USAGE AND CHALLENGES OF MOBILE PHONE MONEY IN TANZANIA
CASE OF DAR ES SALAAM
USAGE AND CHALLENGES OF MOBILE PHONE MONEY IN TANZANIA
CASE OF DAR ES SALAAM

By
Christopher Mshanga

A Dissertation submitted in partial fulfillment of the requirements for the degree of Master of Business Administration (MBA-Corporate Management) of the Mzumbe University

2014
CERTIFICATION

The undersigned certified that has read and hereby recommends for acceptance by Mzumbe University a dissertation entitled: “Usage and Challenges of Mobile Phone Money in Dar es Salaam-Tanzania” in partial fulfillment of the requirements for the award of the Masters degree in Business Administration - Corporate Management degree of the Mzumbe University (MU).

__________________________
Major Supervisor

__________________________
Internal Examiner

Accepted for the Board of ………………………
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ACKNOWLEDGEMENT

My first and foremost thanks should go to the Almighty God for giving me the strength and courage to pursue my studies and conducting this research study. I owe special thanks to my family for their help, advice, guidance, continue support and encouragement. The study swallowed a lot of time and other resources, which they have a right to claim and for which there is no compensation, but may God bless them all.

My special gratitude goes to my Supervisor, Dr. Darlene Mutalemwa who patiently guided and advised me from proposal writing up to the final dissertation. Her criticism, invaluable support, intellectual guidance and continuous support helped me not only to accomplish this study, but also to come up with the expected standards. Sincerely, she deserves all kinds of credits.

My many thanks also go to all those who have contributed to this research in one way or another. Special thanks to my sister Beatrice Mshanga and my special friend Margareth Urio for support in data collection and lastly but not least special thanks to my office colleagues John Mawewe, Asha Mtambalike and Abbas Mgonja for moral, courage and material support at various stages of this task.

May the almighty God bless them all!
DEDICATION

I would like to dedicate this work to my late dad and friend James Mshanga. Just a few farewell words to him.

‘We will always remember your endless love. To me, you were the most beautiful gift from God. May your soul rest in the eternal peace’
LIST OF ABBREVIATIONS

ATM - Automatic Teller Machine
BOT - Bank of Tanzania
DOI - Diffusion of Innovations
FITS - Financial Inclusion Tracker Survey
GDP - Gross Domestic Product
IDT - Innovation Diffusion Theory
ITU - International Telecommunication Union
MMT - Mobile Money Technology/Mobile money Transfer
MNOs - Mobile Network Operators
MTN - Multinational Telecommunication Network
NBC - National Bank of Commerce
NBS - National Bureau of Statistics
NMB - National Microfinance Bank
P2P - Person to Person
PIN - Personal Identification Number
POS - Point Of Sale
SIM - Subscriber Identification Module
SMS - Short Message Service
TAM - Technology Acceptance Model
TCRA - Tanzania Communication Regulatory Authority
TCRA - Tanzania Communications Regulatory Authority
TTF - Technology Task Fit
UTAUT - Unified Technology Acceptance User Theory
ABSTRACT

The convergence of mobile telephony and financial services has the potential to significantly expand access to financial services for individuals at the base of the pyramid. According to the World Bank, 75 percent of the 3 billion poor people in the world do not have a bank account. Mobile Phone Money Transfer, a financial service and transaction made on a mobile phone, could significantly fill this financial gap.

We conducted the study to describe the use, challenges, barriers and opportunities of mobile phone money users in Dar es Salaam. Specifically the study has described the characteristics and experience of mobile money services to users in Dar es Salaam, described and compared mobile phone money services among mobile phone service providers and identified the challenges experienced by users of mobile money services.

Descriptive cross sectional study design was deployed, where primary and secondary data were used, in the primary data face to face interview with the user of mobile phone was conducted using structured questionnaire. Secondary data were also collected, this involved systematic identification, location and analysis of documents containing information related to the mobile phone money services.

The number of registered mobile customers surged from 14,000 in June 2008, to 19.4 million in 2011, to 20.4 million in November 2012 worldwide, money stored in mobile accounts increased from Sh3 billion in June 2009 to Sh157.8 billion in November 2012 in Tanzania. Total 150 participants were interviewed. The distribution by sex was 72(48%) male and 78(52%) female; with mean age of 31.7 and 8.9 respectively.

Most people who use mobile phone money services have bank account, and few have been connected to their mobile phone money services such that they can check their account balance and make money transfer from bank to mobile phone and vice versa.

The common challenges cited are agents’ absenteeism and insufficient e-float or cash to help with a transaction.
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CHAPTER ONE

PROBLEM SETTING

1.1 General Introduction
The convergence of mobile telephony and financial services has the potential to significantly expand access to financial services for individuals at the base of the pyramid. According to the World Bank, 75 percent of the 3 billion poor people in the world do not have a bank account. Roughly 67 percent of the poor who do not have a bank account cite poverty as the obstacle to financial access.

While about 33 percent blame the cost of opening and maintaining an account or the banks being too far away (World Bank, 2012). Mobile Phone Money Transfer, a financial service and transaction made on a mobile phone, could significantly fill this financial gap among the unbanked, especially in Africa (Must and Ludewig, 2010, United Nations, 2012).

In Africa where the largest population of the unbanked live, only 53 percent compared to 79 percent in the developed world has access to mobile phones (Global Mobile Statistics, 2012). The combination of widespread cellular communication and the ability to transfer money instantly, securely, and inexpensively are together leading to enormous changes in the organization of economic activity (Must and Ludewig, 2010).

Mobile money Technology (MMT) is a technology where by mobile phone users are able to send and receive money via their mobile devices. It facilitates transfer of funds between banks, or accounts, deposit or withdraw funds or pay bills or purchase various items by use of mobile phones. It is a general understanding that the use of mobile money technology has grown significantly globally in the past recent decades.
Mobile money technology has been adopted all over the world. For the developing countries especially African ones the adoption rate is too high due to various factors. One of them is the fact that in most of the African countries especially the poorest ones, the level of financial inclusion is too low. Due to the fact that mobile phone users can be able to pay their financial obligations for various services and bills by use of mobile money, even those with no bank accounts (unbanked) can do so.

For example, in Kenya with Safari com, Kenya’s mobile services giant, you can pay for anything in seconds with no cash, no bank queues, and no long journeys to the bank etc. This is what is known as M-pesa, the revolutionary approach to banking which is changing the economies across Africa (Global systems for Mobile Communication Association Report, 2012).

1.1.1 Global Overview of Mobile Money Services

According to Gartner (2011), the global volume of mobile transactions is expected to grow from USD 37.4 billion in 2011 to over US 1.13 trillion in 2014 while the number of users of mobile money services worldwide will surpass 141 million in 2014. This represents merely 2.1% of all mobile users worldwide, which suggests there is still much room for growth in regions where there is a lack of alternative payment methods.

In Africa, South Africa was the first country to deploy mobile money services when WIZZIT was launched in 2004. Kenya was the second African country to introduce a mobile money service known as M-PESA. Currently, there are 25 mobile money services operated by different Mobile Network Operators (MNOs) across Africa. Among them, 15 are in East Africa (GSMA, 2012).

Among the five East African countries, Kenya has the leading number of users of mobile money services with 17,800,000 registered users which represents 71.3% of the total number of mobile phone users in the country. Tanzania is the second with 9,200,000 users of mobile money which represents 43.4% of the total number of mobile phone subscribers in the country (GSMA, 2012).
Uganda has the third largest number of mobile money users in the Eastern African region with 2,100,000 users representing 8.1% of the total number of mobile phone subscribers. Rwanda and Burundi have 309,127 and 29,000 users of mobile money services representing 8.3% and 2.7% of the total number of mobile phone users in those countries respectively (GSMA, 2012).

1.1.2 Overview of Mobile Money Services in Tanzania
Mobile money services were first launched in Tanzania in 2005 when Airtel (then Celtel) introduced a phone-to-phone airtime credit transfer service known as “Me2U”. Vodacom Tanzania launched the second East African implementation of the Vodafone mobile money services (M-PESA) in April 2008. In 2010, Vodacom re-launched M-PESA with a simpler pricing model and better distribution network (InterMedia, 2013).

The combination of widespread cellular communication and the ability to transfer money instantly, securely, and inexpensively have contributed to popularity of mobile money services by providing access to financial services to the unbanked and under-banked. Users of mobile money services use it to send and receive money, pay bills, make merchant payments and buy airtime (Morawczynski, 2011).

The amount of money stored in mobile money accounts in Tanzania increased from TSh 3 billion in 2009 to TSh 157.8 billion in November 2012. The number of monthly transactions increased from 1.9 million in 2010 to 48 million in 2012. The value of transactions increased from TSh 1.8 billion in 2010 to TSh 1.7 trillion in 2012. In September 2012, the value of mobile money transactions was 14% of deposits held by commercial banks (BOT, 2012).

1.2 Statement of the Problem
Since the introduction of mobile money services in Tanzania in 2008, there has been tremendous increase in usage of mobile money services by individuals and businesses. 79% of Tanzanians have access to mobile phones, and 35% are registered
users of mobile money services (Finscope, 2012). It is evident that mobile money services have become a key tool for bringing financial services to un-banked.

It was also expected that access to mobile money services would help SMEs to overcome the challenges of limited access to financial services as well as liquidity and cash-flow management by facilitating access to financial transactions. However, only 21% of SMEs use mobile money services to access financial services (Finscope, 2012) and 21% of M-PESA users use their accounts for transactions (InterMedia, 2013).

Although many studies (Audience Scapes, 2010; Lennart & Bangens 2011; Moshy & Mukwaya, 2011; InterMedia, 2013; Rwegasira, 2013) have been conducted on mobile money in Tanzania there is a knowledge gap on the impact of usage of mobile money services among SMEs. More research is clearly needed to further expand our understanding of mobile money usage. This study aims to fill that gap.

1.3 Objective of the Study

1.3.1 Main Objective
The main objective of the study is to assess and describe the uses, challenges, barriers and opportunities of mobile phone money services in Dar es salaam, Tanzania.

1.3.2 Specific Objectives
The study was guided by the following specific objectives:
(i.) To describe characteristics of users of mobile money services
(ii.) To compare usage of mobile phone money services among mobile phone subscribers
(iii.) To identify the challenges experienced by users of mobile money services
1.4 Research Questions

1.4.1 Main Research Question
What are the uses and challenges of mobile money services in Dar es Salaam, Tanzania?

1.4.1 Specific Research Questions
(i.) What are the characteristics of users of mobile money services?
(ii.) What are the differences of usage of mobile money services among subscribers?
(iii.) What are the challenges experienced by users of mobile money services?

1.5 Significance of the Study
This study is undertaken majorly as partial fulfillment of the requirements for the Award of my Master’s degree in Business Administration (MBA), Mzumbe University for the year 2014. Further to that, conclusions and recommendations resulted from this study may consequently add to the existing knowledge of the whole context of mobile phone money services in Tanzania and how it works.

It is my hope that the insight provided or lessons learnt or drawn from it may also alert stakeholders such as banks and mobile phone operations towards ways to improve their offerings, in terms of service customer care and coverage. As it might be revealed that mobile money technology has an adverse impact on the banking sector, this study shaded the light that mobile phone money services actually help these with no accounts.

As such, Banks might need to reconsider their positions in the competition brought and decide whether to join with the operators to mutually develop and enhance their offerings or strategically plan to improve their services as a counter attack strategy so as to safeguard their survival and profitability. On the other hand, conclusions may as well depict where the mobile phone operators do well as to attract more and more customers.
Roughly 80 percent of the Tanzania’s unbanked populations are contributing to revenue generation and financial market development through access to Mobile Phone Money services. It also shapes the policy environment that has propelled rapid growth in the Mobile Phone Money sector elsewhere in the world. The findings of the study will also help policy makers and regulators (TCRA and the Bank of Tanzania-BOT).

1.6 Limitations of the Study
Due to financial and time constrain the study was conducted in Dar es Salaam only. We could get a clearer picture of theme if we could be able to go to other regions of the country. We have also used the sample size of 150 subjects due to similar factors. These reasons make it difficult to generalize findings that were obtained from this study to a wider area.

1.7 De-limitation
The results of this study is not representative to or cannot be generalized to whole Tanzania population as the sampling method used to select the sample size to be included in the study was not derived from the total population of the country. The coverage is one region out of more than 27 regions in Tanzania mainland. The region has the population size of 4,364,541 people (NBS, 2012).

This study used a sample of 150 respondents a number which is equivalent to 0.00027% of the total population. The study deployed cross section study design which indicates the snap short of the information of the population at one point (the time when the study is conducted). The study used some secondary data during the analysis; most of these data are not up to date.

For example it was difficult to get the data of 2013 and 2014 using secondary data. This means the study faced insufficient recent data when it comes to analysis based on secondary data. Therefore the study provided just an indication of growth of use of the services, challenges and what can be done so that the opportunities of the same can be fully utilized.
1.8 Organisation of the Thesis
Following this introductory chapter, chapter two (2) will present what has been learnt from the literature review with regard to this study. Chapter three (3) will discuss the methodology used to conduct the research study. Chapter four (4) presents the findings of the study. Chapter five (5) presents the analysis of the findings and the final chapter will be chapter six (6) which presents the summary, conclusions and recommendations.

1.9 Definition of Terms
Mobile money is a service that facilitates financial transactions or payments through mobile phones. Mobile money involves the transference of value from payer to payee. They provide subscribers with an affordable way of transferring money from one mobile network subscriber to another, to a bank or making payments for various services (Wright, 2006).
2.1 Introduction
This chapter reviews literature of existing ideas, research studies conducted in the field of mobile money relevant to the study with a purpose of exploring research work and other secondary data useful to the study. Important theories and framework are explored in order to generate enough knowledge and evidence in developing own theories and empirical studies are reviewed.

2.2 Theoretical Framework
Technology acceptance research is a continuous evolving field; as such information researchers are inspired to develop new theories to help predict the acceptance of new technologies. Many theories have been developed to study Information Technology (IT) adoption which include, (Davis, 1989) the technology acceptance model (TAM) Roger’s (1995) Diffusion of Innovation (DoI).

2.2.1 Technology Acceptance Model (TAM)
The Technology Acceptance Model (TAM) is an information systems theory that models how users come to accept and use a technology. The model suggests that when users are presented with a new technology, two specific factors influence their decision about how and when they will use it. Two specific factors have been highlighted as key determinants of an individual’s intention to use a technology (Davis, 1989).

TAM has proven to be a useful theoretical model in helping to understand and explain use behavior in the information system implementation. It has been tested in many empirical researches and the tools used with the model have proven to be of quality and to yield statistically reliable results. However, TAM’s major weakness as it is has limited in explaining users’ behavior in using new technology (Venkatesh et al. (2003)).
As a result of the shortcomings, many authors have extended TAM with additional constructs. Mbogo (2010) for instance, employed TAM and extended it to include other factors such as perceived ease of accessibility, perceived low cost, perceived security, perceived convenience, perceived satisfaction and perceived support to investigate the success factors attributable to use of mobile money services.

Tobbin (2011) modeled adaptation of mobile money transfer expanding TAM and DoI to investigate the consumer behavior towards mobile money adaptation in Ghana. Similarly, Odia (2012) applied TAM with additional factors such as perceived trust, perceived security, and perceived convenience to examine factors influencing consumer intention to use mobile money in Nigeria.

Sayid, et al. (2011), used TAM to investigate mobile money acceptance in Somalia. In another study, Omwansa (2012) employed TAM alongside TTF (technology task fit) on modeling adaptation of mobile money by the poor in Kenya. Lule et al. (2012) in a study conducted in Kenya employed TAM and extended it to include perceived self efficacy and perceived credibility.

2.2.2 Diffusion of Innovation Theory (DoI)
Another theory that has been used to describe acceptance of information systems is Rogers’ (1983) Diffusion of Innovation (DoI) or the Innovation Diffusion Theory (IDT). Innovation is defined as an idea, practice or object while diffusion is the process by which innovation or perceived new technology is communicated through certain channels over time among members of a social system (Rogers, 1995).

Relative advantage is defined as the degree to which the innovation is considered as being better than the existing method of performing the same task. It is suggested in the theory that relative advantage has a positive influence on behavior intention. Compatibility is defined as the degree to which adopting the innovation is compatible with what people do, existing values, experiences, and needs.
Complexity is defined as the degree to which an innovation is perceived as relatively difficult to understand and use. Trialability is defined as the degree to which an innovation may be experimented with on a limited basis before making an adoption (or rejection) decision and Observability is defined as the degree to which the results of an innovation are visible to others (Rogers, 1995).

Bosire (2012) adapted DoI alongside TAM to explain factors which are the key drivers of technology adaptation contributing to the success of adaptation of Mpesa in Kenya. Abdelghani and Aziz (2013) applied DoI to examine the intention of Moroccan customers to adopt mobile money. In another study, Shambare (2011, utilized DoI framework to examine perceptions of mobile money services.

2.2.3 Unified Technology Acceptance User Theory (UTAUT)

The Unified Technology Acceptance user theory (UTAUT) proposed by Venkatesh et al., 2003) was developed through a review and consolidation of eight IT adaptation theories: TAM, the motivational model, theory of reasoned action, theory of planned behavior/technology acceptance model, model of PC utilization, innovation diffusion theory, and social cognitive theory (Venkatesh et al, 2003).

The UTAUT aims to explain user intentions to use an IS and subsequent usage behavior. The theory suggests that four key constructs (performance expectancy; refers to the extent to which an individual believes that using a system will help him or her achieve better results on the task; effort expectancy: refers to the extent of the ease associated with the use of a new technology (Vankatesh et al, 2003).

Personal characteristics of gender, age, experience, and voluntariness of use are posited to mediate the impact of the four key constructs usage intention and behavior (Vankatesh et al, 2003). However, UTAUT is not perfect. To apply UTAUT in certain IT applications such as mobile money, modification and revision is needed as recommended by Vankatesh, et, al (2003).
In a study by Omwansa (2012), he applied UTAUT to explain the adaptation of mobile money banking adaptation in Nigeria. In another study, Wamuyu et al (2011) applied UTAUT combined with Task Technology Fit (TTF) to investigate mobile technologies usage and impact in Kenya. Similarly, Yu (2012) employed UTAUT to investigate the factors affecting individuals to adopt mobile banking in Taiwan.

2.2.4 Summary
The theories presented, (TAM, DoI, UTAUT) have strengths and weaknesses but nevertheless provide a basis for a deeper understanding of the subject matter. The review indicates that technology use varies from groups of individuals and the society they live. For instance, TAM highlights Perceived usefulness and Perceived ease of use to be among key factors for technology acceptance and use.

2.3 Empirical Literature Review
2.3.1 Types of Mobile Money Services
Mobile money services can be broadly categorized into three groups namely; M-transfers, M-Payments and M-financial services. M-transfers involve the transfer of money from one user to another, normally without an accompanying exchange of goods or services. These are also referred to as Person-to-Person (P2P) transfers and may be domestic or international (Jenkins, 2008).

M-payments involve the exchange of money between two users with an accompanying exchange of goods or services. M-financial services are mobile money services in which mobile money may be linked to a bank account to provide the user with a whole range of transactions that they would access at a bank branch. Users access financial-related services via their mobile phone (Jenkins, 2008).

A typical mobile money platform involves several players and stakeholders who play different roles or derive diverse benefits from the whole ecosystem. These include, mobile network operators (MNOs), banks, regulatory institutions in both the telecommunications and the banking sectors, mobile money agents, merchants, retailers and mobile money users (Jenkins, 2008).
A mobile money account operates like an e-wallet and is linked to a mobile phone through a Subscriber Identification Module (SIM) card. The user sets up a secret Personal Identification Number (PIN) on the account that is prompted whenever the account is accessed. All transactions are confirmed in real-time by a Short Message Service (SMS) notification to transacting parties (Morawczynski, 2009).

There are three mobile money transactions; namely: cash-in, cash-out and person-to-person transfer.

2.3.1.1 Cash-in
The first transaction involves a deposit of money into a mobile money account. A mobile money user may deposit cash at a mobile money agent in return for e-float. This transaction is known as cash-in. Upon receipt of the money, the mobile money agent processes the deposit information and the mobile money user receives a confirmation SMS that e-float has been deposited in to his or her account (Morawczynski, 2009).

2.3.1.2 Cash-out
The second transaction involves withdrawal of money from a mobile money account. A customer may exchange e-float for cash at a mobile money agent. This transaction is called cash-out. The mobile money user processes the withdrawal information and both, the mobile money user and the mobile money agent receives a confirmation text that e-float has been withdrawn (Morawczynski, 2009).

2.3.1.3 Person-to-person Transfer
The third transaction involves the transfer of money from one mobile money account to another mobile money account. This transaction is known as person-to-person transfer, even though one or both of the parties may be an institution or firm. The user enters the phone number of the recipient and the amount to be transferred. Both, the sender and recipient receive an SMS stating that money has been transferred (Morawczynski, 2009).
All transactions, with the exception of deposits into the user’s own account, are charged a small fee based on a tiered fee structure model. These three basic transactions can be combined in a number of ways. For example, a user may deposit cash and send to another user, who can then withdraw it, send it to another user or use it to pay bills. The e-float could circulate in this manner indefinitely, like cash (Morawczynski, 2009).

2.3.2 Mobile Phone Money Services Usage
Based on the current rate of access to mobile phones, the Tanzanian market shows potential for further m-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 (FITS Project 2012).

Mobile money technology has played a significant role in increasing financial inclusion especial to the unbanked individuals. It is believed that about 2.6 billion people in the world don’t access formal financial services and yet 1 billion have mobile phones (CGAP, 2010). There is no much empirical evidence on how well Mobile Money Technology has alleviated the lack of banking infrastructure.

Mobile Money Technology is playing a major role in enabling individuals to receive money, send money, buy air time and save money (Tanzania mobile money tracker study). Many use these services as they are convenient and accessible. For example one can buy airtime even at night whereby vendors have closed shops. But also at times where airtime vouchers are not otherwise available.

According to Mobile money survey in Tanzania (Inter media) in 2013, customers’ satisfaction has been the major reason for Mobile Money Technology adaptation. Friends and family members have been playing a major role to convince individuals to sign up for Mobile Money services. Mobile Money Technology so as to be able to receive money from family members and/or friends easily (Intermedia, 2013).
In Tanzania, Mobile Phone Money transfer is a new phenomenon brought about by advancements in computer and telecommunication technologies. This has resulted in marked expansion in Mobile Phone Money over the last four years in a country where about 80 percent of the population lack access to financial services (Ndiwalana, Olga, and Popv, 2010).

According to studies on Mobile Phone Money, Mobile Network Operators (MNOs) tend to grow their agent networks in tandem with new customers to avoid diminishing agent incentives and causing drop-outs. Building agent networks from existing airtime resellers is one of the most successful approaches to Mobile Phone Money market development (Mas and Ng’weno, 2010; Kasseeah and Tandrayen-Ragoobur, 2012).

For example, the extensive agent’s network that is visible at almost every street of Nairobi in Kenya is one of the many reasons behind the success of Safaricom’s MPESA (Suri and Jack, 2011). Thus, Mobile Phone Money business model is built on a viable agent network model produces and maintains profitable growth for Mobile Phone Money.

Similarly, small stores reselling airtime are ubiquitous in many developing countries. These are potentially strong channels, partly because they are already receptive to mobile technologies. In countries where retailer coverage is low, there is usually a slowdown in mobile money transfer growth, especially to the low income rural population (Olga and Pickens, 2009)

In a most recent study by InterMedia (2013) investigated the uptake, use and market potential of mobile money services in Tanzania. The survey involved 2980 households; the data was collected via questionnaires and interviews. The study revealed that of those registered mobile money users who use mobile money for making and receiving payments.
In another study, Morawczynski (2009) examined the adaptation, usage and outcomes of mobile money services in Kenya. 350 people were interviewed, 21 focus group were conducted and fourteen financial diaries where distributed. The empirical findings revealed that mobile money indentified two users the urban migrant workers who are mostly male, sent money home and rural recipients, who are mostly women.

The majority of users cite that they adopted mobile money because it was cheaper, faster, safer and easier to access. The study also indicates that mobile money was used by informal sector workers to pay suppliers, to collect cash, to disburse cash, pay salaries and receive payment from customers. Moreover, the study revealed that since adaptation of mobile money the income of rural recipients increased by up to 30%.

Lennart and Bangens (2011) conducted an exploratory study that examined the use of mobile money transfer (MMT). The results were based on a non-randomized sample of 110 people mainly located in Dar es Salaam but partly in Morogoro, Singida, and Mwanza. The authors found that the rate of mobile money usage is much higher in urban areas than in rural areas.

In another study, Higgins et al (2012) investigated the mobile money usage patterns of Kenyan societies. The author surveyed 865 SMEs which were urban and semi-urban based dwellers. The authors found that whether urban dwellers use mobile money to receive payment, pay bills, salaries, or suppliers, they are driving higher volumes of both mobile money adaptation transactions.

In a study by Mbogo (2010), he investigated the success factors attributable to the use of mobile payments. The study was based on a survey conducted through administration of questionnaires. The data was collected from a sample of 409 respondents in Nairobi, Kenya. The key findings showed that convenience, accessibility, cost, support and security factors are related to behavioral intention to use mobile money services.
A study by Kiruki et al (2012) employed the propensity score matching technique to examine the impact of mobile money transfer services on household incomes among farm households in Kenya. The authors used cross sectional data collected from 379 multi-stage randomly selected households in Kenya. The study revealed that 52% of the farmers were found to be users.

The study specifically found that the use of mobile money transfer services significantly increased level of annual household input use by $42, household agriculture commercialization by 37% and household income by $224. The authors concluded by saying that mobile money transfer services in rural areas help solve the problem that farmers face in accessing financial services.

In another study, Chogi (2006) investigated the social-technical dimensions of using mobile money in Kenya. The study involved the use of activity theory model. The results showed that mobile phones have enhanced their livelihoods as they are able to use mobile money services to make payments to suppliers, receive payments which has reduced traveling expenses, operation costs and improved efficiency due to time saved.

Odia (2012) investigated mobile money in Nigeria with insights from Kenya. He employed TAM to examine the factors that influence a user’s intention to use mobile money. The research is based on a questionnaire survey and semi-structured interview of 59 respondents. The results indicated that predictors of the intention to use mobile money in Nigeria are; convenience, security/privacy, trust, ease of use and usefulness.

Similarly, Sayid et al (2012) based on an upgraded version of technology acceptance model (TAM), investigated the factors that lead to Somali customers to adopt mobile money. The study employed questionnaires distributed to 100 respondents. The results indicated that perceived ease of use has a significant positive influence on the perceived usefulness of mobile money.
In a study by Tobbin (2011) combined TAM and innovation diffusion theory (DoI) to investigate the key factors that influence the Ghanaian consumers’ acceptance and use of mobile money transfer. A self-administered questionnaire was distributed to 330 people and 298 responded. Perceived ease of use and perceived usefulness were found to be the most significant determinants of behavioral intention to use mobile money.

Although the study provides useful insights into the factors that lead to the adaptation of mobile money in Ghana it has limitations. First, mobile money transfer is at the infant stages, and the researchers had to explain to most of the respondents what it was. Secondly, a number of the respondents were illiterate therefore the questionnaire required translating which may have affected their understanding and interpretation.

In another study, Echchabi and Hassanuddeen (2013) used DoI to examine the intention of the Moroccan customers to adopt mobile money. The study employed descriptive statistics, one sample t-test and multiple regressions. Via collecting 400 questionnaires which were randomly distributed to the Moroccan banks’ customers, they found that the Moroccan customers have the willingness to adopt mobile money.

Furthermore, the results show that complexity, relative advantage, compatibility, and trialability are good predictors of intention to adopt mobile money in Morocco. Lule et al (2012) employed TAM to study mobile money adoption in Kenya. The study revealed that ease of use, usefulness, self-efficacy and credibility influenced a customers’ attitude towards usage of mobile money.

Morawczynski and Pickens (2009) conducted an ethnographic study in Kenya, on how poor people use MPESA and its impact on their lives. More than 350 people were interviewed and the authors found that 53.9% of respondents indicated that they were satisfied with mobile money services and 68% respondents surveyed indicated the service improved their lives.
In a study by Ayo et al. (2012) on a prototype mobile money implementation in Nigeria, conducted an experiment with 30 mobile money users to assess the performance of the mobile money system components. The study revealed that, 67% of the sample population responded that they are satisfied with the system giving a rating of 5 (excellent) and 4 (good) and 33% gave their rating as 3 (satisfactory).

A preliminary study by Ndiwalana et al (2011), was conducted with a sample of 463 mobile money users in Uganda on the current use of mobile money for money transfers, the importance of different financial transactions and the satisfaction with mobile payments. The study revealed a positive relationship between the importance of the transaction and satisfaction levels.

2.3.3 Challenges of Using Mobile Money

There are several issues which have been obstacles for the usage of mobile phone money services in Tanzania.

2.3.3.1 Lack of Awareness and Understanding about the Services

Regardless of the provider, most registered m-money users view m-money primarily as service for sending or receiving money. This implies lack of understanding of what mobile money service is all about. This perception was held by registered users regardless of whether they were from rural, urban or peri-urban areas. Fifty-five percent of non-users also think the service is for sending or receiving money only.

One in five (20%) of the respondents believe that m-money can be used in different ways, for example, to save money or pay non-remittance bills. Among the top three reasons for not using m-money, 13 percent of non-users cited lack of awareness about the services and 12 percent named insufficient understanding of m-money. (FITS Project 2012)

2.3.3.2 Agent-related Problems

According to Intermediary report 2012 Seventy-two percent of all registered m-money users experienced agent-related problems in the past 12 months. The top three
problems were the same across all providers: the agent was absent, did not have any/did not have enough e-float, and did not have enough cash. 88% of Airtel Money users, 84% M-Pesa users and 77% of Tigo Pesa users experienced same kind of problems (FITS, 2012)

2.3.3.3 No enough e Floats

E-float is the electronic value obtained when money value is loaded into the mobile money system. It represents the money value an agent has in his/her electronic mobile money system. For an agent to be able to serve a customer who wishes to withdraw money from his mobile money account, an agent must have the corresponding electronic money value in the system (Intermedia, 2013).

This electronic money value tends to increase when one makes a deposit into his/her mobile money account and decreases when one withdraws money from his/her mobile money account. If an agent does not have enough electronic money value in his/her mobile phone money system, the customer cannot be served, in case of money withdrawals and is in most cases advised to look for another agent (FITS Project 2012)

2.3.3.4 No enough Cash

Again an agent needs to have a certain amount of cash at hand in order to allow their customers to withdraw a corresponding amount of money from their mobile money account without limitations. But several studies and observations show that there are scenarios where agents are short of cash at hand to enable a customer to make withdrawals.

This means the customer is subjected to a hassle to go around until he/she finds another agent who has enough cash to accommodate the need to withdraw. This short of cash happens when the agent does withdraw transactions more than credit ones. Consequently the cash balances increases when customers credit money into their mobile money accounts, and decreases when customers withdraw money (FITS Project 2012)
2.3.3.5 High Tariffs
Sometimes customers face high charges whether genuine or otherwise. The service providers have distinct charge structures and customers shape their services provider preference with regard to service fees among other factors. If an agent is not loyal, knowledgeable and honest, inappropriate fees might be impose to the served customer. But again appropriate fees may apply but may be high as well (TCRA, 2011).

2.3.3.6 Technical Issues
The majority of registered users said that registering for and using m-money services is easy. Nevertheless, one-quarter of all individual registered users said they need help from other people when performing mobile money transactions. Registered users most frequently turn to mobile money agents to help them with registrations and transactions too (TCRA, 2011)

2.3.3.7 Mode of Registration
How to register for the mobile money services has also been a challenge to some users of the services. Most of the registered ones held the opinion that it is easy to register but in some cases one might need assistance. Nine in ten (9 in 10) registered users of Vodacom M-Pesa, Airtel Money and Tigo Pesa said it was somewhat or very easy to sign up for and use mobile money services (Intermedia, 2012).

2.3.3.8 Network Problems
Of the registered users who found the use of m-money difficult, two in five said they had problems to withdraw money. Twenty-three percent of registered Vodacom M-Pesa users, 15 percent of Airtel Money registered users, and 18 percent of Tigo Pesa registered users said that, on at least one occasion, they were unable to withdraw money when they wanted to due to communication problem (Intermedia, 2012).

2.3.3.9 Security Problems
Out of nine in ten (9 in 10) of rural registered users who reported agent-related issues, the percentage of urban users with complaints was high: 80 percent for
Vodacom M-Pesa, 81 percent for Airtel Money, and 79 percent for Tigo Pesa. A small group of registered m-money users of Vodacom M-Pesa (26 percent), Airtel Money (18 percent) and Tigo Pesa (19 percent) see the same agent all or most of the time.

For those who do use the same agent, trust is the most important reason (64%), followed by convenience (27%) and courtesy (18%). Trust is an important consideration. One in five registered users disclose their m-money PIN (password) to another person, and one in seven carried out mobile money transactions with help of an agent to whom the PIN is disclosed. This is unsafe if the agent happens to be unfaithful (Intermedia, 2012).

2.3.4 Service Providers Network Coverage

In some areas of Tanzania they don’t access any mobile phone service and in some areas they need to walk a distance and/or climb a tree or go high a mountain to communicate with their relatives or friends. This is because the present service providers have not yet been able to extend their coverage to the areas. Under such circumstances there is no access to mobile phone money services (TCRA, 2011).

In a study by InterMedia (2012) of a project to track the uptake use and market potential of mobile money services in Uganda which surveyed 3000 respondents among households. The authors found that low number of available agents, especially in rural areas, inconsistent performance of mobile money agents, insufficient cash to help with transactions, agents’ absenteeism and network problems were the main challenges.

In a case study by Ngugi et al, (2009) investigated the critical factors that lead to the rapid growth of mobile money services in Kenya. The key challenges found were frequent system failures, security and fraud related challenges and lack of electronic float among most agents limiting the amount one can receive at any time. Although the study sheds some light on mobile money adaptation, there are a number of limitations.
According to Rwegasira (2013) in his World Bank working paper on the Potential of mobile money in financing SMEs in Tanzania, suggests that insufficient float at agents is a challenge for mobile money users. In another study, Higgins et al (2012) investigated the mobile money usage patterns of Kenyan SMEs. The study revealed that high tariffs as the main barriers to adaptation.

The service providers present at the moment have been doing a lot in terms of product/service marketing campaigns and promotions. This has been very crucial for improving awareness and knowledge about mobile money services. It is crucial because the more aware the people are about the services, the more are the chances to register new users (TCRA, 2011).

Of all mobile phone companies especially Vodacom has been the most preferred service provider due to its bigger coverage among its competitors in the Tanzanian country. It’s because coverage is a crucial element for people to use service provider’s services and the services in general. So the providers of the services should strive towards widening their coverage. (TCRA, 2011)

Out of several factors for service provider’s reference agent network is one of the key elements to consider. When agent networks is big, services become more reliable and more accessible as it’s easy to find many agents when in need to use the service. In cases where mobile phone company operator fails to ensure that their system is always up and running, customers fail to rely on the services offered.

A study conducted by Chale (2013) revealed that customers and consumers tend to look for lower prices provided other factors such as quality are constant. Mobile money service providers may increase the usage of their services if their fees are relatively low. For an example, one can withdraw a certain amount of money at a fee of TShs 4,000 while the same amount could be withdrawn at a CRDB ATM at a fee of Tsh 600.
Under these circumstances bank charges are relatively cheaper and customers might prefer to use bank withdrawals instead of using withdrawals at mobile money agent shops. This implies that by setting low prices, customers will prefer usage of mobile money withdrawal more than bank withdrawals if they consider withdraw fees (Chale, 2013).

2.4 Conceptual Framework
The aim of this section is to provide an appropriate framework suitable for exploring the usage of mobile money services. The conceptual framework illustrates the relationship between variables. It shows that there is a direct relationship between the independent variables and dependent variable. There is a positive relationship between usage of mobile money services and customer satisfaction.

Figure 2.3: Conceptual Model

Source: Author (2014).

Explanation of the model
(i.) Usage is dependant to knowledge and awareness
(ii.) Satisfaction level is dependant to outcome of usage
(iii.) The satisfaction level will be high if there is maximum utility and complete transaction
(iv.) The satisfaction level will be LOW if any challenges are encountered.
(v.) The satisfaction level will be increased when encountered challenges are addressed timely.
CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction
In this section is a brief description of the study design, study site, study population, data collection and data collection method quantitative or qualitative approach, sampling procedure and sample size calculation, tools of data collection, data entry as well as data analysis. This section in general describes how the study was conducted; it explains how the study subjects were obtained.

3.2 Study Design
The research study was based on the positivist philosophy which employed rigorous empirical techniques in order to discover generalized explanations and laws (Engel. 1995). Positivism is the view of reality using some established formulae, knowledge, by rules and principles. The results obtained were not influenced by the researcher (Omari, 2011).

Research design 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 (Kothari 1990). Research design can be thought of as the structure of research. Rodham (2003) defines it as the scheme, outline or plan that is used to generate answers to research problems.

Kothari, (2003), defines research design as the scheme, outline or plan that is used to generate answers to research problems. Approaches and types of research are of two main categories, basic or applied research. Applied research aims at solving problems while basic research is mainly for uncovering new knowledge and theories (Churchill, 1999).

Both primary data were gathered through questionnaires, and secondary data were obtained from books, journals and reports. The methodology of this study
was based on descriptive research design. The researcher used this methodology because of the need of investigating an unknown phenomenon in the study. The study employed qualitative approach in gathering data (Fink et al 1985).

3.3 Area of the Study

The study was conducted in capital city Dar es salaam, Dar es salaam was chosen as the study location not only because it has the largest number of Mobile Phone Money agents and users, but also diverse socioeconomic characteristics and distributions of Mobile Phone Money operators, agents and users in the country, making it a best choice for this study.

Dar es salaam region was selected purposively, because all four mobile phone providers have their head offices in Dar es salaam, the study was conducted in all three districts, namely Temeke, Ilala and Kinondoni. After the entire city has the largest population among all the other regions. It has a population of 4,364,541 individuals (National Census Report, 2012)
All the four Mobile Phone Money operators have their head offices in Dar es Salaam. The study was conducted in all three districts namely Temke, Ilala and Kinondoni. In each district a list of streets was used to select at random a single street where the study was done. The City is located between latitudes 6.36 degrees and 7.0 degrees to the south of Equator and longitudes 39.0 and 33.33 to the east of Greenwich.

The total surface area of Dar es Salaam City is 1,800 square kilometers, comprising of 1,393 square kilometers of land mass with eight offshore islands, which is about 0.19% of the entire Tanzania Mainland’s area. Temeke Municipality has the largest land surface area followed by Kinondoni while Ilala has the smallest area.

### 3.4 Study Population

The study was conducted to mobile phone users from Vodacom Tanzania, Airtel Tanzania, Tigo Tanzania and Zantel Zanzibar, This include both male and female aged above 18 years old living in sampled study area in Dar es salaam. The
distribution in each administrative district is as indicated in the table below. (NBS, 2012)

Table 3.1: Population distribution of Dar es Salaam

<table>
<thead>
<tr>
<th>District</th>
<th>Population (2012)</th>
<th>Area km²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ilala</td>
<td>1,220,611</td>
<td>210</td>
</tr>
<tr>
<td>Kinondoni</td>
<td>1,775,049</td>
<td>527</td>
</tr>
<tr>
<td>Temeke</td>
<td>1,368,881</td>
<td>656</td>
</tr>
<tr>
<td>Total</td>
<td>4,364,541</td>
<td>1,393</td>
</tr>
</tbody>
</table>

Source: (NBS 2012)

3.5 Sampling Procedure and Sample Size

Kothari (2007) defines Sampling as the scientific way of drawing inference about a population without studying the entire population under the study. The study employed convenience method of sampling, because it is non experimental research where questionnaires and interviews are used to collect information. This method of sampling has an advantage of allowing inference to the population (Michael, 2006).

In each district a list of wards were randomly selected. A total of four (4) wards was included for Temeke district. These were Tandika, Mbagala, Kurasini and Keko. The participants for the study were 19, 7, 7 and 10 for Tandika, Mbagala, Kurasini and Keko respectively. For Ilala district also, the study included four (4) wards namely Buguruni, Kariakoo, Tabata and Ukonga.

The study managed to get responses from 7, 16, 18 and 7 individuals for Buguruni, Kariakoo, Tabata and Ukonga respectively. And again for the last Kinondoni districts, four wards namely Magomeni, Mwananyamala, Ubungo and Tegeta were also randomly selected. Individuals who responded in the district were 12, 11, 26 and 10 from Magomeni, Mwananyamala, Ubungo and Tegeta respectively.

In all these randomly selected wards, several households were randomly selected and in each district more than 40 and less than 60 households were questioned.
Convenience sampling procedure was used to select at least 40 households in each household one person, who own mobile phone was requested to participate in the study. So in total 43, 48 and 59 respondents were interviewed. This makes the sample size to be 150.

3.6 Method of Data Collection
Both primary and secondary data were used in this study. Primary data were collected using face to face interviews with mobile phone users, using structured and semi structured questionnaires. Secondary data were obtained from different government journals, Bank of Tanzania reports, TCRA reports, Ministry of finance, Ministry of communications, science and technology and Mobile phone services providers.

3.6.1 Interview Method
According to (Kothari, 2006), an interview is a set of question administered through oral or verbal communication or is a face to face discussion between the researcher and the interviewee/respondent. There are two types of interviews, namely structured and unstructured interviews. Both types of interviews were conducted with respondents of the study.

This researcher used interviews because they allow face-to-face communication with respondents. It is a simple and easier way or method of acquiring information that provides straight answers to research questions. Through interviews, the researcher collected information on how respondents use mobile money services and the challenges they face in doing so.

3.6.2 Observation
According to Kothari (2006), observation is a data collection method that involves seeking information by the way of environment scanning. The researcher visited the premises of various mobile money agents and made observations on how mobile money agents interact with their customers, how people use mobile money services and the challenges the face in doing so.
3.6.3 Documentary Review Analysis
Apart from primary data, secondary data were also collected. Sources of secondary data include Different report from Bank of Tanzania (BOT), Ministry of Finance, and mobile phone services providers (Vodacom, Airtel, Tigo and Zantel Tanzania), Ministry of communication, science and technology, Tanzania Communication Regulatory Authority (TCRA) and both published and unpublished information will be reviewed.

3.6.4 Questionnaires
According to Kothari (2006), a questionnaire is a set of questions which are usually sent to the selected respondents to answer at their own convenient time and return back the filled questionnaire to the researcher. The researcher used questionnaires because they cover a large sample of respondents in the shortest possible amount of time and using low costs.

Also, questionnaires are functional instruments in data collection, since they can easily be managed. They are useful in situations where literate respondents are dealt with, in the fact that they allow respondents freedom to give their views in a private setting. Based on these advantages, questionnaires were applied as a data collection instrument for this study, comprising closed-ended and open-ended questions.

3.7 Types of Data
Data were collected using quantitative data collection techniques and face to face interview with the study subject were done. Data collection tool consist of six sections namely the identification information, demographic information of mobile phone users (Sex, age, education, marital status and occupation) and mobile phone money service users information.

The data collected also includes; kind of services used, kind of bills paid using mobile phone money, challenges of mobile phone money users, improvements needed and Ownership of bank account. A structured questionnaire was administered by well-trained research assistants with experiences of surveys at
household level. Data collection was closely supervised and questionnaires were reviewed to rectify problems.

### Table 3.1: Number of participants interviewed per ward

<table>
<thead>
<tr>
<th>Ward Name</th>
<th>District Name</th>
<th>Number of interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tandika</td>
<td>Temeke</td>
<td>19</td>
</tr>
<tr>
<td>Mbagala</td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>Kurasini</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Keko</td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>Buguruni</td>
<td>Ilala</td>
<td>9</td>
</tr>
<tr>
<td>Kariakoo</td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>Segerea</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Tabata</td>
<td></td>
<td>18</td>
</tr>
<tr>
<td>Ukonga</td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>Magomeni</td>
<td>Kinondoni</td>
<td>11</td>
</tr>
<tr>
<td>Mwananyamala</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Sinza</td>
<td></td>
<td>13</td>
</tr>
<tr>
<td>Tegeta</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Ubungo</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>150</strong></td>
</tr>
</tbody>
</table>

**Source:** Field data (2014).

### 3.8 Data Management and Analysis

All completed questionnaires were checked for completeness before submission for data entry. All submitted questionnaires were double entered into the database using Epidata software, and data entry was done by trained data entry staff. Data cleaning and coding was conducted by the trained data specialist using stata software version 11.0 (statcorp, Texas, USA).

Data analysis was done using Microsoft excel and stata software version 11.0 (statcorp, Texas, USA), Descriptive statistics analysis were used to describe the
demographic characteristic of the mobile phone money users. This demographic characteristics include age, sex, education, marital status and occupation.

3.9 Data Analysis

Mainly qualitative data were collected, comprising of explanations, views and opinions from the respondents. The qualitative data, which were collected from questionnaires were tabulated and subjected to content analysis. The frequencies of respondents were converted into percentages while the analysis and interpretation of data were based on percentages. Useful information was interpreted, conceptualized and tabulated.

This study made use of regression analysis model to represent the relationship between variables, whereby representation used the following form: 

\[ Y = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 \]

where \( Y \) (business growth) is the dependent variable and \( x_1, x_2, x_3 \) and \( x_4 \) (Mobile money usage) are independent variables, “a” is a constant and \( b_1, b_2, b_3 \) and \( b_4 \) are variables coefficients.

Different Computer programs were applied, such as statistical package for social science (SPSS) version 20.0, software assisted to computer percentages, tabulation and cross-tabulation of responses. SPSS is helpful because it has ability to take data from almost any type of file and use them to generate tabulated reports, charts, perform descriptive statistics and even being able to conduct complex statistical analyses.

3.10 Data Cleaning

In cleaning data, questionnaires were inspected and corrected for the purpose of detecting errors before being coded in the computer. Inspection and Correction were determined mainly by using two stages; Firstly in the field, in order to detect the obvious omissions and inaccuracies of the data. Secondly, inspections were done during coding data order to handle data collection instruments containing wrong answers.
3.11 Reliability and Validity
Reliability is concerned with consistency of responses with which repeated measure produce the same results across time and across observers (Saunders et al, 2003). He added by elaborating that reliability can be assessed on the basis of whether the measures yield the same results on other occasions, similar results be reached by other observers and whether there is transparency in how sense was made from the row data.

For maintaining reliability internally, the researcher used as many repeat sample groups as possible, to reduce the chance of an abnormal sample group skewing the results. Validity is concerned with the extent to which a test measures what it claims to measure. It is vital for a test to be valid in order for the results to be accurately applied and interpreted.

Therefore, the quality of a research is related to generalizability of the result and thereby to the testing and increasing the validity or trustworthiness of the research (Stenbacka 2001). In our study, the instrument used for this study was carefully designed structured questionnaire. Reliability and validity test of the instrument were performed to all selected variables so as to ensure the accuracy and consistency of data.
CHAPTER FOUR

RESULTS AND DISCUSSION OF THE FINDINGS

4.1 Introduction
The chapter examines data collected to help and assist in drawing relevant conclusions. It also covers the general discussion of the study findings as per used guiding factors. The principal guiding factors in this section is study objectives highlighted earlier in chapter one. The data was interpreted according to research objectives and research questions. The data was analyzed using computer based software SPSS 20.0 and the results have been presented in Tables, bar graphs and Figures.

4.2 Respondents’ Background
The researcher aimed at getting responses from several categories of people with different life or economic undertakings. The aspect of respondent’s background was treated with respect to six categories: Identification information; Education background, Occupation, Sex, Age and District of residence. The data for this objective were collected through the research questionnaire.

4.2.1 Identification Information
Individuals who responded to the questions in the study questionnaire had various identifications due to their varying social and economic activities. There were employed individuals with work Ids, Students with school or college Ids and also non workers and non students. Some non workers and non students had their voters Ids though a few had no identifications at all due to various unspecified reasons.

4.2.2 Sex Distribution
Both sex participated almost equally in this study. Out of 150 respondents, 72 were males and 78 were females. This implies participation of 52% for females and 48% for males. Out of 72 males 66 reported to be registered users of mobile phone money services and only 6 were non users of mobile phone money services. This is usage
rate of 91.7% among males. On the other side, out of 78 female respondents, 68 reported to be registered users of mobile phone money service while 10 reported to be non users of mobile phone money service. This is usage rate of 87.2% among females.

4.2.3 Age Distribution
The study did analysis of respondents in terms of grouped ages as well. Respondents were grouped in group intervals which were 15-24 years, 25-34 years, 35-44 years and 45-54 years. None among the respondents was found to be either below 15 years or above 54 years. In the group of 15-24 years, the number of respondents was 36. Among them 33 were found to be active users of mobile phone money service. This is equal to 91.7% usage rate in the age group. Among those aged between 25-34 years, the study got 60 responses. Out of those, 57 respondents reported to be users of mobile phone money services while 3 said they were non users of the services. This distribution implies usage rate of 95%. For age group between 35 to 44 years a total of 36 individuals responded. Out of those, 30 were found to be registered users of mobile phone money services. Only 6 were non users. The distribution implies 83.3% usage rate. Those responded who fall in the group of those between 45 to 54 years were the fewest. The study managed to get 18 responses only. Out of the 18 respondents, 14 were registered users while 4 were non users.

The usage rate for this group is 77.8%. The study was able to resolve that the usage rate was highest in the 25-34 years group. The usage rate is minimum in the age group between 45-54 years. It signifies that the older age does not use the services as much as compared to the younger age. These findings show that elderly make least use of the services.
4.2.4 Level of Education

Education wise the study realized that usage rate was highest in percentage terms in the group of those with less than primary education. This study categorized this group as the least educated group with none education. However those who responded were very few. They were only 4 but all of them were users. Therefore usage for this group was 100%. This is possibly due to the convenience sampling procedure used.

Those with primary education were 58 and out of them 48 were registered users. Only 10 were non users. Therefore usage rate for this group was 82.8%. Those who were non users contribute 17.2%. The group of those with secondary education, whether O level or A level, had a total of 48 respondents. Out of those 48 respondents, 43 were registered users of mobile money services while 5 were not users. This shows 89.6% usage rate.

Lastly, as far as education is concerned, the study collected 40 respondents who had University or college education. Out of them, 39 were users of mobile phone money services while only 1 was a non user. Over here, the usage rate was 97.5%. This usage was the highest and could be a result of knowledge and awareness factors that are cited by the existing literature to be important factors that are crucial for more usage.

4.2.5 Occupation Distribution

This study got responses that were general from five (5) undertakings. These were those from the agricultural setting, those from formal employment, businessmen/women, students and the self employed individuals. In the agricultural activities were 18 and 15 were registered users of the services. This is equal to 83.3% usage. Workers who are employed in formal sectors were 41.

Out of them 37 were users which are equivalent to 90.2% usage rate. Businessmen and women were 44. Users of mobile phone money services were 39 and non users
were 4. Usage rate for this group was equivalent to 88.6%. Responded students in the study were 29. Among them 26 were users. This distribution is equivalent to 89.7% usage. For those who were self employed, 17 out of 18 reported to be active users of mobile money.

4.2.6 Residence Distribution
A total of 150 respondents participated in this study. These were from all Dar es Salaam’s three (3) districts namely Temeke, Ilala and Kinondoni. Respondents from Temeke, Ilala and Kinondoni districts were 43, 59 and 48 respectively. Among those 43 from Temeke, 40 were registered users while only 3 were non users. Over there, the distribution signifies 93% usage rate in the district as per the total. In the Ilala district, the study got responses from 59 individuals. Out of them 51 confirmed to be users of mobile phone money services while 8 reported to not to be users of the same. This is therefore 86.4% usage rate in the district as per the responded population in the district. For Kinondoni district, 48 responses were obtained and analyzed. 43 were users of mobile phone money services while 5 were non users.

4.2.7 Summary of Respondents Participation and Their Responses In General
In the total 150 participants interviewed, in three district of Dar es salaam region, the number of participants in each district were 43(28.7%), 59(39.3%) and 48(32%) for Temeke, Ilala and Kinondoni respectively. The distribution by sex was 72(48%) males and 78(52%) females; the participants mean age and standard deviation were 31.7 and 8.9 respectively while age range was between 18 to 54 years.

4.3 Tanzania Mobile Phone Money Services in General
The mobile phone is a truly novel device. It comes in just as handy and as easily when we need to communicate about the serious things as to chat about the simpler things in life. Mobiles are not only being used as radios and flashlights but they are also delivering banking services to those who urgently need them. Increasingly, people are paying their school fees, healthcare and utility bills using mobile phones today.
Businesses use mobile money phones to pay their staff and suppliers. Poor people who have never entered a bank are using mobile services to send or receive remittances and/or save their money. Mobile money, as it has been dubbed, is growing at an amazing pace on the continent and at an even faster rate in East Africa as shown by the following statistics for Tanzania:

The total number of registered mobile customers surged from 14,000 in June 2008, to 19.4 million in November 2011, to 20.4 million in November 2012. Money stored in mobile accounts increased from Sh3 billion in June 2009 to Sh157.8 billion in November 2012. The number of monthly transactions increased from 1.9 million in 2010 to 48 million in September 2012.

The value of transactions increased from Sh1.4 million in 2007 to Sh1.8 billion in 2010, to Sh1.7 trillion in 2012. For the month of September 2012 alone, the value of mobile money transactions in Tanzania was about 14 percent of total deposits held by commercial banks. In most of urban areas of the country you will see a lot of small shops that provide mobile phone money services.

Below is figure 4.1 that shows an example of how mobile phone money services agent premises look like. They are normally well branded and just by passing by, one would take note of availability of the services and advertisements/signage of various service providers are in good view.
4.3.1 Demographic Characteristics of Respondents

Table 4.1: Demographic Characteristics: Mobile Phone Money Users and Non-Users

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Category</th>
<th>Mobile phone money services users</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Users (%)</td>
<td>Non Users (%)</td>
<td>P-Value</td>
<td></td>
</tr>
<tr>
<td>sex</td>
<td>Male</td>
<td>66(91.7)</td>
<td>6(8.3)</td>
<td></td>
<td>0.37</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>68(87.2)</td>
<td>10(12.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age groups</td>
<td>15-24</td>
<td>33(91.7)</td>
<td>3(8.3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>25-34</td>
<td>57(95.0)</td>
<td>3(5.0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>35-44</td>
<td>30(83.3)</td>
<td>6(16.7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>45-54</td>
<td>14(77.8)</td>
<td>4(22.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>None</td>
<td>4(100.0)</td>
<td>0(0.0)</td>
<td></td>
<td>0.11</td>
</tr>
<tr>
<td></td>
<td>Primary</td>
<td>48(82.8)</td>
<td>10(17.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Secondary</td>
<td>43(89.6)</td>
<td>5(10.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>College/University</td>
<td>39(97.5)</td>
<td>1(2.5)</td>
<td></td>
<td>0.12</td>
</tr>
<tr>
<td>Occupation</td>
<td>Agriculture</td>
<td>15(83.3)</td>
<td>3(16.7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Formally Employed</td>
<td>37(90.2)</td>
<td>4(9.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Business</td>
<td>39(88.6)</td>
<td>5(11.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Students</td>
<td>26(89.7)</td>
<td>3(10.3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Self employed</td>
<td>17(94.4)</td>
<td>1(5.6)</td>
<td></td>
<td>0.87</td>
</tr>
<tr>
<td>District</td>
<td>Temeke</td>
<td>40(93.0)</td>
<td>3(7.0)</td>
<td></td>
<td>0.57</td>
</tr>
<tr>
<td></td>
<td>Ilala</td>
<td>51(86.4)</td>
<td>8(13.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Kinondoni</td>
<td>43(89.6)</td>
<td>5(10.4)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: - Data from the field

From this study most people use mobile phone money services as 134(89.3%) have reported using mobile phone money services while 16(10.7%) have never used mobile phone services. Most of them use Vodacom service provider compared to Airtel, Tigo and Zantel, this is majorly because Vodacom service provider were the first services provider to establish mobile phone money services in Tanzania.

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The most common uses of mobile phone money services are depositing money to friends/relatives/parents/children, withdrawal of money, purchase of airtime top up, payments of bills (water, electricity, school fees), bank transfers (taking money from bank account to mobile phone and vice versa) business purposes (buying and selling goods for example you can buy Fast jet ticket using mobile phone money services).

4.3.2: Common uses of mobile phone money services
Most of the study participants have reported that if you compare mobile phone money services with other financial services that have been used before the mobile phone money services you find that this service is cheaper, quicker, easier to use, safe and more convenient especially to users in rural areas where formal bank services are not yet availed.

<table>
<thead>
<tr>
<th>Mobile money use</th>
<th>Yes (%)</th>
<th>No (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deposit Money to friend/Relative</td>
<td>123(91.8)</td>
<td>11(8.2)</td>
</tr>
<tr>
<td>Withdraw money</td>
<td>133(84.3)</td>
<td>21(15.7)</td>
</tr>
<tr>
<td>Pay bill (Water, Electricity)</td>
<td>72(53.7)</td>
<td>62(46.3)</td>
</tr>
<tr>
<td>Buy airtime</td>
<td>99(73.9)</td>
<td>35(26.1)</td>
</tr>
<tr>
<td>Bank transfer</td>
<td>33(24.6)</td>
<td>101(75.4)</td>
</tr>
<tr>
<td>Business purpose (Buy and sell goods)</td>
<td>25(18.7)</td>
<td>109(81.3)</td>
</tr>
</tbody>
</table>

Source: Data from the field

4.3.3 Awareness on Mobile Phone Money Services
Three-quarters of registered m-money users learned about m-money services from a media source. Friends are the second most common source of information about m-money services. Urban, registered m-money users were likely to learn about m-money from TV, radio and friends, while rural and peri-urban registered users were likely to cite radio and friends as the key sources of information about m-money.
Table 4.3: Awareness and Usage of Mobile Phone Money Services

<table>
<thead>
<tr>
<th>Name of Services provider</th>
<th>Mobile Money Awareness</th>
<th>Mobile Money Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any Brand</td>
<td>93%</td>
<td>24%</td>
</tr>
<tr>
<td>Vodacom M-Pesa</td>
<td>91%</td>
<td>20%</td>
</tr>
<tr>
<td>Tigo -Tigo Pesa</td>
<td>65%</td>
<td>5%</td>
</tr>
<tr>
<td>Airtel - Airtel Money</td>
<td>41%</td>
<td>2%</td>
</tr>
<tr>
<td>Zantel -Zantel Z-Pesa</td>
<td>24%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Source: - Field data

The study also looked at the presence of a bank account among mobile phone money users and if they have been connected to the bank, 94(93.1) mobile phone money service users have bank account and there is significant difference between mobile phone money service users and none users. Most of the users reported to have accounts with NBC 59(40.1), NMB 39(26.5) and CRDB Bank 36 (24.5).

Other small banks such as Exim, standard charted, Barclays, ABC, KBC and Twiga have few people who are registered and use mobile phone money services users. The study participants reported to use saving account and most of them have accounts that are not connected to the mobile phone such that they cannot use their phone to check bank balance and transfer money from bank account to mobile money services.

4.3.4 Bank Information Among Mobile Money users

Table 4.4 describes bank information among mobile phone money services users. There is no significant difference between mobile phone money service users and non-users for type of bank they have account with, type of account, connection of account to the mobile phone and money transfer from bank account to mobile phone money and vice versa.
Table 4.4: Bank Information by Mobile Phone Money Users and Non-Users

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Category</th>
<th>Mobile phone money Users Users (%)</th>
<th>Non-Users (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank Account</td>
<td>Yes</td>
<td>94(93.1)</td>
<td>7(6.9)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>40(83.3)</td>
<td>8(16.7)</td>
</tr>
<tr>
<td>Bank</td>
<td>NMB</td>
<td>36(92.3)</td>
<td>3(7.7)</td>
</tr>
<tr>
<td></td>
<td>NBC</td>
<td>50(84.7)</td>
<td>9(15.3)</td>
</tr>
<tr>
<td></td>
<td>CRDB</td>
<td>35(97.2)</td>
<td>1(2.8)</td>
</tr>
<tr>
<td></td>
<td>Standard chartered</td>
<td>2(66.7)</td>
<td>1(33.3)</td>
</tr>
<tr>
<td></td>
<td>Barclays</td>
<td>4(100.0)</td>
<td>0(0.0)</td>
</tr>
<tr>
<td></td>
<td>Exim</td>
<td>6(100.0)</td>
<td>0(0.0)</td>
</tr>
<tr>
<td>Account type</td>
<td>Saving</td>
<td>72(92.3)</td>
<td>6(7.7)</td>
</tr>
<tr>
<td></td>
<td>Current</td>
<td>45(86.5)</td>
<td>7(13.5)</td>
</tr>
<tr>
<td></td>
<td>Salary</td>
<td>4(80.0)</td>
<td>1(20.0)</td>
</tr>
<tr>
<td></td>
<td>Student</td>
<td>11(100.0)</td>
<td>0(0.0)</td>
</tr>
<tr>
<td></td>
<td>Fixed account</td>
<td>1(100.0)</td>
<td>0(0.0)</td>
</tr>
<tr>
<td>Connected to Mobile phone</td>
<td>Yes</td>
<td>56(93.3)</td>
<td>4(6.7)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>77(88.5)</td>
<td>10(11.5)</td>
</tr>
<tr>
<td>Transaction with bank account</td>
<td>Yes</td>
<td>54(91.5)</td>
<td>5(8.5)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>79(89.8)</td>
<td>9(10.2)</td>
</tr>
</tbody>
</table>

Source: - Data from the field

Vodacom M-Pesa is the leading provider of m-money services (representing 53 percent of the m-money market) and has broad national coverage. Tigo Pesa (18 percent of the m-money market) and Airtel Money (13 percent of the m-money market) are the second and third ranked providers respectively. Vodacom (M-Pesa) mobile phone money services started in 2008.

M-PESA was the first mobile phone service provides to establish the mobile phone money services in Tanzania and it was followed by Airtel money and Tigo Pesa later in 2010. Zantel also established it’s own service (Z-Pesa) before renaming it to Ezy
Pesa. The trend of mobile phone users to register for mobile money was increasing as most of people became aware with the services.

4.3.5 Trend of Mobile Phone and Mobile Money Registered Users
The figure below shows the trend of mobile phone users who registered for mobile phone money services since 2008. The curve is coming down in 2014 because the data collection took place in May, so data for 2014 was collected until May 2014.

Figure 4.1: Trend of mobile Phone and Mobile Phone Money Services

Source: - Data from the field

In Tanzania there are four mobile phone companies that provide mobile phone money services. These are Vodacom Tanzania, Airtel Tanzania, Tigo Tanzania and Zantel Tanzania. TigoPesa, created by Tanzania’s fastest-growing mobile network operator, Tigo, is the fourth mobile money service offered in Tanzania. Vodacom Tanzania is the leading mobile network operator with a 37% market share.
Its M-PESA mobile payment service, which was launched in early 2008, is currently the most recognized and has a wider spread in the country. But Tanzania’s other major mobile operators, Airtel-Formally Zain (with 30% market share), Zanzibar-focused Zantel (with 8% market share), and now Tigo (with 25% market share), are following Vodacom’s lead in offering mobile money services.

Figure 4.2: Percentage of Respondents Using one or More Mobile Money service

Source: - Data from the field

4.4 Tariff for sending and receiving money through mobile phone money service

The amount of money customer charged when he/she uses the services of sending money or receiving money from a friend or relative from Vodacom, Tigo pesa and Airtel Money Tanzania have been shown in Table 4.5 , 4.6 and 4.7 below. The tariff for Zantel Ezy pesa has not been shown as very few people have reported to use the service.
Table 4.5: Vodacom M-Pesa Sending and Receiving Money Tariff

<table>
<thead>
<tr>
<th>Amount Interval</th>
<th>Sending Tariff</th>
<th>Receiving Tariff</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 - 999</td>
<td>10</td>
<td>NA</td>
</tr>
<tr>
<td>1000 - 2999</td>
<td>30</td>
<td>500</td>
</tr>
<tr>
<td>3000 - 4999</td>
<td>60</td>
<td>600</td>
</tr>
<tr>
<td>5000 - 9999</td>
<td>100</td>
<td>600</td>
</tr>
<tr>
<td>10000 - 19999</td>
<td>250</td>
<td>1200</td>
</tr>
<tr>
<td>20000 - 49999</td>
<td>300</td>
<td>1500</td>
</tr>
<tr>
<td>50000 - 99999</td>
<td>600</td>
<td>2200</td>
</tr>
<tr>
<td>100000 - 199999</td>
<td>600</td>
<td>2600</td>
</tr>
<tr>
<td>200000 - 299999</td>
<td>600</td>
<td>4200</td>
</tr>
<tr>
<td>300000 - 399999</td>
<td>1200</td>
<td>5500</td>
</tr>
<tr>
<td>400000 - 499999</td>
<td>1200</td>
<td>6500</td>
</tr>
<tr>
<td>500000 - 1000000</td>
<td>1800</td>
<td>700</td>
</tr>
</tbody>
</table>

Source: TCRA (2013)

Table 4.6: Tigo pesa Tariff for Sending and Receiving Money

<table>
<thead>
<tr>
<th>Amount Interval</th>
<th>Send Money</th>
<th>Receive Money</th>
</tr>
</thead>
<tbody>
<tr>
<td>200 - 999</td>
<td>10</td>
<td>NA</td>
</tr>
<tr>
<td>1000 - 1999</td>
<td>25</td>
<td>500</td>
</tr>
<tr>
<td>2000 - 2999</td>
<td>35</td>
<td>500</td>
</tr>
<tr>
<td>3000 - 3999</td>
<td>50</td>
<td>500</td>
</tr>
<tr>
<td>4000 - 4999</td>
<td>75</td>
<td>600</td>
</tr>
<tr>
<td>5000 - 9999</td>
<td>100</td>
<td>750</td>
</tr>
<tr>
<td>10000 - 19999</td>
<td>250</td>
<td>1200</td>
</tr>
<tr>
<td>20000 - 29999</td>
<td>300</td>
<td>1350</td>
</tr>
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<td>30000 - 39999</td>
<td>350</td>
<td>1500</td>
</tr>
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<td>40000 - 49999</td>
<td>350</td>
<td>1750</td>
</tr>
<tr>
<td>50000 - 99999</td>
<td>400</td>
<td>2000</td>
</tr>
<tr>
<td>100000 - 199999</td>
<td>500</td>
<td>2500</td>
</tr>
<tr>
<td>200000 - 299999</td>
<td>750</td>
<td>3500</td>
</tr>
<tr>
<td>300000 - 399999</td>
<td>1000</td>
<td>4500</td>
</tr>
<tr>
<td>400000 - 499999</td>
<td>1250</td>
<td>5500</td>
</tr>
<tr>
<td>500000 - 599999</td>
<td>1500</td>
<td>6000</td>
</tr>
<tr>
<td>600000 - 699999</td>
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<td>6250</td>
</tr>
<tr>
<td>700000 - 799999</td>
<td>2000</td>
<td>6500</td>
</tr>
</tbody>
</table>

Source: - Tanzania Communication Regulatory Authority and Tigo Website
Table 4.7: Aitel Money Tariff for sending and receiving Money

<table>
<thead>
<tr>
<th>Sending Range</th>
<th>Fee</th>
<th>Receiving Range</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>5000-9999</td>
<td>50</td>
<td>1000-9999</td>
<td>500</td>
</tr>
<tr>
<td>10000-49999</td>
<td>200</td>
<td>10000-19999</td>
<td>950</td>
</tr>
<tr>
<td>50000-299999</td>
<td>500</td>
<td>20000-49999</td>
<td>1250</td>
</tr>
<tr>
<td>300000-499999</td>
<td>1000</td>
<td>50000-99999</td>
<td>1500</td>
</tr>
<tr>
<td>500000-1000000</td>
<td>1500</td>
<td>1000000-1999999</td>
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<td></td>
<td>2000000-2999999</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>4000000-1000000</td>
<td>5000</td>
</tr>
</tbody>
</table>

Source: - Tanzania Communication Regulatory Authority and Airtel Website.

4.5 Challenges of Mobile phone money services

4.5.1 Insufficient understanding and lack of awareness

Most mobile phone money users consider this service is mainly aimed at sending and receiving money from a friend or relative. This perception was reported by users regardless of the service provider. Among the top three reasons for not using mobile phone money services reported lack of awareness about the service and 12% named insufficient understanding about the service as the main reason.

4.5.2 Problems with mobile Money Agents

Seventy percent (70%) of the users of mobile phone money services, regardless of the services providers reported agent related problems. Among the main problems reported include agents being absent at the service point, agents not having any cash/ having insufficient amount of cash, agents not having any e-float/ having insufficient e-float. Some also reported network failures mostly on the weekends and public holidays.

The findings of the study show that eighty-eight percent (88%) of respondents who are Airtel Money users, Eighty four percent (84%) of Vodacom M-Pesa users and Seventy seven percent (77%) of Tigo Pesa users experienced agent-related
problems. Very few registered users filed a formal complaint, making it difficult for providers to track and address the problems.

4.5.3 Technical Issues

Some mobile phone money users reported to have experienced technical issues on how to register with mobile phone money services. Twenty five (25%) of registered users have reported to get help from friends, other people or agents. They have also reported that when they want to do transactions, in most cases they go to the nearby agent to get help.

Eighty percent (80%) of the users have reported that it was very easier to register for mobile phone money services. This implies that in general, registration is fairly easy. Twenty-three percent (23%) of registered Vodacom M-Pesa users, Fifteen percent (15%) of Airtel Money registered users, and Eighteen percent (18%) of Tigo Pesa users said on at least one occasion, they were unable to withdraw money when they wanted to.

Regardless of the provider of mobile money services, the problem was resolved within half a day for the majority of users; few had to wait more than a day. Among the main reasons for not being able to withdraw money include agent system being down, agent not being available, agent having no enough cash or e-float and providers network experiencing system failures.

4.6 Mobile Service Provider used

Respondents were asked to mention which mobile service provider they used for their business transactions. Table 4.6 indicates that M-PESA was considered to be more popular than other Mobile money services. Results show that the majority of the respondents use M-pesa as supported by 39 (43.3%) respondents followed by Tigo-pesa which had 24 (26.7%) respondents, Airtel-money by 19 (21.1%) of the respondents and finally Zantel-pesa which was supported by 8 (8.9%) of the respondents.
4.7 Discussion of Findings

The study was able to reveal key things termed as findings. The following is the interpretation and discussion of the findings of the undertaken study as presented earlier in this chapter. They will focus on showing why and how the data presented earlier this chapter relate to the three specific objectives of the undertaken study.

4.7.1 Findings from specific research question one

“What are the characteristics of mobile money services users?”

The findings from this study show that people of different age and sex use mobile phone money services. The young seem to have received this technology more rapidly and at a higher frequency than older people. Urban people are more frequently using this technology than rural areas; this might be due to awareness since in urban areas people are more likely to see advertisement from the media.

This result is consistency with the result of similar studies conducted in Kenya (Njenge 2011) where it was found that younger age education sex and area of residency have significant impact on the use of Mobile phone money services in Kenya. In terms of mobile phone ownership more men own mobile phones than women; this might be explained by the occupation and income imbalance between men and women.

In African societies men are mainly the ones who generate income for the family and most of them are employed and/or have business undertakings that generate income. Therefore it is easier for them to buy a mobile phone and register for mobile money services. This result is consistent with the result of study conducted by Kirui (2012) that more men own mobile phones use mobile money than women.

4.7.2 Findings from specific research question two

“To what extent do mobile phone money service users differ in terms of service usage?”

In Tanzania mainland mobile phone money users are mainly registered for Vodacom, Airtel and Tigo service providers. Very few people have been registered for Zantel mobile money services. Zantel mostly operate in Zanzibar. And among these three
service provider Vodacom Tanzania is the leading service provider in Tanzania mainland, while Tigo is the leading service provider in Dar es Salaam.

Due to difference in airtime charges among mobile phone service providers most people have been registered with more than one service providers, so that they use the service according to where they want to call at a particular time. For example if you want to call a friend who is registered with Airtel services provider you would just put your Airtel Sim card into your hand set and call.

Similarly if you want to call a relative who is registered with Tigo then you put your Tigo Sim card into the hand set and call. The same applies with to Vodacom and Zantel. Although most people have been registered with more than one services provider, very few have been registered to use more than one mobile phone money services. In Tanzania mainland most people use Vodacom Tanzania M-pesa service.

The findings of the study also showed that in Dar es Salaam region more people are using Tigo Pesa mobile phone money service. In Zanzibar, Zantel is the common mobile phone money service used by people, this is because other service providers have very few customers in Unguja and Pemba and those providers have not focused much on the said market.

4.7.3 Findings from specific research question three
‘What are the challenges experienced by mobile phone money service users?’

Though the Mobile phone money idea was initially born out of the intention to reach the unbanked poor, (Porteous, 2006) it has stretched its tentacles far and wide to captivate the interest of unimagined client segments. Even the formal banks such as NMB, CRDB, NBC, Standard chartered, Barclays ABC and others have joined the fray and are now acting as agents and outlets of Mobile service provider banking services.

Mobile phone money services provide a ray of hope for the unbanked. The rapid uptake has systematically ensured that the critical mass required as a threshold for
sustainable expansion is reached. With the potential outburst of mobile phone money services showing signs of reaching the wider population segment the gap between those with access and without enhanced banking services can be expected to gradually diminish.

In spite of the benefit of mobile phone money services, cost of phones and services also remains a significant drawback. The fact that a vast proportion of the population still rely on pay phones is an indicator of the financial challenges faced by many potential users of the new banking system. The distribution of mobile phones and consequently ability of service use can also be regarded as inequitable.

More men have phones than women, thereby indicating a dominance of ownership and consequently the access. The tariff for the services is still higher and most people have reported this to be another factor which has reduced the motivation of using these services, education and advertisement of the mobile phone money service should continue to be provided so as to increase interest among customers and prospective ones.
CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1 Introduction
This chapter presents the summary of the findings of the study, provides the conclusions and the recommendations with regard to the research topic.

5.2 Summary
Growth in the usage of mobile phone money services has a potential to increase access to financial services especially in the African continent, where only 53% of the population have the access to financial services (Global mobile statistics, 2012). This is a big percentage which corresponds to a significant number of those with no such access keeping in mind that the largest population of the unbanked live in Africa.

In Africa 47% of the population lack the access to financial services (Global Mobile Statistics, 2012). In Tanzania, mobile phone money services were introduced in 2008. Though in the beginning these services where perceived as being only for sending and receiving money, nowadays people enjoy more than that where users can pay bills, buy airtime, buy and sell goods, do bank transfers etc.

The study was conducted mainly due to the fact that mobile phone money services were initially perceived as means for sending or receiving money via mobile handsets. This perception was really wrong as through the services, users can make instant and secure transfers between banks or accounts, deposit or withdraw funds, pay bills, purchase airtime and even purchase various items through their mobile devices.

Combination of both widespread of cellular communication and ability to transfer money by mobile phones has led to big changes in economic undertakings, family relations and time utilization in financial undertakings. The importance of the
services is enormous since even those with no bank accounts can pay their financial obligation via their mobile devices.

People fulfill such obligations with no need of physical cash, bank account, long bank queues etc (Global Systems for Mobile Communication Association Report, 2012). This is to say the gap of the unbanked could significantly be filled by massive use of mobile phone money services especially in the African continent (United Nations Report 2012, Must and Ludewig, 2010)

5.2.1 Characteristics of the mobile phone money services users

With respect to the above questions, it has been learnt from this study that users of mobile phone money services are both males and females. Out of 150 respondents, 78 were females and 72 were males. Analysis of the data found shows that out of the male and female respondents, 91.7% and 87.2% respectively use mobile phone money services.

By age group analysis the study found that most of the users of mobile phone money services are those between 25 to 34 years. The respondents from this age group were 60 and out of them only 3 were not users. 57 were registered users which are 95% of the total respondents belonging to the group. However usage in the age group between 15-24 years was also found to be high as well.

The study managed to get responses from 36 people and among them 33 were registered users which are equal to 91.7%. Age group between 35 and 44 revealed that 30 respondents were registered users out of 36 respondents. This is equal to usage rate of 83.3%. The age group that had least users is of those between 45-54 years were registered users found were 14 out of 18 respondents. This is equal to 77.8% usage.

The study did not find any respondents who were above 54 years in the study population. Further to that, the study found that most of the users have less than primary education, primary education or above but less than form four education.
Those interviewed who have less than primary education were 4 and all of them were registered users of mobile phone money services. This is 100% usage in the group. Those with primary education or above but less than form four educations were all categorized as having primary education. Out of 58 respondents with primary educations, only 10 were non users of the mobile phone money services while 48 were registered user. This is equal to 82.8% usage in the group. The study also analyzed the relationship between occupation and usage of the mobile phone money services.

It was found that usage was relatively high regardless of respondent’s occupation. For Self employed respondents, usage rate was found to be 94.4%. Usage rate for Students, Businessmen/women and people in the agriculture settings was 89.7%, 88.6% and 83.3% respectively. For usage of the mobile phone money services district wise, usage rate for Temeke, Kinondoni and Ilala was 93.0%, 89.6% and 86.4% respectively.

5.2.2 Comparison between mobile phone money services providers.

Based on the awareness of mobile phone money services Vodacom was found to be the most popular service provider among the three top service providers in Tanzania mainland namely Vodacom, Airtel and Tigo. Vodacom has a biggest market share of 37%. This is due to widest coverage and its M-pesa services were launched much earlier in 2008.

Airtel-Formally known as Zain has 30% market share while Tigo and Zantel have 25% and 8% market shares respectively. However for mobile phone money services Vodacom Mpesa represents 53% of the mobile money market, while Tigo pesa follows with 18% and then Airtel money with 13% market share. Mpesa has a historical advantage of being the first to be launched in 2008 while the rest came two years later.
5.2.3 Challenges Experienced by Mobile Phone Money users in Dar es Salaam

There are several challenges facing mobile phone money services. These include insufficient awareness; agent’s related problems and technical challenges. Regardless of the service provider 70% of the respondents reported to have had bad experience with mobile phone money services agents. These among many, included agent absenteeism, lack of or having insufficient cash, lack of or having insufficient e float. Eighty eight percent (88%) of Airtel money users, Eighty four percent (84%) of Vodacom Mpesa users and Seventy seven percent (77%) of Tigo pesa users report to have had problems that are agent related. On the other hand Twenty five percent (25%) have reported that they managed to register themselves with a help from another person. This means that out of every 4 users only 1 could register on his/her own.

However, out of the users who responded 80% reported to find registration very easy and not needing assistance from someone else. Further to this 23%, 15% and 18% of Mpesa, Airtel money and Tigopesa respectively reported to have failed at least once when they wanted to withdraw money. This was reported to be a result of agent’s absenteeism, system failure and lack or insufficiency of either cash or e float at the time.

Furthermore, the results of the multiple regression analysis showed that there is variation in the effect of usage of mobile money on and found that the selected usage are the good predictors of Respondents business growth. On the various uses of mobile money services by Respondents for their transactions, it was found that payments of goods and services, purchase stocks and savings were least used.

The findings of the study revealed the challenges associated with using mobile money services such as; Shortage of cash among agents, high transaction fees, Poor customer care agents, and Shortage of E-float among service agents, meanwhile, they were satisfied with the network connectivity, knowledge and understanding among agents and security of transaction which leads to continuous usage of mobile money services.
The respondents suggested that there is a need for the mobile service provider to improve their services and reduce some costs such as transaction fees and ensure that the agents have sufficient cash and e-float to meet the demands of their customers. Lastly, the Respondents should review their business strategies to include the use of mobile money in their transactions including purchasing of stock as well as to receive payments.

5.3 Conclusion
From the findings of the study, the researcher concludes that usage of mobile money contributes to business growth among Respondents by speeding up the transaction process, hence leading to more revenues, facilitating the purchase of stock, facilitating receipt of payments for various goods and services, facilitating savings through storage of mobile money and facilitating money transfer.

The findings of the study strongly support the research questions as our findings revealed that the various uses of mobile money have a positive significant effect on Respondents business growth. In addition, the influence of such usages on business growth varied according to the personal variables which are personal characteristic thus the respondents had different attitudes towards the various uses as shown in the findings.

Moreover, the results indicate of the various uses of mobile money by Respondents for their businesses, it was found that payments of goods and services, purchase stocks and savings were least used. This implies that cash still dominates when it comes to purchasing stocks, and for payment of goods and services. Respondents complained that not being able to get a hardcopy of a receipt was a barrier.

Furthermore, the findings of the study exposed a gap between the needs of Respondents and mobile money services. Providers of mobile money services need to better understand the unique needs of Respondents who are heavy users of mobile
money. Conclusively, the findings of the study show that Respondents need to embrace the use of mobile money services for business growth.

Most people in the study have been reported to use mobile phone money services in regular basis; currently the bulk of registered mobile phone money users and a slim majority of non users perceive m-money as a service for informal cash transfers among friends or relatives. Few registered mobile phone money users also use the service to save money, purchase insurance products or conduct business transactions.

Though mobile phone money services seem to cut across all groups, usage is more pronounced among younger age groups. With reference to income opinion is divided as appertains to the thresholds that trigger entry into mobile phone money services. What this signifies is the fact that mobile phone money services have created a formidable avenue for income redistribution (Kamotho, 2012).

Limited use of mobile phone money services other than remittances in part, might be related to some factors such as low level of understanding of the services, the level of trust established with the mobile phone money service agents and how well the agents perform. Mass media advertisements have played a big role in delivering initial information about mobile money services and mobile phone money agents.

According to interviews with registered users of Vodacom M-Pesa, Airtel Money and Tigo Pesa, establishing trust is central to stabilize relationships with mobile phone money agents. In addition, people engaging in cash transfers reported the second most important factor in their choice of a delivery method is safety. The number one factor is convenience.

### 5.4 Recommendations.

The combination of widespread cellular communication and the ability to transfer money instantly, securely, and inexpensively are together leading to enormous changes in the organization of economic activity, family relations, and risk management and mitigation, among other things. A decade ago, family members in
different parts of Tanzania had greater difficulties in sending or receiving remittances.

Now, in many cases, appeals for assistance and the availability of resources can be communicated, and money can be transferred almost instantaneously. In spite of these huge advantages of mobile phone money services the study has some recommendations on few issues that need to be given enough attention:

(i.) The government and Tanzania Communication Regulatory Authority should try to regulate the tariff of these services so as all Mobile phone services providers, should have at least the same tariff for the services, at the moment each service provider has her own tariff set up.

(ii.) In some parts of the country there is no network coverage for any mobile phone services particularly in the rural areas. This makes it difficult for people living in that area to enjoy the advantages of mobile phone money services. Hence they need to walk a long distance and sometimes climb up trees or mountains to get access network and consequently mobile money services.

(iii.) The service providers might wish to go all over the country and therefore tap the opportunities available but if the Government can create a less cost expansion environment, growth of the coverage could easier be achieved by the providers and hence more access to the areas that have no such access.

(iv.) Education on the awareness of the mobile phone money services should continue to be provided by mobile phone service providers as most people use the services for sending or receiving money only. They could avoid walking with lot of money in their pockets by storing money in the mobile phone system and when they reach the destination they just go to nearer agent to withdraw the money and do the business.
Concentration of Mobile phone money services is evidently heavier in urban settings. Universal access in rural areas is faced with numerous challenges including how to manage the float (Cash) in light of prospected demand. Access becomes a serious issue of concern in some other underdeveloped regions where network signals are extremely sparse.

Agents have tended to focus mainly on the densely populated economic zones. With the latest government move to encourage service providers to develop services in the rural areas, with promises to support these efforts it is reasonable to expect a better environment for mobile phone money services.

Development of internal marketing practices such as the usage of mobile money requires providing the proper and necessary conditions. Structure, culture, communication and strategy must all get formed for development and facilitation of the usage of mobile money and get redesigned if needed. Based on the results of this research, users need to manage the usage of mobile money properly.

It is thus essential to provide trustful customer relations atmosphere, effective communication and proper interactions among the Respondents as well as customers. However, active participation of the Respondents and mobile service providers in seminars and provide opportunity or both, users and service providers to discuss how to improve the quality of the services and hence increase usage.

5.5 Areas for Further Studies

It is hereby recommended that, similar study should further be conducted in other regions so that we can make good comparison and generalization of the study. Though this study was done in the biggest city of Dare salaam due to time and financial constrains, conclusions drawn from it may fail to be applicable to the entire mobile money market in the country.
The implication of the findings of the study for further research is that there is a knowledge gap as to what factors influence the choice, usage, preference, satisfaction and loyalty to a particular mobile money service among Respondents. The big question that needs to be answered by future studies is: “What factors influence choice, usage, satisfaction and loyalty to a particular mobile money service?”

Also, future efforts should continue to advance our understanding of the usages of mobile money in doing our businesses; because it is important for business practitioners especially Respondents and theorists to have a clear understanding of what is the usage of mobile money and how it influences business growth. Furthermore, future studies should examine the effectiveness of using mobile money as a tool for business growth.

5.6 Implications of the study

5.6.1 Implications for Theory

Theoretical implications of the study are based on SERVQUAL Theory that adoption and usage of mobile money services among Respondents will be mostly determined by their satisfaction with the services, which in turn depends on the level of quality of the services. That means higher level of service quality will lead to more satisfaction and hence more usage of mobile money services among Respondents for business growth.

5.6.2 Implications for Practice

The implication of this study for practice on usage of mobile money services among Respondents for business growth are that usage of mobile money contributes to business growth by speeding up transactions, facilitating the purchase of stock, facilitating receipt of payments for various goods and services, facilitating savings through storage of mobile money and facilitating money transfer, hence contributing to more revenues.

Another implication of the findings of the study on usage of mobile money services among Respondents for business growth is that providers of mobile money services
should increase the range of services (offerings) that can be paid for through the use of mobile money. The wider the range of services that can be paid for, the higher is the likelihood of more usage of mobile money.

5.6.3 Implications for Policy

The implications of the findings of this study for policy is that the government, providers of mobile money services and other stakeholders should adopt appropriate policies to facilitate the use of mobile money among Respondents for business growth. Examples of such policies that should be adopted to foster the use of mobile money among respondents is removal of Value Added Tax (VAT) on mobile money transactions.

Another implication of the findings of the study for policy is that the government, providers of mobile money services and commercial banks should adopt policies that foster increased integration between mobile money services and the banking system and facilitate the transfer of money across mobile money and banking systems. This will lead to more usage of mobile money services among Respondents.

Another implication of the findings of the study for policy is that Tanzania Regulatory Authority (TCRA) which regulates mobile money services, and the Bank of Tanzania (BOT) which regulates the banking industry, should formulate clear regulations to ensure smooth running of mobile money services. This will guarantee safety of mobile money services and eliminate risk as a barrier to adoption and usage.
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APPENDICES

Appendix 1: A Photo showing an example premises of a Mobile phone money agent.

Source: Study findings (2014)
Data collection tool/Questionnaire

SECTION 1: Identification Information

Identity

Number.................

Instruction to the Interviewee: - Please fill or circle the correct response for each of the questions below.

District Name

Ward Name..................................................................................................................

Street Name..............................................................................................................

Section 2 :- Demographic information

Instruction to the Interviewee: - Please fill or circle the correct response for each of the questions below.

1. Sex
   (i.) Male [ ]
   (ii.) Female [ ]

2. Age in years [ ]

3. Education ?
   (i.) None [ ]
   (ii.) Primary education [ ]
   (iii.) Secondary education [ ]
   (iv.) College/University [ ]

4. What is your occupation?
   (i.) Farming/Livestock Keeping [ ]
5. No employment
Other
Specify

SECTION 3:- Mobile phone money Information.

6 What type of mobile phone service provider do you use?
(i.) Vodacom Tanzania
(ii.) Both Vodacom and Airtel
(iii.) Airtel Tanzania
(iv.) Both Vodacom and Tigo
(v.) Tigo Tanzania
(vi.) Both Airtel and Tigo
(vii.) Zantel Tanzania
(viii.) Three providers

Please mention
All four providers

7 Are you registered for mobile phone money services?
(i.) Yes
(ii.) No

8 How did you get aware of the services prior to your registration? (Explain)
9. Do you think there is enough awareness of the mobile phone money services in Dar es Salaam?
   (i.) Strongly agree [ ]
   (ii.) Agree [ ]
   (iii.) Neutral [ ]
   (iv.) Disagree [ ]
   (v.) Strongly disagree [ ]

10. Which mobile phone money services are you registered for?
    (i.) Vodacom Tanzania [ ]
    (ii.) Vodacom and Airtel [ ]
    (iii.) Airtel Tanzania [ ]
    (iv.) Vodacom and Tigo [ ]
    (v.) Tigo Tanzania [ ]
    (vi.) Airtel and Tigo [ ]
    (vii.) Zantel Tanzania [ ]
    Other [ ]
    Specify ..................................................................................................

11. When were you registered for mobile phone money services (Year)
    .................................................................................................
    .................................................................................................
    .................................................................................................

12. How did you find the mode of registration whether easy or difficult?
    (i.) Very easy [ ]
    (ii.) Easy [ ]
    (iii.) Neutral [ ]
    (iv.) Difficult [ ]
    (v.) Very difficult [ ]
13 Have you ever used mobile phone money service?
   (i.) Yes [ ]
   (ii.) No [ ]

14 If yes what kind of services have you used for? (Multiple answers are allowed)
   (i.) Deposit money to friend/relative/parents/children [ ]
   (ii.) Withdraw money [ ]
   (iii.) Pay bills (Water, Electricity, school fees) [ ]
   (iv.) Airtime top up [ ]
   (v.) Bank transfer [ ]
   (vi.) Business purposes (Buying and selling goods) [ ]
   Other [ ]
   (Specify)..............................................................................................................................................

15. How many times have you used mobile phone money services to buy airtime in period of one year?
   (i.) Never [ ]
   (ii.) Once [ ]
   (iii.) 2 to 3 times [ ]
   (iv.) 4 to 5 times [ ]
   (v.) More than 5 times [ ]

16 How many times have you used mobile phone money services to pay bills in period of one year?
   (i.) Never [ ]
   (ii.) Once [ ]
   (iii.) 2 to 3 times [ ]
   (iv.) 4 to 5 times [ ]
   (v.) More than 5 times [ ]
17. How many times have you used mobile phone money services to transfer money in period of one year?
   (i.) None [  ]
   (ii.) Once [  ]
   (iii.) 2 to 3 times [  ]
   (iv.) 4 to 5 times [  ]
   (v.) More than 5 times [  ]

18. How many times have you used mobile phone money services just for saving purpose in period of one year?
   (i.) None [  ]
   (ii.) Once [  ]
   (iii.) 2 to 3 times [  ]
   (iv.) 4 to 5 times [  ]
   (v.) More than 5 times [  ]

19. How many times have you used mobile phone money services to conduct any other business transaction in period of one year?
   (i.) Never [  ]
   (ii.) Once [  ]
   (iii.) 2 to 3 times [  ]
   (iv.) 4 to 5 times [  ]
   (v.) More than 5 times [  ]

20. Are you satisfied with the mobile phone money services?
   (i.) Very dissatisfied [  ]
   (ii.) Dissatisfied [  ]
   (iii.) Neutral [  ]
   (iv.) Satisfied [  ]
   (v.) Very satisfied [  ]
21. To what extent do you believe Mobile Money transfer service is secure?
   (i.) Completely unsecure [    ]
   (ii.) Slightly unsecure [    ]
   (iii.) Just secure [    ]
   (iv.) Secure [    ]
   (v.) Very secure [    ]

22. To what extent do you rate the security of the following Mobile phone Money Service? (Range from 1 for completely unsecure to 5 for very secure).

<table>
<thead>
<tr>
<th>Service Provider</th>
<th>Completely Unsecure</th>
<th>Slightly Secure</th>
<th>Neutral</th>
<th>Secure</th>
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<td>Vodacom</td>
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<tr>
<td>Airtel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tigo</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zantel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

23. Given a choice which Mobile Money Transfer service do you prefer? (Tick where appropriate)

<table>
<thead>
<tr>
<th>Service Provider</th>
<th>Most Preferred</th>
<th>Preferred</th>
<th>Least Preferred</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vodacom</td>
<td></td>
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</tr>
<tr>
<td>Airtel</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Tigo</td>
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24. What is the reason for your choice above? (Range from 1 for least important reason to 5 for the most important).
   (i.) Wider network coverage [    ]
   (ii.) Wider agent network [    ]
   (iii.) Lowest fees [    ]
   (iv.) The network is used by people I most transact with [    ]
   (v.) Agent proximity [    ]
   Other [    ] (Specify)
SECTION 4: Challenges to Mobile phone money users

25. What is the difference of mobile phone money services as compared to bank services? (Multiple answers are allowed).
   (i.) Quicker [ ]
   (ii.) Long distance to the bank [ ]
   (iii.) Easier to use [ ]
   (iv.) Safer [ ]
   (v.) Available everywhere [ ]
   Other [ ]
   (Specify).................................................................................................

26. How quick are service deliveries at an agent’s shop you normally go to?
   (i.) Very quick [ ]
   (ii.) Quick [ ]
   (iii.) Reasonable [ ]
   (iv.) Slow [ ]
   (v.) Very Slow [ ]

27. Have you ever been overcharged improperly by unfaithful agents?
   (i.) Many times [ ]
   (ii.) Few times [ ]
   (iii.) Never [ ]
   (iv.) Not sure [ ]
   (v.) Always [ ]

28. How do you rank the fees associated with mobile money transactions?
   (i.) Very high [ ]
   (ii.) High [ ]
   (iii.) Fair [ ]
   (iv.) Low [ ]
   (v.) Very low [ ]
29. What are challenges faced by mobile phone money users in Tanzania? (Range from 1 for least irritating challenge to 5 for the highly irritating challenge).
   (i.) System breakdowns [  ]
   (ii.) Failure to get timely service due to insufficient e-float at agent’s premises [  ]
   (iii.) Failure to get timely service due to insufficient cash at agent’s premises [  ]
   (iv.) Regular charges that are not pre-disclosed/displayed [  ]
   (v.) Overcharges imposed by unfaithful agents [  ]
   Other [  ]
   (Specify) ..............................................................................................................................

30. How many times have you failed to get mobile money service due to insufficient e-float at an agent’s shop?
   (i.) Never [  ]
   (ii.) Once [  ]
   (iii.) A few times [  ]
   (iv.) So many times [  ]
   (v.) I don’t remember [  ]

31. How many times have you failed to get mobile money service due to lack of e-float at an agent’s shop?
   (i.) Never [  ]
   (ii.) Once [  ]
   (iii.) A few times [  ]
   (iv.) So many times [  ]
   (v.) I don’t remember [  ]
32. How many times have you failed to get mobile money service due to insufficient cash at an agent’s shop?
   (i.) Never [ ]
   (ii.) Once [ ]
   (iii.) A few times [ ]
   (iv.) So many times [ ]
   (v.) I don’t remember [ ]

33. How many times have you failed to get mobile money service due to lack of cash at an agent’s shop?
   (i.) Never [ ]
   (ii.) Once [ ]
   (iii.) A few times [ ]
   (iv.) So many times [ ]
   (v.) I don’t remember [ ]

34. How many times have you failed to get mobile money service due to system failures?
   (i.) Never [ ]
   (ii.) Once [ ]
   (iii.) A few times [ ]
   (iv.) So many times [ ]
   (v.) I don’t remember [ ]

35. Is the agent network of your provider wide enough?
   (i.) Enough [ ]
   (ii.) Not enough [ ]
   (iii.) Fair [ ]
   (iv.) I don’t know [ ]
   Other (Specify)
SECTION 5: Improvements

36. What should be done to improve the mobile phone money services in Tanzania? (Range from 1 for least important reason to 5 for the most important)

(i.) Improve awareness about the services [ ]
(ii.) Improve fee transparency [ ]
(iii.) Minimize fees for services [ ]
(iv.) Improve system up-time [ ]
(v.) Increase agency network coverage [ ]
(vi.) Prohibit and make sure customers are not overcharged by unfaithful agents [ ]
(vii.) Improve security features [ ]
Other [ ]
(Specify)..................................................................................................................

37. What opportunities available for mobile phone money services users in Tanzania? (Range from 1 for least important to 5 for the highly important service).

(i.) Ability to save money [ ]
(ii.) Ability to perform business transactions [ ]
(iii.) Ability to transfer money [ ]
(iv.) Ability to conveniently buy airtime [ ]
(v.) Ability to conveniently pay bills [ ]
Other [ ]
(Specify)..................................................................................................................

SECTION 6: Bank information

38. Do you have any bank account?

(i.) Yes [ ]
(ii.) No [ ]
39. If yes in which bank do you have an account?
   (i.) NMB [ ]
   (ii.) Barclays Bank [ ]
   (iii.) NBC [ ]
   (iv.) Exim Bank [ ]
   (v.) CRDB [ ]
   (vi.) Standard chartered [ ]
   Other [ ] Specify..........................................................................

40. If yes which type of bank account do you have?
   (i.) SAVINGS [ ]
   (ii.) FIXED [ ]
   (iii.) CURRENT [ ]
   (iv.) SALARY [ ]
   (v.) STUDENT [ ]
   OTHER [ ] Specify..........................................................................

41. Are you connected to the bank account using you mobile phone?
   (i.) Yes [ ]
   (ii.) No [ ]

42. If Yes in the above question, do you get Bank information from your mobile phone?
   (i.) Yes [ ]
   (ii.) No [ ]

43. Can you transfer your money from bank account to Mobile phone and vice versa?
   (i.) Yes [ ]
   (ii.) No [ ]

Thank you for your cooperation, this is the end of the Interview