

**KNOWLEDGE AND PERCEPTION ON MOBILE MONEY AND ITS INFLUENCE ON
ACCESS TO FORMAL FINANCIAL SERVICES AMONG THE YOUTHS IN SEME
SUB COUNTY: ACASE OF KOMBEWA DIVISION**

BY

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DECLARATION

This research project is my original work and has never been produced and presented for a degree in any learning institution or any university.

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DEDICATION

This work is dedicated to my husband Fredrick, my sons Elim Luise and Jeremy Kileons for without their support and hope, I would not have made it this far. Further dedication also goes to my father Kileon for his mentorship and role modeling that has shaped me to who I am today and my attitude towards everything especially learning.

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ACRONYMS AND ABBREVIATIONS

Dr.	Doctor
CGAP	Consultative Group to Assist the Poor
G-Cash	Globe Cash
M-Pesa	Mobile Pesa
ITU	International Telecommunication Union
CCK	Communication Commission of Kenya
MNO	Mobile Network Operators
MFI	Microfinance Institution
CBA	Commercial Bank of Africa
AFI	Alliance for Financial Inclusion
SMS	Short Message Service

ABSTRACT

Access to Formal Financial services remain of interest to many especially in the developing countries. This is because it does not only benefit the individuals but also contribute to the overall growth and development in a nation. The challenge of access to formal financial services is accelerated by poor infrastructures especially in rural areas of Kenya, coupled with distance to the formal financial providers and the cost related to operating the bank accounts. Serving the poor with financial services remains a challenge to the formal financial institutions due to expenses involved with low profitability. The purpose of this study was therefore to investigate knowledge and perception on mobile money and its influence on access to formal financial services. The main objectives of the study were, to examine the extent to which perception on the mobile money influences access to formal financial services, to establish the extent to which knowledge on the use of mobile money influenced access to formal financial services, to examine the extent to which cost effectiveness of mobile money usage influenced access to formal financial services and to establish how access to mobile phone influenced the relationship between youth knowledge and perception on mobile money and access to formal financial services. The study targeted 375 youths between 18 to 35 years of age residing within Kombewa division of Seme Sub County. It also targeted the formal financial service providers serving the sub county. A descriptive survey design was employed in the study. The data was collected using both closed and open ended questionnaires and interview schedules. Validity of the instrument was ensured by structuring the questions in line with the study objectives, supervisor and peer review of the tool. Reliability of the instrument was assured through internal consistency technique using the Kuder-Richardson (K-R)20 formula. Analysis involved descriptive statistics for the quantitative data and qualitative data was transcribed and organized in themes and reported. There was a moderate significant positive correlation between perception on mobile money and access to formal financial services, $r= 0.440$, $p<0.001$ (1-tailed), CL=95%. A strong significant positive correlation was established between knowledge on mobile money and access to formal financial services, $r= 0.675$, $p<0.001$ (1-tailed), CL=95%. A very weak insignificant positive correlation was evident between cost effectiveness of mobile money and access to formal financial services, $r= 0.193$, $p=0.003$ (1-tailed), CL=95%. It found that there was weak significant positive correlation between access to mobile phones and access to formal financial services, $r= 0.373$, $p<0.001$ (1-tailed), CL=95%. It was concluded that sensitization on mobile phones and use to enhance knowledge would enhance access to formal financial services for the youth residents of Kombewa Division. It was also concluded that persuading favorable perception on mobile money would enhance access to formal financial services for youth residents of Kombewa Division. It was concluded that mobile money was cost effective for the youth residents in Kombewa Division. It was also inferred that making mobile money more cost effective would enhance access to formal financial services for the youth residents in Kombewa Division albeit to a small extent. It was also inferred that improving access to mobile phone among the youth in Kombewa Division would enhance access to formal financial services among the youth in the Division though to a small extent. The mobile service providers should also heighten the sensitization to enhance knowledge on mobile money, they should strive to further enhance favorable perceptions on mobile money and reduce transaction costs a little to improve access to formal financial service among the youth residents of Kombewa Division.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Utilization of financial services especially among the poor has gained expanded interest globally especially in upcoming and developing countries. Policymakers are continually concerned that the benefits yielded by financial intermediation are not redistributed fairly among the population and within the different economic segments, with worse effects on growth and poverty levels. Further, they get concerned with the likely negative effects of stability at the national level when much wealth is spread across few people, firms and sectors. Ability to get banking services enables individuals and firms to be able to participate in business prospects, put money in education, keep money for later days, and insure against risks (Demirgüç-Kunt, Beck, and Honohan 2008).

Globally, over 2.5 billion people have no bank accounts any any formal financial institution. This leads to many operating in the cash economy especially in the developing countries. What this means is that they use cash in many cases, physical assets like livestock and also informal money lenders for their financial needs. Such non formal ways are not safe, very costly and never easy to use. Such are not even able to cushion when big problems come up like serious illness in a household (World Bank, 2012).

Kimenyi and Ndungu, (2009) note that improving access of financial services among the poor can improve the pace at which they come out of poverty and assist them achieve some economic milestones. This however is not a cheap a fare for the financial service providers partly due to the poor use cash a lot and keeping, transporting and processing liquid cash is

not cost effective for banks, insurance companies and the like thus they pass the cost to the clients.

The global revolution in mobile communications with quick growth in digital payment structures is bringing new windows to onboard poor people to cheap and reliable financial tools via mobile technology and other related interfaces. Studies reveal that the best way to substantially onboard the poor population on formal financial services is via mobile technology. (Bill and Melinda Gates Foundation, 2015)

In Africa, 23% of adults have bank accounts. There exists a large variance in ownership of accounts among adult population. About 24% of adults in Sub-Saharan Africa do own a bank account. Of this, majority of about 51% are in South Africa and 11% are in Central Africa. In the the DRC and Central African Republic, over 95% adults do not have bank accounts. In the Northern Africa, about 20% of adults have a bank account with the highest being Morocco at 39% and the lowest being 10% in Egypt. In East Africa, 28% are reported to have bank accounts. (Demirguc-Kunt and Klapper 2012).

According to Dard (2008), over 1.3 million new on-boarding on mobile phone technology happen worldwide. Actually, Mobile technology reaches the majority of the population today.

Ownership of bank account in Kenya is left to the well to do and the middle class in the society. (Central Bank of Kenya 2009). Several efforts though go from all sorts of corners all in the attempt to ensure the gap is filled. Different challenges have also been cited by the stakeholders concerning the accessibility to financial institutions by the poor which further thwart the efforts of the players: insufficient documentation by the poor, distance from a

bank, cost of operating bank accounts, poor infrastructure and heavy branch regulations restricting geographical expansion of bank branches. (Demirguc-Kunt and Klapper 2012)

Apart from money transfer, mobile money can be used for temporary saving where individuals can save small amount of money to meet almost immediate needs. This is because the account has password which can only be accessed by the account holder. This can prove safer than the traditional methods such as the under mattress saving or even the informal savings groups (Helmo,2015).

Missing in most of the researches carried so far is detailed information on how knowledge and perception on mobile money influences access to formal financial services among the youth. When the population gets access to banking services, it gives opportunity for economic growth both at household level as well as the national level. This access has been limited to the few elite and the middle class. People have not been accessing financial services for a number of reasons ranging from distance to banks, unfulfilled requirements' by the Formal financial institutions, costs of accessing the financial services that includes the transport and transactional costs, limited presence of financial institutions branches to serve the population in need, myths about Financial institutions among other reasons. (Giuliani et al 2008)

1.2 Statement of the problem

A number of initiatives have targeted financial inclusion in Kenya among the poor population. Vision 2030 also advocates for inclusive financial systems. Mobile money has been in the Kenyan economy for some time with Safaricom Mobile Money Network M-Pesa currently taking dominance and fame. Access to Formal financial services gives opportunity

for economic growth both at household level as well as the national level. (Kimenyi &Ndungu 2009)

According to Hopkins (2012) youths do experience many challenges in accessing financial services. Some of those challenges include barriers evident in the legal framework, services and products that are unsuitable for the youths as well as low income levels. The other challenge is that often these services may not meet the needs of the youths and are never offered through appropriate delivery channels that suite the youth. Many youths actually save little amount of money either gotten from parents and relatives or through exchange of labor.

This study explored knowledge and perception on mobile money and its influence on access to formal financial services among youths in Seme sub-county: a case of Kombewa division.

According to Central Bank of Kenya (2013), only 35% of the Kenyan population is accessing formal financial services despite existence and wide use of mobile money in the Country yet majority of youths have mobile phones which should facilitate their access to formal financial services. The purpose of the study was to determine how knowledge and perception on mobile money influenced access to formal financial services among the youths in Seme district: a case of Kombewa division.

1.4 Objectives:

The following were the objectives of the study:

- i. To assess the extent to which knowledge on the use of mobile money influences access to formal financial services among the youths in Seme sub county, Kombewa division.

- ii. To determine the extent to which perception on mobile money influences access to formal financial services among the youths in Seme sub county, Kombewa division.
- iii. To examine the extent to which cost of mobile money influences access to formal financial services among the youths in Seme sub county, Kombewa division .
- iv. To establish how access to mobile phone influences the relationship between youth knowledge and perception on mobile money and access to formal financial services among the youths in Seme sub county, Kombewa division

1.5 Research questions

- i. To what extent does knowledge on mobile money influences access to formal financial services among the youths in Seme Sub County?
- ii. To what extent does perception on mobile money influences access to formal financial services among the youths in Seme Sub County?
- iii. To what extent is the cost of mobile money influences access to financial services among the youths in Seme Sub County?
- iv. To what extent does access to mobile phone influence the relationship between youth knowledge and perception on mobile money and access to formal financial services among the youths in Seme Sub County?

1.6 Significance of the Study

The research study is of significant to many to including the scholars who would use the knowledge generated from this study to further understand the concept of access to financial services through mobile phone related technology.

The Non-governmental organizations that are interested on understanding the relationship that exist between mobile money and financial inclusion, more so among the youth will utilize this knowledge to make decisions on their programs.

One of the government core mandates is to reduce poverty among its populace. Of priority currently is the empowerment of the youths and financial inclusion. It is hoped that the government will use this study to formulate its policies regarding youths' access to formal financial services.

The financial institutions' major mandate is to reach the largest clientele base. It also hoped that the financial institutions will be interested in understanding how knowledge and perception on mobile money influences access to formal financial services.

As part of the policy planners, the role of the planners is to use existing knowledge to make new policies. This therefore is one of the sources of their policy based knowledge that will enable them make practical policy suggestion and decision making.

Basic Assumptions of the study

The study assumed that all the respondents would be willing to give their responses and also that the responses given by the respondents were genuine and accurate. The study also assumed that the financial institutions would be willing to share some of their data without infringing on their policies and that no interference of any sort would happen during the research process. It also assumed that all youths owned or had access to mobile phones.

1.8 Limitations of the study

The study covered all the rural districts within Kenya but due to the large population of Kenyans, the researcher was constrained of resources and therefore limited the study to Kombewa division. Samples of youths were picked as the researcher could not afford to interview all the possible respondents within the division. The study also utilized a range of data collection tools for complementarity and comparison, due to time limit and resources, the study only utilized self-administered questionnaires.

1.9 Delimitations of the study

The research was conducted in Kombewa division of Seme Sub-county. Seme Sub County lies within Kisumu County in Kenya. This is one of the rural areas within the county which hosts agricultural and fishing based economic activities as well as tourism. The population of Seme County according to 2009 census report, Seme constituency had 29,703 youths between age 15 to 34. The study targeted the youth between 18 to 35 years of age within Kombewa division as the youths represented the most vulnerable population within Kenya.

1.10. Definition of significance terms used in the study

Perception on mobile money - Attitude, feelings, opinion, about mobile money including those licensed to operate mobile money access points, these may include distance/proximity, cost, service quality, and safety and security of transaction.

Knowledge on mobile money usage- literacy level of the youth on operation of mobile money and ability to use it.

Cost effectiveness of mobile money-justification of the transactions costs vis avis costs involved if one is to travel to the nearest bank branch or bank agent.

Access to mobile phone- being able to get a mobile telecommunication gadget for use, either personal or borrowed

Financial services- services ranging from access to saving services, credit services, payment services, transfer services, insurance services.

Mobile money - Is a digital platform that allows people to make virtual cash transactions

Financial inclusion/Financial Access – The use of formal financial services by individuals or groups such as savings, access to loan products from financial institutions, insurance services, and payment services through the Formal Financial institutions.

Formal Financial institutions –these refers to Banks, Microfinance Institutions, Insurance companies,

Youth-Anyone between 18-35 years of age according to Kenyan definition.

1.11 Organization of the study

This study is organized in five chapters. The first chapter highlights the introduction to the study which has ten sub themes. Under introduction the paper has discussed the background of the problem and gone ahead to state the problem and the purpose of the study. The section also includes research objectives, question and significance of the study. Towards the end of chapter one, the paper discusses limitations and delimitations to the study and goes ahead to outline assumptions and definition of key terms used in the study. The second chapter highlights review of existing literature. This chapter contains introduction which discusses the existing literature on the different themes of the study. The papers goes ahead to draw the perceived conceptual framework. Chapter three discusses the methodology used in the study. The chapter has nine sub themes which include research design, target population, Sample Size and sampling procedures, data collection instruments and procedure, validity and reliability of instruments, data collection procedures, analysis, ethical considerations and operationalization of variables. Chapter four presents results of data analysis; it interprets the results of the study research and discusses the findings in line with the empirical literature. The analysis, presentations, interpretations and discussions of the findings in accordance with the four objectives of the study as chapter five presents the summary of the findings of the main study, conclusions, recommendations arrived at and contribution to body of knowledge. It also gives suggestions for further research

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The literature review captures five thematic areas of the study. These include: Perception on Mobile money and access to formal financial services, knowledge on mobile money, cost effectiveness of mobile money and access to formal financial services, access to mobile phones and access to formal financial services, Further, it captures the theoretical and conceptual frameworks of the study.

2.2 Knowledge on mobile money usage

According to Morawczynski et al (2009), one good thing about mobile phone is the release of money flow in nations that have infrastructural challenges. It has heightened knowledge on such terms as ‘Pin number’, ‘transfer’, ‘account’ and the like, terms that were foreign. All these are a preparation to the next level of getting and utilizing bank accounts and other financial services for the first time. This is because people increasingly know the importance of not burying money in the ground when there are better ways to keep it.

Mobile gadgets are increasingly becoming known and utilized worldwide today.

Mobile money technology and electronic transfer of money from one person to another are replacing liquid cash currently and all this is as a result of availability of mobile phone technology. (Micheni et al 2013)

According to Micheni et al (2013), Mobile Money is a virtual technology that enables people to send money to others through a mobile gadget .In Kenya, mobile money is seen as bringing a lot of changes in the financial service thereby improving the number of people accessing financial services.

There are two descriptions given to access to formal financial services. Bank led description and non-bank led description. Bank Led description is where an authorized bank offers banking services via a bank agent who then interact with all their clients. In this case, the bank remains the soul provider of banking services and the institution in which the clients keep accounts (Martina, 2015).The non-bank led on the other hand is one in which a bank does not surface, apart from being a holder of excess money. In this case, the Mobile Network Operators carry out most of the work depending on the partnership in any sub-models. Some of the sub models of non-bank model include; Joint venture model, Third party providers and Telcom- led model. (Ketley, 2010).In M-Pesa mobile-banking service for example, Safaricom becomes the third party provider that utilizes Vodafone mobile service and utilizes banking services of Central Bank of Kenya (AFI, 2011).

Writers like Porteous (2006), Weber and Darbellay (2010) describe Mobile money as a financial activity in which monetary transactions are carried out through the mobile phone and other mobile devices. They further categorize mobile money in to mobile banking and mobile payment. The International Finance Corporation (IFC) defines mobile money as money that can be received and utilized through mobile phone (Jenkins, 2008).

Porteous (2006), m-banking is additive if it only increases the choices range or increases convenience of an already existing client of a formal financial institution. It is transformation if it targets those who do not have a formal bank account at a banking institution.

Njenga (2009), Transformational banking expands the rate at which people receive formal finance more so in rural areas with majority of the poor population.

In Kenya, certain mobile money partnership are transformational, this implies that, 'the mobile banking offer financial services at reasonable scale to those who have never been banked thus lowering the cost of the service. In most of the developing countries, majority of the population depend on informal economic activities for their living. Majority of such populations do not receive basic banking services since they are costly and are rare to access (Ignacio, 2008). An example is m-Pesa that is said to accelerate savings among such population and in many cases these are the majority living in poverty. Further, it also works to complement the work of the banks (Sermeno , 2012).

There has been over excitement on the fact that Mpesa can be used for saving, among 34% of respondents of a study who said to keep money in their phones said that this was to help them get some cash to fall back on when in need or for mobility and not for purposes saving long term. Terminology in local languages reveals that holding a reserve of funds to fall back on in emergencies is something people expect to have but which they do not think of as form of saving. M-Pesa has brought payments services to very high proportion of the population, and has precipitated a wave of innovation with great expectations for access to a wider range of financial services through mobile phones (Susan *et al*, 2012).

2.3 Perception on mobile money in accessing formal financial services

Central Bank of Kenya(2013), about 76% of of the population in the rural areas are closer to a mobile money agent. For the rural people, it takes lesser time to reach mobile money agent than reaching a brick and motor bank branch or to the bank agents. 22% of those in rural areas may pay slightly more than Kes50 to a mobile money agent. In contrast 68% may pay above KSh 50 to get to a bank branch.

According to Kimenyi and Ndungu (2009), some of the weaknesses of mobile phone based banking that can disorientate financial structure and reduce the efficiency of the payment system may include unauthorized movement of funds, connectivity problems, cash balances that are not matching at the payment points, as well as problems associated with high volumes of exchange of money leading to difficulty in stopping unauthorized transaction.

According to Lara, Porter and Macaulay (2010), factors as life cycle or phase, gender, employment status, education levels, vulnerability should be considered when reflecting on access to financial services among the youths. When designing and delivering products, it is necessary to consider such factors for effectiveness and efficiency purposes.

Since mobile money channels give real-time transfer of money and an instant sms receipt after transaction, it can boost the trust and enhance savings and repayment behavior. More benefits to customers when they have all their financial relationship and virtual payment present via a unified interface available for them all the time through their own mobile phones (Kendall,et al 2012)

According to research conducted by Intermedia in 2009 reveal that over 55% of the participants who responded mentioned that they have used a mobile phone sometime back to carry out their businesses including sending and receiving money among others. Further, 86% Kenyans agreed that it was easy to use mobile phones. 23% had done some financial transactions using mobile phones. (Bowen and Goldstein, 2010)

Majority of those who use mobile phones do not have bank account. In Kenya 43% of adults who actually say they have ever utilized mobile money for the last 12 months do not own bank account. (Demirguc-Kunt and Klapper, 2012).

Njenga (2009) says some of the challenges include lack of able mobile phone gadgets, lack of experience by users, no clearer business models, unwillingness from the banks, unavailability of technology standards within the globe and issues of consumer rights. He further mentions agents as having issues with float management more so inadequate funds that can meet the withdrawal demands of clients.

2.4 Cost of Financial transactions through mobile phones

It has also been recognized that even for those with bank accounts, physical distances to branch banks or points of financial service adds significantly to transactions costs. (Kimenyi and Ndungu, 2009).

Mobile money operators normally take a higher advantage of agency network to heighten the distribution of their services to clients. Agents are either owned by the Mobile Network Operators or are existing retailers of other items which then are sub contracted by the Mobile Network Operators to conduct business on their behalf. To heighten the distribution of their services, the Mobile Network Operators maximize the use of outside retailers. In which case, there is a hierarchy of these agents as well where the larger agents

have the responsibility of overseeing and managing many of the smaller agents. Retail agents are situated close to the clients they would serve. They actually offer services ranging from onboarding of clients and cash transaction both deposits and withdrawals besides the education of the customers (Lal and Sachdev ,2015).

According to Kumar (2008), banking via mobile phone is cheap as the bank and its clients do not have to meet thus no travelling involved.

DFID (2008) notes that in the developing and middle income countries, brick and mortar kind of banking is reducing and instead, branchless banking is being adopted. Bank agents are used to lower the cost of banking services through Information and Communication Technologies.

According to Ignacio (2008), mobile banking enables one to carry out a cashless transaction from your comfort. This thus enables banks to put more time on improving quality of their services and marketing leaving the agents to interact with their clients. This is viewed as a milestone in global access to financial services as this enables people who previously were unbanked to banking services and eventually socio-economic growth and development would take natural course (Bangens and Soderberg, 2008).

According to Dimirguc-Kunt and Klapper (2012), Mobile money has enabled many who were not getting banking services to atleast participate in the financial systems at cheaper cost and dependable way. Mobile money has gained much success in Sub-Saharan Africa with over 16% stating they have used a mobile phone in the last 12 months to pay for their utilities, send money to another person or receive money from others. In Kenya, with m-Pesa launched in 2007, about 68% of adults state having used mobile money.

In Africa, East and Central Africa report more than 20% of their adult population having used mobile money. m-Pesa fees are said to be high though and is cited as not cost effective for many poor people who prefer to rather keep money under their mattresses or use informal saving means than to keep on m-Pesa which will attract a higher cost. This is still cited as a major barrier to reaching the majority of the poor population. (Kendall,et al2012)

2.5 Access to mobile phones and access to formal financial services

In the 1990s Kenya was worse of when it comes to penetration of mobile phones. This was due to the fact that the Kenyan government did a lot of restrictions on entry of the same. When the government changed and relaxed such restrictions, much supply of mobile gadgets was witnessed in Kenya than before as a result of competition. This saw the number of subscribers rising from 3.4 million in 2004 to 16million in 2008 (Kimenyi and Ndungu, 2009).

According to Bowen and Goldstein (2010), Mobile phones have the capability of reaching the rural population with financial services as it acts as a stepping stone.

Jenkins (2008), have expressed that within Sub Saharan Africa, besides communication, mobile phones help with mobile money services.

According to Etim (2014), notes mobile payment structures that are key in Sub Saharan African. The additive structure and transformative structure. In the additive structure, bank account holders can utilize their mobile phones to get access to their bank accounts including account balance inquiry and transfer of money between different accounts. The

transformative structure on the other hand enables those without account to also access financial services through their phones without having to own a bank account.

Etim (2014) further notes that mobile phone users in Kenya and South Africa who have no bank accounts are currently able to use mobile money for conducting most of their financial activities including paying for their utilities, transferring money from one person to another, purchase of goods among other financial services.

2.6 Access to formal financial services by the rural population

Recent evidence from Global Findex2 database shows that less than a quarter of adults in Africa have an account with a formal financial institution and many adults in Africa use informal methods to save and borrow. (Demirgüç and Klapper, 2012)

By 2007, about 70% of Kenyan households had no bank accounts and rather majority depended on the informal sectors for sources of money. This thus limits market exchanges, increased risk and offered no chances for savings. When households lack formal financial services, they tend to seek other alternatives as informal sources which are very expensive for them. Enhancing access to formal financial services to many households in developing countries thus is very important for any policy goal. Further, even the population with bank accounts suffers challenges associated with distance to brick and mortar banks branches as this only increases the cost of accessing the same service.(Kimenyi and Ndung'u, 2009)

Access to financial services in Kenya has experience an increase from 18.9% to 35% between 2006 and 2013. (Ndungu, 2013)

Challenges to accessing formal financial services in Kenya from the bank or financial institutions side include high charges and costs that are related to distance to a banking institution, strict requirements for opening and sustaining the bank account, lack of appropriate products, lack of better risk assessment criteria, lack of adequate information among others. On the side of the consumers, limited income, unemployment, low financial literacy levels, some cultural, social and religious barriers among others.(Ndung'u, 2013)

In Kenya, number of deposit accounts with banks has increased from 1.9 million in 2002 to over 20.9 million in June 2013. Number of micro accounts has increased by over 900% from about 1.55 million accounts in 2002 to about 19.91 million accounts in June 2013. Growth attributable to reduced costs of maintaining micro accounts and financial mark. Number of loans accounts on the other hand has increased from 1.22 million as at December 2007 to 3.81 million as at June 2013. Net loans have increased from Ksh. 222.8 billion in 2002 to Ksh.1, 400.1 billion in June 2013. Growth is largely accredited to the financial Inclusion reforms and initiatives, innovations especially technological led innovations and financial awareness initiatives. (Ndung'u, 2013)

It may be acknowledged that microfinance institutions have delivered financial services to millions of the poor population globally, this may not be a big percentage but rather a small fraction of the population in the developing economies where majority still lack access to financial services. Brick and mortar bank branches need a huge investments both in physical infrastructure as well as personnel costs. This therefore is not effective in

reaching the underserved population especially in rural set ups. (Kimenyi and Ndung'u, 2009)

Both in Sub-Saharan Africa and North Africa, most people cite lack of enough money as a reason for not having a bank account. Such response is cited by over 80% of adults who do not own bank account, 30% of which cite it as the only reason in Sub-Saharan Africa and more than 60% of respondents citing it as the only reason in North Africa. Cost, distance, and documentation are also cited by more than 30% of non-account-holders in Sub-Saharan Africa. In North Africa, cost is the second most frequently cited reason. Insufficient documentation is a commonly cited reason for younger adults in Sub-Saharan Africa and distance from a bank is an important barrier for adults living in rural areas. Fixed fees and high costs of opening and maintaining accounts seem to be particularly important in Eastern and Southern Africa. (Demirgüç-Kunt and Klapper ,2012)

Kenya has witnessed in the last three years dramatic changes in the financial sector. Commercial banks have realized that reducing the barriers to opening accounts including minimum balances in opening a bank account can improve the number of accounts. This among others have made the banks accounts to rise from 2.3 million to 6.7 million in 2006 and 2007 respectively. This has also seen deposits rise from kes 540 billion to kes 950 billion in 2006 and 2009 respectively. Even with such growth, many Kenyans do not still have access to financial services. (Kimenyi and Ndung'u, 2009)

Across the African continent, new mobile platforms have allowed previously unbanked populations to securely transfer funds, pay bills, open bank accounts, and access basic insurance products. In some countries these technologies have yet to take off, while in others significant innovations are taking place. Mobile phones are therefore allowing

financial inclusion to take root. While access to technology has grown, access to formal financial system has not kept pace (AFI, 2011).

The Kenyan experience with mobile phone banking is testimony to how technological innovations coupled with a supportive policy environment and appropriate oversight can expand the financial services frontier. (Kimenyi and Ndung'u, 2009)

Common mobile financial services offered via the mobile phone include bill payment, account transfers, domestic and international person to person transfers, proximity payments at the point of sale, and remote payments to purchase goods and services.(Micheni et al, 2013)

According to Kisumu County (2013), Enormous windows exist within the economy to accelerate financial services to the rest of the population who otherwise do not have bank accounts especially in the rural areas. To actualize this dream, this calls for private financial institutions establishing branches in rural areas to be able to reach majority of the population currently without formal financial services. The County encourages deposit taking micro-finance to pick on this task and challenge.

Pande et al (2012) also notes that, mobile money has the capacity to improve income by enabling households to save and make investment and in return increase wealth. Certain challenges however would not for example enable banks to give credit facilities at low rates that would benefit the poor population. Further, uptake of formal financial services may still be lower as a result of low information and other social barriers.

Some of the innovations in savings products and enhancement of banking technology are promising as they address the behavioural and physical barriers to financial services. (Pande,et al, 2012).

Use and access to financial services may be improved through programs and policies which accelerate public or private sector based banking services or advancement of banking technologies. Financial education programs that improve knowledge on products may accelerate the demand for financial services (Pande, Cole, et al 2012).

Sarker and Wells (2003) assert that the only single access requirement or barrier to the resultant mobile banking will be the mobile phone. However, worldwide market penetration of affordable cellular devices and growing network service diffusion makes this intricacy almost fully resolved hence setting a firm pedestal for mobile banking escalation.

According to Njenga(2009), mobile banking possess different sides to implementation with all reflecting a new delivery channel that enables banks and other commercial players to provide financial services away from the brick and motor structures.

2.7 Theoretical Framework

The study used the New Growth Theory by Cortright that views the economy as incorporating two important points. First, it views technological progress as a product of economic activity. While previous theories treated technology as a given, or a product of non-market forces, New Growth Theory internalizes technology into a model of how markets function. Second, New Growth Theory holds that unlike physical objects, knowledge and technology are characterized by increasing returns, and these increasing returns promote growth (Joseph Cortright, 2001). This theory is relevant to this study as it

gives a picture of how mobile money is meant to accelerate access to formal financial services

2. 8. The Conceptual Framework

Independent Variable

Dependent Variable

Mobile money

Access to formal financial services

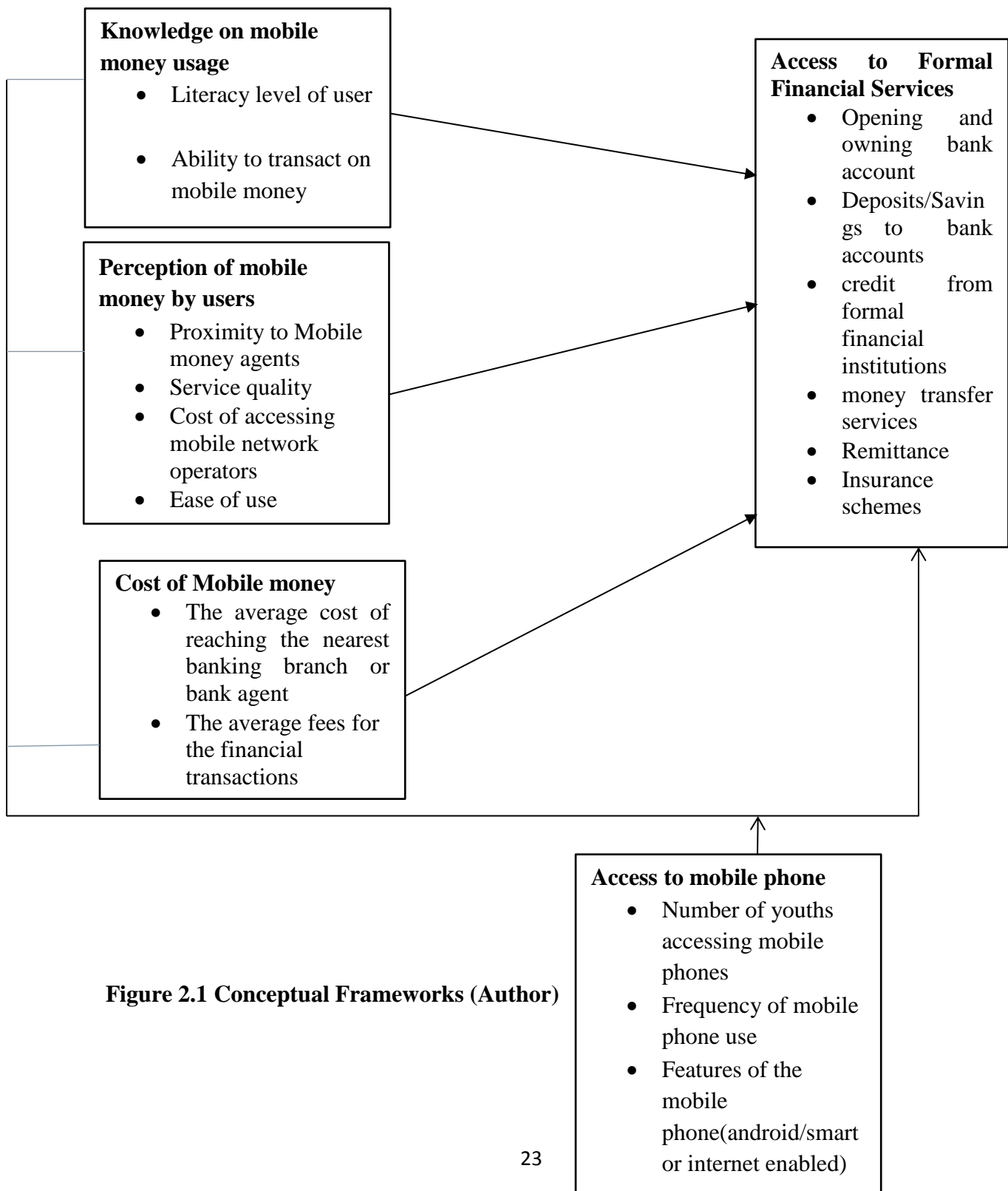


Figure 2.1 Conceptual Frameworks (Author)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter explains the methodology the researcher will use to carry out the study. It includes the description of the research design, target population, sample size and sampling procedures, data collection instruments, data collection procedures, data analysis techniques, ethical consideration and operationalization of variables.

3.2 Research design

The research employed survey methods of data collections including closed and open ended questionnaires. According to Mugenda (2003), descriptive survey research design allows the population to express their attitudes and behaviors on the topic of study. It described the how, the when, who, when of the research. This is exactly what this study used. The data collected was therefore analyzed and presented in a systematic manner.

3.3 Target Population

The study involved the youths between 18 to 35 years of age. The study sample was drawn from Kombewa division Seme Sub County. The study also involved investigation on the financial providers both the Mobile Money networks and the conventional banks and MFIs.

3.4 Sampling size and Sampling procedures

This section gives an overview of the sample size and the sampling procedure used in this study.

3.4.1 Sample Size

A Sample size of 375 youths was selected. This is derived from the sampling table below.

Out of the 11000 youths, 375 youths were randomly sampled.

3.4.2 Sampling procedure

Two sampling methods were employed with different categories of respondents. For the youths, a two stage cluster sampling was employed. Youth groups within the 4 divisions namely South Central, South West, North Central and West Seme were identified and sampled. A further sample was generated from the sampled groups for respondents. Considering population of N clusters in total, n clusters was selected using ordinary cluster sampling method. 550 youth groups existed within Kombewa division from which 225 youth groups were cluster sampled. Average membership of the youth groups was 20. Second stage, a simple random sampling was used. Using the sampling table in appendix ii, for N of 11000, the sample size was therefore 375 youths.

For the Financial institutions, Purposive sampling was applied. Only reliable and popular financial institutions and their agents or mobile money networks participated in the study.

Three banking facilities were sampled among the many reliable financial institutions.

The branch managers or operation manager of the banks filled the questionnaires and where possible, some bank customer care employees.

3.5 Data collection instruments

This section highlights the data collection instruments used in the study, pilot testing of the instrument, validity of the instruments and reliability of the instruments.

Questionnaires: This was administered to the youths as well as the bank and MFIs practitioners. The questionnaire was a self-administered one. This is because it gave the respondent's time to give their opinions without fear; they were assured of anonymity and confidentiality. The tool had both closed and open ended question. This gave room for the youths who wanted to give more information which further led to a more elaborate generated report depicting the youth's opinion, belief, practice and values concerning the mobile money and financial inclusion.

3.5.1 Pilot testing of the instruments

The tools used in the study were pre tested in a pilot study that gave guidance on the reliability and validity of the tool. By doing this, the tool was adjusted according to the reliability and validity issues that arose. The piloting was conducted in areas neighboring Seme Sub County hence that the study area did not get pre exposure to the instruments.

3.5.2 Validity of the instrument

The researcher developed clear questions guided by research objectives in order to capture precise and relevant information to ensure the research instruments measured what they were intended to measure. The research instruments were subjected to review by supervisors to ensure they captured the relevant data. The tools were also subjected to

peer review. The research questions which were not clear were reviewed in order to improve on the validity of the instrument.

3.5.3 Reliability of the instrument

According to Mugenda and Mugenda(2003),Reliability is a measure of the degree to which a research instrument yields consistent results or data after repeated trials influenced by random error.

In this study, the internal consistency technique was applied to increase reliability. In this approach, a score obtained in one item was correlated with scores obtained from other items in the instrument.

Cronbach's Coefficient Alpha was then computed to determine how items correlated among themselves. Cronbach's Alpha is a general form of the Kuder-Richardson (K-R) 20 formula (Mugenda and Mugenda 2003)

3.6 Data Collection procedures

The study sought research permit from the Kenya National Council for Science and Technology upon presentation of two copies of approved research proposal. This permission gave authority to the researcher who then undertook the study in the stated study sites. Both quantitative and qualitative techniques were used during the study. Trained research assistants were used to collect the data using data collection the prescribed instruments which were checked each day till the last day of data collection. It was estimated that data collection would take 15 days depending on the availability of the respondents.

3.7 Data Analysis and presentation of the report

According to Kothari (2004), data processing implies editing, coding, classification and tabulation of collected data to enable analysis while analysis refers to the computation of certain measures along with searching for patterns of relationships that exist among data groups.

Descriptive statistics was used in analyzing the collected data from the questionnaires. Regression analysis was then run on the last objective. The study involved the statistical packages for data analysis for example the SPSS. For the qualitative data, analysis was done in the different thematic areas

The report was done objectively and with quality standards upheld. Both the descriptive information and the qualitative information were presented in the report.

3.8 Ethical Consideration

The study acquired authority from the National Council of Science and Technology to conduct research. All the ethical aspects of research, which included getting informed consent of respondents to participate in the research, ensuring anonymity, privacy and confidentiality, were observed.

3.9 Operationalization of Variables

Table 3:1 Operationalization of Variables

Research Objectives	Main Variable	Research instrument	Level of measurement scale	Data analysis	Questions
Extent to which knowledge on the use of mobile money influences access to formal financial services	Knowledge on mobile money usage <ul style="list-style-type: none"> • Literacy level of user • Ability to transact on mobile money 	Questionnaire	Ordinal	Frequency	I am aware of mobile money I can withdraw money from my mobile money account I can send money from my mobile money account I don't need assistance of the agent to make a transaction on mobile money I can reverse erroneous transaction easily
The extent to which perception on mobile money influences access to formal financial services	Perception of mobile money by users <ul style="list-style-type: none"> • Proximity to Mobile money agents • Service quality • Cost of accessing mobile network operators • Ease of use 	Questionnaire	Ordinal	Frequency	A mobile money agent is at close proximity There is always enough flout whenever I need money from the nearby agent The mobile agent nearby has good etiquette It costs less to reach the nearest mobile agent It is not hard to use mobile money The quality of service I get from mobile money is good It is cheap to utilize mobile money

	enabled)				
	Access to financial services		Ordinal		<p>I have used mobile money more frequently</p> <p>I have sent money through mobile money</p> <p>I have withdrawn money from my mobile wallet</p> <p>I have used mobile money platform to open a bank account</p> <p>I have deposited money in my bank account via mobile money</p> <p>I have accessed a loan facility through mobile money</p> <p>I have repaid a loan through mobile money</p> <p>I have used mobile money to pay for utility bills</p> <p>I have used mobile money to pay for goods and services</p> <p>I have used mobile money to pay for insurance services</p> <p>I have used mobile money to query my bank account balance</p>

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION

4.0 Introduction

In this chapter, data is analyzed, presented and interpreted. The study findings are further discussed in line with the empirical literature. The analysis, presentations, interpretations and discussions of the findings are in line with the study objectives.

4.1 Response Rate

The researcher worked out the questionnaire response rate for the research and the findings were presented in Table 4.1

Table 4.1: Response Rate

Sample size	Respondents interviewed	Percent
375	348	92.8

The response rate for the study was at 92.8% represented by 348 respondents reached and interviewed out of the targeted 375 targeted, this was deemed very good for analysis. The great response rate was attributed the professional approach displayed by the research assistants in conducting the study. A response rate of 50% is considered adequate for analysis and reporting, 60% is good and that of 70% and above is very good (Mugenda&Mugenda, 2003).

4.2 Demographic Factors

This section analyses, presents and interprets the findings on the gender of the respondents, their age, level of education and main source of income.

4.2.1 Gender of the respondents

The respondents were asked to state their gender; the results were as shown in Table 4.2

Table 4.2: Gender of the respondents

	Frequency	Percent
Male	229	65.8
Female	119	34.2
Total	348	100.0

It was established that most of the respondents at 229(65.8%) were males as the least at 119(34.2%) were females. The sampling was done randomly; this meant that the self-help groups were dominated by male youth.

4.2.2 Age of the respondent

The respondents were asked to state their ages. The findings are in table 4.3

Table 4.3: Age of the respondents

	Frequency	Percent
15-20	12	3.4
21-25	57	16.4
26-30	103	29.6
31-35	159	45.7
36 and Above	17	4.9
Total	348	100.0

It was established that most of the respondents at 159(45.7%) were between 31-35 years, 103(29.6%) were between 26-30, 57(16.4%) were between 21 and 25 years of age, 17(4.9%) were 36 and above years with the least of the respondent youth at 12(3.4%) being between 15 and 20 years. This meant that those who engaged in self-help groups were in their prime age. The distribution by age was good and would give representative views of all the youth in each and every age category.

4.2.3: Level of education of the respondent

The respondents were asked to state their level of education and the results are in table 4.4

Table 4.4: Highest level of Education of the respondents

	Frequency	Percent
O level	138	39.7
A level	32	9.2
Certificate	77	22.1
Diploma	37	10.6
Degree	16	4.6
Masters	3	.9
Other(Specify)	45	12.9
Total	348	100.0

It was determined that those with O level education formed the largest proportion of the respondents at 138(39.7%), this was followed by those with certificate at 77(22.1%), other levels apart from those given as options were 45(12.9%), diploma formed 37(10.6%), the count and proportion of respondents with A level followed closely at 32(9.2%), degree was at 16(4.6%) and the least was masters at 3(0.9%).The level of education of the respondents favored a good understanding of the study questions; this enhanced the reliability of the tools and consistency in the responses.

4.2.4 Respondent Source of income

The respondents were asked to state their main source of income and the findings are in table 4.5

Table 4.5: Respondents source of income

	Frequency	Percent
Petty Trade	108	31.0
Farming	97	27.9
Formal Employment	59	17.0
<i>Boda Boda</i>	31	8.9
Other (Specify)	53	15.2
Total	348	100.0

It was established that petty trade was the main source of income for preponderance of the respondents at 108(31.0%) followed by farming at 97(27.9%), formal employment at 59(17.0%), other income sources not mentioned in the options at 53(15.2%), the least respondents were *boda boda* at 31(8.9%).

4.3 Knowledge on Mobile Money and Access to Formal Financial Services

This section analyses, interprets, presents and discusses findings on the first objective: To evaluate the extent to which the knowledge on mobile money influences access to formal financial services.

4.2.1 Knowledge on mobile money

This section presents the views on the knowledge of mobile money by respondents. The respondents were given several 5 point Likert Scale questions to respond to 1-Strongly Disagree,2-Disagree, 3-Neutral,4-Agree and 5-Strongly Agree. At analysis, strongly disagree and

disagree were aggregated into disagree while strongly agree and agree were amalgamated into agree, the means were calculated and interpreted. The results are as shown in table 4.6

Table 4:6: Knowledge on mobile money

Statements	D	N	A	Mean	SD
	(%)	(%)	(%)		
I am aware of mobile money	6(1.7%)	0(0.0%)	342(98.3%)	4.55	.649
I know my mobile money personal pin off head	17(4.9%)	1(0.3%)	330(94.8%)	4.45	.807
I can easily withdraw money from my mobile money account without assistance	21(6.0%)	0(0.0%)	327(94.0%)	4.38	.839
I can easily send money from my mobile money account without assistance	19(5.5%)	3(0.9%)	326(93.6%)	4.36	.782
I don't need assistance of the agent to make a transaction on mobile money	47(13.5%)	8(2.3%)	293(84.2%)	4.07	1.086
I can reverse erroneous transaction easily on my own	95(27.3%)	9(2.6%)	244(70.1%)	3.66	1.227
I can check balance on my mobile money without assistance	29(8.3%)	2(0.6%)	317(81.1%)	4.27	.922
I can call customer care for any issue with my mobile money without any extra assistance	62(17.8%)	8(2.3%)	278(79.9%)	3.92	1.099
I can pay my bills via mobile money on my own	95(27.3%)	13(3.7%)	240(69.0%)	3.67	1.305
I can transfer money from my mobile money to my other accounts on my own	94(27.0%)	5(1.4%)	249(71.6%)	3.68	1.202
Average	49(13.9%)	5(1.4%)	294(84.7%)	4.11	

Majority of the respondents at 342(98.3%), Mean= 4.55, SD=0. 649 were aware of mobile money, the minority at 6(1.7%) unaware with no respondent undecided whether aware or

unaware of mobile money. This meant that there was high mobile phone adoption in Kombewa Division. Preponderance at 330(94.8%), Mean=4.45, SD=0.807, Knew their mobile money personal pin off head, 17(4.9%) did not know their personal pins off head as the least at 1(0.3%) were not sure whether they knew or not, this could be an indication that majority of the youth used their pins so often hence necessitating knowing it off head.

It was popular among 327(94.0%), Mean= 4.38, SD=0.839, of the respondents that they could easily withdraw money from their mobile money account without assistance, the least at 21(6.0%) could not easily withdraw money from their mobile money account without assistance as none of the respondents were undecided, this could be an indication of frequent conduct of such transactions. A larger population of the respondents at 326(93.6%) could easily send money from their mobile money account without assistance, 19(5.5%) could not as the minority at 3(0.9%) were undecided.

Preponderance at 293(84.2%), Mean=4.07, SD=1.086, did not need assistance of the agent to make a transaction on mobile money, 47(13.5%) needed the agents assistance as the least at 8(2.3%) undecided whether they needed assistance of the agent to make a transaction on mobile money or not. Most of the respondents at 244(70.1%), Mean=3.66, SD=1.227, could reverse erroneous transaction easily on their own, 95(27.3%) could not reverse erroneous transaction easily on their own as the minority at 9(2.6%) undecided whether they could reverse erroneous transaction easily on their own or needed help. Majority of the respondents at 278(79.9%), Mean=3.92, SD=1.099, could call customer care for any issue with their mobile money without any extra assistance, 62(17.8%) could not call customer care for any issue with their mobile

money without any extra assistance as the least at 8(2.3%) undecided whether they could call customer care for any issue with their mobile money with or without any extra assistance.

A larger mass of the respondents at 317(81.1%), Mean=4.27, SD=0.922, could check balance on their mobile money without assistance, 29(8.3%) could not as the least at 2(0.6%) were undecided whether they could check balance on their mobile money with or without assistance. It was popular among 240(69.0%), Mean=3.67, SD=1.305, that could pay their bills via mobile money on their own, 95(27.3%) could not as the minority at 13(3.7%) undecided, this meant that the *Lipa na M-Pesa* by safaricom had really picked well among the youth in Kombewa Division.

Most of the respondents at 249(71.6%), Mean=3.68, SD=1.202, could transfer money from their mobile money to their other accounts on their own, 94(27.0%) could not transfer money from their mobile money to their other accounts on their own as the least at 5(1.4%) undecided whether they could transfer money from their mobile money to their other accounts on their own or needed assistance.

Overall, a larger mass of the respondents at 294(84.7%), Mean=4.11 were knowledgeable on basics of mobile money such as paying of bills, money transfers contacting of customer care and mobile money transactions, 49(13.9%) not knowledgeable on basics of mobile money as the minority at 5(1.4%) undecided whether knowledgeable or not on basics of mobile money such as paying of bills, money transfers contacting of customer care and mobile money transactions.

4.2.2 Correlation between knowledge on mobile money and access to formal financial services.

The researcher did a spearman correlation between knowledge on mobile money and access to formal financial services. The results were as shown in Table 4.7

Table 4.7: Correlation between knowledge on mobile money and access to formal financial services

		Access to Formal Financial services	Knowledge on mobile money
Spearman's rho	Access to Formal Financial services	Correlation Coefficient	1.000
		Sig. (2-tailed)	.675**
		N	.000
	Knowledge on mobile money	Correlation Coefficient	199
		Sig. (1-tailed)	.675**
		N	.000
		198	198

It was established that there was a strong significant positive correlation between knowledge on mobile money and access to formal financial services, Spearman's rho= 0.675, $p < 0.001$ (1-tailed), Confidence Level =95%. This meant that those who were knowledgeable on mobile money had better access to formal financial services.

4.3 Perception on Mobile Money and Access to Formal Financial Services

This section analyses, interprets, presents and discusses findings on the second objective: To establish the extent to which perception on mobile money influences access to formal financial services.

4.3.1 Perception on mobile money

This section presents the views of the respondents on mobile money. The respondents were given several 5 point Likert Scale questions to respond to 1-Strongly Disagree,2-Disagree, 3-Neutral,4-Agree and 5-Strongly Agree. At analysis, strongly disagree and disagree were aggregated into disagree while strongly agree and agree were amalgamated into agree, the means were calculated and interpreted. The results were as shown in table 4.8

Table 4:8: Perception on mobile money

Statements	D (%)	N (%)	A (%)	Mean	SD
A mobile money agent is at close proximity	29(8.3%)	8(2.3)	311(89.3%)	4.07	.945
There is always enough flout whenever need money from the nearby mobile network agent	33(9.5%)	49(14.1%)	266(76.4%)	3.84	.877
The mobile agent nearby has good etiquette	14(4.0%)	31(8.9%)	303(87.1%)	4.05	.684
It costs less to reach the nearest mobile network agent	8(2.3%)	8(2.3%)	332(95.4%)	4.40	.652
It is not hard to use mobile money	6(1.7%)	9(2.6%)	333(95.7%)	4.46	2.214
The quality of service I get from mobile money is good	3(0.9%)	8(2.3%)	337(96.8%)	4.29	.551

Mobile money is cheap	8(2.3%)	31(8.9%)	309(88.8%)	4.26	2.806
My money is safe whenever I use mobile money	5(1.4%)	22(6.3%)	321(92.3%)	4.17	.595
I can do many transaction with mobile money while at my comfort zone	22(6.4%)	12(3.4%)	314(90.2%)	4.23	.825
I don't have to queue for long to have my money transaction done	7(2.0%)	10(2.9%)	331(85.1%)	4.39	.672
Average	14(3.9%)	19(5.4%)	315(90.7%)	4.22	

Preponderance of the respondents at 311(89.3%), Mean=4.07, SD=0.945, stated that a mobile money agent was at close proximity, 29(8.3%) stated that a mobile money agent was not at close proximity as the minority at 8(2.3) were uncertain. This meant that the population had a numerous mobile money agents who are serving them adequately. Another study by the Central Bank of Kenya (2013) revealed that for the vast majority at (76%) of the rural population had the nearest financial service provider as mobile money agent.

Majority of the respondents at 266(76.4%), Mean=3.84, SD=0.877, stated that there was always enough flout whenever they needed money from the nearby mobile network agent, 49(14.1%) undecided whether there was always enough flout whenever they needed money from the nearby mobile network agent or not as the least at 33(9.5%) stated that there was not enough flout whenever they needed money from the nearby mobile network agent. This meant that the mobile money agents were meeting the financial demand of the population in Kombewa Division.

It was popular among 303(87.1%), Mean=4.05, SD=0.684, that the mobile agent nearby had good etiquette, 31(8.9%) were undecided with the minority at 14(4.0%) stating that the mobile

agent nearby lacked good etiquette. This meant that the residents of Kombewa Division were satisfied with the way the mobile money agents conducted business and are likely to get more of their services whenever they need them.

An overwhelming majority of the respondents at 332(95.4%), Mean=4.40, SD=0.652, stated that it cost less to reach the nearest mobile network agent as the minority both at 8(2.3%) stated that it cost much to reach the nearest mobile network agent with a similar proportion 8(2.3%) of respondents being undecided. The findings of this study was similar to another study done by the Central Bank of Kenya (2013) that showed that 22% of those in rural areas will need to pay more than KSh 50 to get to a mobile money agent. In contrast 68% will pay more than KSh 50 to get to a bank branch, an indication that majority of the respondents paid less to access a mobile money agent as compared to majority who paid more to access the nearest bank branch services.

A huge proportion of the population at 333(95.7%) were for the fact that it was not hard to use mobile money, 9(2.6%) were undecided as the least of the respondents at 6(1.7%) being for the fact that it was hard to use mobile money. This meant that it would be easy to utilize the mobile money services themselves and on their phones. This was similar to a survey carried out by Intermedia in 2009 that revealed that 86% Kenyans agreed that it was easy to use mobile phones.

Key informant interviews with different bank staffs of both National and Cooperative banks of Kenya supported this finding in that: key informant interviews with the Desk officer of Cooperative bank, revealed that majority of youths had adopted mobile money since it was easy to use as he stated that about 70% of their customers had registered for mobile money increasing financial transactions in the process since mobile money is convenient and easier to use. KII with

the National bank branch manager also supported this in that, on a scale of 1-10, about 8 youths had adopted mobile banking. The Business Relationship officer also supported that mobile money had been adopted by a good number of their clients of about 45%.

A great number of the respondents at 337(96.8%), Mean=4.29, SD=0.551, stated that the quality of service they got from mobile money was good, 8(2.3%), undecided as the minority at 3(0.9%) stated that the quality of service they got from mobile money was bad. This meant that majority of the respondents were satisfied by the services that they received. The findings of this study converged with the findings of another study by Kendall, et al (2012) who established that mobile money platform provides real-time remittance transactions and feedback (including instant SMS receipts), it can help build trust and promote savings and repayment behavior. There may be additional benefits to clients' having all their financial relationships and transactions available through a unified interface that is with them at all times, that is, their mobile phone

KII with various banks staff was in line with this finding as KII with the Cooperative bank officer revealed that mobile users were pleased with the services they got from mobile money as there were few cases reported to the bank on un-satisfaction with the mobile phone transactions because the mobile money platform was frequently upgraded to include more services on the menu bar lowering the rates of complaint as compared to 5 years ago.

KII with National Bank branch manager also supported that the youths did not often report cases of un-satisfaction with mobile banking because of its stability.

Majority of the respondents at 309(88.8%), Mean=4.26, SD=2.806, stated that mobile money was cheap, 31(8.9%) undecided whether it was cheap or expensive as the least at 8(2.3%) stated that mobile money was expensive. This meant that considered the services worth the cost of

transaction. This was supported by KII with the bank branch manager of National bank who stated that the cost of operating an account using mobile money was cost effective- in terms of cheap transaction costs and the real costs which included fare of travelling to the bank and the amount of time spent on long queues.

A majority of the respondents at 321(92.3%), Mean=4.17, SD=0.595, stated that their money was safe whenever they used mobile money, 22(6.3%) of the respondents were undecided with the minority at 5(1.4%) stated that their money was not safe whenever they used mobile money. Another study by Kimenyi M and Ndungu S (2009), contradicted this findings as it stated that some vulnerabilities of mobile phone banking that can destabilize the financial system and lower the efficiency of the payment system include fraudulent movement of funds, network hitches, mismatch of cash balances at the pay points, and problems that associate with high velocity of funds making it difficult to stop suspect transactions.

It was popular among 314(90.2%), Mean=4.23, SD=0.825, that they could do many transactions with mobile money while at their comfort zone, 22(6.4%) stated that they could not do many transactions with mobile money while at their comfort zone as the least at 12(3.4%) undecided whether they could or could not do many transactions with mobile money while at their comfort zone. This is in convergence with a study done by Ignacio (2008) which established that with mobile banking you can do cashless transactions right from your home, coming close to the typical “utility” vision of water and electricity in every home. The key informant interview with the Business Relationship officer of Cooperative bank confirmed that they could do many transactions with mobile money while at their comfort zone as on his take on mobile money in light of its influence on access to financial services especially at the bank, he stated that there

was a high decrease in the number of queues at the bank because customers transacted through their phones, hence did not visit the bank frequently.

KII with the bank manager also revealed that the adoption of mobile money was high since about 40 % of their clients had taken up mobile money. This increased the number of customers who had access to our financial services since they could access bank services from wherever they were.

A larger mass of the respondents at 331(85.1%), Mean=4.39, SD=0.672, stated that they didn't have to queue for long to have their money transaction done, 10(2.9%) undecided whether they had or didn't have to queue for long to have their money transaction done as the minority at 7(2.0%) stated that they had to queue for long to have their money transaction done. This meant that the population in Kombewa Division were adequately served by mobile money agents.

On overall personal perception on mobile money, a greater population of the respondents at 315(90.7%), Mean=4.22 stated that mobile agents were close to them, they had etiquette, it was safer cheaper and easier to use mobile money and costs less to reach the agents 19(5.4%) were undecided with the minority at 14(3.9%) stating that that mobile agents were far from them, they lacked etiquette, it was not safer cheaper and easier to use mobile money and it cost much to reach the agents. This was confirmed by KII with the bank branch manager who stated that the cost of operating an account using mobile money was cost effective- in terms of cheap transaction costs and the real costs which included fare of travelling to the bank and the amount of time spent on long queues.

4.3.2 Correlation between perception on mobile money and access to formal financial services

The researcher did a spearman correlation perception on mobile money and access to formal financial services and. The results were as shown in Table 4.9

Table 4.9: Correlation between perception on mobile money and access to formal financial services

		Access to formal financial services	Perception on Mobile Money
Spearman's rho	Access to formal financial services	Correlation Coefficient	.440**
		Sig. (2-tailed)	.000
		N	199
	Perception on Mobile Money	Correlation Coefficient	.440**
		Sig. (1-tailed)	.000
		N	199

It was determined that there was a moderate significant positive correlation between access to formal financial services and perception on mobile money. Spearman's rho= 0.440, p<0.001(1-tailed), CL=95%.This meant that the perception on mobile money positively influenced access to formal financial services; that enhancing the perception of the residents of Kombewa Division would lead to greater access to formal financial services.

4.4 Cost Effectiveness of Mobile Money and Access to Formal financial Services

This section analyses, interprets, presents and discusses findings on the third objective: To evaluate the extent to which the cost of mobile money influences access to financial services.

4.4.1 Respondents opinion on cost effectiveness of mobile money

This section presents the respondents opinions on cost effectiveness of mobile money by respondents. The respondents were given several 5 point Likert Scale questions to respond to 1-Strongly Disagree,2-Disagree, 3-Neutral,4-Agree and 5-Strongly Agree. At analysis, strongly disagree and disagree were aggregated into disagree while strongly agree and agree were amalgamated into agree, the means were calculated and interpreted. The results were presented in Table 4.10

Table 4:10: Cost effectiveness of mobile money

Statements	D (%)	N (%)	A (%)	Mean	SD
The transport cost of reaching a nearby mobile agent is cheaper than the transport cost of reaching the nearest bank branch	8(2.3%)	4(1.1%)	336(96.6%)	4.51	.681
The transaction cost of mobile money is cheaper than the transaction cost at the bank branch	34(9.8%)	21(6.0%)	383(84.2%)	4.00	1.020
It takes a shorter time to reach the nearest mobile agent than to reach the nearest bank branch	2(0.6%)	5(1.4%)	341(98.0%)	4.45	.588
I save a lot of money visiting a mobile agent than I do when I visit the nearest bank branch	6(1.8%)	8(2.3%)	334(95.9%)	4.31	.644

I save time in using mobile money than when I visit the nearest bank branch	2(0.6%)	7(2.0%)	339(97.4%)	4.46	.599
It takes longer time to reach the branch than a mobile agent	9(2.5%)	6(1.7%)	333(95.7%)	4.42	.722
It is much costly to reach the bank branch than does mobile money agent	9(2.5%)	15(4.3%)	324(93.2%)	4.30	.734
There exist longer ques at the bank branch than I can get at the mobile agent	5(1.5%)	32(9.2%)	311(89.3%)	4.27	.710
I can do so much with my mobile money within a shorter time	3(0.9%)	10(2.9%)	335(96.2%)	4.43	.597
I only need money agent with adequate flout in close proximity to be able to enjoy the convenience of mobile money	3(0.9%)	7(2.0%)	338(97.1%)	4.44	.611
Average	8(2.3%)	12(3.3%)	328(94.4%)	4.36	

Majority of the respondent at 336(96.6%), Mean=4.51, SD=0.681, stated that the transport cost of reaching a nearby mobile agent was cheaper than the transport cost of reaching the nearest bank branch, 8(2.3%) stated that it was more expensive as the least at 4(1.1%) not being sure. This was in line with a survey done by the Central Bank of Kenya (2013) which established that 22% of those in rural areas will need to pay more than KSh 50 to get to a mobile money agent. In contrast 68% will pay more than KSh 50 to get to a bank branch, an indication that majority of the respondents paid less to access a mobile money agent as compared to majority who paid more to access the nearest bank branch services.

Preponderance of the respondents at 383(84.2%), Mean=4.00, SD=1.020, were for the fact that the transaction cost of mobile money was cheaper than the transaction cost at the bank branch, 34(9.8%) said it was more expensive than the transaction cost at the bank branch with the least at 21(6.0%) undecided whether the transaction cost of mobile money was cheaper or more expensive than the transaction cost at the bank branch. An interview with the Cooperative Bank Officer revealed that the transaction cost of mobile money was cheaper than the transaction cost at the bank branch as he stated, “The cost of operating an account using mobile money depends on the channel used though I would say it’s cheaper for example, when withdrawing from the bank teller, it is Ksh.110/=, when transacting from phone and withdrawing from an ATM it is Ksh.33/=. Transfer from bank account to Mpesa (mobile banking), is at Ksh.33/= with the withdrawal rates carried out as per the terms and condition of Mpesa. Though services which were offered free at the bank such as balance inquiry are charged at Ksh.5/= using mobile money.”

The views of the youth in Kombewa Division was supported by Business Relationship officer at Cooperative bank in a KII who revealed that the cost of operating an account using mobile money was cheaper in terms of transaction charges as mobile money transactions in the withdrawal case was Ksh.33/= per transaction while at the Physical bank withdrawal was at Ksh. 222/=.

It was popular among 341(98.0%), Mean=4.45, SD=0.588 that it took a shorter time to reach the nearest mobile agent than to reach the nearest bank branch, 5(1.4%) undecided whether it took a shorter or longer time to reach the nearest mobile agent than to reach the nearest bank branch as the minority at 2(0.6%) stated that it took a longer time. This was in line with a study by Central

Bank of Kenya (2013) that also established that in rural areas, it takes less time on average for an individual to get to a mobile money agent than to a bank branch or bank agent.

A larger mass at 334(95.9%), Mean=4.31, SD=0.644, stated that they saved a lot of money visiting a mobile agent than they do when they visit the nearest bank branch, 8(2.3%), were not sure with the minority at 6(1.8%) stating that they did not save a lot of money visiting a mobile agent than they do when they visit the nearest bank branch.

A larger population of the respondents at 339(97.4%), Mean=4.46, SD=0.599, stated that they saved time in using mobile money than when they visited the nearest bank branch, 7(2.0%) undecided whether they saved time or not in using mobile money than when they visited the nearest bank branch as the least at 2(0.6%) were for the fact that that they did not save time in using mobile money than when they visited the nearest bank branch. An interview with the Cooperative bank assurance officer also supported these findings as he stated that a large number of customers had adopted the mobile money, about 60%, because they found it cheaper in terms of money and time.

Preponderance at 333(95.7%), Mean=4.42, SD=0.722 were for the fact that it took a longer time to reach the branch than a mobile agent, 9(2.5%), stated that it took a shorter time to reach the branch than a mobile agent as the least at 6(1.7%) were not sure or it took equal amount of time. Majority of the respondents at 324(93.2%), Mean=4.30, SD=0.734, stated that it was much costly to reach the bank branch than the mobile money agent, 15(4.3%) undecided or it was nearly a similar amount as the minority at 9(2.5%) stated that it was cheaper to reach the bank branch than the mobile money agent.

It was popular among 311(89.3%), Mean=4.27, SD=0.710, that there existed longer queues at the bank branch than they could get at the mobile agent, 32(9.2%) were undecided or there was no significant difference with the least at 5(1.5%) stated that there existed shorter queues at the bank branch than they could get at the mobile agent.

An overwhelming majority of the respondents at 335(96.2%), Mean=4.43, SD=0.597, stated that they could do so much with their mobile money within a shorter time, 10(2.9%) undecided whether they could do so much or little with their mobile money within a shorter time as the least at 3(0.9%) stated that they could do so little with their mobile money within a shorter time. A vast majority of the respondents at 338(97.1%), Mean=4.44, SD=0.611, stated that they only needed money agent with adequate float in close proximity to be able to enjoy the convenience of mobile money, 7(2.0%) were undecided as the minority at 3(0.9%) stated that they did not need money agent with adequate float in close proximity to be able to enjoy the convenience of mobile money.

Overall mobile money was seen to be cost effectiveness for a majority of the respondents in Kombewa Division, at 328(94.4%), Mean=4.36 .

4.4.2 Correlation between perception on mobile money and access to formal financial services

The researcher did a spearman correlation between perception on mobile money access and access to formal financial services. The results are as shown in Table 4.11

Table 4.11: Correlation between perception on mobile money and access to formal financial services

			Access to formal financial services	Cost effectiveness of mobile money
Spearman's rho	Access to formal financial services	Correlation Coefficient	1.000	.193**
		Sig. (1-tailed)	.	.003
		N	199	199
	Cost effectiveness of mobile money	Correlation Coefficient	.193**	1.000
		Sig. (1-tailed)	.003	.
		N	199	199

It was found out that there was a very weak but insignificant positive correlation between cost effectiveness of mobile money and access to formal financial services , Spearman's rho= 0.193, p=0.003(1-tailed), CI=95%.This meant that the enhancing the cost effectiveness of mobile money would enhance access to formal financial services albeit to a small extent.

4.5 Access to Mobile Phone and access to formal financial services

This section analyses, interprets, presents and discusses findings on the fourth objective: To establish the extent to which access to mobile phone influence the relationship between youth knowledge and perception on mobile money and access to formal financial services.

4.5.1 Respondents' view on access to mobile phone

This section presents the respondents opinions on cost effectiveness of mobile money. The respondents were given several 5 point Likert Scale questions to respond to 1-Strongly Disagree,2-Disagree, 3-Neutral,4-Agree and 5-Strongly Agree. At analysis, strongly disagree and disagree were aggregated into disagree while strongly agree and agree were amalgamated into agree, the means were calculated and interpreted. The results were as shown in table 4.12

Table 4.12: Opinions on access to mobile phone

Statements	D (%)	N (%)	A (%)	Mean	SD
I have owned a mobile phone in the last 3years	13(3.7%)	3(0.9%)	332(95.4%)	4.79	3.886
I have used a mobile phone in the last 3 years	12(3.4%)	3(0.9%)	333(95.7%)	4.80	3.884
I have used a mobile phone more frequently	14(4.0%)	5(1.4%)	329(94.6%)	4.48	.722
I have registered with money transfer services	4(1.1%)	2(0.6%)	342(98.3%)	4.58	.570
I access phone charging services comfortably	22(6.3%)	4(1.1%)	322(92.6%)	4.11	.813
I access top up vouchers at my comfort zone	44(12.6%)	17(4.9%)	287(82.5%)	4.19	3.989
It is cheap to a acquire a mobile phone gadget	130(37.3%)	12(3.4%)	206(59.3%)	3.43	1.242
Mobile phones are readily available in our local market	71(20.4%)	8(2.3%)	269(77.3%)	3.76	1.131

It is easy for me to a acquire a new mobile phone gadget	142(40.8%)	14(4.0%)	192(55.2%)	3.25	1.226
I can easily access a mobile phone even through borrowing	122(35.1%)	39(11.2%)	187(53.7%)	3.18	1.292
Average	57(16.7%)	11(3.1%)	280(80.2%)	4.06	

Majority of the respondent at 332(95.4%), Mean=4.79, SD=3.886, stated that they had owned a mobile phone in the last 3years, 13(3.7%) had not as the least at 3(0.9%) were not whether they had or hadn't owned a mobile phone in the last 3years.Preponderance at 333(95.7%), Mean=4.80, SD=3.884, stated that they had used a mobile phone in the last 3 years, 12(3.4%) had not used as the least at 3(0.9%) undecided whether they had or hadn't used a mobile phone in the last 3 years. This means that 9 out of every 10 people in Kombewa Division had mobile phone and used them. A survey carried out by Intermedia in 2009 also revealed that More than half (55 percent) of all respondents of any age said they have used a mobile phone in the past to conduct some sort of financial business e.g. to send or receive money, pay bills, and so on.

It was popular among 329(94.6%), Mean=4.48, SD=0.722, that they had used a mobile phone more frequently, 14(4.0%) had not as the least at 5(1.4%) undecided whether they had or had not used a mobile phone more frequently. An overwhelming majority of the respondents at 342(98.3%), Mean=4.58, SD=0.570 had registered their phone with money transfer services, 4(1.1%) had not registered as the minority at 2(0.6%) were not sure. Key Informant interview with the Desk officer of cooperative bank confirmed this findings by stating that 70% of their customers had registered for mobile money since mobile money was easier to use and convenient, he also added that 90% of the youths had taken up mobile money forming the

majority of mobile money users. An interview with the Business Relationship officer also revealed that a good number of mobile users had registered their phone with mobile money transfers services as he rated the utilization of mobile money by the youths 8 on the scale of 1-10 because of the youth's quick adoption of the new technology as they saw that mobile money was cheaper than the physical banking.

A larger population at 322(92.6%), Mean=4.11, SD=0.813, stated that they had access to phone charging services comfortably, 22(6.3%) lacked access to phone charging services comfortably as the minority at 4(1.1%) undecided whether they had access to phone charging services comfortably or did not. Most of the respondents at 287(82.5%), Mean=4.19, SD=3.989, stated that they accessed top up vouchers from their comfort zone, 44(12.6%) did not access as the minority at 17(4.9%) sometime did but sometime had to go some distance to get the top up vouchers.

Most of the respondents at 206(59.3%), Mean=3.43, SD=1.242, stated that it was cheap to acquire a mobile phone gadget, 130(37.3%) stated that it was expensive to acquire a mobile phone gadget as the least at 12(3.4%) being undecided. It was popular among 269(77.3%), Mean=3.76, SD=1.131, that mobile phones were readily available in their local market, 71(20.4%) stated that mobile phones were not readily available in their local market with the least at 8(2.3%) being undecided.

It was easy to acquire a new mobile phone gadget for most of the respondents at 192(55.2%), Mean=3.25, SD=1.226, it was not easy among, 142(40.8%) with 14(4.0%) being uncertain whether it was easy or hard for them to acquire a new mobile phone gadget. Most of the

respondents at 187(53.7%), Mean=3.18, SD=1.292 could easily access a mobile phone even through borrowing, 122(35.1%) could not easily access a mobile phone even through borrowing as a small portion at 39(11.2%) not sure. Overall majority of the respondents had access to mobile phones at 280(80.2%), Mean=4.06.

4.5.2 Correlation between access to mobile phones and access to formal financial services

The researcher did Spearman correlation between access to mobile phones and access to formal financial services. The results were as shown in Table 4.13

Table 4.13: Correlation between access to mobile phones and access to formal financial services

			Access to formal financial services	Access to Mobile Phone
Spearman's rho	Access to formal financial services	Correlation Coefficient	1.000	.373**
		Sig. (1-tailed)	.	.000
		N	199	199
	Access to Mobile Phone	Correlation Coefficient	.373**	1.000
		Sig. (1-tailed)	.000	.
		N	199	199

It was established that there was a weak but significant positive correlation between access to mobile phones and access to formal financial services, Spearman's rho= 0.373, p<0.001(1-tailed), CL=95%. This meant that improving access to mobile phone among the youth in Kombewa Division would enhance access to formal financial services among the youth in the Division though no a small extent. This means that as it is access is not a big challenge.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the findings of the main study, conclusions, recommendations arrived at and contribution to body of knowledge. It also gives suggestions for further research.

5.2 Summary of Findings

The first objective was to establish the extent to which knowledge on mobile money influences access to formal financial services. A large mass of individuals were knowledgeable on basics of mobile money with a mean of 4.11 at 294(84.7%), with 49(13.9%) of the respondents not aware/knowledgeable on basics of mobile money. The minority at 5(1.4%) were not sure. It was also established that majority of the respondents at 342(98.3%), mean = 4.55, were aware of mobile money, with 330(94.8%) of the respondents, mean of 4.45, knew mobile money personal pin off-head, 17(4.9%) didn't know personal pins off-head as the least at 1(0.3%) were not sure. At a high mean 4.38, 327(94.0%) of the respondents could easily withdraw money from their mobile money account without assistance with 326(93.6%) being able to send money from their mobile money account to another easily without external assistance. Majority of the respondents at 293(84.2%), mean=4.07 did not need the assistance of an agent to make a transaction on mobile money. Similarly, 244(70.1%) mean= 3.66, could reverse erroneous transaction easily on their own, 317(81.1%) mean= 4.27 could check balance on their mobile money without assistance. Most of the respondents at of respondents at 278(79.9%), with a mean of 3.92, could call customer care for any issue with their mobile money without any extra assistance, 8(2.3%)

were not sure whether they could call customer care for any issue with their mobile money without any extra assistance. It was established that there was a strong significant positive correlation between knowledge on mobile money and access to formal financial services, Spearman's rho= 0.675, $p < 0.001$ (1-tailed), Confidence Level =95%.

The second objective was to establish the extent to which perception on mobile money influences access to formal financial services. It was popular among 303(87.1%), Mean=4.05, SD=0.684, that the mobile agent nearby had good etiquette, 31(8.9%) were undecided with the minority at 14(4.0%) said they lacked good etiquette. An overwhelming majority of respondents stated that it cost less to reach the nearest mobile network agent were 332(95.4%), mean =4.40, 8(2.3%) stated that it cost much with a similar proportion of the respondents undecided. Majority of respondents at 333(95.7%) found it hard to use mobile money, 9(2.6%) said sometimes it was hard and at times easy with the least at 6(1.7%) saying it was hard to use mobile money. An overwhelming majority of the respondents at 337(96.8%), Mean=4.29 got good quality service from mobile money 8(2.3%) were undecided while a minority at 3(0.9%) diverged from the majority opinion. Majority of the respondents at 309(88.8%), mean= 4.26 found mobile money to be cheap. Another big proportion of the respondents at 321(92.3%), that stated that their money was safe whenever they used mobile money. It was also popular among 314(90.2%), mean=4.23, that they could do many transactions with mobile money while at their comfort zone, 22(6.4%) could not while the least at 12(3.4%) sometimes did many transaction at their comfort zone while at times they have to stretch. It was established that there was a strong significant positive correlation between knowledge on mobile money and access to formal financial services, Spearman's rho= 0.675, $p < 0.001$ (1-tailed), Confidence Level =95%.

The third objective was to evaluate the extent to which the cost of mobile money influences access to financial services. It was established that majority of the respondent at 336(96.6%) mean= 4.51, found it cheaper reaching a nearby mobile agent than nearest bank branch, 8(2.3%) diverged from the majority opinion with 4(1.1%) being undecided. A large proportion of the respondents at 383(84.2%), mean=4.00 found transaction cost of mobile money was cheaper than the transaction cost at the bank branch, 341(98.0%) respondent, mean= 4.45 also took a shorter time to reach the nearest mobile agent than to reach the nearest bank branch, 5(1.4%) were uncertain with a negligible number of 2(0.6%) having a divergent opinion from the majority. A popular majority of 334(95.9%) mean= 4.31 saved a lot of money visiting a mobile agent than they did when they visited the nearest bank branch, 8(2.3%), were undecided as the minority at 6(1.8%) did not make any saving. An overwhelming majority of the respondents at 335(96.2%) mean= 4.43 could do so much with their mobile money within a shorter time, 10(2.9%) were undecided with a mania 3(0.9%) stated that they could do so little with their mobile money within a shorter time. Overall mobile money was seen to be cost effectiveness for a majority of the respondents in Kombewa Division, at 328(94.4%), Mean=4.36. It was found out that there was a very weak but insignificant positive correlation between cost effectiveness of mobile money and access to formal financial services, Spearman's rho= 0.193, p=0.003(1-tailed), CI=95%.

The fourth objective was to establish the extent access to mobile phone influence the relationship between youth knowledge and perception on mobile money and access to formal financial services. Majority of the respondent at 332(95.4%), mean= 4.79 had owned a mobile phone 3 years preceding the study, 13(3.7%) had not with 3(0.9%) not decided. Preponderance of the

respondents at 333(95.7%) mean=4.80, had used a mobile phone 3 years preceding the study, 12(3.4%) had not, with 3(0.9%) were undecided. It was popular among 329(94.6%) respondents to use a mobile phone more frequently, 14(4.0%) had not as the least at 5(1.4%) were undecided. Most of the respondents at 206(59.3%), mean =3.43, found it was cheap to acquire a mobile phone gadget, 130(37.3%) found it expensive to acquire a mobile phone gadget with 12(3.4%) being undecided.

Most of the respondents at 269(77.3%) mean=3.76, said mobile phones were readily available in their local market, 71(20.4%) has a contrary opinion 8(2.3%) of the respondents were undecided. Most of the respondents at 187(53.7%) mean= 3.18 easily accessed a mobile phone even through borrowing, 122(35.1%) did not, while 39(11.2%) being undecided.

Overall majority of the respondents had access to mobile phones at 280(80.2%), Mean=4.06. It was established that there was a weak but significant positive correlation between access to mobile phones and access to formal financial services, Spearman's rho= 0.373, $p < 0.001$ (1-tailed), CL=95%.

5.3 Conclusions

The following conclusions were drawn from the findings of the study:

1. It was inferred that there was a strong significant positive correlation between knowledge on mobile money and access to formal financial services among the youth residents of Kombewa Division. It was also concluded that sensitization on mobile phones and use to enhance knowledge would enhance access to formal financial services for the youth residents of Kombewa Division.
2. It was concluded that there was a moderate significant positive correlation between perception on mobile money and access to formal financial service among the youth residents of Kombewa Division. It was also inferred that persuading favorable perception on mobile money would enhance access to formal financial services for youth residents of Kombewa Division
3. It was concluded that mobile money was cost effective for the youth residents in Kombewa Division. It was deduced that there was a very weak but insignificant positive correlation between cost effectiveness of mobile money and access to formal financial services. It was also inferred that making mobile money more cost effectiveness would enhance access to formal financial services for the youth residents in Kombewa Division albeit to a small extent.
4. It was deduced that the youth population in Kombewa Division had adequate access to mobile phones. It was concluded that there was a weak but significant positive correlation between access to mobile phones and access to formal financial services among the youth residents of Kombewa Division.

5. It was also concluded that improving access to mobile phone among the youth in Kombewa Division would enhance access to formal financial services among the youth in the Division though no a small extent.

5.4 Recommendations

1. Mobile users should be sensitized further on mobile transactions as it would help most mobile users to comfortably reverse erroneous transactions easily on their own as, this would also enhance payment of bills through mobile money which is not utilized by a sizeable proportion of the youth.
2. The mobile service providers should also heighten the sensitization to enhance knowledge on mobile money for the study proves that this will improve access to formal financial services among the youth residents of Kombewa Division.
3. The mobile service providers and the banking sector players should strive to further enhance favorable perceptions on mobile money so as to improve access to formal financial service among the youth residents of Kombewa Division.
4. The mobile service providers and the banking sector players should do more to reduce the costs that come with the transactions on mobile money, this will further make it popular and enhance access to formal financial services among the youth residents of Kombewa Division.
5. The researcher recommends the mobile service providers and the banking sector players need to enhance greater access to mobile phones among the youth population in Kombewa Division this would enhance access to formal financial services among the youth residents of Kombewa Division.

5.5 Contribution to Body of Knowledge

Objective	Contribution to body of knowledge
To evaluate the extent to which perception on mobile money influences access to formal financial services.	There was a moderate significant positive correlation between perception on mobile money and access to formal financial services, Spearman's rho= 0.440, $p < 0.001$ (1-tailed), CL=95%.
To establish the extent to which knowledge on mobile money influences access to formal financial services.	There was a strong significant positive correlation between knowledge on mobile money and access to formal financial services. Spearman's rho= 0.675, $p < 0.001$ (1-tailed), CL=95%.
To establish the extent to which the cost of mobile money influences access to financial services.	There was a very weak insignificant positive correlation between cost effectiveness of mobile money and access to formal financial services, Spearman's rho= 0.193, $p = 0.003$ (1-tailed), CL=95%.
To evaluate the extent to which access to mobile phone influence the relationship between youth knowledge and perception on mobile money and access to formal financial services.	There was a weak significant positive correlation between access to mobile phones and access to formal financial services ,Spearman's rho= 0.373, $p < 0.001$ (1-tailed), CL=95%.

5.4 Area for further research

The study established that the youth in Kombewa Division had favorable perception on mobile money, moderate knowledge on mobile money, reasonable transaction cost and high access to mobile phones. The study did not investigate how these have impacted their economic wellbeing. A study should therefore be done to establish the influence of knowledge, perception and transaction cost of mobile money influences the economic well-being of the youth in Kombewa Division.

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APPENDICES

Appendix I: Letter of Transmittal

Evaline Adhiambo Obiero
26th, May, 2016
University of Nairobi
Kisumu Campus,
P.O Box 825-40100
Kisumu

Dear respondent

RE: DATA SURVEY COLLECTION

My name is Evaline Obiero, a student from University of Nairobi. I am carrying out a research for my master's project proposal, I am requesting for your kind attention and participation. All the information you submit will be treated with utmost confidence and will only be used for purposes of this research only.

The research focuses on the influence of mobile phone technology on access for formal financial services.

This exercise will only take 25 to 30 minutes and the results from this study will be used in partial fulfillment of the requirement for the award of the degree of Master of Arts in Project Planning and Management of The University of Nairobi.

Regards

Evaline Obiero

Appendix II: Determining the Sample Size from a Given Population.

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

Note: “N” is population size

“S” is sample size.

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Appendix III: Sample Questionnaire
KNOWLEDGE AND PERCEPTION ON MOBILE MONEY AND ITS INFLUENCE ON
ACCESS TO FORMAL FINANCIAL SERVICES AMONG THE YOUTHS IN SEME
SUB COUNTY: ACASE OF KOMBEWA DIVISION

Dear Respondent,

I am a Masters student at the University of Nairobi. As Part of the requirement of Master’s Degree in project planning and management, I am conducting research for my project on the above subject as a pre requisite for the Course. The information you will give in this questionnaire will be treated as confidential and will only be used for the purposes of this study. Thank you in advance for accepting to participate in this study.

PART ONE: FOR YOUTH RESPONDENTS

SECTION ONE: RESPONDENT BACKGROUND

Kindly mark in the box indicating your appropriate response.

Division of residence_____ Location of residence_____	
A	Gender <div style="margin-left: 20px;"> <input type="checkbox"/> Male <input type="checkbox"/> Female </div>
B	Age <div style="margin-left: 20px;"> <input type="checkbox"/> 15 to 20 <input type="checkbox"/> 21 to 25 <input type="checkbox"/> 26 to 30 <input type="checkbox"/> 31 to 35 <input type="checkbox"/> 36 and above </div>
C	Highest Level of Education <div style="margin-left: 20px;"> <input type="checkbox"/> O level <input type="checkbox"/> A level <input type="checkbox"/> Certificate <input type="checkbox"/> Diploma <input type="checkbox"/> Degree </div>

		<input type="checkbox"/> Masters <input type="checkbox"/> Other(Specify)_____
D	Source of income	<input type="checkbox"/> Petty Trade <input type="checkbox"/> Farming <input type="checkbox"/> Formal Employment <input type="checkbox"/> Boda Boda <input type="checkbox"/> Other (Specify)-----

SECTION TWO: KNOWLEGE ON MOBILE MONEY

Indicate with a tick (✓) your position on the following statements where 5=Strongly Agree, 4= Agree, 3=undecided, 2=Disagree and 1 Strongly disagree

		5	4	3	2	1
1	I am aware of mobile money					
2	I know my mobile money personal pin off head					
3	I can easily withdraw money from my mobile money account without assistance					
4	I can easily send money from my mobile money account without assistance					
5	I don't need assistance of the agent to make a transaction on mobile money					
6	I can reverse erroneous transaction easily on my own					
7.	I can check balance on my mobile money without assistance					
8.	I can call customer care for any issue with my mobile money without any extra assistance					
9.	I can pay my bills via mobile money on my own					
10.	I can transfer money from my mobile money to my other accounts on my own					
For Official use						

SECTION THREE: PERCEPTION ON MOBILE MONEY

		5	4	3	2	1
1	A mobile money agent is at close proximity					
2	There is always enough flout whenever I need money from the nearby mobile network agent					
3	The mobile agent nearby has good etiquette					
4	It costs less to reach the nearest mobile network agent					
5	It is not hard to use mobile money					
6	The quality of service I get from mobile money is good					
7	Mobile money is cheap					
8	My money is safe whenever I use mobile money					
9	I can do many transaction with mobile money while at my comfort zone					
10	I don't have to que for long to have my money transaction done					
For Official use						

SECTION FOUR: COST EFFECTIVENESS OF MOBILE MONEY

		5	4	3	2	1
1	The transport cost of reaching a nearby mobile agent is cheaper than the transport cost of reaching the nearest bank branch					
2	The transaction cost of mobile money is cheaper than the transaction cost at the bank branch					
3	It takes a shorter time to reach the nearest mobile agent than to reach the nearest bank branch					
4	I save a lot of money visiting a mobile agent than I do when I visit the nearest bank branch					

5	I save time in using mobile money than when I visit the nearest bank branch					
6	It takes longer time to reach the branch than a mobile agent					
7	It is much costly to reach the bank branch than does mobile money agent					
8	There exist longer ques at the bank branch than I can get at the mobile agent					
9	I can do so much with my mobile money within a shorter time					
10	I only need money agent with adequate flout in close proximity to be able to enjoy the convenience of mobile money					
For Official use						

SECTION FIVE: ACCESS TO MOBILE PHONE

		5	4	3	2	1
1	I have owned a mobile phone in the last 3years					
2	I have used a mobile phone in the last 3 years?					
3	I have used a mobile phone more frequently					
4	I have registered my phone with money transfer services					
5	I access phone charging services comfortably					
6	I access top up vouchers from my comfort zone					
7	It is cheap to a acquire a mobile phone gadget					
8	Mobile phones are readily available in our local market					
9	It is easy for me to a acquire a new mobile phone gadget					
10	I can easily access a mobile phone even through borrowing					
For Official use						

SECTION SIX: ACCESS TO FORMAL FINANCIAL SERVICES

		5	4	3	2	1
1	Mobile money is my first ever formal account					
2	I have used mobile money more frequently					
3	I have sent money through mobile money					
4	I have withdrawn money from my mobile wallet					
5	I have used mobile money platform to open a bank account					
6	I have deposited money in my bank account via mobile money					
7	I have accessed a loan facility through mobile money					
8	I have used mobile money to pay for utility bills					
9	I have used mobile money to pay for goods and services					
10	I have used mobile money to query my bank account balance					
For Official use						

PART TWO: FOR FORMAL FINANCIAL INSTITUTIONS

This Part of the questionnaire is supposed to be filled by a bank staff especially on a management position.

Position held in the bank: _____

Bank: _____

Branch: _____

1. Does the bank have digital/mobile platform through which customers can access financial services

Yes

No

2. How do you gauge adoption of mobile money on financial transaction within the bank?

3. From what you are seeing at the bank, what is your take on mobile money in light of its influence on access to financial services especially at the bank?

4. In your opinion, how would you rate the utilization of mobile money by the youth's clients in this branch?

5. How often do youths report cases of unsatisfaction with the mobile phone transaction to the branch?

6. What is your opinion on the cost of operating an account using mobile money?

7. What are some of the issues you consider as hindrances to account usage by the youths via mobile phone?
