<tr>
<td>23</td>
<td>Mobile Money transfer and other forms of mobile banking service are very secure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Overall, I think that using mobile banking and other mobile services is advantageous</td>
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</table>

25. Please if you have opinions, different views or recommendation, provide on the space provided below

________________________________________________________________________
________________________________________________________________________
Appendix 3: Interview Guide

Dear respondent, I am here for the purpose of collecting data that will be used in the research study on the “the impact of mobile money transfer on the performance of banking industry in Tanzania with reference to National Microfinance Bank (NMB)” as part of partial fulfillment on the award of Master of Science in Human resource Management (Msc.HRM) from Mzumbe University-Dar es Salaam Campus College. You are requested to answer the questions as honestly as possible so that the reliable information you will give will be treated confidentially and be used only for the purpose of the study. Thanks a lot in advance, for your time to be used and the corporation you will provide to me. Please the interview will focus on the areas below:

1. What is your position in organization?

2. For how long have you working with this position?

3. What is the contribution of mobile money transfer on the performance of banks in Tanzania?

4. What is the nature (figure) of performance of NMB before and after the introduction of Mobile Transfer?
5. What are the types of transactions which are offered through mobile banking or mobile money transfer at NMB?

______________________________________________________________________________
______________________________________________________________________________

6. What are the challenges facing mobile money transfer in Tanzania?

______________________________________________________________________________
______________________________________________________________________________

Thanks for Your Participation