CONTRIBUTION OF MICROFINANCE CREDIT TO POVERTY REDUCTION AMONG THE RURAL WOMEN IN KEIYO NORTH SUB-COUNTY, ELGEYO-MARAKWET COUNTY, KENYA

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A Thesis Submitted to the Graduate School in Partial Fulfillment of the Requirements for the Master of Science Degree in Agricultural Education of Egerton University

EGERTON UNIVERSITY

JULY, 2014

DECLARATION AND RECOMMENDATION

Declaration

I declare that this is my original work and has not been submitted or published for an award	
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DEDICATION

Dedicated to my wife Jepchirchir K	Xiptoo and my children	Derrick, Brian and Jasmine.
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ACKNOWLEDGEMENT

I am grateful to Egerton University for giving me a chance to pursue this course. Secondly, I would like to thank my supervisors Dr. J. Obara and Dr. S Makindi for their tireless effort in their supervision and continuous feedback on the progress of the study. I thank you for the comments, encouragement and advice that you gave me throughout the study. I also thank the teaching and non-teaching staff in the Department of Agricultural Education and Extension, the Faculty of Education and Community Studies of Egerton University and everyone else who assisted me in this study. I would also like to thank my family members, particularly my wife and children, parents, brothers and sisters for their inspiration during the study.

ABSTRACT

The main purpose of microfinance credit programme is to break the vicious cycle of poverty among the rural women by providing them with capital. Poverty is a global problem; more than 1.3 billion people worldwide live below the poverty line, 70% of them being women. In Keiyo North Sub-County, 48% of the population lives below the poverty line with women constituting 65% of those living below the poverty line. However, few rural women (220) in Keiyo North Sub-County participate in the microfinance credit programme despite the fact that Kenya Women Finance Trust (KWFT) operates in all the 13 sub-locations in the district. This study sought to investigate the contribution of microfinance credit on poverty reduction among the rural women in Keiyo North Sub-County. The study used a descriptive survey design to collect data. The target population was 220 rural women participating in 17 groups in KWFT microfinance credit programme from which a sample of 130 rural women was drawn. An open and close-ended questionnaire was used. A pilot study was conducted among the 30 KWFT rural women participants and a Cronbach's Apha coefficient reliability of 0.71 was attained. The validity of the instrument was ascertained by experts from Agricultural Education and Extension in the Faculty of Education and Community studies and Faculty of Environmental Science of Egerton University. Data was analyzed using chisquare α =0.05 significance level. Results indicated that microfinance credit programme has improved household level of income among the rural women in Keiyo North Sub-County. Microfinance credit has enabled rural women to afford their children's education and acquire new assets for their households. The rural women can also afford health care services for their families as a result of participating in microfinance credit programme. The study recommends that Kenya Woman Finance Trust (KWFT) officials should encourage more rural women to participate in microfinance credit programmes to increase levels of income and savings in their households. They should also make a follow up on the 0.8% of the rural women who could not afford healthcare services even after recording an increase in their income. The Members of County Assemblies (MCA's) and the Chiefs of the 13 locations where KWFT operate should sensitize rural women to participate in MFI's programmes in order to reduce their poverty levels.

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LIST OF ABBREVIATIONS AND ACRONYMS

CGAP Consortium Group to Assist the Poorest

CSA Central Statistical Authority

EU European Union
GB Grammen Bank

GDP Gross Domestic Product

MIX Microfinance Information Exchange

IFAD International Fund for Agricultural Development

IMF International Monetary Fund

JLL Joint Liability Lending

KADET Kenya Agency to Development of Enterprise and Technology

Kshs. Kenya shillings

KWFT Kenya Women Finance Trust

MDGs Millennium Development Goals

MFI Micro-finance Institution

MOLFD Ministry of Livestock & Fisheries Development

NGO Non-Governmental Organization

OXFAM Oxford Committee For Famine Relief

SIDA Swedish International Development Agency

SPSS Statistical Package for the Social Sciences

UN United Nations

UNDP United Nations Development Programme

USA United States of America

US\$ United States Dollar

USAID United States Agency for International Development

WB World Bank

WDR World Development Report

UNECA United Nations Economic Commission for Africa

ILO International Labour Organization

ADB Agricultural Development Bank

UNCDF United Nations Capital Development Fund

EIU Economist Intelligence Unit

KSTES Kenya Small Traders and Entrepreneurs Society

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Microfinance credit programme provides small loans to poor people for them to improve their living standards. It is not charity, but investment. The main purpose of microfinance credit is to break the vicious circle of low income, low investment and low profit by inserting capital from outside into the economic life of poor people (Yunus, 2010, p. 48). According to Adam & Bartholomew (2010, p. 24) "money, says the proverb, makes money. When you have got a little, it is often easy to get more and the great difficulty is to get the little". Microfinance credit programme provide the little money where there is total absence of capital or profit, where living is based on subsistence only (Microcredit Summit, 2005).

Poverty is a global issue. Despite changes in development paradigms in the last few years, the promise to bring wellbeing to all people remained unfulfilled (World Bank, 2008). As it stands, more than 100 million children of primary school age have never stepped inside a classroom, about 29000 children die each day from largely preventable malnutrition and disease and more than 1.3 billion people in the world are struggling to survive at the margin of human existence "on under a dollar a day" (World Bank, 2008). Moreover, 70% of the 1.3 billion living on less than a dollar day are women (UNECA, 2010). Poverty is a problem facing the countries irrespective of their level of development. It can be observed in many forms. It has both income and non-income dimensions. It may be lack of income or resources, lack of coping capacity, lack of basic human capabilities or in extreme cases, lack of all these. In a wider sense, it may be a combination of economic, social and political deprivations (UNDP, 2008). In Kenya, 46% of the country's population of 40 million lives below the poverty line (Odieki, 2011). Keiyo North Sub-County, with a population of 73,715 people has 48% of the people living below the poverty line while 65% of them are the rural women (Keiyo North District Strategic Plan, 2010).

According to the Education For All Decades Assessment Report presented by the then Minister of Education Hon. Mutula Kilonzo on 25th July, 2012 at the Hilton Hotel in Nairobi, shows that high poverty levels have kept 800,000 school-going children out of the free learning programme, a decade since the government introduced the free education programme in 2003 (Mwendwa, 2012).

Women, especially, rural women suffer not only from abject poverty but also from socioeconomic inequality in the society (Grameen Bank, 2009). They are the most deprived
section of the society and majority of them are extremely poor, moreover, providing women
with access to credit can turn around an entire economy because of two reasons. First, there is
significant evidence that when a woman's business succeeds and she makes a profit, it all
goes to her family, secondly, studies show that children are better educated and cared for
when women contribute income to the family (Grasmuck and Espinal, 2011). In this situation
microfinance credit programme has emerged as an important financial instrument to reduce
poverty among the rural women (Ahsan, 2005). This emergence was re-enforced in October
2005 by the United Nations, when they declared 2005 as the international year of microcredit.
The United Nations, during the microcredit summit of 2005, also recognized microfinance
credit as a tool for achieving the Millennium Development Goals (MDGs). The MDGs are
globally accepted strategies geared towards the reduction of extreme poverty worldwide by
2015, in addressing the issues of income levels, education, hunger, diseases, shelter, poor
infrastructure, gender inequality and environmental degradation (Microcredit Summit, 2005).

The microfinance credit is the provision of small loans to individuals, usually within groups, as capital (Weber, 2006). Among the 81.9 million poor clients served by microfinance credit programmes worldwide, 84.2% are women (World Bank, 2005). Kenya has the second best business environment for microfinance institutions in all of Africa and is one of the top ten in the world (EIU, 2010). It is also the second largest borrower base in the continent with over 100 organizations, including about 50 Non-governmental organizations (NGOs) engaging in some form of microfinance business in Kenya. The major players in the sector include Faulu Kenya, Kenya Women Finance Trust (KWFT), Kenya Agency to Development of Enterprise and Technology (KADET), (MIX and CGAP, 2010)

Controversy though, surrounds the contribution of microfinance credit on poverty reduction among rural women. As Kiriti (2007) and Mayoux (2006) have pointed out that microfinance credit has negative impact on poverty reduction among the rural women whereas, Kandker, (2009) and Kondo *et al.* (2008) support the argument that microfinance credit contributes positively towards poverty reduction among the rural women. On positive contribution, microfinance credit is claimed to reduce poverty by increasing food consumption among the rural women and their families, improves children's schooling, nutrition, increases income

and self-employment (Pitt *et al.* 2006). Ali (2008) conducted a comparative study on poverty reduction among the rural women participants of microfinance credit and non-participants and found a sharp reduction in the number of participants living below the poverty line (20%) compared to non-participants (56%). According to Navajas (2011), women tend to invest their income from microfinance related enterprises in the education of their children; as a result, literacy levels become higher in the families.

A study by Dupas and Robinson (2009) in Kenya found that the savings of rural women participating in microfinance credit programmes, increased significantly by a minimum of 40%, with significant increases in personal expenditure such as assets, food, health care and education. Kondo et al. (2008) revealed that microfinance credit contributes to an increased income though it found no effect on education and health care indicators. Moreover, microfinance credit is beneficial to women as it leads to an increase in school enrolment among school going children (Kandker, 2009). Microfinance credit also helps poor women to cope with financial risks from illnesses resulting from the cost of medical care and loss of income during illness (Gertler *et al.* 2008).

Sultana and Hassan (2010) in their study pointed out that women who had access to microcredit experienced income rise and increase in the women's ownership of productive assets (cattle, goats, poultry, etc.) and non productive assets (TV/radio, solar and other households' goods) because they could afford such assets through profits generated from their micro enterprises. The Women's Entrepreneurship Development Trust Fund reported that women increased income benefit the children, particularly in the provision of education, health care, improved diet and clothing (Cheston & Kuhn, 2002).

However, other studies have shown negative impact. Mayoux (2006) argues that microfinance credit leaves rural women borrowers highly indebted, and no much wealth to show for it. There is little evidence of radical change in the gender division resulting from rural women access to loan as they still do traditional home-based jobs like small scale poultry keeping (Kabeer, 2005). Kiriti (2007) argues that microfinance credit tends to indebt women leaving them more vulnerable. Wrenn (2005), states that microfinance credit among rural women leads to increased work load, increased domestic violence and abuse.

In Bosnia, World Bank researchers found that up to 50% of micro enterprises failed within one year of establishment, stripping the rural poor women of all their remaining assets leaving them poorer than they were (Demirgue-kunt, 2009). Results by Diagne and Zeller (2011) in their study, also suggested that microfinance credit did not have any significant effect on household income among rural women. In other extreme cases, it was reported that women committed suicide in the village of Andhra in India after failing to repay the microfinance loans (New York Times, 2010). According to Kiriti (2007), these mixed results of contribution of microfinance credit on poverty reduction among the rural women seem to have discouraged the rural women from participating in microfinance credit programme. The study therefore sought to investigate the contribution of microfinance credit towards poverty reduction in Keiyo North Sub-County.

1.2 Statement of the Problem

Microfinance institutions provide credit to the rural women in an effort to reduce the number of poor rural women in Keiyo North Sub-County by providing them with capital to start businesses. KWFT operates in all the 13 sub-locations of Keiyo North Sub-County with the aim of providing the rural women with small loans without collateral for them to improve their living standards. However, few rural women (220) are currently participating in the KWFT credit programme with majority of them being reluctant to borrow loans. There is also limited information on the contribution of microfinance credit on poverty reduction among the rural women who are participating in the microfinance credit programme. This study, therefore, sought to investigate the contribution of microfinance credit on poverty reduction, comprising of the following parameters, household income, asset acquisition, affordability of health care, affordability of education for their children among the rural women in Keiyo North Sub-County.

1.3 Purpose of the Study

This study was designed to investigate the contribution of microfinance credit in reducing poverty among the rural women in Keiyo North Sub-County.

1.4 Objectives of the Study

The objectives of the study were to:

- Discuss the total amount of loan borrowed by each rural woman since joining the microfinance credit programme.
- ii. Describe the contribution of microfinance credit on household income among the rural women in Keiyo North Sub-County.
- iii. Identify the contribution of microfinance credit on acquisition of assets among the rural women in Keiyo North Sub-County.
- iv. Examine the contribution of microfinance credit on affordability of health care among the rural women in Keiyo North Sub-County.
- v. Determine the contribution of microfinance credit on affordability of education for the children of the rural women in Keiyo North Sub-County.

1.5 Research Question

The following research question was derived from objective one.

i. How much loan in total has each rural woman borrowed since joining the Microfinance credit programme?

1.6 Hypotheses of the Study

The following hypotheses were derived from objectives ii, iii, iv and v respectively.

- Ho1: There is no statistically significant contribution of microfinance credit on household income among the rural women in Keiyo North Sub-County.
- Ho2: There is no statistically significant contribution of microfinance credit on acquisition of assets among the rural women in Keiyo North Sub-County.
- Ho3: There is no statistically significant contribution of microfinance credit on affordability of health care among the rural women in Keiyo North Sub-County.
- Ho4: There is no statistically significant contribution of microfinance credit on affordability of education for the children of the rural women in Keiyo North Sub-County.

1.7 Significance of the Study

The study has provided information on how microfinance credit has contributed to rural women's income level, asset acquisition, education of their children and affordability of health care.

The study has also provided useful information to KWFT officials on their contribution to poverty reduction among the rural women in Keiyo North Sub-County and in Kenya. The County leaders can also use the information to encourage more women to overcome their fears of loan taking and join the KWFT and other microfinance institutions.

1.8 Scope of the Study

The study focussed on rural women who are clients of KWFT in Keiyo North Sub-County. The selected factors measured were household income, acquisition of assets, affordability of health care and affordability of education for the children.

1.9 Assumptions of the Study

The following was the assumption of the study:

i. The respondents selected in the sample would accept to fill in the questionnaire.

1.10 Limitations of the Study

The following were the limitations of the study

- i. Some rural women were unable to read and write, therefore, filling the questionnaire was a problem. The researcher overcame this limitation by translating the items in the questionnaire to them in the local language and filled in the questionnaire himself.
- ii. The study was limited by the fact that it covered only rural women in Keiyo North Sub-County; therefore, any generalizations made from the findings should be done with caution.

1.11 Definitions of Terms

- **Acquisition of assets:** It refers to increase in ownership of households' physical assets (World Bank, 2007). In this study, the same meaning was adopted.
- **Credit**: It refers to contractual agreements in which a borrower receives something of value now and agrees to repay the lender at some later date (Investor words, 2011). In this study, credit meant money that rural women borrowed to repay the microfinance institution at some later date.
- **Education of the children**: It refers to investing in children's education as a result of new income from micro-enterprise (World Bank, 2007). In this study, education of the children meant ability of the rural women to afford to pay school fees for their children.
- **Health care**: It refers to the ability to maintain a state of being bodily and mentally vigorous and free from disease (Bakhtiari, 2006)). In this study, health care meant the ability of the rural women to pay for medical services during times of ill-health.
- **Income:** It refers to the amount of monetary or other returns earned, accruing over a period of time (IFAD, 2009). In this study, income meant the profits earned from microenterprises established from the loans.
- **Microfinance credit**: It refers to the loan given to the rural women without collateral by the MFIs to pursue self employment and start small businesses (Hulme, 2008). In this study, microfinance credit meant the loan borrowed by the rural women from microfinance institutions to use in their micro-enterprise.
- **Microfinance**: It refers to the provision of a broad range of financial services such as credit, savings, money transfer and insurance to the poor and low income households and their micro-enterprise (Hulme, 2008). In this study, the same meaning was adopted.
- **Poor rural women**: It refers to female micro-entrepreneurs with no assets (collaterals) to pledge to get credit from any formal financial institutions and they live below the poverty line (United Nations, 2009). In this study, the same meaning was adopted.
- **Poverty reduction**: It refers to the process of increasing income and economic stability which will lead to improved fulfillment of basic needs and services (Simanowitz, 2002). In this study, poverty reduction meant fulfillment of basic needs and services that is, increased household income, acquisition of assets, affordability of health care, and affordability of education for their children.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter on literature review focuses on the origin and methods of microfinance credit, the global perception of microfinance credit, recent studies on microfinance credit and poverty reduction among rural women, the microfinance credit revolution, definition of poverty, measuring of poverty, lending to the rural women by joint liability, theoretical framework and conceptual framework.

2.2 The Origin and Methods of Microfinance Credit

Microfinance credit began in Bangladesh as the brain child of economist Mohammad Yunus. After receiving his PhD from Vanderbilt, this Fulbright scholar returned to his homeland to teach at Chittagong University (Yunus, 2008). He was frustrated that the theories he was teaching did not seem to affect the lives of the people around him who were still suffering greatly after the 1974 famine. Yunus could have remained within the walls of the isolated university, but he chose instead to explore the community around him in order to understand, firsthand, the lives of the poor. In his 2009 article "Grameen Bank Story", published in dollars & sense, he tells of the experience that led him to pioneer microfinance credit: "I met a woman, Sophia, who made bamboo stools, she was extremely poor, and no wonder she made only two cents a day making bamboo stools. Why so little? Because she did not have the working capital to buy the bamboo from the market for 20 cents. A trader lent her the money to buy the bamboo under the condition that she sells her stools to him at the price he decides. Now you can guess why she was extremely poor" (Grameen Bank, 2009, p.83). Yunus began to loan out his own money, simply addressing the need without any thoughts for future expansion. As the article states, Yunus eventually realized that the real answer lay in On-going loans from commercial banks. It was then that he discovered why the poor had not attempted these themselves. Without collateral, they could not borrow. Also, most banks required that the borrowers be able to process paper work. In a country with 75% illiteracy, this struck Yunus as a prohibitive requirement. The poor were considered too risky for loans and banks considered themselves a for- profit business, not a social service organization. Undaunted Yunus co-signed commercial loans for the poor and began expanding his idea (Yunus, 2010).

Yunus was convinced that small-scale self-employment was superior to large projects focused on creating wage employment. He saw independent self-employment as more family-friendly and, therefore, more likely to meet the needs of Bangladesh's poorest groupwomen. "People who "People who experience the cruelest manifestations of poverty are the women from poor households" (Yunus, 2010, p.48). Because women are bound by their children, "- - - no poor man is able to match the fervor of the poor woman in seizing the slightest opportunity to fight poverty" (Yunus, 2010, p.48). Armed with these insights, Yunus began to develop an anti-poverty program that catered for women and revolved around readily available credit for entrepreneurial projects. After several years of informal experiments, Yunus realized that the lack of physical collateral among the poor could be successfully replaced by social capital and began operating the Grameen Bank in 1976 as a peer-lending institution (Yunus, 2008). The Grameen Bank ("Rural Bank" in Bangladesh) is a for- profit commercial bank which utilizes the idea of social capital by exclusively serving borrowers who join in self-organized, non-family groups of five which provide "peer pressure and peer support" for the process. After a brief training in which potential borrowers come to understand the methods of the bank, a group is "recognized" and two members are issued small loans (Yunus, 2008). When initial loans are successfully repaid, the number of members who may borrow increases. The amount of the loans the members borrow also increases. Loan default by a single group member makes the entire group ineligible to borrow subsequent funds and the small loan amounts makes subsequent borrowing imperative. This creates strong incentive among group members to assure the others' business success and loyal repayment (Roodman & Qureshi, 2006)). Thus, poor people may bind together on a community basis and become self-regulating as well as self- sufficient, lessening the need for extensive borrower oversight and promoting shared knowledge that leads to entrepreneurial success. This decreases the cost of implementing microfinance credit lending programme by shifting client screening and monitoring to the borrowers themselves.

Globally, 120 million people (84% or100 million being women) currently benefit from the services of microfinance institutions paying interest rates of between 15% and 35% (World Bank, 2007). Roodman & Qureshi (2006) argue that the real genius in microfinance credit is because MFIs have been able to come up with clever solutions of building volume, keeping loan repayment rates low, retaining customers, minimizing scope for fraud and delivering cost effective microfinance credit to millions of poor clients.

2.3 The Global Perception of Microfinance Credit

In the global arena, there is already the impression that microfinance credit is successful in reducing poverty. Many policy makers are, therefore, engaged in how to make microfinance credit sustainable and available to many households in the future (Christen et al., 2005). Many stakeholders in the microfinance industry especially donors and investors argue that, "micro finance can pay for itself, and must do so if it is to reach very large numbers of poor households" (CGAP, 2012). The overall message in this argument is that unless microfinance providers charge enough to cover their costs, they will always be limited by the scarce and uncertain supply of subsidies from government and donors. The main underlying assumption in this argument is that microfinance is already good for the clients, and, therefore, what is really urgent is to make the financial service available to as many poor people as possible. Morduch, (2008) points out that this kind of enthusiasm for microfinance rests on an enticing win-win proposition that microfinance institutions that follow the principles of good banking will also be the ones that alleviate the most poor. The assumption being that with good banking practices it is possible to cover costs and operate in a sustainable manner to continue serving clients and alleviating the poor (Mayoux, 2006).

The "win-win" situation both for the investor and the poor can be explained as follows: The investor in microfinance programme follows good banking practices with the possibility of some profit, while the poor continue to benefit by accessing reliable credit that is assumed to be beneficial to their welfare. The supporters of the "win-win" proposition stress that the ability to repay loans by the poor is a good indicator that whatever investments the poor make with their micro credit loans must be giving back profits (World Bank, 2008).

Given the assumption that microfinance credit is already beneficial to the poor, the "win-win" proposition further assumes that the number of households' poor reduced is directly proportional to the number of households reached with microfinance. The "win-win" vision has been translated in a series of "best practices" circulated widely by a number of key donors including the Consultative Group to Assist the Poorest (CGAP, 2012).

2.4 Microfinance and Poverty Reduction Among Rural Women

Before the Yunus project, the poor especially the rural women were not allowed to access credit and loans due to the widespread belief that they could not repay. However, through the microfinance project, it was revealed that poor people can be empowered to improve their own lives through microfinance credit (Swope, 2010).

Since the adaptation of microfinance credit in various parts of the world, there have been several researches that support the positive contribution of microfinance credit on poverty reduction among rural women. (Chowdhury, 2009). The available literature concluded that microfinance credit has brought millions, especially women out of poverty and promoted economic sustainability (Glazer, 2010). Their arguments are supported by independent studies which advocated that microfinance credit has a host of positive impacts on families that receive it (Yunus, 2010). Microfinance credit clients have been able to increase income, decrease economic vulnerability by acquiring assets and in some cases, wipe out poverty completely. In addition, they have been able to take their children to school and enjoy better health facilities (Swope, 2010).

2.4.1 Contribution of microfinance credit on household income

In their study Sultana & Hassan (2010) found out those women who had access to microfinance credit experienced income rise and were able to save more money. Another significant outcome in Sultana and Hassan (2010) study was an increase in the women's ownership of productive assets such as cattle, goats and poultry and non-productive assets such as Jewelry, TV /Radio and household goods as a result of accessibility to microfinance credit. These assets were acquired through profits generated from their micro enterprises. Microfinance credit enables women to play an active role in household decision making, decreases potential household vulnerability and increases investment in family welfare especially in areas of children's education and health care (IFAD, 2009). Mayoux (2005) in his study on microfinance credit and poverty concluded that microfinance credit enhances income generating activities and acquire assets. Priya (2006) found that there is significant positive relationship between microfinance credit and income; the findings suggest that programme participants led to a 10% increase in income.

In India a study of the Self-Employed Women Association (SEWA) found borrowers incomes to be 25% higher than non-borrowers, and concluded that microfinance credit is effective in raising household income facilitating the rural women to escape poverty (Goldberg, 2005). There is evidence to demonstrate that families that participate in microfinance credit programmes enjoy an increase in household income (Walter, 2002). Remenyi & Quinones (2003) conducted a case study in Asia and Pacific and concluded that household income of families with access to microfinance credit is significantly higher than for comparable households without access to microfinance credit.

In Indonesia a 12.9% annual average rise in income from borrowers was observed and only 3% rise was reported from non-borrowers (control group). Sri-lanka indicated a 15.6% rise in income from borrowers and 9% rise from non-borrowers. In the case of India, 46% annual average rise in income was reported among borrowers with 24% increase reported from non-borrowers. In a case study of microfinance credit women clients in Lima, Peru, reports only 28% of client live below the poverty line, compared to 41% of non-clients and that the average income of households participating in microfinance credit programme was 50% higher than the income of non participating household (Gopalan, 2007).

Murdoch (2008) conducted an extensive research on microfinance credit in its impact and found plenty of positive impact of microfinance credit on poverty reduction "as relates to (the first six of the seven) Millennium Development Goals". These observations were supported by the findings of an evaluation study commissioned by the ADB (2007) on the effect of microfinance credit on rural women households and the status of women of Bangladesh, Philippines, and Uzbekistan. The study concluded that the microfinance credit projects had positive impact on the status of rural women by generating more income in the household and increased acquisition of assets. In a study conducted by Bedson (2009), in Lumbok, Indonesia, he found out that 90% of sample clients of microfinance credit increased their income by 112% with only 10% who did not increase their income because their husbands misused the money.

Similarly, Ghalib and Imani (2011), in their research examined whether microfinance credit reduces poverty. Their study confirmed that microfinance credit programme improved significantly the household income, expenditure on healthcare and asset acquisition. Bansal (2011) carried out a comparative study in Punjab, India that showed microfinance credit programmes were successful to diversify the economic activities in the rural areas and made participants engage in economic activities which increased income of individual women and household as a result of which they managed to extricate themselves from financial vulnerability and reduce their level of poverty. These findings are supported by the results of other studies carried out by Jegede *et al.* (2011). The authors discovered that there is a significant difference in terms of income between participants and non- participants of microfinance credit programme. The participants income significantly increased, which changed their economic status compared to non- participants. The study also summed up that microfinance institution is indeed a potent strategy of poverty reduction and a viable tool for

supplying credit to the poor rural women. Similarly Setboonsarng and Parpiev (2008) carried out a research on microfinance credit programme and millennium development Goals in Pakistan. They drew a comparative impact assessment of microfinance credit program between borrowers' households of Microfinance credit and non-borrowers. They found strong positive impacts of microfinance credit on increased Agricultural production, especially in livestock farming and crop farming. They also found out that microfinance credit borrowers possessed on average a high value of livestock, farm equipment and income from farm produces than of non-borrowers.

Rahman (2001) pointed out that no microfinance credit women clients had savings before joining the microfinance credit programme, but a remarkable advancement in savings was observed after joining the programme, which contributed to increase in income among the rural women. The Save the Children foundation in London also noted a 50% increase in household income among rural women participating in microfinance credit programme (Matovu, 2006). In his study, Simanonwitz (2002) reported that microfinance credit clients increased their household income by 66% and this increase was attributed to expansion of income generating activities and reduced cost of output as a result of buying in bulk or with cash made possible by access to microfinance credit and selling in new markets. Microfinance credit enables many poor families to earn enough income to rise above the poverty line and therefore, it is an effective method of poverty reduction. Likewise Ahmad (2008) supported the argument that microfinance credit contributes to household income.

In his book on Wealth of Nations, Ahmad (2008) argues that if the rural women have a little money (microfinance credit) it is often easy to get more (income) but the greatest difficulty is how to get that little (capital). The little amount is required by the rural women to help them start income generating activities and MFIs provide that little amount of credit and the poor rural women will be able to make it bigger amount.

2.4.2 Contribution of microfinance on healthcare

Extra income gained through microfinance credit improves health care among the rural women. Illness may lead to loss of earning which may affect the entire household while access to microfinance credit enables more rural women to seek for health care service. Some microfinance credit programme even offer education on health issues (Pitt, 2008). Mohindra *et al.* (2008) examined the relationship between female participation in microfinance credit

programme in India, called Self Help Groups (SHGS) and women's health. The main finding from the study is that participation in microfinance credit programme may help poor women not to be excluded from health care. Further, Hamad and Fernald (2010) investigated the relationship between longer participation in microfinance credit programme and better nutrients status in women in Peru. Their study supported the hypothesis that microfinance credit participation has positive effect on the ability of the rural women to afford better health care. Pitt (2008) also reported that microfinance credit has positive effect on health care as many rural women were able to afford health care services for themselves and their household members.

In Bangladesh, a study conducted by Khandker (2008) confirmed that microfinance credit has a significant impact on children health. Murdock (2009) conducted an extensive investigation on the United Nations Millennium Goals, the first of which is to eradicate extreme poverty and hunger, found out that microfinance credit can significantly increase income of rural women, which translates into better nutrition and health for poor families. Bakhtiari (2006) confirmed that the establishment of reliable and regular income can create a significant impact in terms of ability to access food, health care services, education and other services. This holistic impact of microfinance credit can create a deep and lasting impact on poverty reduction (Bakhtiari, 2006).

2.4.3 Contribution of microfinance credit on Education

Access to microfinance credit widens opportunities for many poor people which may result in increased income. This extra income allows rural women to invest in their children's education for a better future (Pronyk et al., 2007). Khandler (2009) finds significant impact of microfinance credit on children schooling, especially for boys. Khandker (2009) suggests that a one percent increase in microfinance credit provided to rural women at the mean level increases the probability of the children joining school by 1.9% for girls and 2.4% for boys. According to Halder (2004), microfinance credit contributes to an increase in household income and better financial stability, enabling rural women to bear the costs of sending children to school. Likewise, microfinance institutions are known for encouraging families to keep children in school and in some cases school attendance is mandatory in order to participate in microfinance credit programme.

Wright (2000) conducted a study focusing on the Grameen Bank, the largest microfinance institution on contribution of microfinance credit to education and concludes that all the girls in Grameen Bank have had at least some schooling compared to 60% of the girls, in the control group. Most of the Grameen boys (81%) have had some schooling, compared to just half (54%) of the control group boys. The save the children foundation of London authorized a research project in 2009 on microfinance credit and levels of education in children of participants and the studies reveal that improvements in school attendance was widely reported as a result of increased income. In Honduras, participants stated that participation in the microfinance credit and saving programme had enabled them to send several children to school and reduced drop-out in schools (Browstein et al. 2007). Little Field (2005) reported that the opportunities created by microfinance credit help a lot of poor rural women invest in their own business, educate their children and improve their health care. Browstein et al. (2007) found out that microfinance credit reduced child labour and improved school attendance for the children of microfinance participants, contributing towards the realization of the second millennium goal to achieve universal primary education. It further stated that education is critical to the achievement of the 2015 target of reducing the incidences of extreme poverty by half. Educational status is one of the strongest influences on income and poverty (Grameen Bank, 2009). The lower the level of education attained by the rural women, the greater the vulnerability to poverty (Knight & Farhad, 2008).

2.4.4 Contribution of microfinance credit on acquisition of assets

Mawa (2008) conducted a research study focusing on the contribution of microfinance credit on acquisition of assets and concluded that microfinance credit helps the rural women to build assets, educate their children and have better health care. Rena, *et al.* (2006) concluded that microfinance credit is the means for building assets and the way for permanent reduction of poverty. Assets which generate income help the rural women to afford other services such as health care services, education, housing, water supply and adequate nutrition.

Shastri (2009) revealed that there is no way better than microfinance credit in the way against poverty. Acquiring income generating assets is one way of reducing poverty. Ali (2008) conducted a comparative study on contribution of microfinance credit on acquisition of assets among the women borrowers of MFIs and non-borrower women and found out that, 68% of its' borrowers families have acquired income generating assets and the number of rural women living below the poverty line among the microfinance credit borrowers had sharply

reduced as compared to non-borrowers in which only 5% had acquired income generating assets in the last one year. On their study Sultana and Hassan (2010) found out that women who participated in microfinance credit experienced income rise and increase in the women's ownership of productive assets (Cattle, goats, poultry etc) and non-productive assets (TV/Radio, solar and other households goods) because they could afford such assets through profit generation from their micro enterprises.

2.4.5 Wider contribution of microfinance credit on the society

Another series of positive impact of microfinance credit is what has been termed as wider impacts of microfinance credit, shifting focus to analyzing effects on the communities and societies of the borrowers. The general argument for the wider impact of microfinance credit is that it generates greater social networks and a greater sense of community, which translates into accumulation of information, contributing to greater political participation, education rates, and better health care. These have been cited as important evidence of microfinance credit ability to reduce poverty (MIX & CGAP, 2010). In the early 2000s, an important shift in microfinance credit was made. Grameen and other leading microfinance credit organizations, such as Bancosol of Bolivia, abandoned the group-lending scheme and began to move their portfolios out of the solidarity group (joint-liability, group-lending) method to individual contracts. Diop et al. (2007) suggest that changing the system of loans may result in involuntary departures. If material collateral is required, the clients or members who are in not a position to provide it leave and it is the poorest segment of the clientele that finds itself unable to provide this collateral (Diop et al., 2007).

It is interesting to note that the argument for increased examination of wider impacts increased in the same time that the new Grameen model was introduced. Khandker (2008) measured the impact of microfinance credit on village welfare and found the programmes to a have spillover effects on the local economy. Khandker(2009) argues that microfinance credit programme accounted for more than half of the observed annual reduction in poverty among participants and that there was growth in local income and the average village poverty level reduced by one percent each year.

Copestate *et al.* (2005) found that although MFI borrowers in the community indirectly harmed some of the poorest residents in the village, the injection of loan capital into the communities helped sustain the circular flow of income within the village. This benefited the

poor consumers of goods and services provided by (MFI) participants (Copestate *et al.* 2005). Interviews found that some participants resented the group-method and urged the MFI to switch to direct loans to individuals; but borrowers also cited benefits from group membership such as advice and information sharing (Copestate *et al.* 2005). The findings provide some support for microfinance credit shift to individual loans, but also reiterate support for routine quantitative and qualitative assessment in order to gain a better understanding of the impact of microfinance credit. Chowdhury *et al.* (2004) argues that there is reason to believe that some of these wider impacts of microfinance credit may well be reducing poverty, but not many of these wider impacts have been measured.

A study of six African MFIs found that many benefits of microfinance credit programmes on the poor in Africa are likely to come through wider impacts rather than by direct impacts on individual borrowers (Mosley and Rock, 2004). They argue that microfinance credit can reduce poverty through job creation and by the improvement of household risk management through MFI training and the building up of social networks. This improvement is said to stabilize village income, reducing the vulnerability of the poorest (Mosley and Rock, 2004). They also argue that microcredit enhances human capital regardless of poverty level because expenditures on education and health care are increased, which may then extend to poor individuals through intrahousehold and inter-generational effects (Mosley and Rock, 2004). A study by Halder found that although many borrowers experienced few improvements to their income, they spoke of improvements in autonomy and social status. For example, males and females teamed up to manage their investments after participating in the microfinance credit programme (Halder, 2004). A survey conducted in Russia, Slovakia and Romania by Mosley and Rock (2004) revealed that groups of microfinance credit programme had come together in a struggle against local authority corruption and on average, microfinance credit participants were found to have a higher level of trust than the control groups, although microfinance credit was not found to increase formal associational membership in political groups, it was found to influence informal political participation. Microfinance credit has the ability to: increase trust by indirect channels, to reduce corruption, and to reproduce group formation and the extension of social capital through networks (Mosley and Rock, 2004).

2.4.6 Why microfinance institutions target women

Seventy percent of the worlds' poor are women and majority is found in the rural areas (UNECA, 2010). Traditional women have been disadvantaged in accessing credit and other

finance services. Commercial banks often focus on men and formal business, neglecting the women, especially the rural women who make up a large and growing segment of the informal economy (UN, 2005). Microfinance credit programme on the other hand often target women, in some cases exclusively. Female clients represent 85% of the poorest microfinance credit clients reached (Daley-Harris, 2007). Therefore, targeting women borrowers makes sense from a public policy point of view. The business case for focusing on female clients is substantial, as women clients register higher repayment rates. They also contribute larger portions of their income to household consumption than their male counter parts (Grameen Bank, 2009).

Children of women microfinance credit borrowers also reap the benefits as there is an increased likelihood of full-time school enrollment and lower drop-out rates. Studies show that new incomes generated from microenterprises are often first invested in children's education, particularly benefiting girls. Households of microfinance credit clients appear to have better health care and nutrition than other households (ILO, 2007). The other reason why MFIs prioritize on women is that women are considered to be better customers (ILO, 2007). The relation between gender and repayment of loans has been analyzed in a number of studies. Khandker (2008) found out that in 2007, 97% of microfinance institutions male borrowers were irregular and had difficulties repaying the loans before the due date, compared to only 37% of the rural women. Similarly, Sharma and Zeller (2007) reported that the default rate was reduced significantly in Bangladesh when the percentage of women increased. Kavane and Wydick (2001) found out in a study from Guatemala that female microfinance credit group misused funds less often and performed better than male groups. Armendariz and Morduch (2010) argued that women are better customers because they are less mobile, thus more likely to work from home and this makes it easier for MFIs to follow and Monitor the investment projects.

Similary, Sharma and zeller (2007) argued that women are more conservative in their investment and business strategies which make them choose projects that are less risky. Another explanation for the rising proportion of female borrower is that the socio economic impact of microfinance credit on women is bigger compared to men. A number of previous studies suggest that women care more about improving their families' welfare and nutrition, and thus deliver stronger development impact. Soufias and Mclafferty (2011) argue that bigger social and economic impacts of microfinance credit by lending to women can be

explained by men's habits to misuse the resources, probably through tobacco, alcohol and gambling. According to Grasmuck and Espinal (2011), when a woman's business succeeds and she makes a profit, all the profit, goes to her family, while men typically give only 50-70 percent of their income to their families. Studies also show that children are better educated and cared for when women contribute income to the family (Grasmuck and Espinal, 2011). Khandker (2008) reported that the budget share spend on households health and education in Brazil increases when the bargaining power of women is increased.

According to UNDP (2005), women borrowers generally tend to have higher repayment rates than men in microfinance institutions and they tend to utilize the microfinance credit for the purpose it was acquired for and exercise higher repayment discipline. In addition, woman use their income for the benefit of the family. The investment of microfinance credit in women tends to yield better socio-economic returns (Kabeer, 2005). In Kenya, the Kenya Women Finance Trust (KWFT) target women as their clients as a result of donor policy. The KWFT starts with solidarity group credit with weekly repayment of all group members and the refusal to accept any repayment unless every single member meets her obligation (KWFT Report, 2010).

2.4.7 Criticism of contribution of microfinance credit on poverty reduction among rural women

Recent studies have questioned the contribution of microfinance credit on poverty reduction among the rural women. Many studies suggest that the veracity of microfinance credit efficacy may be less attractive than the promise (Adams and Bartholomew, 2010). Borrowers have been burdened with multiple loans at exorbitant rates of interests, often having to borrow from more than one MFI to make their microfinance credit payment (Glazer, 2010). Noreen (2010) however, found out in her study a varied impact of microfinance credit on poverty reduction with significant positive impact on children education and enterprise expansion but mixed evidence on food security, acquisition of household's assets and household income. Adams and Bartholomew (2010) examined the impact of microfinance credit from the perspectives of maize farmers in Nkoranza in the Brong Ahafo Region of Ghana and concluded that the impact of microfinance credit on both social and economic wellbeing was trivial. In Bosnia, the world Bank researchers found out that up to 50% of microenterprises failed within one year of establishment, stripping the rural women of all their assets leaving them poor (Demirgue-kunt, 2009).

Likewise, results by Tedeschi (2008) in his study suggested that microfinance credit programme did not have any significant effect on household income among rural women. Mayoux (2002) argue that microfinance credit leaves rural women borrowers highly indebted, and no many assets to show. A similar example by an article published by the New York Times, Asia Pacific, and November 17th 2010 condemns microfinance credit for stripping women of their assets and making them more poor. Banda Elisha aged 40 years and Devaranda Bhagyamma aged 36 years from the village of palivepula, India are said to have sold all their assets for loans repayments. On the same occasion the New York Times article reported that a woman in the villages of Andhra Pradesh, India committed suicide due to her inability to repay the microfinance credit after selling all her assets (New York Times, 17th November, 2010).

Desoto (2000) argues that microfinance credit has negative impact on household income as rural women sell their assets to repay their loans. These assets are a source of income for the family; therefore one can rightly conclude that microfinance credit is not an adequate tool for helping the poor out of poverty. Results by Diagne and Zeller (2011) in their Malawi study also suggested that microfinance credit did not have any significant effect on household income among rural women. A systematic review of contribution of microfinance credit on poverty reduction in sub-saharan Africa reported negative impact on education arising from parents not being able to afford school fees (Stewart *et al.*, 2010).

Roodman (2009) assert that microfinance credit might actually leave rural women worse off, just as credit cards and mortgages have made people poorer in developed countries. Referring to the over-advertised benefits of microfinance credit, Ditcher (2006) claims that while the promise of microfinance credit is irresistible, the contribution of microfinance credit to poverty reduction remains elusive. Karnani (2007) made a similar statement in his critique of microfinance credit programmes and argued that though microfinance credit yield some non-economic benefits, it does not significantly alleviate poverty and that the promise of microfinance is less attractive than the reality. Karnani (2007) explained that the best way to reduce poverty is to create Jobs and increase worker productivity but not through microfinance credit. This is because rural women tend to take out conservative loans that protect their subsistence, and rarely invest in acquisition of new assets or hiring of labour. In another study to examine the impact of microfinance credit on rural farmers in Malawi, Aguilar (2006) reported that farmers who borrow from microfinance institutions were not

better off than those who did not borrow and added that poverty cannot be eradicated with a tiny amount of money provided by MFIs, rather it implicates the women in the long debt cycle.

2.5 Measuring Poverty

The world is characterized by the division of 'haves' and 'have nots. The haves lead a luxurious life while the have-nots suffer from lack of decent, health and productive life (Todaro, 2011). There is no clear consensus among development experts and policy makers on how to define poverty (Moll, 2005). Traditionally, poverty was understood primarily as material deprivation, living with low income and low consumption characterized by poor nutrition and poor living conditions (UNDP, 2008). This is commonly known as income poverty. Poverty is also associated with poor health and low education levels that are either the causes or the results of low income this is said to be, human poverty.

A classical definition of poverty defines it as the inability to attain a minimal standard of living measures in terms of basic consumption needs or the income required for satisfying them (World Bank, 2002). Poverty is thus characterized by the failure, of individuals, households or entire communities to command sufficient resources to satisfy their basic needs. The inability to attain minimal standards of consumption and to meet basic needs is often termed as absolute poverty or deprivation. It is directly expressed as not having enough to eat (UNDP, 2010). In absolute poverty, the poor are materially deprived to the extent that their survival is at stake. Attimir (2010) defined poverty as a situation of poor health, low level of education, malnutrition and lack of participation in decision-making processes. Similar definitions have also been given by many institutions and authors. World Bank (2007) in its report further defines poverty as shortage of food, low life expectancy, a high rate of infant mortality, low educational standard and enrolment, unsafe drinking water, inadequate health care, unfit housing conditions and lack of active participation in decision making processes. Poverty does not only mean lack of material needs but also vulnerability and powerlessness. Power and participation dimension depends on income level and asset ownership (Navajas, 2011). According to World Bank report (2002), the dimension of poverty is classified in four dimensions. These are: lack of income, low level of achievement in education, inability to afford better health care, vulnerability to risks due to lack of assets. Chambers (2009) argued that poverty is a complex web and households trapped in this spider's web suffer from material poverty, vulnerability, powerlessness, physical weakness,

isolation and spiritual poverty. The broader definition of poverty as multi-dimensional phenomena leads to a clearer understanding of its causes and makes it possible to formulate a more comprehensive policy aimed at poverty reduction. Figure 1 shows an illustration of how the poor rural women are trapped in a poverty web (Chambers, 2009).

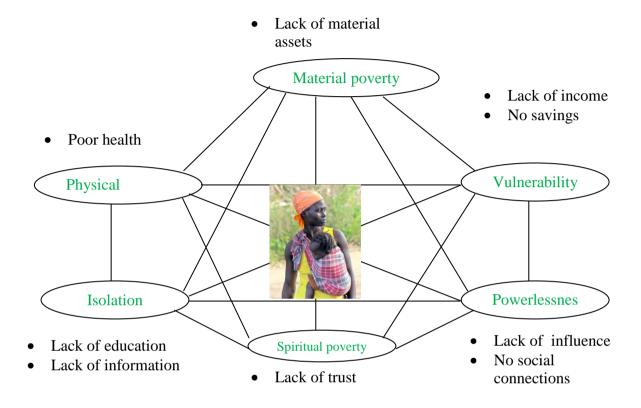


Figure 1: Poverty web (Chambers, 2009)

Poverty is measured differently in different countries. Conventionally, the income or expenditure level that can sustain a minimum standard of living is used to measure poverty. Poverty is measured by constructing a line called poverty line. Poverty line is defined as a threshold level of per capita income or consumption level below which an individual is classified as poor (World Bank, 2008). The poverty line represents a minimum level of economic participation in a given society at a given point in time. People below this threshold are said to be poor. Poverty line is estimated in two different approaches. These approaches are absolute poverty and relative poverty (Todaro, 2011).

Absolute poverty refers to a condition in which people barely exist. In such situation, the availability of the next meal will be a matter of life or death. It is a critical condition in which

people live on aid, food relief or their own meagre returns from squatter farming, scavenging on refuse pits and so on (Todaro, 2011). To allow for international comparison, the World Bank established an international poverty line of 1 US dollar a day per person in 1985 Purchasing Power Parity (PPP) prices (World Bank, 2008). According to this measure, developing countries have the highest percentages of populations living below the poverty line. The highest incidence of poverty is observed in sub-Saharan Africa, with almost half of its population living below the poverty line (UNCDF, 2005).

Relative poverty implies that one has less than what others have. It compares the circumstances of one group of people or an entire economy with another. It refers to a relative income differential of distribution. The situation of the poverty is not a matter of life and death as it is in absolute poverty. Relative poverty exists when the subjects under consideration are "poor" in relation to others (Todaro, 2011). The World Bank (2008) categorized people in society as none poor, vulnerable, upper poor, lower poor and extreme poor depending on how much income they earn per day.

2.6 Trust and Group Lending in Microfinance

The function of group lending is to make up for lack of collateral in impoverished communities (Morduch, 2008). Initially, microfinance credit was attacked by critics who argued that banking cannot be done without collateral. Poor people typically do not have collateral to put up in case of failure to repay their loans, therefore, they were assumed to be unbankable. It has since been demonstrated that group lending can be used in the place of concrete collateral (Bandsman and Chaouli, 2011). In group lending, the loan is given to a self-selected group of approximately five villagers who may or may not be involved in the same business enterprise. A group treasurer is selected among them to collect weekly repayment and deposit them at the microfinance institution. Often, the first loan is a signature loan made out only to the treasurer. If she demonstrates the capacity to repay, loans are given to two others in the group, and upon repayment loans are promptly disbursed to the final two clients. These groups of five meet weekly with the bank staff to discuss progress and issues at hand (Morduch, 2008). The group treasurer is responsible for repayments by the rest of the group, which alleviates the burden of responsibility from the bank and puts it into the hands of the people. If any one member of the group fails to pay her weekly portion of the loan, the entire group is denied subsequent loans (Morduch, 2008). Groups have been found to function best when they are free to choose their own members and members may only leave

the group after the loan has been repaid in full (Yunus, 2008). Collective responsibility encourages members of a group to help each other if not out of kindness, then at least out of fear that their own privilege will be revoked due to default by another member. It also encourages the rural women to be selective about whom they include in the group (Morduch, 2008). Women in particular benefit from working in a group because of the social support and joint problem solving offered by the other members (Hulme, 2009).

The success of group lending is primarily due to the intimate settings of most Third World Villages. For example, late loan payment means that the client either cannot pay or will not pay. In village settings everyone knows everyone else's business. If it is known that the person cannot pay, neighbours can usually be counted on to come to her aid. If the person won't pay, she is shamed by the rest of the village. Fear of public humiliation provides high incentive for prompt repayment (Javier, 2004). It should be noted however, that social collateral is not appropriate in all circumstances since it requires a degree of social cohesion within a community (Javier, 2004).

Another important ingredient in the trust system is personal relationship between MFI staff and clients. The staffs at the MFI are encouraged to get to know clients on a friendly basis. Owing to the fact that clients do not put down collateral, the loan is based entirely on trust. Loan officers in particular, after spending much time with the people of a village, are able to determine who can be trusted to repay a loan and who cannot. This approach helps to weed out potential problematic clients (Morduch, 2008). According to Javier (2004) the key word is trust; it is not just the cash. It is what the cash means, and it means "I trust your small project". Personal relationships are also extremely beneficial to the clients. Although it is necessary to be strict about timely repayments, there are some instances, such as a medical emergency or a death in the family in which some leniency is granted. This is done at the discretion of the loan officer, who is aware of the personal situations in each client family. Also relationships provide security to the client. Clients are assured that the microfinance credit will be around for a long time and won't disappear quickly like the credit unions of the past (Yunus, 2008).

2.7 Lending to the Rural Women by Joint Liability

To reach economically disadvantaged clients with financial services requires innovative strategies. Joint liability lending institutions use "Unconventional" methods to lend successfully to the poor. There is evidence that in many circumstances an unconventional lender such as the Grameen Bank can lend to poor people that no ordinary commercial bank would want for a customer. The unconventional lender can do so with a reasonable degree of financial self-sufficiency and achieve repayment rates that are significantly higher than for comparable loans by conventional lending institutions (Ghatak, 2004). The reasons for this success is, first, many of these lending programmes ask borrowers to form a group in which all borrowers are jointly liable for each other's loans. Secondly, individual group members engage in intensive monitoring of each other. Thirdly, microfinance institutions rely heavily on the promise of repeat loans (dynamic incentives) for borrowers who perform well. Finally, microfinance institutions impose forced savings by individual group members to lower the risks of moral hazards (Ghatak, 2004; Schreiner, 2005).

Dynamic incentives refer to the promise of bigger loans once the current loan has been repaid. It motivates the clients to finish repaying their current loan with the hope of qualifying for a larger one. Schreiner (2005) argues that dynamic incentive is supposed to make microfinance credit for the poor to work in a similar fashion as the credit card in developed countries, where clients repay because they want to access more credit in the future. Another important aspect of joint liability lending is the principle of peer monitoring and peer pressure. The individuals within a group monitor and pressurize each other to ensure that all loans are repaid on time. In case the individual is not able to repay due to wrong investment decisions or some other reason, then all the members of the group have a moral obligation to help in the repayment.

Forced savings come in very handy especially in reducing risks for the microfinance institution. Individual borrowers are forced by the microfinance institution to save a fixed amount every month. Neither the group nor the individual can access the forced savings at will, but it can be used as security for future loans and can only be paid back if the individual borrower is dropping out and has been cleared by all members of the group (Schreiner, 2005). According to Ghatak (2004), the more the forced savings accumulate the easier it becomes for the borrower to access more loans in future as long as the group continues to support the borrower. The forced saving is not only a guarantee for loans borrowed by an individual but

can also be seized by the microfinance institution if any other member(s) of the group defaults on their loan repayment.

Providing small loans to very many poor borrowers without collateral is only made practical by squeezing the operating costs as well as shifting certain tasks (costs) onto clients. This helps the microfinance institution to lower information costs and translate the loans sizes into larger ones that are cheaper for the MFI to administer and more convenient for the individual client who basically has no collateral to offer the microfinance institution. The costs of monitoring of loan use and repayment, enforcement, as well as under writing costs (loan approval) are usually shifted to borrowers in group lending to reduce the cost of the loan for the poor to access the loan at lower interest rates than in the banks (Schreiner, 2005).

2.8 Theoretical Framework

The study adopts the social capital theory which is mainly used by the poor without collateral in microfinance group lending. According to Chibber (2000), the effort to reduce poverty traditionally was based on natural capital, physical capital and human capital. Together they constitute the wealth of nations and form the basis of economic prosperity. Chibber's (2000) criticism is that the three types of capital determine only partially the effort to keep poverty at a minimal level but forgets to recognize the way in which the poor interact and organize themselves to generate growth and development. He says the missing link is social capital. Social capital refers to trust, concern for one's associates, a willingness to live by norms of one's community and punishment of those who do not adhere by these norms (Yunus, 2008).

The rural women have no collateral to pledge to the banks for a loan and, therefore, cannot access credit from financial institutions such as banks because information cost is higher compared to the size of the loan. Also, the lenders are not able to distinguish projects with respect to their risk profiles when allocating credit (adverse selection problem) and borrowers may apply the funds to different uses than those agreed upon with the lender (Moral hazard). The theory explains that when poor individuals with strong bonds of trust and willingness to live by the norms of the group come together, then this relationship is equivalent to any other physical asset, what is referred to as social capital (Chibber, 2000).

It is this social capital that replaces the physical capital, therefore, facilitating the rural women to access the microfinance credit (independent variable). Social capital theory is

exploited through "group-lending" in which borrowers operate with the lender through groups, with individual borrower status depending upon the performance of all group members. Social capital, therefore, rests in the fact that the group members have crucial information about other members' behaviour, capacities and needs, making information available to the lender at no cost (Yunus, 2008). Likewise, the cost of monitoring loan use and enforcement of the loans repayment are passed to the group through the joint liability lending. This reduces the cost of lending the loans to each individual member at low interest rates compared to commercial banks (Yunus, 2008). This organization of the rural women (Social capital) has enabled them to access microfinance credit to start businesses (Independent variable), which affected the dependent variable (poverty). This theory formed the basis for this study to investigate the contribution of microfinance credit on poverty reduction among the rural women in Keiyo North Sub-County.

2.9 Conceptual Framework

On the basis of social capital theory the component of organization of the rural women has an effect on dependent variable (poverty). The organization among the rural women makes them to form groups and to access microfinance credit (financial capital) from microfinance institutions. The dependent variable in this study was poverty reduction. This variable was measured by determining household income, acquisition of assets, affordability of health care and affordability of education for their children. The independent variable (microfinance credit) was measured as the total amount of loan borrowed by each rural woman since joining the microfinance credit programme.

The interaction between independent and dependent variables was further influenced by extraneous variables which were the age and education level of the rural women. The extraneous factors were independent variables that were not related to the purpose of the study, but may have affected the dependent variable (Kothari, 2008). To ensure that extraneous variables did not influence the dependent variable, the variable was controlled. To control the influence of level of education on the dependent variable the researcher included it in the study. To control the age of the rural women from influencing dependent variable, the sample included the rural women participating in microfinance credit programme in groups regardless of their ages. The conceptual framework presented as Figure 2 shows the interaction between the independent, dependent and extraneous variables in this study.

Dependent Variable Independent Variable Extraneous Variable Poverty Reduction Microfinance Credit (Measured as) Household Income Total amount of loan Acquisition of assets borrowed by each rural Age Affordability of health care woman since joining the Level of Affordability of education microfinance credit education of of children programme. rural women

Figure 2: A conceptual framework for measuring the contribution of microfinance credit on poverty reduction among the rural women in Keiyo North Sub-County.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter summarizes the main procedures and techniques adopted for the study including the research design, target population and sampling procedures as well as data collection and analysis procedures. The various procedures have been justified and explained to show how they enabled the researcher achieve the research objectives.

3.2 Research Design

The study used a descriptive research design to investigate the contribution of microfinance credit on poverty reduction among the rural women in Keiyo North Sub-County. Mugenda and Mugenda (2008) stated that the descriptive research design is a method, which enables the researcher to summarize and organize data in an effective and meaningful way. The design was deemed suitable since it helped to describe the state of affairs as they exist without manipulation of variable (Kothari, 2004).

3.3 Location of the Study

The study location is Keiyo North Sub-County, in Elgeyo Marakwet County (Appendix B). It is bordered by Marakwet East Sub-County to the North, Uasin Gishu Sub-County to the West, Baringo north Sub-County to the East, and Keiyo South Sub-County to the South-East. It occupies an area of 557.40 Km² and it has four divisions namely Kamariny with an area of 117.5059 Km²; Emsoo (152.3059 Km²), Tambach (176.1059 Km²), Kapchemutwa (111.5059 Km²). It has a population of 73,715 people distributed as follows, Kamariny Division has a population of 25,057 people, Emsoo Division has 9,602 people, Tambach Division has 15,930 people, and Kapchemutwa Division has 23,126 people (Keiyo North District Strategic plan, 2010).

Population densities range from 54 to 179 people per Sq. Km, with the highest population density in Kamariny division. The district has a population growth rate of 2.8% per year, far above the national growth rate of 2.4% per year with 35,383 people or 48% of the population living in poverty (Revenue Allocation Commission, 2011). The age structure exhibits a youthful population. About 58% of the population is aged below 20 years while about 75% are aged below 30 years (Keiyo North District Strategic Plan, 2010). Farm sizes are small,

ranging from 0.1 hectares to 3 hectares, and the mean household size is 6 people (Keiyo North District Strategic Plan, 2010).

The agro-ecological zone is divided into three zones, the highland, escarpment and lower land in Kerio valley. The highland and escarpment produce most of the crops including maize, beans, coffee and pyrethrum. Kerio Valley is dry with erratic rainfall, leading to poor crop production and low incomes. Income levels are also skewed to the highlands side, with poverty levels higher towards the Kerio Valley. The district was selected because of the presence of KWFT in all the 13 sub-locations within the district serving only the women. The poverty level is high (65%) among the rural women despite the area being conducive for farming with the only challenge being lack of capital among the rural women which they can access from KWFT institution which is the only MFI currently in the rural area.

3.4 Target Population

The study targeted rural women participating in KWFT microfinance credit programme in groups. The rural women had been in the programme for over one year. The District has a population of approximately 20,700 rural women. The number of rural women participating in KWFT microfinance credit programme is 220 in 17 groups, Appendix D (KWFT, 2011). The rural women were involved in production of horticultural crops e.g. tomatoes, cabbages and passion fruits for sale. Others keep indigenous poultry for sale (Keiyo North District Strategic Plan, 2010)

3.5 Sampling Procedure and Sampling Size

A list of all the rural women participating in microfinance credit programme was obtained from KWFT offices in Keiyo North Sub-County. In total there were 220 rural women participating in the microfinance credit programme, this constituted the sampling frame. A sample size of 130 rural women was arrived at using the table for determining sample size, Appendix C (Krejcie & Morgan, 1970). Simple random sampling was used to obtain participants from each group to arrive at 130 sample population. It was done by writing numbers from one to the total number of the group members on small papers, then the papers were folded, put in a container, mixed and each group member picked one. Those who picked numbers within the sample population participated in providing data. The 130 rural women were appropriate for the study because the minimum recommended sample size in a survey is 100 (Borg & Gall, 1983).

3.6 Instrumentation

Data from the rural women in Keiyo North Sub-County was collected using a self-administered structured questionnaire. Questionnaires are commonly used to obtain important information about a population (Mugenda & Mugenda, 2008). A structured questionnaire was developed by the researcher, containing both open and close ended items for rural women. The items were related to the objectives of the study. The questionnaire contained information on the personal characteristics of the rural women and indicators measuring poverty reduction.

3.6.1 Validity

To ensure that the instrument will accurately measure the variables of interest of the study, each of the items in the questionnaire was discussed with the lecturers from the Department of Agricultural Education and Extension in the Faculty of Education and Community studies of Egerton University and supervisors to ascertain the questionnaire's content validity. Attention was given to how each of the specific study objectives was captured in the questionnaire and modifications made accordingly. Face validity was done to ensure the format of the instrument is consistent with the variables to be measured and to avoid biased responses from the respondents. Comments from the experts were incorporated into the instrument before it was used for data collection.

3.6.2 Reliability

To ensure consistency of the questionnaire, the instrument was pilot-tested in Tambach division with 30 rural women who had similar characteristics with the rural women in the study. They had participated in the programme for over one year. According to Kathuri and Pals (1993), a minimum sample of thirty (30) is recommended to ensure effective statistical analysis and interpretation. The reliability of the instrument was tested using Cronch's Alpha coefficient which is a measure of internal consistency. According to Fraenkel and Wallen (2000), a reliability coefficient of 0.70 or higher is preferred for research purposes. Results of the pilot test indicated an alpha reliability coefficient of 0.71 hence an indication that there was consistency among the items in measuring the variable of interest.

3.7 Data Collection Procedure

Permission to collect data was sought from Egerton University Graduate School then a research permit was obtained from the National Council for Science and Technology.

Official request to undertake the study and to access the information from the rural women participating in microfinance credit in KWFT was sought from the county head quarters in Iten town. To make the exercise easier, faster and more efficient, the researcher contacted the respondents through their respective area agents. The researcher explained to the respondents the purpose of the study before administering the questionnaire. The researcher was in attendance throughout the exercise to explain any issue that arose. For respondents who were unable to read and write, the researcher translated the questionnaire into local language and filled in the information himself. The responses will be recorded in the questionnaires and later transferred into an electronic database (SPSS version 15) for further analysis.

3.8 Data Analysis

Descriptive and inferential statistics was used to analyze data. Descriptive statistics included frequencies and percentages. Data on research question on the total amount of loan borrowed by each rural woman since joining the microfinance credit programme was summarized into different categories of total amount of loan bought in Kshs. (Below 20,000, 20,001- 40,000, 40,001- 60,000, 60,001-80,000 and above 80,001) and described using frequencies and percentages. Data on hypothesis one on household level of income was summarized into different categories of increase in household level of income in Kshs. (below 1,000, I,000 – 5,000, 5,001- 10,000, 10,001- 15,000, and over 15,001) and was analyzed using chi-square α =0.05 significance level.

Data on hypothesis two on asset building was summarized into different categories of total value of the assets acquired in Kshs. (below 5,000, 5,001- 15,000, 15,001- 25,000, 25,001- 35,000 and above 35,000 and was analyzed using chi-square α =0.05 significance level. Data on hypothesis three on affordability to health care was summarized into different categories on how much money used in health care is contributed by microfinance related enterprises per month in Kshs. (below 100, 100- 500, 501- 1000, 1,001- 1,500, above 1,501) and was analyzed using chi-square α =0.05 significance level. Data on hypothesis four on affordability of education for their children was summarized into different categories of how money was contributed by microfinance related enterprises per Year in Kshs. (below 5,000, 5,001- 15,000, 15,001- 25,000, 25,001- 35,000, 35,001- 45,000, 45,001-60,000, over 60,001) and was analyzed using chi-square and interpreted α =0.05 significance level. Chi-square is a statistical technique used to compare categorical data (Kathuri & Pals, 1993). The data was checked to ensure correct entry of the responses and analyzed by computer using SPSS.

Table 1
Summary of Data Analysis

Independent	Dependent	Statistical
variable	variable	test
	Household	Chi-square
Microfinance credit.	income.	
Microfinance credit.	Acquisition of	chi-square
	assets	
Microfinance credit.	Affordability	
	of health care	chi-square
Microfinance credit.	Affordability	Chi-square.
	of education	
	for their	
	children	
	wariable Microfinance credit. Microfinance credit.	wariable Household income. Microfinance credit. Acquisition of assets Microfinance credit. Affordability of health care Microfinance credit. Affordability of education for their

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the results and discussions of the study based on the objectives and hypotheses. The aspects analyzed and discussed include the profile of the respondents, the description of findings based on the objectives namely: the total amount of loan borrowed by each rural woman since joining the microfinance credit programme, contribution of microfinance credit on household income among the rural women, contribution of microfinance credit on acquisition of assets, contribution of microfinance credit on healthcare and contribution of microfinance on affordability of education for the children of the rural women and the hypotheses testing.

4.2 Profile of the Respondents

The respondents were asked to provide information about their personal characteristics which included age, marital status, level of education and when they joined the microfinance institution and the findings were as follows.

4.2.1 Respondents' Marital Status

Majority of the rural women (73.8%) were married (10.8%) were widowed (10%) were single and (5.4%) were either divorced or separated as indicated in Table 2.

Table 2
Marital Status of the Respondents (n=130)

Marital status	Frequency	Percentage
Single	13	10
Married	96	73.8
Widowed	14	10.8
Divorced or separated	7	5.4
Total	130	100

The results suggest that the married rural women had many obligations to fulfill such as educating their children, providing healthcare for their family members as indicated by Yunus (2010) in his research. This makes it necessary for them to engage in incomegenerating activities to meet these needs.

4.2.2 Age Distribution of the Respondents

The minimum age bracket for the rural women in the study area was 18-24 years and the maximum age was 70 years with a mean of 42 years. Majority of the rural women (30%) were in the 35-39 year age category followed by the 30-34 years category (28.5%), 40-49 years with (18.5%) then 18-24 years with (4.6%) and finally 50-70 years with (1.5 %) (Table 3). The results indicate that most of the women were in the productive age; making it possible to make the most of the loans they take from MFIs.

Table 3

Age Distribution of the Respondents (n=130)

Age categories	Frequency	Percentage
18-24 years	6	4.6
25-29 years	22	16.9
30-34 years	37	28.5
35-39 years	39	30.0
40-49 years	24	18.5
50-70 years	2	1.5
Total	130	100.0

Mean 42.6 years, median 45.5, mode 43, standard deviation 12.6, minimum 18 and maximum 70.

4.2.3 Respondents' Level of Education

The respondents who had attained primary level education were (45 %), (16%) had no formal education, 40% had attained secondary education, 8.5% had attained college education as indicated in Table 4.

Table 4
Respondents' Level of Education (n=130)

Level of education	Frequency	Percentage	
No formal education	8	6.2	
Primary	59	45.4	
Secondary	52	40.0	
College	11	8.5	
Total	130	100	

The results indicate that majority of the rural women had at least basic education which would enable them identity profitable enterprises using the loans received from MFIs.

4.2.4 Respondents' Membership to MFI

The respondents were asked to indicate when they joined the microfinance institution (MFI). This was to establish the duration of the rural women membership to MFI. Majority of the rural women (50%) joined the MFI below 5 years, followed by (39%) who joined between 5-10 years and those who joined the MFI over 10 years where (12%). This was an indication that more rural women are currently joining the MFI because of the successes realized by the rural women who had joined the microfinance institution early than them as shown in Figure 3.

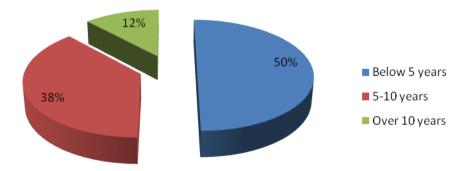


Figure 3: Respondents' Membership to MFI (n=130)

4.3 Description of Findings Based on the Objectives

The study was guided by five objectives which were to investigate:

- i. The total amount of loan borrowed by each rural woman since joining the microfinance credit programme among the rural women in Keiyo North Sub-County.
- ii. The contribution of microfinance credit on household income among the rural women in Keiyo North Sub-County.
- iii. The contribution of microfinance credit on acquisition of assets among the rural women in Keiyo North Sub-County.
- iv. The contribution of microfinance credit on affordability of healthcare among the rural women in Keiyo North Sub-County.
- v. The contribution of microfinance credit on affordability of education for the children of the rural women in Keiyo North Sub-County.

4.3.1 Total Amount of Loan Borrowed by each Respondents

The total amount of loan borrowed by each rural woman since joining the microfinance credit programme is summarized in the Table 5.

Table 5

Amount of Loan Borrowed by each Respondent (n=130)

Total amount of loan	Frequency	Percentage
Below Kshs. 2,0000	23	17.7
Kshs. 2,0001-4,0000	48	36.9
Kshs. 4,0001-6,0000	39	30
Kshs. 6,00001-8,0000	11	8.5
Above Kshs. 8,0000	9	6.9
Total	130	100

This indicates that majority of the rural women had borrowed an amount ranging from Kshs 2,0001-4,0000 (48%) since joining the microfinance credit programme, followed by those

who had borrowed Kshs. 4,0001-6,0000 (39%). This indicated that the rural women had made significant progress towards escaping poverty. The initial amount of loan that a member could borrow was less than Kshs. 5,000/=, therefore it showed that the rural women were able to repay their initial loan for them to borrow more loan (KWFT, 2011).

4.3.1.1 Membership of Respondents' per Group

The number of all the rural women per group is shown in Table 6.

Table 6
Membership of Respondents' per Group (n=130)

Members in a group	Frequency	Percentage	
1-10 members	19	14.6	
11-15 members	84	64.6	
16-25 members	27	20.8	
Total	130	100	

It is a requirement for the rural women to be in a group for them to access the loan (Yunus 2010). Table 6 indicates that (100%) of the rural women were able to borrow the loan from the microfinance institution. This indicated that all the rural women were able to repay their loans for the others to be able to borrow the loan. In group lending, the first loan is given to few members of the group who, if they demonstrate the capacity to repay, the other remaining group members can access the loans (Murdoch, 2008).

4.3.1.2 Respondents' Prior Knowledge of each other before Forming the Group

When the group members were asked whether they had known each other before joining the group, they all responded that they had known each other (100%) as shown in Table 7.

Table 7
Respondents' Prior Knowledge of each other before Forming the Group (n=130)

Prior Knowledge	Frequency	Percentage
Yes	130	100
No	0	0
Total	130	100

It is important for the group members to know each other well as membership is based on trust. Each group member is trusted to repay her loans, otherwise the group will be obligated to pay for her if she defaults the payment (Javier, 2004). According to Yunus (2008), group members function best when they know each other well and they will fear to default the loan payment because of the strong trust amongst them.

4.3.1.3 Number of Times Respondents' Took Loans

The group members who had borrowed and received the loans 1-5 times formed the majority (64.6%), whereas those who had borrowed between 10-15 times were 26.2% as shown in Table 8.

Table 8

Number of Times Respondents' Took loans (n=130)

Number of times received the loan	Frequency	Percentage	
1-5 times	84	64.6	
5-10 times	34	26.2	
10-15 times	12	9.2	
Total	130	100	

The above results indicate that the rural women had been borrowing several times an indication that they invested the loan properly. This has enabled them to borrow several times from the microfinance institution. In group lending, if one member of the group failed to pay her weekly installment of the loan, the entire group was denied subsequent loans until the outstanding loan is cleared (Murdoch, 2008)

4.3.1.4 Amount of First Loan Borrowed by Respondents'

On the first loan borrowed by members (68.8%) of the members had borrowed below Kshs. 5,000 and 34.4% had borrowed between Kshs.5,000-15,000 (2.3%) of the members borrowed an amount between Kshs. 15,001- 25,000 whereas 1.5% borrowed above Kshs. 35,001. Few members (0.8%) borrowed an amount between Kshs. 25,001-35,000 as shown in Table 9.

Table 9

Amount of First Loan Borrowed by Respondents (n=130)

Amount of first loan	Frequency	Percentage	
Below Kshs. 5,000	79	60.8	
Kshs. 5,001-15,000	45	34.6	
Kshs. 15,001-25,000	3	2.3	
Kshs. 25,001-35,000	1	0.8	
Above Kshs. 35,001	2	1.5	
Total	130	100	

4.3.1.5 Respondents' Current Loans

When the respondents were asked about their loan borrowed currently, (37.7%) of the rural women responded that they had borrowed between Kshs.5,000-15,000. This was an increase of (3.1%) compared with the percentage number of rural women who had borrowed the same amount for their first loan (Table 10). This was a clear indication that more women who could not afford to borrow a higher amount of loan initially due to inability to repay could afford to borrow more money because of good returns of income from previous investments made using the loan borrowed initially. Also, (34.6%) had borrowed kshs.15,001-25,000 an increase of about (32%) compared to the percentage number of the rural women who borrowed in that bracket in their first loans and (14.6%) had borrowed a large amount between Kshs.25,001-35 000, this was an increase of about (13.2%) compared to the number of rural women who borrowed in this bracket in their first loan. A few rural women (7.7%) had borrowed loans above Kshs.35,000, an increase of about (6.2%) as compared to the members who had borrowed from the same bracket in their first loan.

Likewise, the number of rural women who borrowed loans of below Kshs.5,000 had drastically reduced from (60.8%) in the first loan to (5.4%) in the current loan a clear indication that their borrowing power had been rising. The reason for this was that they had been making good returns on the investments they made using the first loan, therefore were able to repay the loan promptly, which allowed them to borrow larger amount subsequently (dynamic incentive) (Schreiner, 2005).

Table 10
Respondents' Current Loans (n=130)

Current loan	Frequency	Percentage	
Below kshs. 5,000	7	5.4	
kshs. 5,001-15,000	49	37.7	
Kshs. 15,001-25,000	45	34.6	
Kshs. 25,001-35,000	19	14.6	
Over kshs. 35,001	10	7.7	
Total	130	100	

4.3.1.6 Respondents' Monitoring of Fellow Group Members

Almost all the group members (96.9%) indicated that they monitored their group members to make sure that the loans were used as intended as shown in Table 11.

Table 11
Monitor Group Members (n=130)

Monitor group members	Frequency	Percentage
Yes	126	96.9
No	4	3.1
Total	130	100

4.3.1.7 Respondents' Ability to Repay Loans

When the respondents were asked whether they were able to repay their loans within the specified period, (88.5%) indicated that they were able to beat the deadline. This indicated that majority of the rural women were earning good returns from their business enterprises and therefore able to repay their loans as shown in Table 12.

Table 12
Respondents' Ability to Repay Loans (n=130)

Ability to repay loan	Frequency	Percentage	
Yes	115	88.5	
No	15	11.5	
Total	130	100	

4.3.1.8 Respondents' ways of dealing with Defaulting

Though (11.5%) of the rural women were unable to repay their loans on time, (3.1%) were helped by their family or group members while (5.4%) sold their assets to repay their loans. This indicated that a small number of the rural women, whose businesses may have failed at one point, could save the situation by selling their assets or turning to their family or group members to bail them out by repaying the loans. This showed that the rural women were no longer vulnerable to poverty and the level of trust among them had increased.

Table 13
Respondents' ways of dealing with Defaulting (n=130)

Who assisted	Frequency	Percentage
Group members assisted to	4	3.1
repay		
Family assisted to repay the	4	3.1
loan		
Sold assets to repay	7	5.4
Not applicable	85	88.4
Total	130	100

4.3.2 Contribution of microfinance credit on household income

Describe the contribution of microfinance credit on household income among the rural women in Keiyo North Sub-County. The rural women were asked whether the income from microfinance related enterprises had increased since joining the microfinance institution. All the respondents (100%) indicated that their income had increased as shown in Table 14.

Table 14

Respondents' Income from Microfinance related Enterprises (n=130)

Has your income increased	Frequency	Percentage	
Yes	130	100	
No	0	0	
Total	130	100	

This was a good indication that the loan had helped the rural women to escape the poverty trap. These results support the study of sultana and Hassan (2010) who found out that the rural women who had access to microfinance credit experienced an increase in their household income. Similarly, Mayoux (2005), Priya (2006), Walter (2002), Gopalan (2007) and Ghalib and Imai (2011) in all their studies found out that microfinance credit contributed to an increase in household income among the rural women.

4.3.2.1 Respondents' Expansion of the Enterprises

When the respondents were asked whether they had expanded the size of their enterprise in the last twelve months, (92.3%) answered in the affirmative whereas only (7.7%) responded in the negative as shown in Table 15.

Table 15
Respondents' Expansion of the Enterprises (n=130)

Increased size of the enterprises	Frequency	Percentage
Yes	120	92.8
No	10	7.7
Total	130	100

4.3.2.2 Addition of New Enterprises by Respondents

The respondents who had added new enterprises in the last twelve months were (60.8%) while those who had not were (39.2%) (Table 16)

Table 16
Addition of New Enterprises by Respondents (n=130)

Did you add new enterprise	Frequency	Percentage
Yes	79	60.8
No	51	39.2
Total	130	100

This was a clear indication that the rural women were successful in increasing the income, therefore, were able to diversify their enterprise by adding new ones.

4.3.2.3 Hiring of more Staff by Respondents

The rural women who had hired more workers in the last twelve months were (52.3%) whereas those who had not were (47.7 %) (Table 17). This showed that the rural women are moving towards prosperity and they can now create employment. According to MIX and CGAP (2010), microfinance credit programme has positive impact on the wider society by providing employment to non-clients, therefore the whole society are lifted out of poverty.

Table 17
Hiring of more Staff by Respondents (n=130)

Hire more women	Frequency	Percentage
Yes	68	52.3
No	62	47.7
Total	130	100

According to Khandker (2009), microfinance credit programme has spillover effects on the local economy. Khandker (2009) argued that microfinance credit programme accounts for more than half of the observed annual reduction in poverty among participants and that there was growth in local income. Copestake *et al.* (2005) in their study found out that injection of loan capital into the communities helped to sustain the circular flow of income within the

village by creating employment among the non-participant of microfinance credit programme.

4.3.2.4 Respondents Personal Savings

When the respondents were asked whether they had personal savings in their accounts, their responses showed that (99.2%) had savings while only (0.8%) did not (Table 18)

Table 18
Respondents' Personal savings (n=130)

Do you have personal savings	Frequency	Percentage
Yes	129	99.2
No	1	0.8
Total	130	100

On whether their savings had increased in the last twelve months, (86.2%) responded in the affirmative, while (8.5%) indicated that their savings had decreased and the reason they gave was that they had used the savings to expand their enterprises while only (5.4%) responded that their savings had remained the same (Figure 3).

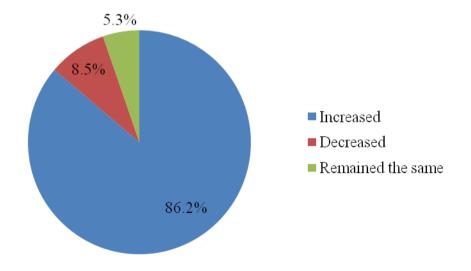


Figure 4: Changes in Respondents personal savings (n=130)

Majority of the rural women (86.2%) indicated that their savings had increased in the last twelve months. These results agreed with a study by Dupas and Robinson (2009) which asserted that in Kenya the savings of rural women participating in microfinance credit programme increased significantly by a minimum of (40%) with significant increases in personal expenditure such as assets, food, health care and education.

4.3.3 Contribution of microfinance credit on acquisition of assets

Identify the contribution of microfinance credit on acquisition of assets among the rural women in Keiyo North Sub-County. Acquisition of assets was a sign that the rural women were using their loans well. When the respondents were asked whether they had acquired any assets using the income from microfinance related enterprises, (97.7%) of them responded that they had but only (2.3%) indicated that they had not acquired any assets (Table 19).

Table 19
Acquisition of assets by Respondents (n=130)

Acquired any assets	Frequency	Percentage	
Yes	127	97.7	
No	3	2.3	
Total	130	100	

Some of the assets they had acquired included livestock, furniture, sewing machines, solar panels, television sets, radios and water tanks. When asked about the total value of the assets in Kenya shillings, (41.5%) of the respondents responded that the value of their assets was above Kshs. 35,001 while (23.8%) indicated that it was between Kshs.25,001 – 35,000 and (16.2%) bought assets worth between Kshs.15,001 – 25,000. Whereas (16.2%) quoted the value of their assets as between Kshs.5,001- 15,000, a few rural women (3.8%) had acquired assets worth below Kshs.5,000 as shown in Table 20.

Table 20
Total value of the assets acquired by Respondents (n=130)

Value of the assets	Frequency	Percentage	
Below Kshs. 5,000	5	3.8	
Kshs. 5,001-15,000	19	14.6	
Kshs. 15,001-25,000	21	16.2	
Kshs. 25,001-35,000	31	23.8	
AboveKshs. 35,001	54	41.5	
Total	130	100	

According to Ghalib and Imai (2011), microfinance credit is a means of building assets and a permanent way of reducing poverty. Ghalib and Imai (2011) noted that these assets acquired through income from microfinance related enterprise helped the rural women to generate more income which assisted them to afford other services such as healthcare services, education, housing, water supply and adequate nutrition. The above results also agreed with Sultana and Hassan (2010) studies which found out that rural women who participated in microfinance credit programme experience increase in productive assets (cattle, goats, poultry) and non productive assets (television, radio, solar and other household goods) because they could afford them through profit generated from microfinance enterprise. Likewise, the results agreed with Mawa (2008) study that microfinance credit helps rural women to build assets.

4.3.4 Ccontribution of microfinance credit on affordability of education for the children of the rural women in Keiyo North Sub-County

Examine the contribution of microfinance credit on affordability of education for the children of the rural women in Keiyo North Sub-County. Once the income problem is solved, people will look for mechanisms of fulfilling other needs such as education. The assumption is that households with higher income levels have more choices and broader opportunities to meet their needs. One of these needs is affordability of education for their children. The respondents were asked how many of their children of school going age did not attend school. They all (100%) indicated that their children attended school. This indicated that the rural women were able to pay school fees for their children, especially those in college. The rural women were further asked how much money they spent in educating their children per year.

Majority (27.7%) indicated that they spent Kshs.30,001-60,000, (20.8%) indicated they spent between Kshs.15,001-30,000, (19.2%) responded that they spent Kshs.60,001-90,000, with a few (11.5%) responding that they spent below Kshs. 15,000 as illustrated in Table 21.

Table 21

Amount spent by Respondents on Educating their Children per year (n=130)

Amount spend on education	Frequency	Percentage	
Below Kshs. 15,000	15	11.5	
Kshs. 15,001-30,000	27	20.8	
Kshs. 30,001-60,000	36	27.7	
Kshs. 60,001-90,000	25	19.2	
Above Kshs. 90,001	27	20.8	
Total	130	100	

The rural women were further asked to indicate how much of the amount spent per year on educating their children were sourced from microfinance related enterprises. Majority of the rural women (48.5%) responded that they spent between Kshs.15,001-30,000, (25.4%) indicated that they spend Kshs.30,001-60,000, followed by 16.2% who indicated that they spend below Kshs.15,000. A small number of (6.2%) and (3.8%) indicated that they spent Kshs.60,001-90,000 and above Kshs.90,001 respectively as shown in Table 22.

Table 22 $\label{eq:mount} Amount of Money Contributed by Respondents' Microfinance enterprises on Education \\ per year (n=130)$

Amount of money	Frequency	Percentage
Below Kshs. 15,000	21	16.2
Kshs. 15,001-30,000	63	48.5
Kshs. 30,001-60,000	33	25.4
Kshs. 60,001-90,000	8	6.2
Kshs. 90,001	5	3.8
Total	130	100

The results above indicated that involvement in microfinance credit programme enabled the rural women to pay for their childrens' education. The results also agreed with Brownstein et al. (2007) study which found out that microfinance credit reduces child labour and improved

school attendance for the children of microfinance participants. The same argument was supported by Khandker (2008) who found a significant impact of microfinance credit on children schooling. Khandker (2009) suggested that a one percent increase in microfinance credit provided to rural women increased the probability of the children joining school by one percent for girls and (2.4%) for boys.

4.3.5 Contribution of microfinance credit on affordability of healthcare among the rural women in Keiyo North Sub-County

Determine the contribution of microfinance credit on affordability of health care among the rural women in Keiyo North Sub-county. Affordability of healthcare by the respondents was an indication that joining microfinance credit programme had enabled the rural women to do so. When the respondents were asked whether they could afford medical expenses after joining the microfinance credit programme, (99.2%) of the rural women responded positively that they were able to meet their medical expenses: whereas (0.8%) responded that even after joining the microfinance credit programme they still could not afford medical fee (Figure 5).

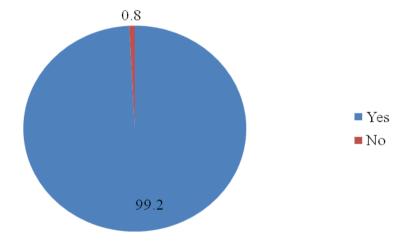


Figure 5: Affordability of Health care by Respondents (n=130)

The results above agreed with the study conducted by Pitt (2008) which found out that access to microfinance credit made rural women to afford better medical care for themselves and their family members. The respondents were further asked where they used to get treatment before joining the microfinance credit programme. Majority of the rural women (65.4%) said that they would visit public health facilities for medical care followed by those who used to visit herbalists (30%). A small number (2.4%) and (2.2%) would visit private health facilities and prayer houses respectively as indicated in Table 23.

Table 23
Medical Facility Visited by Respondents' before joining Microfinance credit
Programme (n=130)

Medical facility	Frequency	Percentage	
Public health facility	85	65.4	
Private health facility	3	2.4	
Herbalist	39	30.0	
Prayer house	3	2.2	
Total	130	100.0	

The large number of the rural women (30%) would visit the herbalist because they considered it cheap compared to other medical facilities. This was an indication that economic well being was still low. The respondents were then asked to indicate where they got treatment, that is, after joining microfinance credit programme. Majority of the rural women (58.5%) indicated that they went to private health facilities. This is a large number compared to the number which frequented the private health facilities before joining the microfinance credit programme. Those who went for treatment in public health facilities were (40.8%) and only (0.8%) visited herbalists for treatment. This is a small number compared to (30%) of the rural women who visited the herbalist for treatment before joining the microfinance credit programme. This is an indication that their living standards had improved after joining the microfinance credit programme as shown in Table 24.

Table 24
Medical Facility attended currently by Respondents (n=130)

Medical facility attended currently	Frequency	Percentage
Public health facility	53	40.8
Public health facility	76	58.5
Herbalist	1	0.8
Prayer house	0	0
Total	130	100

When the rural women were asked on the average amount of money contributed by microfinance credit related enterprise towards their healthcare per month in Kenyan shillings, (44.6%) responded that they spent between Kshs.100-500, while (32.3%) spent between Kshs.501-1,000. A small percentage (13.1%) spent between Kshs.1,001-1,500, whereas (6.2%) spent above Kshs.1,501 as shown in Table 25.

Table 25
Amount of money contributed by microfinance credit towards health care per month (n =130)

Amount of money	Frequency	Percentage		
Below Kshs. 100	5	3.8		
Kshs. 100-500	58	44.6		
Kshs. 501-1,000	42	32.3		
Kshs. 1,001-1,500	17	13.1		
Above Kshs. 1,501	8	6.2		
Total	130	100		

4.4 Hypotheses testing

To empirically ascertain the contribution of microfinance credit on poverty reduction among the rural women in Keiyo North Sub-County, four hypotheses were formulated and tested at 0.05 level of significance and the results presented in the following subsections.

4.4.1 Test of hypothesis 1

Ho1: There is no statistically significant contribution of microfinance credit on household income among the rural women in Keiyo North Sub-County.

This hypothesis was tested using chi-square. The aim was to determine if a relationship existed between the contribution of microfinance credit and household income. The tests as indicated in Table 26 shows chi-square value of 65.292 and the probability of the computed chi-square value (p value) as 0.000. Since the probability of the computed chi-square value is less than 0.05 the level of significance set α =0.5(p<0.05), we reject the null hypothesis and concede that there was a statistically significant relationship between the contribution of microfinance credit and household income in the study area. This was due to the fact that all the rural women (100%) had an income increase after taking the first loan from the microfinance institutions.

Table 26 Cross-Tabulation of Total Loan Borrowed by the Rural Women per year and the Level of Income per month in Ksh (n=130)

	Total loan borrowed per year					Total
	Below	Kshs	Kshs.40,001-	Kshs	Above	_
	Kshs	20,001-	60,000	60,001-	80,001	
	20,000	40,000		80,000		
	%	%	%	%	%	%
Increase in income per month						
Below Kshs.1,000	6.7	53.3	26.7	13.3	0.00	100
Kshs. 1,001-5,000	23.9	38.0	29.6	5.6	2.8	100
Kshs. 5,001-10,000	14.7	29.4	35.3	11.8	8.8	100
Kshs. 10,001-15,000	0.00	50.0	33.3	16.7	0.00	100
Over Kshs. 15,001	0.00	0.0	0.00	0.00	100.0	100
Total	17.7	36.9	30.0	8.5	6.9	100

Chi-square 65.292 df = 16 P = 0.000

This implied that microfinance credit contributed to an increase in household income. Priya (2006) found out that there was a significant positive relationship between microfinance credit and income: the findings suggested that programme participants benefited by a 10% increase in income. Priya (2006) study concluded that the microfinance credit projects had a positive impact on the status of rural women by generating more income to the household. Also, Goldberg (2005) in his study concluded that microfinance credit was effective in raising household income thus enabling the rural women escape poverty. The results also concur with Jegede et al (2011) in their study which indicated that there was a significant relationship between the contribution of microfinance credit and household income.

4.4.2 Test of hypothesis 2

Ho2: There is no statistically significant contribution of microfinance credit on acquisition of assets among the rural women in Keiyo North Sub-County.

This hypothesis was tested to investigate if a relationship existed between the contribution of microfinance credit and acquisition of assets among the rural women in Keiyo District. The tests as indicated in table 27 below shows chi-square value of 19.472 and the probability of the computed chi-square value is less than 0.05 the level of significance set alpha=0.05

therefore, we reject the null hypothesis and conclude that there was a statistically significant relationship between the contribution of microfinance credit and acquisition of assets among the rural women in Keiyo North Sub-County.

Table 27
Cross-Tabulation of Number of times the Rural Women Borrowed the Loan and the Value of Assets Acquired (n=130)

	Number of	Total			
	1-5 times	5-10times	10-15 times	_	
	%	%	%	%	
Value of assets in Kshs					
Below Ksh.5000	80.0	20.0	0.00	100	
Ksh. 5,001-15,000	94.7	5.3	0.00	100	
Kshs. 15,001-25,000	85.7	14.3	0.00	100	
Ksh. 25,001-35,000	54.8	32.3	12.9	100	
Above kshs. 35,001	50.0	35.2	14.8	100	
Total	64.6	26.2	9.2	100	

Chi-square 19.472 df 8 P= 0.013

This implied that all the rural women were able to acquire assets using profit generated from microfinance related enterprises. The findings of this study were in line with Sultana and Hassan (2010) who indicated that women who participated in microfinance credit experienced increase in their ownership of productive assets (cattle, goats, poultry etc) and non productive assets (TV, radio, solar and other household goods) because they could afford such assets through profit generation from their microenterprises. The findings of the study also concurred with Ghalib and Imai (2011), that the contribution of microfinance credit had significant relationship with the acquisition of assets.

4.4.3 Test of hypothesis 3

Ho3: There is no statistically significant contribution of microfinance credit on affordability of healthcare among the rural women in Keiyo District.

This hypothesis was tested to determine if a relationship existed between the contribution of microfinance credit and affordability of healthcare among the rural women in Keiyo North Sub-County.

The tests as indicated in Table 28 below show chi-square value of 26.631 and the probability of the computed chi-square (p value) as 0.046. Since the probability of the computed chi-square value was less than the level of significance set α =0.05 (p<0.05).

We reject the null hypothesis and conclude that there was a statistically significant relationship between the contribution of microfinance credit and affordability of health care in the study area. This was due to the fact that they hitherto could not afford before joining the microfinance credit programme.

Table 28

Cross-Tabulation of Total Loan Borrowed per year by the Rural Women and Amount of Money Contributed towards their health care (n=130)

	Total loan borrowed per year					Total
	Below Kshs 20,000	Kshs 20,001- 40,000 %	Kshs. 40,001- 60,000	Kshs 60,001- 80,000 %	Above 80,001	%
Amount of money contributed						
to healthcare:						
Below Kshs. 100	40.0	20.0	20.0	20.0	0.00	100
Kshs. 101-500	20.7	37.9	31.0	10.3	0.00	100
Kshs. 501-1,0000	14.3	42.9	31.0	2.4	9.5	100
Kshs. 1,001-1,500	11.8	23.5	35.3	17.6	11.8	100
Over kshs. 1,501	12.5	37.5	12.5	0.00	37.5	100
Total	17.7	36.9	30.0	8.5	6.9	100

Chi-square 26.632 df 16 P= 0.046

This result concurred with Hamad and Fernald (2010) in their study which indicated that there was a significant relationship between contribution of microfinance credit and the ability of the rural women to afford better health care. In addition Pitt (2008) in a related study in India observed that microfinance credit helped rural women not to be excluded from healthcare services.

4.4.4 Test of hypothesis 4

Ho4: There is no statistically significant contribution of microfinance credit on affordability of education for the children of the rural women in Keiyo North Sub-County.

This hypothesis was tested to investigate if a relationship existed between the contribution of microfinance credit and affordability of education for the children of the rural women in Keiyo North Sub-County.

The tests indicated in Table 29 below shows chi-square value of 32.424 and the probability of the computed chi-square value (p value) as 0.009. Since the probability of the computed chi-square is less than the level of significance set α =0.05 (p<0.05), therefore, we reject the null hypothesis and conclude that there was a statistically significant relationship between the contribution of microfinance credit and affordability of education for the children of the rural women in Keiyo North Sub-County.

Table 29
Cross-Tabulation of Total Loan Borrowed per year by the Rural Women and Amount of Money Contributed towards Educating their Children (n=130)

	Total loan borrowed per year					
	Below	Kshs.	Kshs.	Kshs.	Above	<u> </u>
	Kshs.20,000	20,001-	40,001-	60,001-	Kshs.	
		40,000 %	60,000 %	80,000 %	80,001 %	Total %
	%					
Amount money						
contributed to education						
Below kshs. 15,000	23.8	42.9	19.0	14.3	0.00	100
Kshs. 15,001-30,000	22.2	34.9	31.7	6.3	4.8	100
Kshs. 30,001-60,000	6.1	36.4	42.4	12.1	3.0	100
Kshs. 60,001-90,000	12.5	62.5	0.00	0.00	25.0	100
Above Kshs. 90,000	20.0	0.00	20.0	0.00	60.0	100
Total	17.7	36.9	30.0	8.5	6.9	100

Chi-square 32.424 df 16 P= 0.009

This implies that rural women who participated in microfinance credit program could send their children to school; Pronyk *et al.* (2007) found that extra income earned from microfinance related enterprise allowed the rural women to invest in the education of their

children for a better future. Likewise Khandker (2009) found a significant relationship between contribution of microfinance credit and children schooling. Kandler suggested that one percent increase in microfinance credit provided to rural women increased the probability of children joining school by 1.9% for girls and 2.4% for boys.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The main objective of this study was to investigate how microfinance credit contributes to poverty reduction (household income, acquisition of assets, and affordability of education for the children) among the rural women in Keiyo North Sub-County. This chapter outlines a brief summary and recommendations resulting from the study.

5.2 Summary of the Study

Respondents were aged between 18-70 years. Those who were widowed constituted 10.8%, (10%) were single while (5.4%) were either divorced or separated. Most rural women had primary education (45.4%), followed closely by those who had secondary education, 40% and 8.5% had college education while (6.2%) had no formal education. All the rural women had been members of the microfinance institution for over 2 years, with majority (22.3%) joining the MFI in 2010 and a small number (0.92%) which joined in 2011. The study found the rural women had borrowed the loans from KWFT more than once with majority of them (64.6%) borrowing 1-5 times, followed by those who borrowed 5-10 times (20.8%) and a small number (9.2%) who had borrowed 10-15 times. The reason the rural women gave for borrowing more than once was that they were able to repay their loans within the stipulated time because their businesses were able to generate more income. This payment within the stipulated time allowed the other members to access more loans.

Majority of the rural women (36.9%) had borrowed loans totalling between Kshs.60,001-80,001 and a small number (6.9%) had borrowed the highest amount of above Kshs.80,000. It was found that the rural women who had accessed more loans had participated in the microfinance credit programme for many years and had borrowed between 10-15 times. The reason for this was that trust between the individual rural women and microfinance institutions had grown over the years and they were able to borrow more money. The results indicated that 17.7% of the rural women had obtained a total loan of below Kshs.20,000. The reason the rural women gave for borrowing this amount of loan was that they joined the microfinance credit programme less than 3 years and their total amount of loan borrowed was still low. The study established that the rural women in the study area (100%) had increased their monthly income.

Majority of them (54.6%) increased their monthly income between Kshs.1,001-5,000, followed by those (26.2%) who had increased their monthly income by between Kshs.5,001-1,000, others (11.5%) had increased their monthly income by below Kshs.1,000 and finally a small percentage (3.1%) had increased their monthly income by more than Kshs. 15,001. The increase in income made 92.3% of the rural women to expand the size of their enterprises and 60.8% of the rural women adding new enterprises. Furthermore, 52.3% of the rural women created new employment by hiring more workers. Likewise, 99.2% of the rural women had savings in the microfinance institution, with 86.2% of them indicating that their savings had increased in the last twelve months. The results indicated that there was a statistically significant relationship between the contribution of microfinance credit and household income in the study area. This was due to the fact that all the rural women (100%) had increased their monthly income.

The research established that the rural women (97.7%) had acquired assets using the income from microfinance related enterprise. The assets included livestock, sewing machines, water tanks, houses, solar panels, television sets. The value of the assets varied with majority (41.5%) of the rural women indicating that the value of the assets was above Kshs. 35,001, while 23.8% had assets valuing between Kshs.25,001-35,000 and 16.2% of them had assets valuing between Kshs.15,001-25,000. only a small number of the rural women (3.8%) had acquired assets whose value was below Kshs.5,000. The results indicated that there is statistically significant relationship between the contribution of microfinance credit and acquisition of assets among the rural women in Keiyo North Sub-County. Majority of the rural women (99.2%) in the study area indicated that they could afford healthcare services for themselves and their family members after joining the microfinance institution. The reason the rural women gave for affording health care services was attributed to the extra income from microfinance related enterprises. A large number of the rural women who used to visit herbalists when they were unwell before joining the microfinance credit program reduced drastically to only 0.8%. This was a strong indication that their living standards had improved since joining the microfinance credit program. The study also established that 44.6% of the rural women had between Kshs.100-500 contributed by microfinance credit program towards their healthcare per month, followed by 32.3% who reported that microfinance credit program contributed between Kshs.500-1,000 per month towards their health care.

This shows that there is a statistically significant relationship between the contribution of microfinance credit and affordability of health care among the rural women in Keiyo North Sub-County.

All the rural women (100%) in the study area indicated that all their children attended school. This was facilitated by income from microfinance related enterprise and free primary education programme offered by the government of Kenya. Majority of the rural women (48.5%) reported that microfinance credit contributed between Kshs.15,001-30,000 per year towards educating their children, 25.4% indicated that microfinance credit contributed between Kshs.30,001-60,000 per year and a small number (3.8%) indicated that microfinance credit contributed Kshs above 90,001 per month. The above amount was a good indicator that microfinance credit was beneficial to children education and the study results empirically established that there is a relationship between the microfinance credit and affordability of education for the children of rural women in the study area.

5.3 Conclusions

Based on the results of the study, the researcher concluded as follows;

- i. Microfinance credit programme had improved the level of income in the households of the rural women. The findings revealed that the average monthly income of most households rose after they took loans from the microfinance institution. Similarly, all the rural women confirmed that their overall income increased due to microfinance credit programme. The impact was more pronounced among the rural women who had been members of the microfinance institution for more years.
 - Microfinance credit programme enabled the rural women to generate income that was used to improve their living standards. Similarly, 86.2% of the rural women indicated that their savings had increased in the last twelve months, indicating that microfinance credit had contributed to household income. Also, all the respondents indicated that their overall savings had increased since joining the programme.
- ii. Microfinance credit programme had enabled the rural women acquire new assets, therefore, raising the household asset ownership. Ownership of assets by all the rural women had increased after joining the microfinance credit programme. The rural women were able to purchase assets like television sets, sewing machines, livestock, and solar panels after taking loans from microfinance institution. The value of the

- assets was found to be higher which signified a great contribution of microfinance credit on the livelihood of the rural women.
- iii. The microfinance credit programme had contributed to the rural women being able to afford the education of their children. All the rural women indicated that microfinance credit programme had generated money used by the rural women to educate their children. Although the contribution varied among individual members of the group-the contribution ranging between Kshs. 15,000 to above 90,000 In addition, none of the rural women reported that their children did not go to school because of lack of school fees.
- iv. The contribution of microfinance credit was significantly related to affordability of healthcare services. The results indicated that all the rural women in the study area could afford health care services either in public health facilities or private health facilities. Rural women who used to visit herbalists because they could not afford healthcare service in public or private health facilities had reduced drastically from 30% to 0.8% after joining the microfinance credit programme. A clear indication that their living standards had improved.

5.4 Recommendations

Based on the findings and conclusions of the study, the researcher made the following recommendations.

- i. The Kenya Woman Finance Trust (KWFT) officials should encourage more rural women to participate in microfinance credit programmes to increase their levels of income and savings in their households.
- ii. The Members of County Assemblies (MCA's) should encourage more rural women to participate in MFI's programmes in order to reduce poverty levels.
- iii. The Chiefs of the 13 locations where KWFT operate should sensitize the rural women to participate in the microfinance credit programme for them to reduce poverty amongst themselves.
- iv. The Kenya Women Finance Trust (KWFT) officials should make a follow up on the 0.8% of the rural women who could not afford healthcare services even after recording an increase in their income. It could be that the rural women were neglecting their medical care in order to increase their savings.

5.5 Recommendations for further Research.

- i. Studies should be done on the influence of Agricultural knowledge on access to microfinance credit among rural women.
- ii. This research was limited by time and resources and the researcher would like to suggest that similar studies be conducted in other counties or at national level.
- iii. Studies should be done to investigate why rural women do not join the MFI's.

REFERENCES

- Adam, G. (2007). *Role of microfinance institutions in actualization of MDGs*. Paper delivered at the induction ceremony of Institute of Chartered Economists of Nigeria (ICEN) in Port Harcourt.
- Adams, S., and Bartholomew, A. (2010). The Impact of microfinance on maize farmers in Nkoranza (Brong Ahafo Region of Ghana). *Journal of Management Research*, 2 (2). 24-30.
- Agricultural Development Bank,(2007): ADB annual Report 2007. Special Theme. *The changing face of the microfinance industry*, Manilla.
- Aguilar, V. G. (2006). *Is Microfinance reaching the Poor? An Overview of Poverty Targeting Methods*.www.globalnet.org(Accessed on 1/6/2012)
- Ahmad, S. (2008). Microcredit in Pakistan. Development of Finance and Accounting School of Management and Government University of Twente. *Journal of Microcredit in Pakistan*. (5) 1-106.
- Ahsan, K. (2005). Role of NGOs Microcredit Programme in Poverty Reduction in Bangladesh: A study of Some Selected NGO's.
- Ali, A., and Alam, M. (2010). Role and Performance of Microcredit in Pakistan. *International Journal of Business*, (3) 1-43.
- Ali, M. (2008). Evaluation of Microcredit Operation in Bangladesh. A Critical Study on Grameen Bank. Pakistan.
- Armendariz, B. and Morduch, J. (2010). *The Economics of Microfinnace*. 2nd edition. Cambridge: MIT Press.
- Attimir, O. (2010). The Extent of poverty in Latin America: World Bank Staff Working Papers No. 522. The World Bank: Washington D.C
- Bakhtiari, S. (2006). Microfinance and Poverty Reduction. *International Business and Economics Research Journal*, (1)1-7.
- Banerjee, A., Duflo, E., Glennerster, R. and Kinnan, C. (2009). "The Miracle of Microfinance? Evidence from a Randomized Evaluation" Department of economics, Massachusetts Institute of Technology (MIT) working paper.
- Banerjee, A. and Duflo, E. (2011). *Poor Economics. A Radical Rethinking of the Way to Fight Global Poverty.* US: Public Affairs.

- Bansal, D. (2011). *Impact of Microfinance on Poverty, empowerment in rural Punjab*. Department of Economics, Punjabi University, Patiala, India. Available at: http://hdl.handle.net/10603/3031. Accessed on 2/5/2013.
- Bedson, J. (2009). *Microfinance in Asia-Trends, Challenges and Opportunities*. Queensland, Australia: The Foundation for Development Cooperation.
- Borg, W. and Gall, M. (1983). *Educational Research: An introduction*. New York, NY: Longman Inc,
- Brandsman, J. & Chaouli, R. (2011). Making Microfinance Work in the Middle East and North Africa. Private and Financial Sector Development Group, Human Development Group, Middle East and North Africa Region, Washington D.C World Bank Report 23o76.
- Brownstein, L., Fleck, P, Shetty, R & Vadgama, V. (2007). Pathways out of poverty, Microfinance to Empower Sub-saharan Africa. *Discussion Paper Series, University of Minnesota*, 1-57.
- Consortium Group to Assist the Poorest, (2012). World Bank Project on Microfinance Program. World Bank: Washington D.C.
- Chambers, R. (2009). Making the Poor Count: Using Participatory Methods for Impact Evaluation. International Initiative for Impact Evaluations, working paper 4, July 2009.
- Cheston, S & Kuhn, L. (2002). *Empowering Women Through Microfinance*. IN Daley-Harris, Ed. Microcredit Summit Campaign. Pathways Out of Poverty. Bloomfield, CT.
- Chibber, A. (2000). *Social Capita Theory*: The State and Development Outcomes, World Bank, Washington D.C.
- Chowdhury, A. (2009). *Microfinance as a Poverty Reduction Tool A Critical Assessment*. Desa Working Paper No. 89. Economic and Social Affairs.
- Chowdhury, M., Mosley, P. & Simanowitz, A. (2004). The Social impact of microfinance. *Journal of International Development*. Vol.16 (pp.291-300).
- Christen, R. P., Rhyne, E. & Vogel, W. (2005). Maximizing outreach of microenterprise finance: an analysis of successful microfinance programs. *USAID program and operations Assessment Report No. 10*, Washington DC.
- Consultative Group to assist the Poorest (CGAP) (2008). "Foreign Capital Investment in Microfinance: Balancing Social and Financial Returns", Focus Note 44.

- Copestate, J. Bhalotra, S. and Johnson, S. (2005). Assessing the Impact of Microcredit. A Zambian Case Study. *The Journal of Development Studies* Vol.37, No. 4 (pp.81-100)
- Daley–Harris, S (2007). "Debate on Microcredit." Foreign policies in Focus. Http://www.fpif.org/fpiftxt/4324. Accessed on 2/5/2012.
- Demirgue-kunt, A. (2009). Microfinance meets the market. *The Journal of Economic Perspectives*, Vol.23, No. 1, PP. 167-192.
- Desoto, H. (2000). The Other Path: The Invisible Revolution in the Third World. New York. Harper and Row. The Invisible Revolution in the Third World. New York. Harper and Row.
- Diagne, A. & Zeller, M, (2011). "Access to credit and its impact in Malawi" Research Report No.116 Washington, D.C., USA: International Food Policy Research Institute(IFPRI).
- Dichter, T.W. (2006). Hype and hope. The worrisome state of the microcredit. http://conservartionfinance.worldpress.com(Accessed on 30 August2012)
- Diop, A. Hillenkam,I and Servet, J.(2007). Poverty versus inequality. In B. Balkenhol, Microcredit and public policy: Outreach, performance, and Efficiency. New York. International labour Organization and Paigrave Macmillan.
- Dupas, P. and Robinson. (2009). Savings Constraints and Microenterprise Development: Evidence from a Field Experiment in Kenya. NBER Working Papers 14693, National Bureau of Economic Research.
- Economist Intelligent Unit (2010). Global Microscope on the Microfinance Business Environment< htt//graphics.eiu.com. Accessed on 29 June 2012.
- Fraenkel, J. R. & Wallen, N. E. (2000). *How to Design and Evaluate Research in education* (4th ed). New York. McGraw Hill
- Gertler, P. Moretti E.,& Levine, D. (2009). Do microfinance programs help families insure consumption against illness? Health Economics, 18(3), 257-273.
- Gertler, P., Levine, D. & Moretti, E. (2008). "Do Microfinance Programs Help Families Insure Consumption against Illness? Health Economics, John Wiley & Sons, Ltd, Vol. 18(3), pp. 257 273.
- Ghalib, A. & Imai. S. (2011). The Impact of Microfinance and Its Role in Easing of Poverty of Rural Households: Estimation from Pakistan. Discussion Paper Series. Kobe University, Japan. Available at: http://www.rieb.kobe-u.ac.jp/academic/ra/dp/English/DP2011-28.pdf.

- Ghatak, M. (2004). Group Lending, Local Information and Peer Selection. *Journal of Development Economics*, 60, 27–50.
- Glazer, S. (2010). Evaluating Microfinance: Do small loans for poor entrepreneurs help end poverty? Global Researcher.
- Goldberg, N (2005). Measuring the Impact of Microfinance: Taking Stock of What We Know, Grameen Foundation USA Series.
- Gopalan, S. (2007). Microfinance and its contributions to Health care Access. (A study of Self-Help Groups (SHGs) in Kerala). *Health and population Department of Keral on Health and population* 134 -149.
- Grameen Bank (2009). Grameen Bank at a Glance p.83 (online accessed on 29 August, 2012). http://www.grameen.info.org/bank/GB Glance.htm.
- Grasmuck, S. & Espinal, R. (2011). Market Success in Female Autonomy? Income, Ideology and Empowerment among Micro-entrepreneurs in the Dominican Republic. Gender and Society, Vol. 14, No. 2 213-255.
- Halder, S. (2004). Working with the Ultra-poor. *The Journal of International Development*, (18). 1017-1030.
- Hamad, R. & Fernald, H.(2010). "Microcredit participation and nutrition outcomes among women in Peru," *Journal of Epidemiology and Community Health*. PP. 76-93
- Hulme, D. (2009). Microfinance. New York; Routledge.
- Hulme, D, (2008). "Impact Assessment Methodologies for Microfinance: Theory, Experience and Better Practice", World Development Vol.28,
- International Fund for Agricultural Development (2009). Enabling Poor People Overcome Poverty in Ghana. Htt/www.ifad.org (Accessed on 28 June 2012).
- International Labour Organization. (2007). Green jobs and global warming: ILO new initiatives for tackling climate change in the world of work.
- Investor Words (2011). Definition for credit. A Free Daily Email Newsletter Retrieved on 27/6/2012 from http://www.investorwords.com/1193/credit.html.
- Javier, A. (2004). Design of a microfinance program: Lessons from the Dominican Republic. A Thesis presented to the Faculty of the graduate school of Cornell University.
- Jegede, C., Kehinde, J. & Akinlabi, B. (2011). Impact of Microfinance on poverty Alleviation in Nigeria: An Empirical Investigation. *European Journal of Humanities and Social Sciences* 2(1), 97-111.

- Kabeer, N. (2005). Is microfinance a magic bullet for women's Empowerment? An Analysis of findings from South East Asia. Economic and Political weekly. India 29th October. (paper).
- Karnani, A. (2007). Microfinance Misses its Mark. Stanford Social Innovation Review Summer.
- Kathuri, J. N. & Pals, A. D. (1993). *Introduction to Educational Research* .Njoro (Kenya). Egerton University
- Kavane, M, & Wydick (2001). Microcredit lending to Female Entreneurs: Sacrificing Economic Growth for Poverty Alleviation" *World Development*, 29(7)1225-1236
- Keiyo North District Strategic Plan (2010). Implementation of the National Population Policy for Sustainable Development.
- Khandker, S. (2008). "Microfinance and Poverty: Evidence Using Panel Data from Bangladesh". World Bank Economic Review, 19(2:263-286.
- Khandker, S. (2009). Fighting Poverty with Microcredit Experience in Bangladesh. World Bank
- Kiriti, T. W. (2007). Microfinance and Poverty Alleviation: How Effective is it in Alleviation Gender Based Poverty? *In ClemTisdell (ed.). Poverty, Poverty Alleviation and Social Disadvantage: Analysis, Case Studies and Policies Serials Publications*, New Delhi: India
- Knight, T. and Farhad, H. (2008). Helping the Needy, Factors Influencing the Development of Microfinance in Barbados. *Brooks World Poverty Institute*, 1-17.
- Kondo, T and Infantado, C. (2008). *Impact of Microfinance of Rural Households in the Philippines. Ids Bulletin Institute of Development Studies*, 39(1)-P.51.
- Kothari, C.R. (2004). Research Methodology: Small Business methods and techniques, 2nd Edition, New Delhi: New Age International publishers.
- Kothari, C. R. (2008). *Research methodology: Methods and Techniques*, (pp, 1-56) New Delhi: New Age International (P) Limited, Publishers (ISBN 10:81-224-1522-9
- Krejcie, R & Morgan, D. (1970). Determining Sample Size for Research Activities "Educational and psychological measurement.
- Kenya Women Fund Trust (2010). Monthly Field report. KWFT (Unplublished)
- Kenya Women Fund Trust (2011). Monthly Field report. KWFT (Unplublished).

- Littlefield, E. (2005). "Microfinance –Where We Are Now and Where We are Headed," Microfinance speech given at the International Year of Microcredit and Georgetown University Conference, Washington DC.
- Matovu, D. (2006). Microfinance and Poverty Alleviation Uganda. *Africa and International Development Cooperation*. 6(1) 1-64.
- Mawa, B. (2008). Impact of Microfinance Towards Achieving Poverty Alleviation. *Pakistan Journal of Social Sciences*, 5(a), 876-882.
- Mayoux, L (2005). Microfinance and the empowerment of Women A review of the key issues. Available at: www:microcreditsummit.org/papers/empowerment.pdf, accessed on 18/6/2012.
- Mayoux, L. (2002). "Women's Empowerment or feminization of Debt? Towards a new Agenda in African Microfinance". Report Based on a one World Action Conference London March, 2002.
- Mayoux, L. (2006). "Women empowerment through sustainable microfinance: rethinking "best practice." Mountain Forum.
- Microcredit summit (2005). State of the microcredit summit campaign report 2005, Vol. 3. (December)
- MIX & Consortium Group to Assist the Poorest (2010). Sub-saharan Africa 2009: Microfinance Analysis and Benchmarking Reporthttps://www.cgap.org/gm/document-1.9.43711/2009. Accessed on 20 June 2012.
- Mohindra, K., Haddad L. & Narayana, D. (2008). "Can Microcredit help improve the health of poor women? Some findings from C cross-sectional study in Kerala, India" *International journal for Equity in Health*, 7(1)2.
- Moll, H. (2005). Microfinance and Rural Development: A long term perspective: *Journal of microfinance*, 7 (2), 13-23.
- Morduch, J. (2008). "How can the poor afford microfinance?" Financial Access Initiatives, Wagner Graduate school, New York University, New York.
- Morduch, J. (2010). *The unbanked: evidence from Indonesia. Financial Access Initiative*. Retrieved from www.financialaccess.org on 21/5/2012.
- Mosley, P. & Rock, J. (2004). Microfinance, Labour Markets and Poverty in Africa, a Study of Six institutes. *The Journal of International Development*. Vol. 16 Issue 3, pp.467-500)

- Mugenda, M.O. & Mugenda, G. A. (2008). Research methods, Quantitative and Qualitative Approaches. Nairobi, Kenya: Acts Press.
- Murdoch, J.(2008). Analysis of the Effects of Microfinance on Poverty Reduction. NYU Wagne working paper No. 104. http://www.nyu.edu/wagnet/public html. Accessed on 21/5/2012.
- Mwendwa, J. (2012) *Ministry of Education, Poverty keeps 800,000 pupils out of the free learning scheme*. Daily Nation Correspondence. Nation Media Group. Nairobi.
- Navajas, S. (2011). Microcredit and the poorest of the poor. Theory and Evidence from Bolovia. World Development, 28(2).
- New York Times, Asia Practice (17th November, 2010). *India Microcredit Face Collapse From Default*: http://www.nytimes.com/2010/11/18/world/asia/18micro.html accessed 7/11/2012.
- Noreen, U. (2010). *Impact of Microfinance on Poverty, Pakistan Research Repository*, Foundation University, Islamabad. Available at http://eprints.hec.gov.pk/6462/
- Ondieki, S. (2011). Revenue Allocation omission richest and poorest Counties. Sunday Nation Correspondence, Nation Media Centre. Nairobi 1–18.
- Pitt, M. (2008). "The Impact of Group Based Credit Programs on Poor Households in Bangladesh. Does the Gender of Participants matter." *The Journal of Political Economy*, 106(5) pp.958-996
- Pitt, M., Khandker, R. & Cartwright, J. (2006). "Empowerment Women with Microfinance: Evidence from Bangladesh", *Economic Development and cultural Change*, pp.791-831.
- Priya, M. (2006). The Effects of Microfinance Participation on Income and Income Inequality: Evidence from Ghana. http://cniss.wustl.educ/publications (accessed on 15/7/2012).
- Pronyk, P., Hargreaves, J. & Murdoch J. (2007). Microfinance Programme and Better Health: Prospects for Sub Saharan Africa. *Journal of American Medical Association*, 29 (16).
- Rahman, M. (2001). Microcredit: A sharp weapon for economic employment of rural women. *Journal of Development Review*, 13 (182) 99-105.
- Remenyi, J. & Quinones, B. (2003). Microfinance and Poverty Alleviation: Case Studies from Asia and the Pacific. New York.

- Rena, R. & Testy, G. 2006). Poverty and Microfinance in Eretria a discourse. *The Global Journal of Finance and Economics*, 4(2): 147-161.
- Roodman, D. & Qureshi, U. (2006). *Microfinance as Business* Centre for Global Development, Washington DC.
- Roodman, D. (2009). What do we Really Know about Microfinance? http://blogs.cgdev. Org (accessed on 29 August 2012).
- Schreiner, M. (2005), A Cost-Effectiveness Analysis of the Grameen Bank of Bangladesh. *Development Policy Review*, 21(3), 357 382.
- Sengupta, R. & Aubuchon, P. (2008). "The Microfinance Revolution: An Overview", Federal Reserve Bank of St. LOUIS Review, Volume 90 (1), PP, 9. 30. Secondary analysis of Survey data by K.Jill and Laura E(1985).
- Setboonsarng, S. & Parpiev, Z. (2008). Microfinance and Millennium Development Goals in Pakistan. *Impact of Assessment Using Propensity Score matching. ADB institute Discussion Paper No. 104*. Available at: http://www.adbi.org/discussion-paper/2008/04/18/2526 (Accessed on 18/1/2013)
- Sharma, M. & Zeller, M. (2007). "Repayment Performance in group—based credit programs in Bangladesh, an empirical analysis", *World Development* 25(10)1731-1742.
- Shastri, R. (2009). Microfinance and Poverty Reduction in India (A comparative study with Asian Countries). *African Journal of Business Management*, 136 140.
- Simanowitz, A. (2002). Clients Exit Surveys: A tool for Understanding Client Dropout, Vol. 2, No. 1, *Journal of Microfinance*: Brigham Young University Publications.
- Soufias, E. & M.C. Mclafferty, (2011). Is program working? Summary of the results of an evaluation by International Food Policy Research Institute (IFPRI). *Food Consumption and Nutrition Division, Discussion*, paper No.118, Washington, D.C.
- Steward, R. Dewet, T. and Masoro, M. (2010). What is the Impact of Microfinance on Poor People? A Systematic Review of Evidence from Sub-Sahara Africa, Technical Report, London, EPPI Centre, Social Science Research Unit, University of London.
- Sultana, S. & Hasan, S. (2010). Impact of Microcredit on Economic Empowerment of Rural Women, The Agriculturists 8(2):43-49 (2010). A scientific Journal of Krishi Foundation.
- Swope, T. (2010). "Microfinance and Poverty Alleviation," *Rollins Undergraduate Research Journal*. Vol. 2. Available at http:// Scholarship rollins.edu/rusi/vol2/issi/9.

- Tedeschi, G.A. (2008). Overcoming Selection Bias in Microcredit Impact Assessments: A Case Study in Peru. *Journal of Development Studies*, 44(4), P.504-518.
- Todaro, M. P. (2011). Economic Development, 6th (edn). Third Impression: New York.
- United Nations Capital Development Fund (2005). *Microfinance in the Private Sector*. Washington D.C.: United Nations.
- United Nations Development Programme (2005). *Builds capacity to expand availability of microcredit*. Washington D.C.: United Nations.
- UNDP (2008), Global Report on Human Development. New York: UNDP.
- UNDP (2010). "Human Development Report". Available on http://und.org/en/reports/global/Hdr 2010/ (Accessed on 1/5/2012.)
- United Nations (2005). *Microfinance and the Millennium Development Goals: A reader's guide to the Millennium Project reports and other UN documents*. Available at: http://www.year.of.microcredit.org/docs/mdgdocmn.pdf (accessed on 29/06/2012).
- UN (2009). Women's Control over Economic resources and access to financial resources, including microfinance. *Paper prepared for the 2009 world survey on the role of women in development*. Department of Economics and Social Affairs. Division for the Advancement of Women. New York, NY.
- United Nations Economic Commission for Africa (UNECA) (2010). *Economic Report on Africa 2010*, Addis Ababa: Economic Commission for Africa.
- Walter, A. (2002). Ensuring Impact Reaching the poor while building financially Self-Sufficient Institutions and Showing Improvement in the lives of the Poorest Women and Their Families. Unpublished Master Thesis, Egerton Media Press, Njoro.
- Weber, H. (2006). The Global Political Economy of Micro Finance and Poverty Reduction. In J.L. Fernando (Ed) microfinance: Perils and prospects. New York: Rutl
- World Bank, (2001). World Development Report 2000/2001: Attacking Poverty, New York: Oxford University press.
- WB, (2002). Poverty Reduction and the World Bank. New York: Washington D.C.
- WB, (2005). A Better Investment Climate for Everyone. World Development Report. Washington DC, World Bank.
- WB, (2007). Finance for All? Policies and Pitfalls in Expanding Access. World Bank Policy research Report, August. Washington, DC: World Bank.

- WB, (2008). *Updates Poverty Estimates for the Developing world*. World Bank Press release, 26 August.
- Wrenn, E. (2005). *Microfinance Literature Review, Milan Shrestha*, Report on Self-help Banking Program and Women's Empowerment.
- Wright, G, (2000). *Microfinance Systems: Designing Quality Financial Services for the Poor*. Zed books Ltd. London & New York, and the University Press Limited: Dhaka.
- Yunus, M. (2008). Banker to the poor. Micro-lending and the Battle Against World Poverty. Public Affairs, New York.
- Yunus, M. (2010). Bank making Big Profit from Tiny Loans, Farming Matters, p.48 Koninklijke, The Netherlands.

APPENDICES

APPENDIX A

MICROFINANCE CLIENTS QUESTIONNAIRE

Introduction

The bearer of this questionnaire is a Masters student in the Department of Agricultural Education and Extension (AGED/AGEX), Faculty of Education and Community Studies (FEDCOS), Egerton University. The questionnaire seeks to gather information on contribution of microfinance credit on poverty reduction among the rural women in Keiyo North Sub-County, Elgeyo-Markwet County, Kenya. The information you will give will be used for study purposes only and will be treated with utmost confidentiality.

INSTRUCTIONS

1.	Please	comple	ete all	the	sections.
----	--------	--------	---------	-----	-----------

2.	Tick	where	necessary.
----	------	-------	------------

NTS

PART	A: PROFILE	E O	F THE RESPONDE
1. Plea	nse indicate you	ır a	ge group?
a)	18- 24years	[]
b)	25- 29years	[]
c)	30-34years	[]
d)	35- 39 years	[]
e)	40- 50 years	[]
f)	Above 50-70	yea	rs[]
2. Wh	at is your marit	al s	status?
a)	Single	[]
b)	Married	[]
c)	Widowed	[]
d)	Divorced/ Sep	oara	nted []
3. Wh	at is your highe	est l	evel of education?
a)	No-formal	[]
b)	Primary	[]
c)	Secondary	[]
d)	College	[]

e) University []	
f) Other specify	
4. (i) When did you join the	ne microfinance institution? Month year
(ii) When did you oper	an account with the microfinance institution? Monthyear
PART B: MICROFINAN	NCE CREDIT
5. How many members are	e there in your group?
(a) 1- 10 members	[]
(b) 11- 15 members	[]
(c) 16- 25 members	[]
6. Did you know all your g	group members before forming/joining the group?
a) Yes []	
b) No []	
7. How many times have y	ou received loans since you joined the microfinance institution?
a) 1-5times []	
b) 5- 10 times []	
c) 10 – 15 times []	
d) Over 15 times []	
8. How much was your fir	st loan in Kshs?
a) Below 5,000	[]
b) 5,001-15,000	[]
c) 15,001-25,000	[]
d) 25,001-35,000	[]
e) Above 35,001	[]
9. How much is your curre	ent loan in Kshs?
a) Below 5,000	[]
b) 5,001-15,000	[]
c) 15,001-25,000	[]
d) 25,001-35,000	[]
e) Over 35,001	[]

10. How much lo	oan in total have	you borrowed fro	m microfinance institu	ution since joining
the programme in	ı Kshs?			
a) Below 20	,000 []			
b) 20,001-4	0,000 [
c) 40,001-6	[]			
d) 60,001-8	0,000 [
e) Above 80),001 [
11. (i) Did you g	et the amount re	quested for every	time you apply for the	e loan?
a) Yes [] G	o to 12			
b) No[]				
(ii) If no? Gi	ve reasons			
a) Yes [b) No [14. (i) Were you a) Yes [b) No [(ii) If no? Wh a) Group me	tor your group r] able to repay th] Go to 15	e loans within the repay the loan?	sure that the loans are specified period?	used as intended?
_	ts to repay	[]		
	ecify			
u, omer, sp	y	 .		

PART C: HOUSEHOLD LEVEL OF INCOME

15. Has your income (from your enterprise) increas	sed since joining the microfinance credit
programme?	
a) Yes []	
b) No [] Go to 17	
16. If, yes approximately by how much has it increases	ased per month in Kshs?
a) below 1,000 []	
b) 1,001-5,000 []	
c) 5,001-10,000 []	
d) 10,001-15,000 []	
e) Over 15,001 []	
17. During the last twelve months, which of these c	hanges did you make in you enterprise
after taking the loan? (Tick more than one)	
(a)Expanded the size of the enterprise?	[] Yes [] No
(b)Added new enterprises	[] Yes [] No
(c)Hired more workers	[] yes [] No
18. Do you have personal savings in your account?	
a. Yes []	
b. No [] Go to 20	
19. Have your savings in the twelve months	
(a) Increased? []	
(b)Decreased? []	
(c)Remained the same? []	
PART D: ACQUISITION OF ASSETS	
20. Have you acquired any assets using income from	m microfinance related enterprises?
a) Yes []	
b) No [] Go to 23	
21. If yes, indicate the assets you have acquired?	
a) Solar panel []	
b) House []	
c) Water tank []	
d) Furniture []	
e) Television set []	

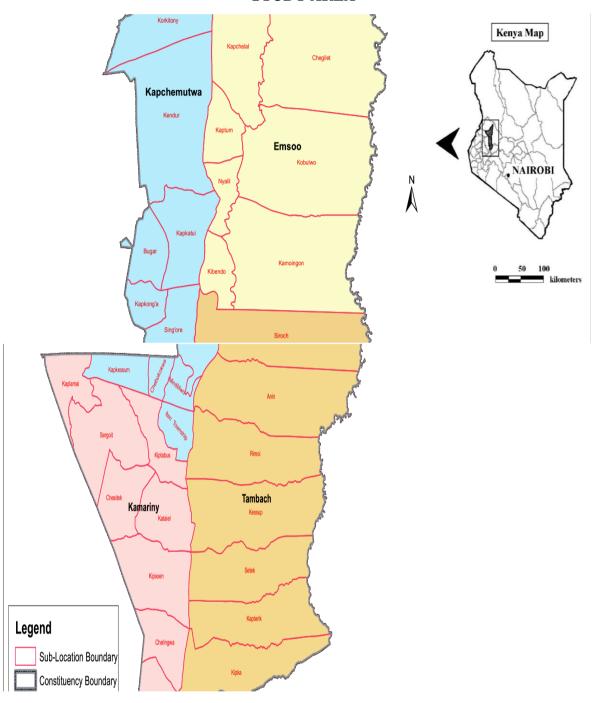
f)	Livesto	ock []		
g)	Land/	plot []		
h)	Sawing	g machine []		
i)	other,s	pecify		
22. W	hat is th	e total value of	f these assets	in Kshs? (Approximate)
a)	Below	5,000	[]	
b)	5,001-	15,000	[]	
c)	15,001	- 25,000	[]	
d)	25,001	- 35,000	[]	
e)	Above	35,001	[]	
PART	Γ E: AF	FORDABILI'	TY OF HEA	LTH CARE
23. At	fter joini	ng microfinan	ce programm	e, do you think you can pay for medical care easily?
	(a)	Yes []	(b) No []
24. (i)	Where o	lid your house	ehold member	rs get treatment before you joined microfinance
pr	ogramm	e?		
	a.	Public health	facility	[]
	b.	Private health	n facility	[]
	c.	Herbalist		[]
	d.	Prayer houses	S	[]
(ii)Wł	nere do t	hey presently	get treatment	after you joined microfinance programme?
	a.	Public health	facility	[]
	b.	Private health	ı facility	[]
	c.	Herbalist		[]
	d.	Prayer houses	S	[]
	e. (Other, specify		
25. H	low muc	h money is co	ntributed by n	microfinance credit related enterprise towards your
he	alth care	e per month in	Kshs.?	
	a)	Below 100		[]
	b)	100- 500		[]
	c)	501- 1,000		[]
	d)	1,001- 1,500		[]
	e)	Above 1,501		[]

PART F: AFFORDABILITY OF EDUCATION OF THEIR CHILDREN

26. Ho	w many children of 4	- 24 ye	ears of age a	re in your ho	ousehold?	
BoyGirls					_Total	
27. (a)	How many of them a	ttend sc	hool? Boys	s'	Girls	Total
(b))How many of them a	are in				
i	Pre-school:		Boys	Girls_		
ii	. Primary:		Boys	Girls_		
iii	. Secondary:		Boys	Girls_		
iv	. College/ university	ity:	Boys	Girls_		
(c)) If, there are those w	ho don't	go to schoo	ol, which of	the reasons b	pelow explain this?
	(a) Lack school fees		[]			
	(b)Children lack mor	tivation	[]			
	(c) Long distance to	school	[]			
	(d) Provide labour at	home	[]			
	(e) Other, specify					
28. Ho	w much do you spend	d on edu	cating your	children per	year in Ksh	is?
a)	Below 15,000	[]				
b)	15,001-30,000	[]				
c)	30,001-60,000	[]				
d)	60,001-90,000	[]				
e)	Above 90,001	[]				
29. (i)	How much of this is	contribu	ted by incor	me from mic	crofinance re	elated enterprises in
Ks	hs?					
a)	Below 15,000	[]				
b)	15,001-30,000	[]				
c)	30,001-60,000	[]				
d)	60,001-90,000	[]				
e)	Above 90,001	[]				

Thank you

APPENDIX B
STUDY AREA



Keiyo North Sub-County map

(Showing divisions)

Source: Keiyo North District strategic plan (2005- 2010)

APPENDIX C DETERMINING 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	129	460	210	1600	310	10000	373
65	56	220	130	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

"N" is population size "S" is sample size. Note:

Source: (Krejcie & Morgan, 1970)

APPENDIX D POPULATION PER LOCATION

DIVISION	SUB- LOCATION	POPN IN A GROUP	% POPULATION	SAMPLE SIZE PER GROUP
KAPCHEMUTWA	KENDUR	12	5(12/220×100)	7
	BUGAR	13	5	7
	SING'ORE	15	7	8
	KAPKESSUM	15	7	8
	MINDILILWO	12	5	7
KAMARINY	SERGOIT	15	7	8
	SERGOIT	12	5	7
	CHESITEK	13	6	8
	KATALELA	14	6	8
	KATATEL B	12	5	7
	KIPTABUS	11	5	7
TAMBACH	KESSUP	16	9	11
	ANINA	10	5	7
	ANINB	11	5	7
	ANINC	11	5	7
EMSOO	KAPTUM	13	6	8
	KIBENDO	15	7	8
TOTAL		220	100%	130

APPENDIX E LETTER OF RESEARCH AUTHORIZATION



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Our Ref NACOSTI/RCD/14/013/1676

Fredrick Kiptoo Chepsat Egerton University P.O.Box 536 Egerton.

RE: RESEARCH AUTHORIZATION

Following your application dated 11th September, 2013 for authority to carry out research on "Contribution of microfinance credit on poverty reduction among the rural women in Keiyo North District, Elgeyo Marakwet County, Kenya," I am pleased to inform you that you have been authorized to undertake research in Elgeyo Marakwet County for a period ending 31st December, 2013.

You are advised to report to the County Commissioner and the County Director of Education, Elgeyo Marakwet County before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies** and one soft copy in pdf of the research report/thesis to our office.

DR. M. K. RUGUTT, PhD, HSC.

DEPUTY COMMISSION SECRETARY

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Copy to:

The County Commissioner
The County Director of Education
Elgeyo Marakwet County.

National Commission for Science, Technology and Innovation is ISO 2008: 9001 Certified

APPENDIX F RESEARCH PERMIT



