

**OPPORTUNITIES AND CHALLENGES OF FINANCIAL INCLUSION:  
THE CASE OF MOBILE BANKING IN KINONDONI DISTRICT, TANZANIA**

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**CERTIFICATION**

I, the undersigned, certify that I have read the dissertation entitled, *Opportunities and Challenges of Financial Inclusion: The Case of Mobile banking in Kinondoni District, Tanzania* and found it to be in the form acceptable for examination.

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Dr. Benjamin Mutagwaba

Supervisor

Date \_\_\_\_\_

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## DECLARATION

**I, Hamisi Kalumeze**, declare that, this dissertation is my own original work and that it has not been presented and will not be presented to any other University for similar or any other degree award.

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Signature

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Date

## **DEDICATION**

I dedicate my dissertation work to my beloved wife Afua Hamisi Kalumeze and my daughter Sophia whose words of encouragement gave me strength to go an extra mile in my studies. Similarly this research is dedicated to my sons Mr. Mbingo and Mr. Mahmoud who had always wished to know my course progress.

Again this research is dedicated to my late Mother Ntamiluko Kiharanya and my elder brother Ahmad who untimely left this world when I was in the middle of my course.

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## **ABSTRACT**

This is an in depth investigation into opportunities and challenges of financial inclusion with Tanzania as the case studied. It assessed the suitability of products provided by mobile banking, the nature of financial literacy and competence among the stakeholders, analyzed the barriers towards the better adoption and the nature of documentation by mobile bankers in the country. Most of the studies done on financial inclusion through mobile money banking have not been specific to Tanzanian environment. Available literature investigated Kenya and elsewhere in Africa and the world. There is therefore glaring gap in the Tanzanian situation that has to be studied. Due to limitation of time and funding, the study concentrated only in Dar es Salaam and particularly Kinondoni district and used the issues found to generalize for the whole country. Money banking through mobile technology shares the same regulations and experiences, such that the findings greatly reflect issues experienced all over the Country. One hundred and seventy respondents were chosen using a systematic probability sampling procedure. The analysis of all numerical data was performed using a program of SPSS. Data was collected using questionnaires and interviews and focus group discussions. The data analyzed generated percentages, cross tabulation and pie charts. It was found that Mobile Banking offers opportunity of financial Inclusion to the unbanked. On the other hand there are challenges which need stakeholders to address so as to bring this technological innovation into real economic development arena. The Government needs to zealously give enough weight to mobile banking development in the Country.

## LIST OF ABBREVIATIONS

AFI	Alliance for Financial Inclusion
AMPI	The African Mobile Phone Financial services Policy Initiative
BMGF	Bill & Melinda Gates Foundation
BoP	Base of the Pyramid
BOT	Bank of Tanzania
CAMELS	Capital Adequacy, Asset quality, Management soundness, Earnings, Liquidity, Sensitive to market risk
CAGP	Consultative Group to Assist the Poor
CPFL	Consumer Protection and Financial Literacy
FSDT	Financial Sector Deepening Trust
FITS	Financial Inclusion Tracker Surveys
FMCG	Fast Moving Consumer Goods
FSIs	Financial Stability Indicators
FSP	Financial Services for the Poor
ITU	International Telecommunication Union



MFS	Mobile Financial Services
M- Money	Mobile Money
MMU	Mobile Money for the Unbanked
MNOS	Mobile Network Operators
PDA	Personal Digital Assistant
SACCOS	Savings and Credit Cooperatives
SPSS	Statistical Package for Social Sciences
UNCDF	United Nations Capital Development Fund

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## **CHAPTER ONE**

### **1.0 INTRODUCTION**

#### **1.1 Background to the Study**

The evolution in information technology and communication industry has brought an immense impact on cultural, political, and economic to social lifestyle all over the world. Developing world with Tanzania inclusive has joined and is no longer an observer in development aspects but rather a key player in the process. As Goldstuck et al (2014) as contributed in technology banker e-newsletter, says “Despite Africa’s lowly position in the world research and development rankings, there is one area where the continent is in the forefront of technology usage: mobile money transfer, which is typically the first step in mobile banking. While still not widespread through the continent, use of mobile phones for funds transfer in Kenya, South Africa and Tanzania far outstrips that of most developed countries”.<sup>1</sup>

Availability of Mobile phones has made it possible for the under-banked to have an access to financial services through Mobile Financial Services (MFS). “Mobile phones affect the lives of billions of people around the globe, including the poor. The changing mobile technology has revealed opportunities and allowed nearly three billion people without bank accounts”, (Mago, 2014, p. 221) to take onto banking in a way. Kenya and Tanzania are on the lead in up-taking the Mobile financial services (MFS).

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<sup>1</sup> [www.technologybanker.com/magazine-features/mobile-banking-opportunities-and-challenges-in-2014#.Vk1hUeNuo1t](http://www.technologybanker.com/magazine-features/mobile-banking-opportunities-and-challenges-in-2014#.Vk1hUeNuo1t)

“Tanzania - in particular - has witnessed unprecedented uptake of mobile financial services (MFS) in the span of the last five years, after a humble beginning, when less than 1% of the adult population had access to mobile financial services in 2008. Yet, 90% had access by September 2013 – an exponential increase” (Castri and Lara, 2014). It would seem however that the success has been, due to conducive regulatory environment from the central bank with an emphasis to promote financial innovation so long as financial stability balance and financial inclusion objectives are maintained. The Central bank is seemingly committed to ensure that proportionate regulation is applied to the services deployed in the market for financial inclusion.

According to UNCDF report of January 2009, financial inclusion started gaining ground in third world countries way back in early 2000s. This follows research findings about financial exclusion and its direct correlation to poverty in third world countries. Note the assertion in the quote “the banking services are still inadequate to include people from full participation in accessing financial services such as saving, insurance, payments, short and long-term credit, pensions or local money transfers” (Inshengoma, 2011, p 5).

The Central Bank governor was emphatic when addressing stakeholders on the official launching of the National Financial framework, by underscoring the importance of financial inclusion to the economy, as it contributes to the improvement of the welfare of the poor. (Ndulu 2013) He further observed that financial inclusion promotes financial stability and growth of micro-business which ultimately stimulates the growth of other sectors in the economy (Ndulu 2013). More succinctly he asserts that “Tanzania appears to have made significant strides to enhance the proportion of adult

population who are formally included (adults with accounts in formal financial institutions).” a fair assessment in the circumstances, which however, provides the need to prove the importance of such an opportunity as well as whatever challenges that are posed in ascertaining the efficacy of such financial inclusion.

As in 2006 the proportion stood at 9%, 12% in 2009 and in 2012 it was 17% or 22% formal inclusion if SACCOS provision is included (Ndulu 2013). However, despite of the relative improvement in percentage of formal financial inclusion, the increase would still seem too low, given the number of barriers that contribute to this state of affairs, namely: Demand side barriers such as: information asymmetry, irregular income patterns, and financial literacy. Besides there are also structural and regulatory barriers like stringent or lack of proportionate requirements for client on-boarding, lack of regulatory framework for broad based micro-finance services, lack of centralized national identification system. On the supply side barriers ranging from, high interest rates, services that don’t meet demand side needs, costs, to inefficiencies of service delivery just to mention but a few also seem to be at play.

In an effort to create impetus and push for acceleration of financial inclusion international commitment was seemingly made under the AFI auspices” (the Maya Declaration) to increase formal access of financial services to 50% by 2015. This AFI network has more than 100 countries with regulators and policy makers as its members. The network has enabled acquisition of knowledge in financial inclusion through peer-learning and peer-pressure. It has also facilitated hosting of international forums for the establishment of Africa Mobile Phone Financial Service Policy Initiative (AMPI) (The Zanzibar Report, February 2013). AMPI has played a positive

role as a platform to share experiences on how countries in Africa may increase in the use of mobile money for financial inclusion. It is also possible to impute that Tanzania is now being used as one of the success stories in using mobile telephony to deliver financial services and hence an example where there is evident financial inclusion. As an example, Tanzania hosted some central banks officials in attachments to learn from its experiences of taking advantage of leveraging on the use of this mobile technology as a platform to facilitate payment services to the majority of the population far and wide, including those that were hitherto underserved or unbanked. Besides the MFS has now enabled by September 2013, 90% of the adult population in Tanzania to have access to mobile money accounts with 43% (or 9.8 Million) adults being active users. Most of these are still unbanked. The challenge posed is the observation that apart from the fact that mobile telephony financial service is still widely used for payment based services only. The immediate question posed is whether the initiatives are being deployed to expand its use as a platform to deliver other financial products from mainstream banking or what could explain the motive better. In other words, Mobile banking offers a potential solution to many people in emerging markets that have access to a cell phone.

One could also argue that it can make basic financial services more accessible with minimum time and distance to the nearest retail bank branches (CGAP, 2006) while at same time reducing the bank's own overheads and transaction related costs (Ndulu, 2013). This is facilitated by new innovations as many banks have adopted account holders to access their accounts through Mobiles money. NMB is a good example where it has entered into an agreement with Vodacom that allows customers to deposit

money into their account from M-PESA as well as transferring money from NMB Mobile to M-PESA' (Mobile kwetu blog 14 June 2015)

According to the International Telecommunication Union (ITU), over 90% of South Africans use mobile phone (Ismail and Khumbula, 2009), while only 40% have a bank account" (African Executive, 2008). Mobile banking could therefore be construed as giving an opportunity for financial institutions to extend banking services to new customers (Lee and Kim, 2007). Availability of high percentage of Mobile phones owners with less formal bank accounts as a typical characteristic of African countries, Mobile money services provides an opportunity for unbanked to access financial services.

In majority of the developing countries, access to finance is now being perceived as a public good, which is as important and basic as access, say, to safe water or primary education. The question that arises is whether financial inclusion can be interpreted as a public good, given that a good is considered a public good if it meets the conditions of "non-rivalrous" in consumption and non-excludability..

Finally, there is the added school of thought that one of the important effects of financial inclusion is that the entire national financial system benefits by greater inclusion, especially when it is adopted in the wider context of economic inclusion. In this particular case, the concept of financial inclusion has a special significance for a growing economy. This is backed by the fact that in India large segments of the productive sectors of the economy under formal financial network could unleash their

creative capacities besides augmenting domestic demand on a sustainable basis driven by income and consumption growth from such sectors (Khan, 2012).

Given the above situation, the following gaps have been addressed by this research.

Significant researches on Mobile banking for financial inclusion have been done in neighboring countries of Kenya, Uganda and have consequently eased participation of otherwise excluded many to be customers in financial transaction, but nothing equivalent in Tanzania. The current research brings to light necessary preparatory mechanism for making mobile banking intervention as effective tool for inclusion of the many prospective customers in Tanzania in financial transactions

The insistence on formalized mechanisms for financial transactions in formal banks has been key in fact of excluding many users e.g. illiterate, semi-literate and even poor people. Yet the mobile banking is usable by all categories. This research has assessed the effect of this involvement in as far as financial inclusion is concerned.

Placement of formal banks in established physical structures as opposed to the massive penetration of Mobile banking into the rural settings with less emphasis on structural premises yet calls for identification of what impact of this action can be in terms of its contribution to financial inclusion.

The development of financial inclusion has attracted attention of various stakeholders all over the world, ranging from policy makers to central banks. These developments have resulted into formation of forums such as the Alliance for Financial Inclusion (AFI), the G-20's Global Partnership for Financial Inclusion which was seemingly set



up to discuss how to build more financially inclusive economic systems. This has seemed to have pushed the microfinance industry to re-examining its role. Participants in the industry also are appreciative of the importance of financial inclusion moving beyond credit and making it possible to have an access to a range of other services (Rhyne, 2011).

These observations were convincing enough for this Research to be undertaken.

## **1.2 Problem Statement**

Financial inclusion or inclusive financing refers to the delivery of financial services and affordable costs to sections of disadvantaged people and low-income segments of society, in contrast to financial exclusion where those services are not available or affordable ([https://wikipedia.org/wiki/financial\\_inclusion](https://wikipedia.org/wiki/financial_inclusion)). It has consequently been estimated that 2 billion adults worldwide have no access to formal financial services delivered by regulated financial institutions<sup>2</sup>. It is further estimated that 24% only of adults in sub- Sahara Africa have bank accounts. It is also argued that banking services are by nature public goods such that the availability of banking and payment services to the entire population without discrimination is the actually the prime objective of financial inclusion public policy. This indeed poses a critical problem.

Mobile Banking on the other hand can be referred to as activities performing balance checks, account transactions, payments and credit applications via mobile device or Personal Digital Assistant (PDA) actions. Financial inclusion in this case, plays an important role in stimulating development by providing banking related financial

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<sup>2</sup> [www.wikipedia](http://www.wikipedia) 2015

transactions in an easy way, (Inshengoma, 2011 ). Yet, the access to, and the cost of, as well as creating mainstreaming financial services act as barriers to financial inclusion for many societies in the developing world. The advent of banking services with mobile technologies has therefore seemed to have enabled users to conduct banking services at any place and at any time through mobile banking thus overcoming the challenge of the distribution and use of banking services (Gu et al, 2009). For a critical Researcher this needs to be empirically proved.

### **1.3 Justification and Significance of the Study**

#### **1.3.1 Justification**

This study is an in depth investigation into opportunities and challenges of financial inclusion with specific reference to mobile banking in Kinondoni District, Tanzania. In that, country has many Mobile banking facility providers not clearly included in financial banking institution fray. Apart from having mobile banking trackers including GSMA sponsored by Bill & Melinda Gates Foundation, the fast changing products due to technological ability portrays that, the stakeholders may be trailing behind with available opportunities. The study has therefore come up with findings on some variables which are drivers in motivating Tanzanians to use Mobile banking, develop saving culture and ultimately open formal bank accounts and may provide mechanism to take up full envisaged advantages, thereby making a case for this sector as key in financial inclusion.

This has used randomly chosen sample within Kinondoni district of Dar es Salaam, as a case study which provided input for generalizing on the whole country of Tanzania

since money banking through yet there seems to be no elaborate policy, legal and regulatory frameworks specifically for mobile banking sector as the traditional bank institutions. Mobile system shares the same regulations and experience all over the country, Thence an added justification for this research.

## **1.4 Objectives of the Study**

### **1.4.1 General objective**

To assess the opportunities and challenges of financial inclusion in Tanzania

### **1.4.2 Specific Objectives**

- To determine the suitability of products provided by mobile banking in Kinondoni District, Tanzania.
- To determine the nature of financial literacy and competence among the stakeholders in Tanzanian Mobile Banking.
- To identify the barriers towards the better adoption of mobile banking in Kinondoni District, Tanzania.
- To determine the nature of documentation among the mobile bankers in Tanzania.

## **1.5 Research Questions**

- What are the suitable products provided by mobile bankers in Tanzania?
- What is the nature of financial literacy and competence among the stakeholders in Tanzanian Mobile Banking?
- What are the barriers towards the better adoption of mobile banking in Kinondoni District, Tanzania?

- What is nature of documentation among the mobile bankers in Tanzania?

## **1.6 Hypotheses**

- There is relationship between the choice of adopting mobile banking and suitability of products provided by mobile banking in Kinondoni District, Tanzania.
- There is a relationship between the nature of financial literacy and competence and rapid growth of Tanzanian Mobile Banking.
- There is a relationship between the barriers towards and the better adoption of mobile banking in Kinondoni District, Tanzania.
- There is relationship between the natures of documentation and the successful growth of the mobile banking in Kinondoni District, Tanzania.

## **1.7 Limitations of the Study**

Due to limitation of time and fund, the study has concentrated only in Dar es Salaam region particularly in Kinondoni district and use the issues found to generalize for the whole country. If it were not the matter of time and limited funds, the research could have covered all regions in Tanzania.

Some of the selected respondents in the sample were not found at their business places or home hence causing a number of visits. This was due to the fact that the systematic probability sampling procedure was used from the population statistics in Kinondoni.

Since questionnaires were used as one of the data collection methods, language barrier caused delays of data collection and thus delay of research report. The associated problem is that the researcher found most of the selected customers and dealers not

literate and able to fill in such questionnaires. However, where literacy was a problem a research assistant or the researcher has to fill the questionnaire through interview. This new mobile technology and banking issues needs in-depth literal understanding.

### **1.8 Significance of the Study**

Investigating the opportunities and challenges of financial inclusion referring to mobile banking in Kinondoni District, Tanzania, has a lot of importance to the government and all other stakeholders. The findings discovered new information needed to modify the sector and make it better for the future.

Since this new banking and money transferring system is growing very rapidly, the study has shown the suitable products for customers and its appreciation. This has been achieved through investigating the technologies available and came out with suggestions basing on needs of customers.

The physical barriers as one of the limitations to fully adopting financial inclusion in most of developing countries needs to be studied so as to analyze its trend in Tanzania. The issue of accessibility to financial facilities through mobile money transferring is therefore a big issue for the study. The study has consequently shown the nature of this accessibility.

Documentation and its reliability is a very important factor for any banking system worldwide. This study has shown how the mobile technology as new financial inclusion has changed or need to change the documentation system used in banks and other service providers, agents and normal customers.

Financial literacy and competence are yet two other very important and of significance to bankers and customers. The study has shown the level of understanding among the dealers (agents) and customers in terms of their understanding of laws, rules and orders of BOT guiding financial inclusion the mobile technologies.

The study is also of great academic importance since it brings to the front one important and current innovative idea in both communication and financial service provision interfaces; namely financial inclusion of all categories of society is an important development parameter. In this case the importance of this study has in stepping up the researcher's academic achievement should not be down played.

## CHAPTER TWO

### 2.0 LITERATURE REVIEW

#### 2.1 Overview

This topic gives detailed information on relevant literature reviewed for this research study. It involved analyzing the definition of terms and concepts used, theoretical review, empirical review, and literature gap identified as well as the conceptual framework.

#### 2.2 Definition of Terms / Concepts

**A product** is an item offered for sale such as in this case Mobile Banking Service (MBS) probably as a means to financial inclusion. A product can be a service or a tangible item. It can be physical or in virtual or cyber form. Every product is made at a cost and each is sold at a price. The price that can be charged depends on the market, the quality, the marketing and the segment that is targeted. Each product also has a life after which it needs replacement. Such life is in the form of a cycle such that it has to be re-invented every other time. In FMCG parlance, the brand of a product can be revamped, re-launched or extended to make it more relevant to the segment and in times, often keeping the product almost the same (The Economic Times, 2014).

**Physical Barriers** can be defined as the general issues that prevent the adoption of financial inclusion. There are several obstacles that limit adoption of certain banking services. They are many and complex as factors that prevent rapid progress towards the goal of financial inclusion. In the UK, the Financial Inclusion task force (which

monitors access to basic banking services) has differentiated between supply and demand side factors of financial exclusion, in their action plan for 2008-2011.

The supply side factors include non-availability of suitable products, physical barriers and non-eligibility on account of documentation issues while on the demand side are such things as: financial literacy and financial capability.

While financial literacy refers to the basic understanding of financial concepts, financial capability refers to the ability and motivation to plan financials, seek out information and advice and apply these to personal circumstances (Shankar)

## **2.3 Theoretical Review**

### **2.3.1 Finance-Growth Theories**

Various studies have revealed that there is a relationship between financial development and economic growth. Theories on finance advocate that financial development creates conducive environment for growth. In that it portrays lack of access to finance as a critical factor responsible for persistent income inequalities as well as slow economical growth. It is therefore perceived that, access to safe, easy and affordable source of finance is a pre-requisite condition for growth acceleration and creates equal opportunities in development terms. (Serrao et al, 2012)

There are also theoretical disagreements on the role of financial systems in economic growth. Some economists see the role of finance as minor while others see it as major. The theoretical disagreements are also divided along line the sides of demand and supply.



The demand side theorists follow a view supported by the argument that financial systems do not drive economic growth; rather, they just respond to development in the real sector.

The supply ones on the other hand argue that the origin of the finance-led growth hypothesis can be traced back to Bagehot (1873). Those who favor the finance-led growth hypothesis argue that the existence of an active financial sector has growth-enhancing effects. Schumpeter in 1911 further posited that banks enable an economy to grow by providing efficient markets for funds. Included in these schools of thought are: Goldsmith (1969), McKinnon (1973).

Levine and Zervos (1996), and others also emphasized the positive role of financial systems in economic growth as similarly cited by Ndebbio, (2004). The main argument of the said proponents of supply leading theory is that, financial markets evolve in response to increased demands for financial services from an already growing economy. Therefore, the development of financial markets is a reflection of growth in other sectors of the economy.

Thus, the preponderance of the theories has established affirmative link between financial development and economic growth for financial inclusion to be link to poverty alleviation. A significant premise, for undertaking the current study in terms of establishing relationship issues on the variables posed.

### **2.3.2 Financial Intermediation Theories**

According to Ndebbio, Financial intermediation refers the extent to which financial institutions bring deficit spending and surplus spending units together (Ndebbio, 2004). This could be to provide an answer as to why investors first lend to banks who then lend to borrowers, instead of lending directly to recipients. Could it then be that banks are more effective in monitoring borrowers and thus play the role of delegated monitoring as theorized in Diamond, (1984). He posits further that intermediaries provide services by issuing secondary financial assets to buy primary financial assets. If an intermediary was not providing any services, investors who buy the secondary securities issued by the intermediary agencies might as well obtain the primary securities directly and save the intermediary's costs.

Financial market frictions can also be a significant mechanism for generating continual income inequality or poverty traps. In Demirgüç-Kunt et al (2008), these frictions include information asymmetry and transaction costs which play a central role in influencing key decisions regarding human and physical capital accumulation and occupational choices. In other words theories stressing capital accumulation, financial market imperfections determine the extent to which the poor can borrow to invest in schooling or physical capital, while theories stressing entrepreneurship, financial market imperfections determine the extent to which talented but poor individuals can raise external funds to initiate projects. Mobile banking could thus far, provide the advancement of financial development growth and intergenerational income dynamics which are closely intertwined and akin to financial inclusion.

Financial inclusion could also be said to be an attempt at reduction in market frictions occasioned by information asymmetry. It is argued that it causes markets to become inefficient, since all the market participants do not have access to the information they need at the right time for their decision making processes. Examples of this problem are adverse selection, moral hazard, and information monopoly Tumay (2009).

In the case of Aduda and Elizabeth (2012), when transaction costs are too high, high pricing of products becomes inevitable. This seems to be one of the reasons why financial exclusion exists. Financial inclusion initiatives have to be inclined towards reducing the transaction cost thereby reducing financial market imperfections to expand individual opportunities, create positive and not negative impact in the incentive effects as these theoretical models indicate.

Demirguc and Levine (2007) also argue that reducing financial market imperfections expands individual opportunities, creates positive but not negative incentive effects. The models show that lack of access to finance can be a significant mechanism for generating persistent income inequality or poverty traps, as well as ultimately lowers growth. Herein dwells a major challenge. The arguments are on the direction of the causality and also on final growth and development. Effectual studies should therefore be conducted to determine the relationships and directions.

### **2.3.3 Financial Stability**

Financial stability further requires an effective regulatory infrastructure, effective financial markets and effective and sound financial institutions as reported in the South African Reserve Bank. (Financial stability review of March, 2004) The issue of

financial stability requires an explicit central bank focus over and above the pillars of prudential soundness, stable monetary policy and an efficient payment and settlement system Hawkins, (2006). Hawkins speculates out that the central bank can enhance both financial inclusion and financial stability through five approaches as discussed below.

As financial inclusion increasingly continues to become focus of governments and monetary authorities efforts are being made to explore its effect on financial stability. The theory according to Aduda and Elizabeth (2012), suggests that the opportunity to deal with financial risks depends on the particular properties of the financial systems especially the financial structure. The financial structure of an economy influences the competition among financial markets and banks, which provides different incentives and opportunities for risk management.

It is very possible that banking performance, and the likelihood of crises, may depend on the structure and degree of development of the financial systems which is one of the focal points in financial inclusion. “According to the theory on comparative financial systems, such relationship can be explained in terms of financial competition which erodes the opportunities to engage in inter-temporal risk smoothing activities” (Allen and Gale, (2000) and (2004) as cited by Ruiz-Porras, (2009). However, the relationship between financial systems and banking crises may not be a direct one since theoretical works have not dealt enough with issues regarding how risks may influence intermediaries’ behavior Ruiz-Porras, (2009). In this respect, financial stability is a pre-requisite for the optimal allocation of resources Dyk (2010) and is evidenced by well

functioning markets with key institutions operating without major difficulty Nelson and Perli, (2005) as cited by Dyk (2010).

Banks are the key institutions in the financial system as most measures on financial stability are based on them. 'Financial stability has no established definition neither does it have an aggregate indicator that can be used as a measure of financial instability'. Geršl and Hermánek, (2006). Financial instability on the other hand is characterized by financial system shocks interfering with information flows, deviation from optimal saving, financial markets bubbles and volatility in financial markets Dyk, (2010).

Bank profitability is one of the key indicators of financial stability is. Some banks argue that while the benefits of financial inclusion can be easily understood the costs of serving the poor can significantly be in the short-term, thereby, affecting profitability and thus creating instability. "Bankers should, therefore, change their mindsets, view financial inclusion as a viable business proposition and adopt innovative methods and low-cost delivery models to reach out to the poor" Raj, (2011, p.3). a probable instructive pointer of MBS to adopt in banking if financial inclusion by banks is to be cherished.

The array of diverse results of empirical studies nonetheless bring forth this important question which financial inclusion tries to address by embracing good financial development as opposed to potentially harmful financial deepening which leads financial sector instability" Aduda and Elizabeth (2012).

### **2.3.4 Diffusion of Innovations Theory**

Diffusion is a process by which an innovation is communicated through certain channels overtime among the members of a social system (Rogers, 1983). Technology diffusion entails four facets, namely Social system, new technology or innovation, Time and the communication channels of social system. Siddik, (2014). Mobile banking is therefore a byproduct of technological diffusion of innovation.

A lot of studies have tested the importance of trust in an online service provider as a predictor of behavioral outcomes Gefen (2002) that relates to diffusion of innovation. The results have not formed a cohesive theory as regards information systems that are the subject of trust assessments. Also previous studies did not develop comprehensive understanding of the factors that affect consumer trust in innovations like e-commerce. However, given the increasing business to consumer Internet commerce, there is an urgent need to understand the complex and the dynamic phenomena of trust in online exchanges Kim et al (2008) as to be in compliance with the theory of diffusion.

Mobile banking in this regard is considered as an application of e-service just as the previous studies associated with e-commerce present insights into its rather gradual adoption of such innovation and diffusion of technology as per Kim et al (2009).

Researchers Jack (2010) examine yet another important role played by monetary theory in understanding new generation of mobile banking products, especially those like M-PESA, for, they do not provide simple electronic access to existing bank accounts. Deposits of money in a mobile phone-based account reflect holdings by the account owner of a commodity referred to as e-money. Because e-money can be easily

transferred from one individual to another, as long as it is expected to retain its value, it can be used in equilibrium as a means of exchange, as well as to transfer purchasing power between individuals. Certainly, at the time of the launch of M-PESA in Kenya, the service was seen as a means of overcoming the high transactions costs associated with sending cash remittances that faced the 80 percent of individuals in the economy without bank accounts Jack (2010).

## **2.4 Empirical Review**

In a report released in 2014 by The GSMA's Mobile Money for the Unbanked (MMU) programme ( [www.gsma.com/mmu](http://www.gsma.com/mmu) downloaded on 7th June 2015) it is reported that: 2.5 billion people in developing countries, are 'unbanked' and have to rely on cash or informal financial services which are typically unsafe, inconvenient and expensive. In this regard the traditional "bricks and mortar" banking infrastructure services struggles to make the business model work to serve low-income customers, particularly in rural areas. However, today over one billion of the unbanked have access to mobile phone, which can provide the basis for extending the reach of financial services such as payments, transfers, insurance, savings, and credit. A proviso that could be said to be an emphatic financial inclusion.

According to the same literature source, "the MMU program since 2009 has been supporting mobile money services to provide convenient, safe and affordable financial services to the unbanked, thereby increasing financial inclusion. This is done through close engagement with mobile money providers, providing the mobile industry with tools and insights to help deployments scale sustainably, as well as supporting the

creation of enabling regulatory environments to facilitate digital financial inclusion. The program also supports mobile money operators to implement interoperability of mobile money services, and to further develop the digital ecosystem by facilitating the integration of third parties to mobile money schemes.”

InterMedia (2013) did a study on Mobile Money in Tanzania on: Use, Barriers and Opportunities. According to the report, the rate of access to mobile communication services among Tanzanian households, is high potential and could easily expand m-money market. Note: “Sixty-three percent of households own or have access to a mobile phone and 56 percent of households have at least one active SIM card”. Over one-third of all surveyed households had at least one m-money user (35 percent), and 33 % of households have at least one registered m-money user

In 2011, the Bill & Melinda Gates Foundation’s (BMGF) Financial Services for the Poor (FSP) program commissioned InterMedia to design and implement a project to track the uptake, use and market potential of mobile money (m-money) services in Pakistan, Uganda and Tanzania.

The studies found that mobile money use nearly doubled, reaching 45 percent of the Tanzanian adult population. ‘The use findings differ by demographics, with poor, rural women the least likely to use mobile money services, and urban men above the poverty line the most likely to use the services. Awareness of mobile money has reached saturation, with 99 percent of Tanzanian adults able to name or recognize at least one service provider. However insufficient understanding of how to use mobile money and



take advantage of its potential benefits remains a critical barrier for which researched solution is needed’.

Rhyne and Anita (2011), conducted study on Opportunities and Obstacles to Financial Inclusion. This study covered several parts of the world including Tanzania and Kenya. For Tanzanian case it studied a sample obtained from mobile money transfer as a source of money banking. While looking into opportunities, the researcher listed opportunities as expanding the range of products, mobile (phone) banking, capacity building for microfinance institutions, financial education, credit bureaus, national identification documentation, client protection regulation, full-inclusion financial institutions, reaching out to new client groups and strengthening financial infrastructure for electronic (non-cash) transactions.

On the case of obstacles the research analyzed; limited institutional capacity among microfinance institutions and other providers to the poor, limited financial literacy, insufficient infrastructure, political interference, lack of credit bureaus, costs of building/operating branches, limited understanding of client needs, poor business practices, documentation requirements, inadequate client protection and product cost-structures.

Waema, and Tonny (2012) did another relevant study entitled as Deepening financial inclusion through collaboration to create innovative and appropriate financial products for the poor. This study collected the respondents from mobile bankers in Kenya. The study concluded that:

The availability of mobile money channel and the agent network provides the best opportunity so far for reaching the much unbanked population. Again, a current research study since the findings in Waema and Tonny (2012) research paper is the amalgamation of three studies conducted in Kenya. The first study gave attention on developing case studies on ‘how the prepaid and pay-as-you-go models riding on the rails of mobile money are being used to conveniently provide commodities and services to the very poor.’ The second study addressed on the adoption drivers for mobile money at the base of the pyramid while the third evaluated the impact of pure mobile phone based micro-financing in Kenya.

Building on literature about the poor and their money combined with evidence from the studies mentioned, the authors present practical and evidence-based recommendations to demonstrate that it takes additional players and innovative approaches to enable financial institutions and mobile network operators to develop and aggressively promote sophisticated financial services for the poor.

Mago, (2014) also did relevant study about the Impact of Mobile Banking on Financial Inclusion in Zimbabwe, A Case of Masvingo Province. The purpose of that study was to examine the impact of mobile banking on financial inclusion in Zimbabwe. Financial inclusion is an urgent issue because of great numbers of ‘unbanked’ people in developing countries. The unemployed and low income people find themselves excluded from financial services offered by financial institutions due to access barriers. The study adopted a qualitative research methodology and a survey design. The survey covered Masvingo district in Zimbabwe. Literature sources were also used to strengthen the field survey findings. The results revealed that the low income people

are willing to adopt mobile banking and the reasons are that it is easily accessible, convenient, cheaper, easy to use and secure.

Recommendations were made that there was a need for the Central Bank to supervise non-bank led mobile banking models and manage their cash holding limits and cost structures. That the poor people had been traditionally located in the informal sector where they hardly enjoy banking services. With mobile banking, they can now enjoy the same basket of financial services through mobile banking. The mobile banking system is definitely ideal for the remote areas given that it is an easily accessible, cheaper, more convenient and faster means of sending and receiving money. Financial activity is increased in the rural areas and therefore economic growth is boosted.

Clearly therefore, the abundant literature falls short of dwelling specifically on the opportunities and challenges posed to Mobile banking. An undertaking, this current research is destined to accomplish.

## **2.5 Literature Gap**

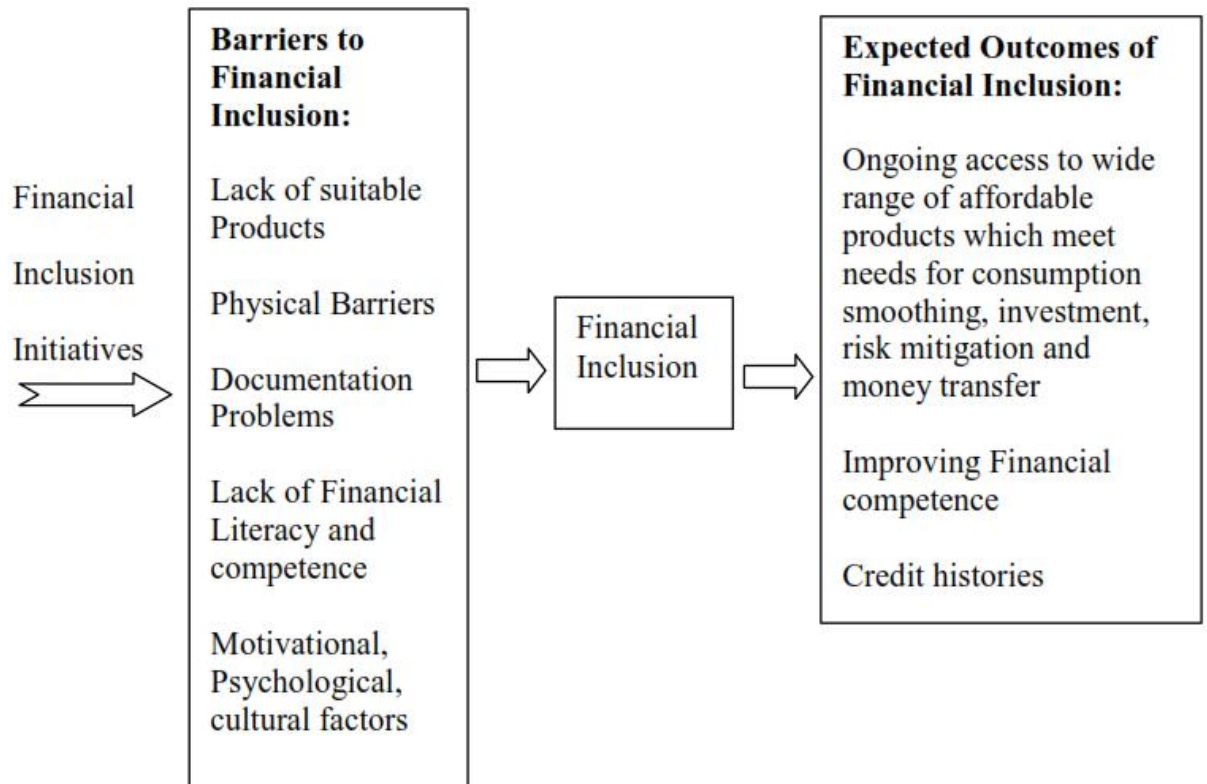
Most of the studies made on financial inclusion basing on mobile money banking have not been specific to Tanzanian environment. Many of the available literature have investigated Kenya and elsewhere in Africa and the world. Clearly this meant there was a glaring gap in the Tanzanian situation that had to be studied.

The rapid growth of the mobile banking as a key point of reference on financial inclusion as a purpose of this research study needed to be frequently studied so as to discover the new challenges as well as opportunities opening up. So this study has

added to available literature the new issue of better clarified posture of opportunities and challenges basing on Tanzania.

## 2.6 Conceptual Framework

According to Ndunguru (2007) conceptual framework is an assemblage set of research concepts cum variables together with their logical relationships often presented in form of diagrams, charts, graphs, pictographs, flow-charts, organogram / organizational structure or mathematical equations. It seeks to give description of the research concepts together with the variables such as the independent variables (I.V) and dependent variable (D.V) as isolated but work in a unified system of relationships.



**Figure 2.1 a Conceptual Framework**  
Source: Shanker (2013)

## **CHAPTER THREE**

### **3.0 METHODOLOGY**

#### **3.1 Overview**

Kumar (2005) and Patton (1990), as quoted in Musara (2011) state that: research methodology is defined simply as the guide to the research process. This chapter therefore discuss in detail about the methodologies which was used in this study including the strategies or the design of conducting the research focusing on population of the study, the area of study, sampling procedures. It also describes variables and measurement procedures including the methods for data collection, analysis, and interpretation

#### **3.2 Research Design**

Ndunguru (2007) suggests that a case study design is characterized by depth and breadth allowing a researcher to conduct an intensive study of the case

Kothari (2004) defines case study as a very popular form of qualitative analysis and which involves a careful and complete observation of a social unit, such as a person, a family, an institution, a cultural group or even the entire community as one collective.

Case study was used due to the fact that more detailed information needed to be obtained. The research was conducted at Kinondoni District in Dar es Salaam region and the findings generalized to the entire country where mobile banking is exercised.

### **3.4 Study Area**

The research was conducted in Kinondoni District- Dar es Salaam region. This was due to the fact that the region was selected randomly from the lists collected from mobile bankers' registration documents. This is due to the fact that money bankers through mobile technology in Tanzania share the same regulations and experiences all over the country as controlled by BOT orders and regulations.

### **3.5 Sampling Procedures**

A sampling procedure which was involved in this research was systematic random sampling. This implies that every possible combination of cases has an equal chance of being included in the sample, (Singleton et al, 1993).

The total respondents were collected from an entire list of a population of Kinondoni District in Dar es Salaam dealing with mobile banking. Then the total number of one hundred and Seventy respondents was collected basing at a certain interval.

#### **3.5.1 Target group**

This study sought to investigate the opportunities and challenges of financial inclusion referring to mobile banking in Kinondoni District, Tanzania using a case study area of Kinondoni District in Dar es Salaam. The target group included agents and customers of mobile banking in a given selected area. The sample was drawn basing on stakeholders and to large extent customers of mobile banking services providers such as Tigo Pesa, M-pesa and Airtel Money.

### **3.5.2 Sampling frame**

Mobile banking has reached more than 90% among the adults currently due to available data and literature in Tanzania. Hence the mobile banking is controlled with the same regulations and procedures of BOT; a total sample of 170 respondents was drawn. This number of representatives includes only the majority of mobile banking dealers and customers found in Kinondoni Dar es Salaam.

### **3.5.3 Sample size**

The sample size for this research was 170 representatives. Then using probability sampling of systematic technique the sample was obtained. Although the population of mobile banking is very large, the selected few gave reliable information due to the fact that the mobile banking system in Tanzania shares the same experiences.

## **3.6 Data Collection Procedures**

### **3.6.1 Types of Data to be collected**

The study collected both primary and secondary data from all two sources. The sources included primary and secondary sources of information of which was used to obtain accurate information for the study. Primary data being the data collected from the sampled respondents and secondary referring to data from related literature.

### **3.6.2 Primary Data Collection Method**

Primary data was collected through questionnaires and interviews. The respondents were provided with a number of written questions which they were supposed to answer

and submit back for analysis. Some questions were administered by the researcher in terms of interviewing the respondents whose answers were the data which were then analyzed.

### **3.6.3 Secondary Data**

Secondary data with regards to this study were collected from authentic publications and reports on similar subject by other academicians and researchers. The information so obtained was providing back up or critique to the primary data.

### **3.7 Data Processing and Analysis**

The analysis of all numerical data was done using a program of Statistical Package for Social Sciences (SPSS). This included data collected using questionnaires and interviews that were coded for quick entry and analysis. The data was analyzed and generated statistical methods including percentages cross tabulation, bar charts and pie charts. The product of all these, generated information for the conclusion on findings and made requisite recommendations.

### **3.8 Pilot Test**

The pilot test was conducted so as to assess data collection tools such as questionnaires and interview guide in terms of whether or not they are appropriate and or authentic. According to de Vaus (1993) and Yin (1994), it is wise to assess reliability and validity of indicators before carrying out the actual study. A pilot study was thus conducted in the study area by administering the questions to a similar but smaller sample of about



20 respondents which was used for the purpose of testing the validity of the results in this study.

### **3.9 Validity of the Study**

According to Phelan, and Julie (2005), validity of the study refers to how well a test measures what it is supposed to measure.

The concept of validity is described by a wide range of terms in qualitative studies. This concept is not a single, fixed or universal concept but rather a contingent construct, inescapably grounded in the processes and intentions of particular research methodologies and projects. Although some qualitative researchers have argued that the term validity is not applicable to qualitative research, they have come to realize the need for some kind of qualifying check or measure for their research, and consequently adapted to the terminology (Golafshani 2003).

This study tested validity through collecting prior data on the same area from a sample of 20 individuals selected randomly to find how authentic. The data collected was compared with the final findings of the study so as to test about validity.

## **CHAPTER FOUR**

### **4.0 FINDINGS AND ANALYSIS OF DATA**

#### **4.1 Overview**

Given the objectives of the study the findings have been presented in the pattern of: assessed suitability of products provided by mobile banking in Kinondoni District, Tanzania; identification and presentation of the nature of financial literacy and competence among the stakeholders in Tanzanian Mobile Banking; analyzed barriers towards the better adoption of mobile banking in Kinondoni District, Tanzania; and the assessed nature of documentation and how it has enhanced the communication among the mobile bankers in Tanzania.

#### **4.2 General Findings**

This category presents a description of the nature and content of the respondents and their overview in the findings as follows:

##### **4.2.1 Gender of Respondents**

The study investigated the gender of the respondents who were involved in this study. Among the total respondents, males were 48.8% while female composed of 51.2%. In other words the overall response results would not be significantly influenced by an unbalanced gender consideration given the combination was more or less at par shown in the table below.

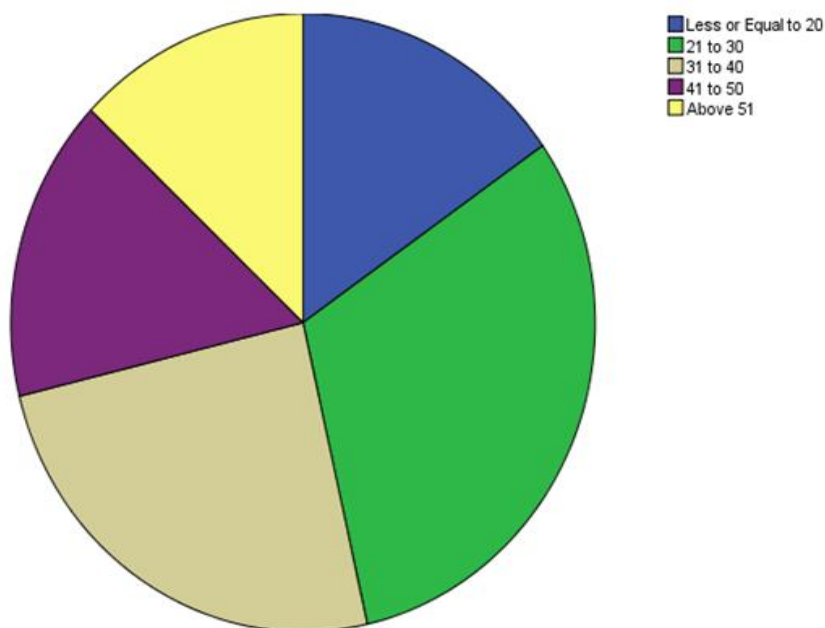
**Table 4.1 Gender of Respondents**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Male	83	48.8
Females	87	51.2
<b>Total</b>	<b>170</b>	<b>100.0</b>

Source: Field Data (2015)

#### **4.2.2 Age of Respondents**

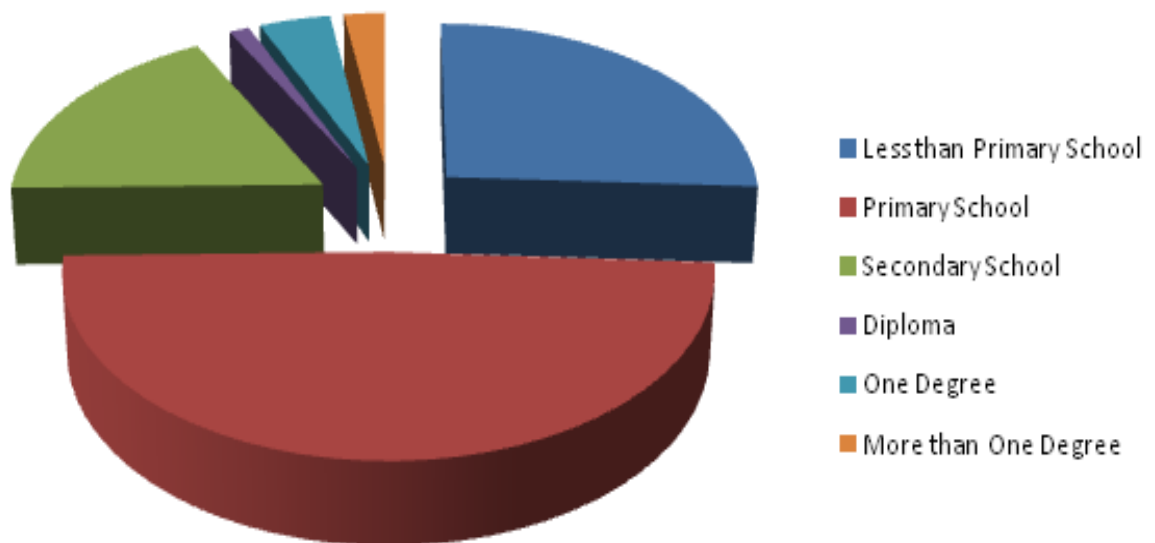
To determine age pattern of the respondents who were involved in this study as a basis to say whether or not the findings could be influenced by the dominance of a particular age bracket. Among the total respondents, it was found that those aged 20 years and below constituted 15.3%; while those between 21 and 30; 31 and 40; 41 and 50; and above 50 had 31.2%, 24.7%, 15.9% and 12.9% respectively.

**Figure 4.1 Age level of respondents**

Source: Field Data (2015)

### 4.2.3 Education level of Respondents

The study also investigated education level of the respondents to assess whether or not use of Mobile banking is related to level of education. It was found that 26 % never even joined any formal education, 49% had primary level education, 18% had Secondary education, 1% had diploma, 4% one degree and 2 % had more than one Degree. Consequently a significant proportion of the responses later showed that active participation in many products of Mobile Banking Services related closely to educational attainment levels since such user has to read and key in information through express literacy.



**Figure 4.2: Education level of respondents**

### **4.3 Specific Findings**

#### **4.3.1 Suitability of Products Provided by Mobile Bankers**

Among the key issues investigated for specific findings were: service satisfaction to bankers; effectiveness and reliability of the services; security concern of bankers; how suitable the service was for the customers generally, in respect of financial matters and whether it was necessary for the customers to have some level of literacy. The study used various products provided by Mobile banking in Kinondoni District, Tanzania to handle this matter.

##### **4.3.1.1 Mobile Banking Availability to Satisfy Need**

The study investigated on whether Mobile banking services actually satisfy customer's needs. Out of total respondents 30% strongly agreed, 59.4% Agreed, 9.4% Disagreed and only 1.2 % strongly disagreed. In other words the response findings are saying that the service fulfils and satisfies the customers to 89.4% points with 10.6% in disagreement. A proportion, that has to be secured into the services.

These results are impliedly supported by comments from Zetterli (2015) CGAP blog of 17<sup>th</sup> March, 2015 with heading captioned "Tanzania: Africa's other mobile Money Juggernaut" where it is stated that total number of Mobile Money financial transactions made in Tanzania are 95 Million per Month which now outnumbers that of Kenya although in terms of value transacted, Kenya is still leading. This success story of Tanzania reflects Satisfaction of Stakeholders from available Mobile Banking Services

**Table 4.2 Mobile Banking Availability Satisfy Need**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Strongly Disagree	2	1.2
Disagree	16	9.4
Agree	101	59.4
Strongly Agree	51	30.0
<b>Total</b>	<b>170</b>	<b>100.0</b>

Source: Field Data (2015)

#### **4.3.1.2 Efficiency and Reliability of Money Transferring Services**

Following the study the Mobile Banking Money Transfer Services was given an emphatic yes since out of total respondents 25.9% strongly agreed, 69.4% Agreed and only 4.7% Disagreed. No wonder, in Tanzanian market, participants of mobile banking ecosystem are becoming increasingly aware of the efficiency, reliability and practicality of mobile banking transactions when compared with other means of payment. Apart from inherent risks of Mobile Money Banking, the enjoyment of the services outweighs the associated risks as portrayed in the table below.

**Table 4.3 Money Transferring Services are Quick and Reliable**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Disagree	8	4.7
Agree	118	69.4
Strongly Agree	44	25.9
<b>Total</b>	<b>170</b>	<b>100.0</b>

Source: Field Data (2015)

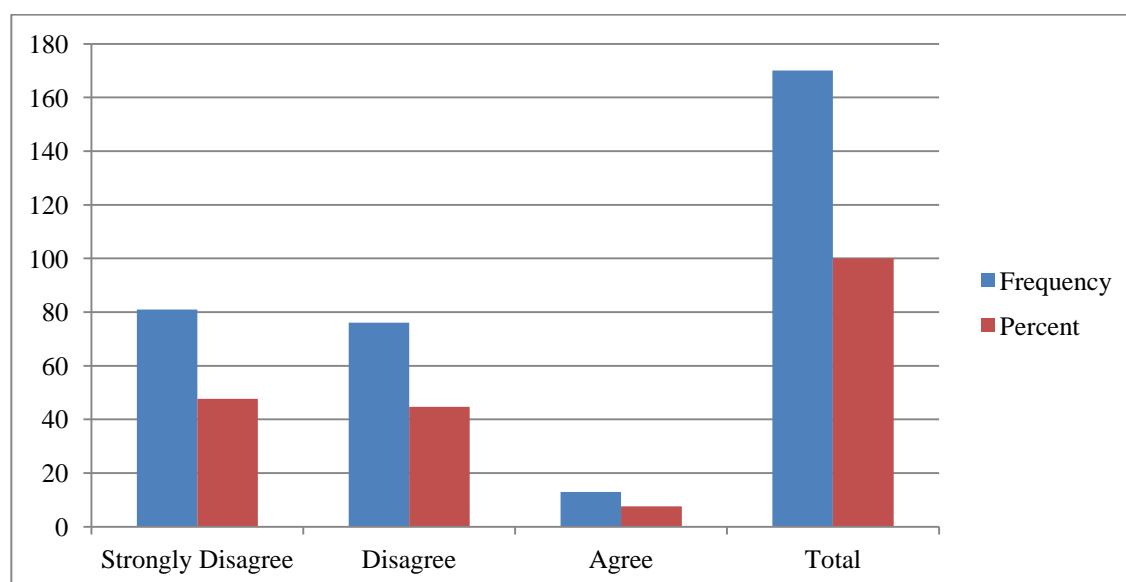
#### **4.3.1.3 Security Concerns related to Transactions Made by Mobile Banking**

7.6 % of the respondents agreed while 44.7% disagreed and 47.6 strongly disagreed. This issue of security concerns of transactions were further amplified in findings from the focus group discussions who recommended for improvement of security from system hackers. They also stressed expressed the urgent need to devise simple but strong physical structures to shelter and protect Mobile Banking agents who transact in the streets with just a chair and Mobile network operator umbrellas. In innovation theory, as per Gefen (2002) a lot of studies have tested the importance of trust in online service provisions provided as a predictor of behavioural outcomes especially where it relates to diffusion of innovation. Unfortunately however, the results have not formed a cohesive theory as regards information systems that are subject of trust assessment with particular reference to security for the Mobile Banking Service Providers. The findings from the respondents are plotted below.

**Table 4.4 Transactions Made by Mobile Banking are Secured**

Response	Frequency	Percent
Strongly Disagree	81	47.6
Disagree	76	44.7
Agree	13	7.6
Total	170	100.0

Source: Field Data (2015)



**Figure 4.3: Transactions Made by Mobile Banking are Secured**

Source: Field Data (2015)

#### 4.3.1.4 Suitability of Mobile Banking for Payment

The findings as per table 4.2.3 below clearly present 18.2 % of the total respondents having strongly agreed, 65.3% Agreed, 15.3% disagreed while only 1.2 % strongly disagreed. In other words the respondents are generally stating that overall, Mobile banking is a good payment facility but the over 16% who disagree are significant to warrant the need to devise other course of action for maintained suitability.

**Table 4.5 Suitability of Mobile Banking for Payment**

Response	Frequency	Percent
Strongly Disagree	2	1.2
Disagree	26	15.3
Agree	111	65.3
Strongly Agree	31	18.2
Total	170	100.0

Source: Field Data (2015)



#### **4.2.2 Level of Financial Literacy and Competence among Stakeholders.**

In examining the nature of financial literacy and competence among the stake holders areas covered were: Level of education in registration of Mobile banking services / stakeholders, Mobile banking agents and Providers, Availability /accessibility of/ to Financial Training Techniques especially for Mobile Bankers.

##### **4.2.1.0 Performing a transaction of Mobile Banking versus Basic Education**

9.4% of total respondents disagreed, 60% Agreed, 30% strongly agreed and 0.6% declined to comment. As shown below 90% respondents agreed on the necessity of basic education as an important ingredient in Mobile Banking Transactions.

**Table 4.6 Transaction through Mobile Banking and Basic Education**

Response	Frequency	Percent
Disagree	16	9.4
Agree	102	60.0
Strongly Agree	51	30.0
None response	1	0.6
Total	170	100.0

Source: Field Data (2015)

##### **4.2.1.1The Mobile Banking Services Providers and Financial Training Techniques**

Response was as follows. 2.4% disagreed, 75.3% agreed and 22.4% strongly agreed.

The majority of the respondents therefore agree that Mobile Banking Services must pass through basic financial training techniques.

**Table 4.7 the Mobile Bankers and Financial Training Techniques**

Response	Frequency	Percent
Disagree	4	2.4
Agree	128	75.3
Strongly Agree	38	22.4
Total	170	100.0

Source: Field Data (2015)

#### **4.2.1.2 Mobile Banking Services Availability and Accessibility**

Response was as follows. 3.0% strongly disagreed, 35.2 % disagreed 61.2 % agreed and 0.6 % strongly agreed. This response pattern reflects a varied reaction on the availability and accessibility of Mobile Banking Services to clientele. Approximately One third of the respondents say Mobile Banking Services are not available and accessible while close to two thirds of the respondents admit the services were available and accessible. This pattern can be supported by the facts that apart from deep penetration of Mobile networks in the country, a large part are still missing the coverage especially in the villages.

**Table 4.8 Mobile Bankers Availability and Accessibility of Services**

Response	Frequency	Percent
Strongly Disagree	5	3.0
Disagree	60	35.2
Agree	104	61.2
Strongly Agree	1	0.6
Total	170	100.0

Source: Field Data (2015)

### 4.2.3 Barriers towards the Better Adoption of Mobile Banking

The barriers impeding better adoption of Mobile banking in Kinondoni District, Tanzania generated specific findings especially on the following key issues: Network fluctuations, Level of understanding of financial transactions among Mobile banking dealers prompt feedback on transactions.

#### 4.2.3.0 Network Fluctuations

It was significantly agreed that Network fluctuations affected the convenience of mobile banking as reflected in the finding pattern as follows: 0.6 % strongly disagreed. 2.4% disagreed while 14.7% and 82.3% agreed and Strongly agreed respectively.

**Table 4.9 Network Fluctuation affects the Convenience of Mobile Banking**

. Response	Frequency	Percent
Strongly Disagree	1	0.6
Disagree	4	2.4
Agree	25	14.7
Strongly Agree	140	82.3
Total	170	100.0

Source: Field Data (2015)

#### 4.2.3.1 Level of Understanding of Financial Transactions

Out of total respondents 3.5% strongly disagreed. 35.3% disagreed, 58.2% agreed and 3% strongly agreed. The result portrays a mixed response as those who disagree on impact of financial understanding on effectiveness of Mobile Banking services constitute almost 40 % of the respondents while the remaining 60% agreed on the statement, a finding that needs to be studied in greater detail to ascertain the impact.

**Table 4.10 Level of Understanding of Financial Transactions**

Response	Frequency	Percent
Strongly Disagree	6	3.5
Disagree	60	35.3
Agree	99	58.2
Strongly Agree	4	3.0
	170	100.0

Source: Field Data (2015)

#### **4.2.3.2 Prompt Feedback after Transaction**

Investigation revealed that 4.1% strongly disagreed. 6.5% disagreed, 28.8% agreed and 60.6% strongly agreed that customers are satisfied with feedback received after completing a mobile money transaction.

**Table 4.11 Prompt Feedback after Transaction**

	Frequency	Percent
Strongly Disagree	7	4.1
Disagree	11	6.5
Agree	49	28.8
Strongly Agree	103	60.6
Total	170	100.0

Source: Field Data (2015)

#### **4.2.4 The nature of Documentation among the Mobile banking services in Tanzania**

To ascertain and assess the nature of documentation among Mobile bank users, data was collected by asking questions such as: The fairness and convenience of documentation process, Level of response when transaction occurs, and then the

question of whether Mobile Money Operators respond and assist quickly. And whether there is efficiency of Mobile Money Operators Interoperability / Interface.

#### **4.2.4.0 Documentation Processes - Fairness and Convenience**

42.9% strongly disagreed, 38.8% disagreed, 16.5% agreed and 1.8% strongly agreed. This indicates that documentation processes generally are not fair and convenient. This was also supported by focused group discussion findings where: most participants had complained on inconsistency of the process of recording details of transactions made. Some even sought the need for identity cards for authenticity, while others inquired on customer's number etc.

**Table 4.12 Documentation Processes - Fairness and Convenience**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Strongly Disagree	73	42.9
Disagree	66	38.8
Agree	28	16.5
Strongly Agree	23	1.8
<b>Total</b>	<b>170</b>	<b>100</b>

Source: Field Data (2015)

#### **4.2.4.1 How transaction Errors are handled**

38.2% strongly disagreed. 50.0% disagreed, 11.2% agreed and 0.6 % strongly agreed. This clearly shows that Mobile network operators generally do not respond nor do they assist quickly where errors are recorded. To clarify this assertion further, the focus group discussion noted serious complaints such as: untimely responses; inconsistency of services like automatic answering machines which are regularly interrupted in the

background with loaded adverts and promotional messages. In an example where money was erroneously transacted through wrong number, customer care attendants would need to give prompt promise to rectify the error in twenty four hours time. Unfortunately this is not happening as expected. Such scenario certainly frustrates customers.

**Table 4.13 how transaction Errors are handled**

	Frequency	Percent
Strongly Disagree	65	38.2
Disagree	85	50.0
Agree	19	11.2
Strongly Agree	1	0.6
Total	170	100.0

Source: Field Data (2015)

#### **4.2.4.2 Mobile Money Operators Interoperability / Interface**

2.9% strongly disagreed. 9.4% disagreed, 18.8% agreed and 68.8 % strongly agreed. This reflection is clearly supported by existence of interoperability of Mobile Network operators assessment by Zetterli (March, 2015) as stated thus: “It is arguably no coincidence that Tanzania is also the first advanced digital financial services market in the world where providers have voluntarily agreed to interoperate, letting customers with different wallets and on different networks send money to each other”

**Table 4.14 Mobile Money Operators Interoperability / Interface**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Strongly Disagree	5	2.9
Disagree	16	9.4
Agree	32	18.8
Strongly Agree	117	68.8
<b>Total</b>	<b>170</b>	<b>100.0</b>

Source: Field Data (2015)

#### **4.2.4.3 Maximum Deposit Allowances in provision in Mobile Money Operation**

Inquiry findings on provision have revealed the following: A customer who keeps Money in his Mobile money account sometimes called e-wallet has a maximum limit of Tshs 5,000,000 for M-Pesa Vodacom Tanzania, Tshs 3,000,000 for Tigo Pesa and Tshs 3,000,000 for Airtel Money. However, apart from the limit of Tshs 3,000,000 for Tigo Pesa and Airtel Money accounts, room for an individual to negotiate with MNO has been provided. Response had the following result; 45.9% strongly disagreed. 35.9% disagreed, 16.5% agreed and 1.8 % strongly agreed. A revelation, that the provision is not known by customers and users of Mobile banking Services.

**Table 4.15 Maximum Deposit Allowances in provision in Mobile Money Operation**

	<b>Frequency</b>	<b>Percent</b>
Strongly Disagree	78	45.9
Disagree	61	35.9
Agree	28	16.5
Strongly Agree	3	1.8
<b>Total</b>	<b>170</b>	<b>100.0</b>

Source: Field Data (2015)

#### 4.2.4.4 Level of Trust of in Deposit Maintenance in Mobile Accounts

1.2% strongly disagreed. 27.6% disagreed, 70.6% agreed and 0.6 % strongly agreed.

The finding shows that two thirds of the respondents have trust in deposit maintained in Mobile accounts. However, on the other hand one third have no trust, attributed to the nature of services as mobile money transactions have features of virtual business office according to findings from focus group discussions.

**Table 4.16 Level of Trust of in Deposit Maintenance in Mobile Accounts**

<b>Response</b>	<b>Frequency</b>	<b>Percent</b>
Strongly Disagree	2	1.2
Disagree	47	27.6
Agree	120	70.6
Strongly Agree	1	0.6
<b>Total</b>	<b>170</b>	<b>100.0</b>

Source: Field Data (2015)

#### 4.2.5 Assessment of the available Mobile Banking Products

Ranges of Mobile banking products were investigated to check the extent to which the products were used by customers especially, the knowledge base of customers on the availability of such services. The areas covered included the following;

- Sending and receiving money through Mobile banking ,
- Depositing and saving money through Mobile banking
- Paying Bills
- Acquiring loans from Mobile Network Operators
- Paying Insurance Services



- Having Formal Bank Account
- Transferring Money from one Network to Another Network / Interoperability

#### **4.2.5.0 Sending and Receiving Money through Mobile**

88.8% of the respondents were frequently sending and receiving Money through Mobile banking. This percentage reflects the reality as to what extent Mobile Banking Service is being used. 8.8% of the respondents have never used Mobile banking facilities and 2.4 % did not know even the existence of the service. The result for those who were using mobile banking included even those who had no handsets but were using that of relatives, friends or Mobile Banking agents to send or receive Money.

**Table 4.17 Sending and Receiving Money through Mobile**

<b>Criteria</b>	<b>Frequency</b>	<b>Percent</b>
Frequently	151	88.8
Never Used	15	8.8
Don't Know the Product	4	2.4
<b>Total</b>	<b>170</b>	<b>100.0</b>

Source: Field Data (2015)

#### **4.2.5.1 Depositing and Saving Money through Mobile**

Frequent depositing and saving money through Mobile banking accounted for only 12.9% of the total respondents. 84.7% never used while 2.4 % did not even know the product exists. Deposits made for the purpose of saving into mobile banking account were low as most of the deposits were rather made for the purpose of sending and not to remain in the account. It is under this scenario that Networks like Vodacom have launched a product known as M-Power account to lure customers to develop a culture

of saving through this product and earn interest. On the other hand Tigo has introduced an incentive by distribution of interest accrued on the trust accounts held by MNO in compliance with BOT Governor Circular number: NPF/MFS/01/2014, of 26 February 2014 “on utilization of interest from the trust accounts.” The Circular states that interest accrued on the trust accounts should directly benefit mobile money customers and agents.( Castri, 2014). Tigo Pesa calculates distributable amounts basing on customers and agents balances held in Tigo pesa on quarterly basis.

**Table 4.18 Depositing and Saving Money through Mobile**

<b>Criteria</b>	<b>Frequency</b>	<b>Percentage</b>
Frequently	22	12.9
Never Used	144	84.7
Don't Know the Product	4	2.4
Total	170	100.0

Source: Field Data (2015)

#### **4.2.5.2 Paying Bills**

38.8 % of the respondents were using Mobile banking to settle their bills. However, from focused group discussions, these payments were mainly for meeting utilities like water bills, Luku, Television decoder’s monthly charges and statutory payment, like road license fees. 43.5% of the respondents have never used Mobile Banking for paying bills while 17.6% did not know the product. This means the product has not fully been adopted by stake holders as it still needs further promotion to make it be known.

**Table 4.19 Paying Bills**

<b>Criteria</b>	<b>Frequency</b>	<b>Percentage</b>
Frequently	66	38.8
Never Used	74	43.5
Don't Know the Product	30	17.6
<b>Total</b>	<b>170</b>	<b>100.0</b>

Source: Field Data (2015)

#### **4.2.5.3 Acquiring Loan**

Only 3% of respondents confirmed to have acquired loan from Mobile Network Operators while 75.3% of the respondents never acquired loans and 21.7% did not know of the existence of Loan as a product available through Mobile Network providers.

Currently, two Mobile Network Operators, Airtel and Vodacom are providing loans to their customers upon request and after qualifying as per their guidelines.

**Table 4.20 Acquiring Loan**

<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Frequently	5	3.0
Never Used	128	75.3
Don't Know the Product	37	21.7
<b>Total</b>	<b>170</b>	<b>100.0</b>

Source: Field Data (2015)

#### 4.2.5.4 Acquiring Insurance Services through Mobile Network providers

35.3% of the respondents never acquired Insurance services through Mobile Network providers while 64.7% did not know of the existence of the product from Mobile Banking services. “In November 2012, BIMA supported Tigo Tanzania to launch the first life and hospitalization cover insurance product available via mobile phone in Tanzania. The launch of the life and hospitalization product follows the success of the free life insurance product that has been running for the past 18 months” ([www.bimamobile.com](http://www.bimamobile.com) downloaded on 13 Sep 2015). BIMA is an international establishment working in partnership with leading mobile operators, banks and MFI’S to help their customers unlock the power of insurance. BIMA is based in Stockholm Sweden. It is no wonder insurance services available from Tigo, have not attracted high clientele as it falls under “unsought products” category. As defined in Business dictionary website download on 24<sup>th</sup> September, 2015, selling concept is ‘The idea in marketing that if customers are left to themselves, they will not make the effort to buy a company's products. Therefore, it dictates, companies must be aggressive in pushing their sales’. It is imperative therefore that Tigo strategically should use this marketing approach

**Table 4.21 Acquiring Insurance Services through Mobile Network providers**

Criteria	Frequency	Percent
Used	0	0
Never Used	60	35.3
Don't Know the Product	110	64.7
Total	170	100.0

Source: Field Data (2015)

#### 4.2.5.5 Transferring

26.5 % of the respondents confirmed to have sent or received money to or from a different MNO. 61.2% of the respondents had never used interoperability in transaction. This can be interpreted from focus discussion group who pointed out that many customers had separate Mobile chip for each Mobile network with perception of cost saving. On the other hand 12.3 % did not know the existence of the product. These could constitute those who had no mobile handsets.

According to a quote from Peter Zetterli (17<sup>th</sup> March, 2015) “It is arguably no coincidence that Tanzania is also the first advanced digital financial services market in the world where providers have voluntarily agreed to interoperate, letting customers with different wallets and on different networks send money to each other”

**Table 4.22 Money from One Network to Another**

<b>Criteria</b>	<b>Frequency</b>	<b>Percent</b>
Frequently	45	26.5
Never Used	104	61.2
Don't Know the Product	21	12.3
<b>Total</b>	<b>170</b>	<b>100.0</b>

Source: Field Data (2015)

#### 4.2.5.6 Have Formal Bank Account

23.5 % had formal bank account and 76.5 % did not have bank accounts. These results show that a small percentage of Tanzanians own formal bank accounts.

**Table 4.23 Have Formal Bank Account**

<b>Criteria</b>	<b>Frequency</b>	<b>Percent</b>
Frequently	40	23.5
Never Used	130	76.5
<b>Total</b>	<b>170</b>	<b>100.0</b>

Source: Field Data (2015)

#### **4.2.5.7 Depositing and Drawing from / to the Bank through Mobile**

11.2% of the respondents were able to access and transact their formal bank accounts through Mobile banking. Although it is still very low statistically, the trend is envisaged to grow as many banks are getting on board by accommodating Mobile banking. Among the first pioneers to open their doors to mobile banking were CRDB and NMB. “In a bid to provide efficient and secure services, CRDB Bank has further improved its SIM Banking to accommodate new features that give customers the conveniences to perform more transactions at any location in the world.” (Mobile kwetu blog, 2014/07. Downloaded on 13, September, 2015). However, as the percentage of those owning formal bank accounts is still low, 78.2% of the respondents never had access to the bank account while 10.6 % did not know of the existence of the product.

**Table 4.24 Depositing and Drawing from / to the Bank through Mobile**

<b>Criteria</b>	<b>Frequency</b>	<b>Percent</b>
Frequently	19	11.2
Never Used	133	78.2
Don't Know the Product	18	10.6
<b>Total</b>	<b>170</b>	<b>100.0</b>

Source: Field Data (2015)

## **CHAPTER FIVE**

### **5.0 CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Overview**

This chapter looks at the summary of each of the collated summaries for effectual interpretation to arrive at appropriate conclusions and make implementable recommendations. The process involves, discussions to clarify whether or not the objectives of the study have been achieved and to what extent. The specific objectives being, to:

- Assess of the suitability of products provided by mobile banking in Kinondoni District, Tanzania.
- Assess the nature of financial literacy and competence among the stakeholders in Tanzanian Mobile Banking.
- Analyze the barriers towards the better adoption of mobile banking in Kinondoni District, Tanzania.
- Assess the nature of documentation among the mobile bankers in Tanzania.

Summary presentation of the findings in respect of each of the above objective brings to view the holdings from secondary data. In this way the chapter is able to clearly derive the conclusions and recommendations of this study.



## **5.2 Assessment of the Suitability of Products Provided by Mobile Banking**

### **5.2.1 Money Transferring Services**

The result portrays Mobile Money transferring services are perceived as quick and reliable. Apart from inherent risks of Mobile Money Banking the services enjoyed outweigh the associated risks. As observed by Matthew C White (January/February 2015) in Technology Banker e-newspaper, “Mobile banking is still the big news story for Africa’s banking industry”. He contends further that “use of mobile phones for funds transfer in Kenya, South Africa and Tanzania far outstrip that of most developed countries”. This message also clearly confirms the suitability of Mobile banking in Kinondoni District, Tanzania. However, the users are still uncomfortable in areas like security of Mobile banking, where almost 92% attest to this. Never the less, services provided through mobile banking were generally perceived satisfactory as shown through the following lead indicators:

- Mobile Banking Services are overwhelmingly available;
- Mobile transferring services are quick and reliable;
- Mobile Banking Services are suitable for making payments.

Dr Charles Kimei, the Managing Director of CRDB Speaking at a news conference in July, 2014, said, “Mobile phones have clearly shown that they can be an effective channel to provide financial services including remittances, savings or even loans” ([www.Mobilekwetu.blogspot.com](http://www.Mobilekwetu.blogspot.com) as downloaded on 17, September, 2015). Availability of Mobile banking services has unlocked the flow of cash from one point to another without the working hour’s barrier of formal Banks. According to Finscope

2013 report, more than 30 million Tanzanians own or use mobile phone but only 12 million use the cell phones to perform money transactions. Payment through Mobile banking is inevitably a convenient way compared to other available options like Formal Banks where accessibility is still very low. However, MNO, researchers and other stake holders should persistently explore means of improving security on the part of Mobile Banking transaction so as to give confidence to users and thereby increasing the level of utilization of the Mobile Banking.

The Central Bank (BOT) as the regulator of banking activities in Tanzania would do a lot of good to establish the proposed Ombudsman mechanism. Such mechanism is envisaged to be in operation by June, 2016. According to BOT Directors Report and Financial Statements (2014) as posted on 29 December, 2014 through BOT website, the establishment of an ombudsman for banking services should – as of right – include the Mobile Banking Services given they are clearly prime and very widely spread in the country. This will greatly improve reliability of Mobile Banking and its related products in view of their effectiveness in penetrating the Tanzanian market with clear signs of financial inclusion especially for the unbanked populace.

### **5.2.2 Security of Transactions Made through Mobile Banking Services**

The issue of security on transactions made through Mobile Banking Services calls for concerted efforts to have it strengthened. This is reflected in the findings whereby 92% of the respondents were not comfortable with the security. Further, the focus group discussions were very skeptical over transaction made through Mobile Banking Services. Some attested over having experienced conmen who ended up taking their

balances in their mobile accounts. The system hackers were also identified as a threat. They also recommended that stakeholders should device simple but strong physical structures to shelter and protect Mobile Banking agents who transacts in the streets with just a chair and Mobile network operators umbrellas.

### **5.2.3 Mobile Banking is suitable for payment**

As per finding in table 4.2.3, Mobile banking is a good mode of payment but the over 16% who disagree in this regard are very significant to warrant some other course of action towards rating it as good. It is further noted that, developments are fast taking place especially through Mobile network providers as some establishments are making arrangements where their customers can settle bills and payments through Mobile money system. The following list of establishment show those who have entered into agreement with Vodacom M-pesa to facilitate payment. The list was downloaded from [mobilekwetu.blogspot.com](http://mobilekwetu.blogspot.com) website on 17<sup>th</sup> September, 2015

#### **4.25 Establishments using Vodacom M-Pesa as Intermediary to effect Payment Transactions**

<b>Business / Biller / Activity</b>	<b>Business No.</b>	<b>Reference No.</b>	<b>Service</b>
Luku - Tanesco	100,300	Meter No.	Electricity
DSTv	300,000	Smart card or Account No.	DSTV subscription fees
TRA property tax	500,300	Tax payment no. (12	Property tax payment

		digits)	
TRA Personal Income Tax	600,400	Account No.	Personal income tax payment
Startimes	700,100	Account No.	TV subscription payment
PRECISION Air ticket	333,777	Booking No.	Payment/collection account
CRDB	900,500	Account No.	Deposit to Bank
HESLB	800,500	Form four Index No.	Loan application fee payments
Vodacom Contract	100,100	Phone No.	Postpaid Payments
DAWASCO	100,500	Meter No.	Water bill payment
NECTA	200,600	Reference No. (NECTA web generated)	Exam Fees
TEA	404,040	Mobile No.	Education contribution
Coastal Travels	100,900	Booking Ref No.	Ticket purchase
Yanga	200,200	Phone No.	Membership fees payments
Simba	500,500	Phone No.	Membership fees payments
GEPF	700,200	Membership No.	Membership contributions

Heritage Insurance	444,666	Membership No.	Insurance Plans
Radio Maria	100,200	Area Code No.	Payment/collection account
Barmedas TV	222	Client ID	Payment/collection account
Forever Living products	200,700	Distributers ID	Payment/collection account
Bingo Products	200,900	Dealer ID	Payment/collection account
Real Insurance	200,300	Policy No.	Payment/collection account
Tujijenge loans re-payment	100,400	Loan Account No.	Payment/collection account
MWEI	200,100	Loan Account No.	Payment/collection account
CCBRT	200,500	Contributor's Name	Payment/collection account
Africa Microfinance	200,800	Loan file No.	Payment/collection account
Data Vision	400,700	Product code	Payment/collection account
Auric Air ticket	400,300	Booking No.	Payment/collection account
Tanzania Library Services(TLS)	400,400	Membership No.	membership fees
K-Finance loan payments	400,600	Loan account No.	Loan disbursement and collection account.

Agape	400,800	Mobile No.	Payment/collection account
Access Bank Tanzania loan repayment	500,200	Account No.	Payment/collection account
SMPOS vendors' payments	500,600	Vendor's ref no.	Payment/collection account
Max Malipo (J- Link) vendor's payments	600,300	Vendor's ref no.	Payment/collection account
Contribution to TING	800,800	Account No.	Payment/collection account
Real People loan payments	800,900	Account No.	Payment/collection account
Skylink Air Ticket	800,300	Booking No.	Payment/collection account
SEDA loan payments	900,400	Loan account No.	Payment/collection account
FIESAL Cable Network subscription fees	900,600	Account No.	Payment/collection account
DUWASA bill	900,700	Account No.	Payment/collection account
ORIFLAME charges	333,555	Consultant No.	Payment/collection account

KIVUKO Online	222,111	Registration ID	Payment/collection account
Spatial services	505,050	Product code	Payment/collection account
DATA Vision services	400,700	Product code	Payment/collection account
Robert Advertisement Company levies	222,333	Mobile phone No.	Payment/collection account
Bongo Live Services	222,444	Purchase request	Payment/collection account
Syscorp Finance loan re-payments	222,777	Full Name or Group Name	Payment/collection account
Fasta Tickets	333,444	event or bus code	Payment/collection account
Stake Agrobases services	400,200	Phone No.	Payment/collection account
MUE services	990,000	Phone No.	Payment/collection account
TAZARA SACCOS loan re-payments	444,555	passbook No.	Payment/collection account
TAZARA MBEYA SACCOS loan	606,060	passbook No.	Payment/collection account

re-payments			
Hotspot Magazine services	222,555	Phone No.	Payment/collection account
Multicom Solution Fees	333,666	Registration No.	Payment/collection account
Belita Funds loan re-payments	333,222	Loan file No.	Payment/collection account
Victoria Finance loan re-payments	616,161	Loan file No.	Payment/collection account
Winlot Lottery Tickets	222,999	Agent's company name	Payment/collection account
TWB loan re- payments	444,999	Agent's ID code	Payment/collection account

Source: Mobilekwetu.blogspot.com

### 5.3 Financial Literacy and Competence among the Stakeholders

In examining the nature of financial literacy and competence among the stake holders the following areas were covered: The need for education in registration of Mobile Banking Services; necessity of Financial Training Techniques for Mobile Banking Operators, Agents and Service Providers; and Availability / Accessibility of/ to Mobile Banking services.



In January, 2013, A World Bank mission visited Tanzania to prepare a Diagnostic Review on Consumer Protection and Financial Literacy (CPFL). In their report the following was established “The high percentage of population lacking education beyond primary and the correlated high levels of financial exclusion, especially of the youth, present a troubling situation for financial literacy” according to a survey conducted by FinScope in (2009), only 17% of the population has secondary education, 2% post-secondary and 1% have university education. (Website TanzaniaInvest captioned Tanzania improves financial services inclusion), Downloaded on 18<sup>th</sup> September, 2015. It was asserted in the Finscope (2009) report further that “The higher the level of education, the greater the likelihood of being formally or semi formally included. Those who have no education are mostly excluded (74%) while 92% of university graduates are formally included “. In short financial exclusion relates directly to absence of education since it is literacy based operation.

### **5.3.1 Need of Basic Education to Performing a transaction through Mobile Banking**

Logic points out as one member from focus group discussion stated that since Mobile banking is a byproduct of Technological development, basic education is of paramount importance. For example a daughter sends money to her elderly father in a village through Mobile banking, at least at the time of drawing the money, the recipient needs to confirm by reading the after transaction feedback including checking a balance in his Mobile handset. As reflected in table 4.2.4

### **5.3.2 Financial Training Techniques for the Mobile Bankers**

Mobile banking being a product of technological development applied to financial service industry, it becomes of necessity for those involved in financial products to have at least a minimum knowledge on financial techniques. For example a Mobile banker agent upon entering into a contract with a Mobile Network Operators needs, financial orientation so as to equip the agent with necessary techniques including getting to know how the agency commission accrues. Under Central Bank circular number NPF/MFS/01/2014 interest accrued on the trust accounts should be utilized. Among options given to MNO is utilization in the form of customer education campaigns, for customer care. Registered agents should continually be trained to equip with financial techniques from time to time.

### **5.3.3 Availability and Accessibility of and to Mobile Banking Services**

In a Citizen newspaper of 13<sup>th</sup> June, 2014, it was reported that ‘access to financial services is tougher in Dodoma, Geita, Iringa, Kagera, Pemba, Manyara, Morogoro, Rukwa, Tabora and Simiyu, a new study shows”. These regions access to financial was below the National target. These statements were quoting a new report on study performed by Financial Sector Deepening Trust (FSDT). The study was done all over the country and Unguja North was discovered to have the lowest level of accessibility. This implies accessibility to financial services with Mobile banking inclusive, is not evenly distributed. Mobile banking depends a great deal on MNO developed infrastructure and can greatly bridge the gap left by non availability of formal banks especially in the rural areas. MNO should be encouraged through various initiatives

from stakeholders to extend their coverage in the rural areas to enable reaching the unbanked populace.

#### **5.4 The barriers towards the better adoption of Mobile Banking Services**

The barriers included for consideration of the study were: the effects of network fluctuations on convenience of Mobile banking; lack of clarity and or coherence in understanding financial transactions among Mobile banking dealers; unfulfilled contribution to the effectiveness of Mobile Banking Services and Customers dissatisfaction on Feedback after Transaction through Mobile banking

##### **5.4.1 Effects of Network Fluctuations**

The study confirmed that Network fluctuations affected the convenience of mobile banking 82% of the respondents. Some respondents experienced disappointments at times when they were in dire need of service but to find automatic messages for patience. Erratic Network problems are commonly experienced. MNO should invest more towards ensuring availability of stable network. Recently, it was reported in social media<sup>3</sup> April, 15, 2010 Mobile network communication tower supporting batteries were been vandalised. These acts have been affecting network. MNO should improve their security over these properties.

##### **5.4.2 Lack of clear Understanding and or coherence of Financial Transactions**

In a paper written by Allan et al from CARE International UK on behalf of the Banking on Change Partnership. (2013), “There is an urgent need to invest in

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<sup>3</sup> [www.Michuzi.blogspot.com](http://www.Michuzi.blogspot.com)

expanding access to financial education for poor people, especially women”. This clearly calls for the need to get greater understanding by both dealers and the clients.

### **5.4.3 Insufficient Feedback after Transactions**

Generally, respondents were Satisfied on feedback provided by Mobile money providers after completion of a transaction , but the need for more to keep hopes burning is of necessity

## **5.5 The Nature of Documentation among the Mobile Bankers**

### **5.5.1 Documentation Processes: Fairness and Convenience**

Most participants had complained of inconsistency of processes in recording details of a transaction made. Some would ask for an identity card for authenticity while others would not ask except customer’s number. Documentation should be standardized and simple especially in relation to records on transactions.

### **5.5.2 Transaction Errors in Mobile Banking Operations.**

Mobile Network Operators should improve and rectify errors made while a customer is executing mobile banking operations.

### **5.5.3 Mobile Money Operators Interoperability / Interface**

According to Peter Zetterli ( March, 2015) “It is arguably no coincidence that Tanzania is also the first advanced digital financial services market in the world where providers have voluntarily agreed to interoperate, letting customers with different

wallets and on different networks send money to each other”. This move creates a healthy opportunity for the unbanked.

#### **5.5.4 Maximum Deposit Allowance Provision to Customers’ Accounts**

Given the actual findings leaves the issue of provision of maximum deposit rates being varied needs to be properly streamlined and guided so as to facilitate those moving with large amounts of cash for business to have a bigger threshold for Mobile money account transaction purposes. In actual fact Mobile banking poses a brighter future where moving with hard cash will be at minimal. Mobile banking can be synonymous to common visa cards.

#### **5.5.5 Trust in Deposit Maintenance in Mobile Accounts**

The findings shows two thirds of the respondents have trust in deposit maintained in Mobile accounts. However, on the other hand one third have no trust; this may be attributed by the nature of services as mobile money transactions have features of virtual business office. MNO should continue giving educating to the customers so as to create trust on Mobile Banking activities.

### **5.6 To assess some of the Available Mobile Banking Products**

As earlier alluded to, the services are various as below given. Technical conclusions are also varied and as relayed here below;

- Sending and receiving money through Mobile banking ,
- Depositing and saving money through Mobile banking

- Paying bills
- Acquiring loans from Mobile Network Operators
- Paying insurance services
- Having formal bank account
- Transferring money from one network to another network / interoperability

### **5.6.1 Sending and Receiving Money through Mobile**

The result for those who were using mobile banking included even those who had no handsets but were using relatives, friends or Mobile banking agents to send or receive Money. It could therefore be said to be a very convenient mechanism.

### **5.6.2 Depositing and Saving Money through Mobile**

Deposit made for the purpose of saving into mobile banking account was low as most of the deposits were made for the purpose of sending and not to remain in the account. It is under this scenario that Network like Vodacom has launched a product known as M-Power Account meant to lure customer's development of a culture of saving through this product and earn interest. On the other hand Tigo has introduced an incentive by distribution of interest accrued on the trust accounts held by MNO in line with BOT Governor Circular number: NPF/MFS/01/2014, of 26 February 2014 on utilization of interest from the trust accounts. The Circular states that interest accrued on the trust accounts should directly benefit mobile money customers and agents. (Castri, 2014). Tigo Pesa calculates distributable amounts basing on customers and agents balances held in Tigo Pesa on quarterly basis. The same is for Airtel Money and Vodacom recently.

### **5.6.3 Paying Bills**

38.8 % of the respondents were using Mobile banking to settle their bills. However, from focused group discussion, these payments were mainly for meeting utilities like water bills, Luku, Television decoder's monthly charges statutory payments like road license fees. 43.5% of the respondents never used for paying bills while 17.6% did not know the product. This means the product has not fully been adopted by stake holders as it still needs further promotion to make it known. Efforts therefore need to put in the direction of such promotion.

### **5.6.4 Acquiring Loan**

The level of accessing loans through Mobile Banking is still very low as reflected in the survey whereby only 3% of respondents confirmed to have acquired loan from Mobile Network Operators. Currently, two Mobile Network Operators, Airtel and Vodacom are providing loans to their customers upon request and after qualifying as per their guidelines.

Airtel Money are using TIMIZA product to extend loan to their customers qualifying for loans.

As reported in AFB Kenya website 2014, with heading "Airtel breaks ground with new short term Mobile Credit".... Airtel has launched a service providing short-term credit facilities to Airtel customers giving customers access to quick loans on their mobile phones through Airtel Money. The service known as 'Timiza' loans can be repaid in between seven and 28 days.

This product which does not require collateral is a sort of a provision for especially the poor population in the rural areas to have access to loan.

Speaking during the launch, the Prime Minister Hon Mizengo Peter Pinda said: “Access to short term credit is a big incentive to small to medium entrepreneurs in Tanzania. By addressing this integral need, Airtel, will be partnering in the larger vision of the Government that aims at providing the population with the enabling tools that will boost and motivate entrepreneurial spirit. In turn, an empowered populace will stimulate a positive multiplier effect that is fundamental to economic development.”<sup>4</sup>

The Prime Minister’s remarks supports financial and growth theory where various studies have revealed that there is a relationship between financial development and economic growth. Theories on finance advocate that financial development creates conducive environment for growth. In that it portrays lack of access to finance as a critical factor responsible for persistent income inequalities as well as slow economic growth. It is therefore perceived that, access to safe, easy and affordable source of finance is a pre-requisite condition for growth acceleration and creates equal opportunities in development terms. (Serrao et al, 2012). The theory has supporters and those who have disagreements in relation to role of financial systems in economic growth.

On the other hand Vodacom Tanzania has opened two windows for loans to its customers through M-power product and through BOA Bank for its agents. In September, 2014, Vodacom Tanzania entered into agreement with BOA bank to loan

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<sup>4</sup> <https://www.facebook.com/afbkenya>



Vodacom agents so as to facilitate them with additional capital so as to enable the agents serve the Vodacom customers better. (Pesa Times<sup>5</sup>, September, 2014). “The Bank of Africa (BOA) has entered into an agreement with Tanzania’s leading telecommunication company Vodacom Tanzania aimed enabling the firm’s agents to access cheap loans without necessarily having the collaterals, a move that is aimed at enabling the agents to provide better services to their customers.” This arrangement will play a key part in strengthening Vodacom agents to have high circulation of capital through loans and therefore put them in better position to serve the customers better, particularly M-pesa and airtime vouchers.

#### **5.6.5 Acquiring Insurance Services through Mobile Network providers**

The launch of the life and hospitalization product follows the success of the free life insurance product that has been running for the past 18 months”<sup>6</sup> (downloaded on 13 Sep 2015). BIMA is an international establishment working in partnership with leading mobile operators, banks and MFI’S to help their customers unlock the power of insurance. BIMA is based in Stockholm Sweden. Apart from the fact that Insurance service was introduced by Tigo Mobile network operator, yet this study shows that very little knowledge has reached the purported clientele. Concerted efforts and education is required. Insurance is categorized as unsought goods. Unsought products are those which customers are not wanting or even doesn’t know initially. These are the products which are not included in ones necessary requirement and one can do without it.

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<sup>5</sup> [www.Pesatimes.co.tz](http://www.Pesatimes.co.tz)

<sup>6</sup> [www.bimamobile.com](http://www.bimamobile.com)

These unsought products need lot of advertisement and awareness so that people start thinking of buying it.( [www.mbaskool.com](http://www.mbaskool.com) downloaded on 20<sup>th</sup> September, 2015)

There is one more type of product known in the market called as “unfamiliar invention” which is similar to unsought product. The only difference is these products are not known to the customers and have very high degree of capacity to fulfill ones necessity.

#### **5.6.6 Transferring Money from One Network to Another**

“It is arguably no coincidence that Tanzania is also the first advanced digital financial services market in the world where providers have voluntarily agreed to interoperate, letting customers with different wallets and on different networks send money to each other” ( Peter Zetterli 17<sup>th</sup> March, 2015).

#### **5.6.7 Formal Bank Account**

Despite increase in number of Banks in the country, the pace of joining formal banking has remained very low. The following table reflects the financial services pattern of access standard for Tanzania in 2009 as per Finscope survey.

**Table 5.0 Financial Services Access for Tanzania**

<b>Group</b>	<b>Percentage</b>
Formal	16.7
Informal	27.3
Excluded	56
<b>Total</b>	<b>100</b>

Data Source: Finscope (2009)

Analysis of more recent data such as the World Bank Findex (Figure 6) indicates that in 2012 only 17 percent of adult Tanzanians had access to formal financial services. However, for Tanzanians unlike other East African nations, the Findex methodology excludes about 5% of Tanzanians being served by SACCOS and credit only institutions (BOT 2012 MFIs routine monitoring report) as these are not regulated by the central bank. Despite this adjustment (22%), access to financial access in Tanzania remains lower than the Africa regional average of 24 percent. With this low percentage of Tanzanians having formal bank accounts, it is sure that Mobile Banking can provide a boost to the unbanked. Tanzania should forge ahead by giving necessary support to the Mobile Banking

#### **5.6.8 Depositing and Drawing to and from Mobile Banking**

Although formal banking it is still very low statistically, the trend is envisaged to grow as many banks are getting on board by accommodating Mobile banking. Among the first pioneers to open their doors to mobile banking were CRDB and NMB. “In a bid to provide efficient and secure services, CRDB Bank has further improved its SIM Banking to accommodate new features that give customers the conveniences to perform more transactions at any location in the world.” (Mobilekwetu.blogspot.com, 2014/07. Downloaded on 13, September, 2015). All formal banks should fully open their doors to Mobile banking as it will encourage customers make deposit and drawings at any time. This may result into making many transactions and therefore big turn over for the bank and improve their balance sheets.

## **5.7 Recommendations**

The discussions, interpretation and conclusions arrived at out of the findings provided an obvious avenue for making recommendations as appropriate guidance for way forward for the study. According to Castri (2014), Tanzania is a mobile money and digital financial inclusion success story: This then sets the basis for the study to assess the opportunities available and challenges facing this industry in Tanzania. The necessary recommendations – in this regard provide possibilities of exploiting available opportunities and concise ways to address the challenges which are hampering further success of financial inclusion. The recommendations accordingly are as follows:

### **5.7.1 Money Transferring Services**

Taking consideration of immense adoption of Mobile Money Services by Tanzanians, the government through the central bank should continue taking a lead in enhancing these services through provision of prompt and appropriate regulatory framework along the lines provided in The National Financial Framework (2014-2016). Besides, the same organs should take special interest in closely monitoring requisite progress.

### **5.7.2 Security of Transactions Made by Mobile Banking**

Investment on System security should continuously be given an upper hand as it is at the heart of Mobile Banking success or failure. This should include protection against system hackers. Innovation should come into play in augmenting physical security to agents who operate in open insecure places as clearly identified in the study. This

should include devising simple but strong physical structures to shelter and protect Mobile Banking agents and their properties

### **5.7.3 Mobile Banking is suitable for payment**

MNO like banks should continue sensitizing and inviting Business community to enter into agreements to facilitate payment transactions through Mobile Banking with their customers.

### **5.7.4 Financial Literacy and Competence among the Stakeholders**

Education has no substitute but rather it is a cross cutting element for sustainable economic, social, cultural and political development in any nation. Innovative undertakings like Mobile Banking Services have greater demand for this since the transactions can only be carried out by literate persons, be them agents or users. The government should continue embracing education for sustainability. Stake holders particularly MNO should invest in provision of financial literacy to their agents and the public at large on any new development in Mobile banking.

### **5.7.5 Availability and Accessibility of Mobile Banking Services**

Taking into consideration the fact that Mobile Banking accessibility has fewer barriers compared to formal banks, the target should be to develop MNO infrastructure particularly in the rural areas. The stakeholders should take the available opportunity following installation of Optical fiber which has further brought revolution to communication industry. This gives more opportunity to the unbanked to have access to mobile networks which are vehicles for mobile banking. The importance of this

study is more emphatic if stakeholders embrace the recommendations with respect to the barriers as clearly given below:

## **5.8 The barriers towards the better adoption of Mobile Banking Services in Tanzania.**

### **5.8.1 Network Fluctuations**

Mobile Network Operators should commit more investment to address critical improvements in network fluctuations as it is a serious drawback to Mobile banking. In particular, investment should be directed to improvement of the technology and other physical factors like providing security for network towers where vandalism has been taking place particularly stealing the batteries the very towers. In this way the fluctuations arising from beaming will be addressed

### **5.8.2 Understanding of Financial Transactions by Mobile Banking Dealers**

There is an urgent need to invest in expanding access to education on financial transaction for agents and customers especially in the rural areas. The MNOs must take this up as an important priority. This can be accomplished by conducting short seminars and workshops for the relevant stakeholders.

### **5.8.3 Insufficient Feedback after Transaction to Customers**

Apart from the study showing customer satisfaction on feedback provided by Mobile money providers after completion of a transaction, there are still impending gaps to improve such feedback to levels of efficiency so as to keep hopes burning

### **5.8.3.1 Inadequate nature of Documentation for Mobile banking Services**

### **5.8.3.2 Documentation Processes Fair and Convenience**

Most respondents complained on inconsistency of process of recording details of a transaction made. Some even asked for an identity card for authenticity while others would be asked to provide except customer numbers. There is therefore urgent need for documenting elaborately. In this connection documentation process should be standardized and made simple especially in relation to records on transactions.

### **5.8.3.3 Transaction Errors in Mobile Network Operations.**

. MNO delay in rectifying transactional errors that occur in the process of making money transaction is a bottleneck. Mechanism should be sort out to ensure time taken to rectify the error is significantly reduced. The target should be not more than one hour in the least.

### **5.8.3.4 Mobile Money Operators Interoperability / Interface**

The existence of interoperability between the Mobile Network Operators in Tanzania is a big opportunity to the unbanked. It reduces hassles which otherwise could have been experienced if Mobile networks were not allowed to operate between themselves. On the other hand, the Interoperability between networks is still not fully operational as it is being perceived. The amounts involved are limited to lesser amount compared to transaction done within the same Mobile Network. Therefore Interoperability should be improved so as to deliver the desired results.

#### **5.8.3.5 Maximum Deposit Allowance to Customer Accounts**

MNO should systematically increase the threshold of allowable amounts to be kept in the customer's account especially to make it relatively sufficient for small business operations. This should be done in liaison with Central Bank, who is the overseer of monetary matters and fiscal policy development, implementation, monitoring and evaluation.

Besides, the increased e-wallet amount gives an opportunity for the unbanked to have an access to money and will play a big role in stimulating economy through easy movement of money. Mobile banking can be a synonymous to common visa cards except the difference in facility used i.e. Mobile Phone instead of the card.

#### **5.8.3.6 Trust in Deposit Maintenance in Mobile Accounts**

MNO should continue disseminating education and increase public awareness on the security over balances held in Mobile Money account. The government through the Central Bank is monitoring the operations of Mobile Banking activities. Recently Tanzania National Council for Financial Inclusion has inaugurated National Financial Inclusion Framework (2014-2016). This is working towards improvement of financial inclusion.



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## APPENDICES

### Appendix 1: Questionnaire.

Title: Opportunities and Challenges of Financial Inclusion Referring To Mobile banking in Kinondoni District, Tanzania: The Case Study of Kinondoni, Dar Es Salaam

Section A: Personal information (Tick ( ✓ ) for answering optional questions)

Section C: Financial Inclusion Issues

Section A: Personal information (Tick ( ✓ ) for answering optional questions)

1. Sex

Gender

Male

☐

Female

☐

2. What is your age in years?

i. Less or equal to 20

- ii. 21 to 30
- iii. 31 to 40
- iv. 41 to 50
- v. Above 51

3. What is your education level?

- i. Less than primary school
- ii. Primary school
- iii. Secondary school
- iv. Diploma
- v. One degree
- vi. More than a degree

Qn	Clue	Strongly disagree	Disagree	Agree	Strongly agree
3	The Mobile bankers available satisfy your needs				
4	Money transferring services are quick and reliable				
5.	The transactions made with mobile banking are secured				
6.	The use of mobile banking is suitable for payment transactions				

7.	The registration of mobile banking agents need a basic education level				
8.	The mobile banker dealers pass through financial training techniques				
9.	Mobile bankers are available and accessible				
10.	Network fluctuation affects the convenience of mobile banking				
11.	Financial transactions understanding among the mobile banking dealers reduces the effectiveness				
12.	Customers are satisfied with the feedback after transactions				
13.	Documentation processes are fair and convenient to customers				
14	In case of traction error Mobile Money operators respond and assist quickly				
15	Efficiency of Mobile Money operators interoperability / interface				
16	Maximum deposit allowable by Mobile Money Operators in Mobile account enough				
17	Have trust in deposits maintained in				



	mobile accounts				
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<b>Qn</b>	<b>Mobile banking product</b>	<b>Frequentl y</b>	<b>Never used</b>	<b>Don't know the product</b>
18	Sending and receiving money through mobile			
19	Depositing and saving Money through mobile			
20	Paying bills like Water utility			
21	Acquiring loan			
22	Paying Insurance services			
23	Transferring money from one network to another			
24	Have formal bank account			
25	Depositing and drawing from / to the bank through mobile			

**Appendix 2: Interview Guide**

1. What are the preferences provided by mobile Bankers? (For Qn. 3)
2. For how long does it take for a transaction to complete? (For Qn. 4)
3. How do the skill of financial banking acquired? (For Qn. 8)
4. Which areas the misunderstanding of the financial banking transactions is experienced? (For Qn. 11)