THE EFFECT OF MICROFINANCE SERVICES ON ECONOMIC EMPOWERMENT OF SMALL SCALE FARMERS IN KIAMBU COUNTY

BY

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DECLARATION

Declaration by the Student

This research proposal is my original work and has not been presented to any other examination body. No part of this research should be reproduced without my consent or that of The University of Nairobi.

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D61/71009/2014

Declaration by the Supervisor

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ABSTRACT

Microfinance services have continued to play an important role in Kenyan economy. Many studies have explored effect of microfinance on economic growth, but none of them have focused on effect of microfinance services on economic empowerment of small scale farmers in Kiambu County. Therefore, the purpose of this study is to determine effect of microfinance service on economic empowerment of small scale farmers in Kiambu County. A quantitative descriptive design was employed to study 100 framers in Kiambu County. A sample of 100 respondents from a list of 304,449 was taken as a representative population in the county. The study focused on dependent and independent relationship, and a multiple regression analysis was conducted to determine the relationship of three variables, which is access to credit, provision of financial literacy and access to market with respect to economic empowerment. The regression analysis established that the three independent variables have a positive correlation with the dependent variable. Access to credit, provision of financial literacy and access to market contribute positively to economic empowerment. The ANOVA analysis was meant to determine whether the variation in the independent variables explains the observed variance in the outcome, which is economic empowerment as used in the study. ANOVA findings in this study revealed that there was correlation between the predictor variables (Access to Credit, Provision of financial literacy and Access to market) and response variable (Economic empowerment) since P- value of 0.000 was less than 0.05, indicating a positive relationship between study variables.

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DEDICATION

This project is dedicated to my entire family for their constant love and support. To my fiancé, I owe the deepest gratitude for his wit, candor and unerring ability to encourage me throughout this course. To my mum Mrs. Winfred Mutonyi I am indebted for her unwavering willingness to support me.

LIST OF ABBREVIATIONS

FD	Financial Deepening
MBA	Masters in Business Administration
MFIs	Micro Finance Institutions
NGOs	Non Governmental Organizations
SMEs	Small and Medium Enterprises
UoN	University of Nairobi

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The origin of microfinance can be traced back to 1976 in Bangladesh when the Grameen bank was set up by Mohammad Yunus. During the last two decades, several arguments exist that microfinance has increasingly been an effective tool for poverty eradication and improvement of social economic status of rural poor people (Kimanjara, 2013). Similarly, Omunjalu and Fondo (2014) defined microfinance as the practice of providing financial services such as access to credit, micro saving or financial literacy to poor or disadvantaged individuals. They go further to elaborate their definition by referring microfinance as an institution that provide financial services to low income households, micro and small enterprises. Economic empowerment is the process of obtaining basic opportunities for marginalized people. It involves encouraging and developing skills for self sufficiency and knowledge that will allow those people to overcome the obstacles in life and poverty (Mjomba, 2011). Empowerment involves acquisition, provision of resources and means of control over such resources. Empowerment on the other hand can be looked as a means of improving people standards of living through increased accessibility to resources, skills which later translate to improved productivity.

There is no specific and distinct definition of small scale farmers. Definitions of small scale farmers can be derived from various attributes associated with small scale farmers. Among these attributes is land size, low level of technology used, dependency on household members, use, ownership and the level of inputs used. Mugera and Karfakis (2004) defined small scale farmers as those who operated farm size smaller than 10 hectares and greater than 0.1 hectares.

Small farms account for a significant percentage of agriculture output and national employment hence fueling the national income of a country (Hazell et al., 2007)

Davis (2004) observed that 80% of Kenya's population is located in rural areas and is dependent on agriculture for a source of living_ much of this is based on small scale holding which contributes significantly to the country's economy. Small scale farming differs with large scale farming in terms of complexity, diversity and purpose. Over 75% of Kenya relies heavily on subsistence farming and 75% of agricultural produce is from subsistence small scale farming. According to Davis (2004), Small scale farming characteristics include; scattered clientele in rural areas, varied crops, and resources constraint by farmers, highly seasonal and risky agriculture and low reliability of services. Small holder farmers have got their unique challenges that distinguish them from large scale farmers. For instance Munyori (2014), using survey data from dairy farmers in Gatundu Kiambu, small holder farmers faces the challenges like limited space in terms of land, shortage of well trained staff across the value chain and inadequate access to funds. Banks are reluctant to lend money to the rural farmers mainly because they have limited assets that can be used as security to their loans. This lack of access to funds becomes a setback to their efforts of improving their productivity. Financial constraint is a major constraint to small holders and this is normally attributed to improper land documentation hence reducing the chances of their lands to be used as collateral by financial institutions. Some of the threats that impede developments faced by small holder farmers include: falling prices of crops they produce, pressure on natural resources due to population growth and vigorous entry of supermarket chains (Hazell et al., 2007).

In Kenya, small scale farming is one of the top contributors of Gross Domestic Product. With 75% accounting for Kenyans who heavily rely on subsistence farming where 52 % practice small scale farming and produce 75% of the entire agriculture output make it an interesting case study. According to Hazell et al. (2007), small scale farming plays two major roles to the economy. The first role is that of fueling growth and development to the agricultural sector which in turn account a greater chunk of national income. However, this can only be achieved when small scale farmers are commercially oriented and can compete efficiently in the market. The second role is that it provides social safety and subsistence living to the poor in the rural areas even when they are too small to be commercially stable.

1.1.1 Microfinance

Omunjalu and Fondo (2014) refers microfinance as the provision of financial services to the low income households and micro and small enterprises to provide an enormous potential to support economic activities of the poor thus contribute to poverty alleviation. Worldwide, microfinance has been accepted as a tool for poverty alleviation and financial inclusion in most of the countries (Mjomba, 2014). Kimanjara (2013) described microfinance as an institution that consist of agents and organizations that are engaged in relatively small transactions using specialized character based methodologies to serve low income households, micro enterprises, small farmers who lack access to banking system. Countries all over the world has come to terms with the reality that microfinance serves as a tool of alleviating poverty through implementation of policies, schemes and programmes that help improve the lives of the participants (Abdulsalam & Tukur, 2014). Robison (2001) posited that microfinance institutions provide very small loans and deposit services to predominantly the poor, underserved rural and mostly women borrowers and savers. Robinson further was of the view that the way forward for a country is to have microfinance institutions which will help to meet the test of financial sustainability. He emphasized on the importance of outreach as a way of fighting poverty.

Some of the providers of microfinance services include; Non Governmental organizations (NGOS), Saving and loans cooperatives, credit unions, government banks, commercial banks or non banking financial institutions. Sometimes microfinance and access to credit are used interchangeably. Girabi and Mwakaje (2013) defined access to credit as small loans, where microfinance is appropriate where NGOs and microfinance institutions supplement the loans with other financial services such as; savings, insurance, pension and payment services. The target group for microfinance institutions is mostly the poor, unemployed, the small farmers, drivers and vendors (Njugi & Kerong'o, 2014). Khan and Rahaman (2007) described some of the characteristic of microfinance product which include; little amounts of loans and saving, shorter loans usually up to term of one year, payment schedules which attribute to frequent instalments, instalments made up from both principal and interest which is amortized in the course of time, application procedures of the loan are simple, short processing periods, no collateral sometimes is required contrary to formal banking process and use of tapered interest rates that is decreasing interest rates over several loan cycles.

Njugi and Kerong'o (2014) described some of the indicators of success of access to credit programmes to include; high repayment rate. This is where the clients make their repayments without failure and cases of loan defaulters are very minimal. The second indicator is outreach, which happens when the micro finance services are able to reach their target group even those who are in the very remote and considerably unreachable areas by other financial institutions. The third indicator is financial sustainability, this is realized when the institution is able to provide loans applied for without failure and they are able to sustain themselves financially.

1.1.2 Economic Empowerment

Empowerment is defined as the ability of people to have access to productive resources that enable them to increase their earnings and obtain goods and services that they need in order to be able to take part in the development and also to be able to make their own decisions. When one is empowered, they are freed from the chains of dependency and now they are able to control their own lives through personal decision making of life choices (Kimanjara, 2013).

Empowered individuals have the ability to exercise their bargaining power. Empowerment refers to the expression of self strength, control, self power, self reliance, freedom of choice, own decision making and capability (Khan & Rahaman, 2007). Mjomba (2011) posited that empowerment includes similar capabilities like the ability to make decisions about personal/collective circumstances and ability to access information and resources for decision making. Access of resources alone does not translate to empowerment but the capacity to use those resources for the purposes of their choice and without reliance on other people's decisions guarantees empowerment (Kimanjara, 2013).

Indicators of economic empowerment according to Khan and Rahaman (2007) include increment in saving, reduced levels of unemployment, reduced levels of indebtedness, sound decision making and increased cases of self employment. Empowerment encourages people to gain more skills and knowledge. As a result productivity in their line of involvement is realized and consequently income is generated hence more savings and reduced levels of debt and reliance.

1.1.3 Microfinance and Economic Empowerment

Microfinance is a powerful and effective tool for empowering people. The role of microfinance is not only to alleviate poverty but also to ensure that their institutions can deliver financial services efficiently to the sectors and individuals who cannot access such services in the formal banking system. Microfinance delivery in various parts of the world has brought a transformation to economic positions of households by enhancing their productivity and income into higher positive returns (Kimanjara, 2013). Microfinance not only alleviates poverty but also come in offering extensive human development programs (Khan & Rahaman, 2007). According to Khan and Rahaman (2007), microfinance institution provide various services which include; credit saving, insurance services, social intermediation services such as training and education, organization support, health and skills in line with their development objectives.

Adams (2010) noted that access to credit for farmers provide a potent tool for expanding economic opportunities and reducing the vulnerabilities of the poor. He further argued that access to credit provides the poor with productive capital that helps build up their sense of dignity, autonomy hence they are motivated to become participants in the rural economy development. He asserted that microfinance alone was not enough to enhance productivity. Other support services are for instance literacy classes and training programmes, community development, market based farm development and market based development services. Micro finance play a role in creating employment and income opportunities to participants and subsequently in empowering them to play an active role in economical, political and social cultural sphere in the society (Kimanjara, 2013).

1.1.4 Small Scale Farmers in Kiambu

According to county facts sheet 2013, Kiambu is an administrative district in central province and boarders Nairobi. Kiambu County has a population of 1,623,282 with a population density of 638 persons per square kilometre, according to the 2009 national census. Its growth rate is 2.56

with a national percentage of 4.20%. It has twelve constituencies which are; Githunguri, Gatundu north, Gatundu south, Limuru, Lari, Juja, Kiambaa, Thika, kikuyu, Ruiru, Kiambu town and Kabete. The main economic activities are; farming, food processing, manufacturing (leather), mining (carbacid), textile (cotton), wholesale and retail trade. According to the County data sheet, Kiambu has 469244 households. Kiambu County has seven commercial bank and eight microfinance institutions.

Kiambu has a bimodal rainfall pattern with short rains between October and December and long rains from March to May. Annual rainfall ranges between 600-2500mm (Irungu, 1998). The main agricultural products are pineapples, tea, coffee, wheat, macadamia nuts, poultry, and horticulture. Others are dairy products and fish products (county facts sheet 2013). Irungu (1998) observed that small scale mixed farming is the main income generating activity in Kiambu. The major subsistence crops grown being maize, beans, Irish potatoes and vegetables. Minor being arrowroots and bananas. Main fruits grown include passion fruits, avocadoes, strawberries, bananas and mangoes. Plums are grown in high altitude areas of Lari and Limuru Sub counties while pineapples are grown in Thika, Gatundu North and Gatundu South Sub counties.

Salami et al. (2010) categorized small holder farmers into three broad dimensions: based on agro-ecological zones in which they operate and composition of farm portfolio and land holdings. Small scale farmers usually cultivate less than one hectare which may increase up to 10 hectare in a sparsely populated semi-arid areas sometimes in combination with livestock. Based on annual revenue, small scale farmers range from those producing crops only for family consumption to those in developed countries earning as much as USD 50,000.

Agriculture sector differs with other sectors even when it comes to financing. This is because of its specific characteristic which include; activities carried out in rural areas characterized by poor infrastructure, dependent on weather, seasonal income and low and few farmers who are eligible to acquire guarantees for loans (Roux, 2007). The specifications mentioned above demands custom made financing mechanisms according to Roux in order to meet the farmer's needs. These mechanisms among others include; short term financing at the beginning of crop year for purchase of input and seeds, Medium and long term financing for land purchase, commercialization and storage (buildings), non financial services for instance monitoring demand, technical assistance and extension.

Hazell et al. (2007), small scale farming accelerates agricultural development as it helps in poverty reduction and improvement in the standard of living. Small farm households spend most of their income purchasing locally produced commodities therefore causing a multiplier effect as it stimulates the rural non farm economy and as a result additional jobs are created. Recent studies done show that increase in agricultural development is closely related to poverty reduction and rural development. However, small holding farmers face imminent challenges, for example, when new technology calls for more capital input, mechanization or high levels of education (Hazell et al., 2007). Schneider and Gugerty (2011), results from their study on agriculture productivity and poverty reduction evidenced that there are multiple pathways through which increase in agriculture productivity can reduce poverty, including real income changes, employment generation and rural nonfarm multiplier effects. The survey showed that the most direct contribution of small firm holding is food supply and generation of higher income.

As observed by Salami et al. (2010), expansion of small holder farming can lead to faster pace of poverty eradication by raising the incomes of rural cultivators and reducing food expenditures and hence reducing income inequality. Rising of farm productivity encourages broad small scale farming activities through diversification into new products, growth of rural sectors and birth of agro-processing industries and the exploration of new markets.

1.2 Research Problem

Lack of access to affordable financing is perceived to be one of the major setbacks to active participation in all aspect of development (Mubaiwa, 2014 and Mwongera, 2014). The main objective of microfinance is provision of financial services through which it would lead to the realization of the following; poverty eradication, creation of employment, economic and social empowerment, and economic growth of a country (Omunjalu & Fondo, 2014).

The key element of microfinance institutions approach to alleviation of poverty and improving the living standards in many developing countries is to provide credit and organizational support for their clients, who do not have assets to use as collateral in obtaining loans from financial institutions (Leseiyo 2014). Meeme (2013), small scale farmers need production capital which is scarce in order to enhance their productivity in farming. The inadequacy and inaccessibility of finances impede development in agriculture in the rural areas. Farmers need finances to purchase farm inputs such as farm tools, fertilizers and seeds. In her study, Meeme concluded that most of small scale farmers in Kiambu applied for funds from various lending institutions such as Faulu, Equity bank, Mwalimu and Murata SACCOs.

Lack of accessibility to finance is one of the most daunting challenges impeding development of small scale farmers. According to Roux (2007), agriculture is in adequately funded and even the supply available does not meet the needs of the farmers. According to Roux, the limited finance towards the farmers can be attributed to the fact that financing agriculture is generally more costly, risky and less profitable and also the specificities that comes along with farmers financing need to be taken into account. According to the Kiambu Agriculture, livestock and Fisheries 2013-2017 strategic plans, Poor access to credit by farmers has been identified as a major constraining factor despite the county having relatively well developed financial system. Risk associated with farming, coupled with complicated land laws and tenure system that limit the use of land as collateral for loans.

Several studies have been carried out in microfinance especially on the youth and women confirming that microfinance has accelerated development and empowerment among the youths and women. Omunjalu and Fondo (2014) in their study in microfinance and the youth empowerment concluded that microfinance influenced economic status, decision making power and knowledge hence was effective for the poor youth and middle class to rise to higher living standards. A similar study conducted by Girabi and Mwakaje (2013) on the impact of microfinance on smallholder farmers in Tanzania posited that microfinance has a significant impact on agricultural productivity under small holder farmers.

To the contrary, Karnani (2007) in his study concluded that microfinance seems to be doing more harm than good to the poor people. This is because of the high interest charged by microfinance institutions and if the client is not able to generate higher returns than the interest paid as result it makes that client worse off. Aguilar (2006) in his study on impact of microfinance institutions on rural farmers in Malawi noted that farmers who accessed credit from these institutions were no better off than those who didn't. Roux (2007) in his study on how microfinance contribute to agriculture in developing countries contended that despite the immense contribution of agriculture to national income of the developing countries, the supply of financial services is still inadequate.

The previous Kenyan scholars who have shed light on the aspects of microfinance in Kenya does not relate the effect of micro finance services to economic empowerment of small scale farmers. For example, Omunjalu and Fondo (2014) analyzed the role of micro finance on youth empowerment and the results confirmed that micro financing influenced economic status, decision making and financial knowledge of the youth. Also, Mjomba (2011) and Kimanjara (2013) conducted a study on the influence of micro finance on economic empowerment of Women and they both concluded that access to microfinance services had a positive influence on women. This study therefore seeks to examine the effect of micro finance services on economic empowerment of small scale farmers in Kiambu County. The study aims at answering the question, does microfinance services have any considerable effect on economic empowerment of small scale farmers in Kiambu County?

1.3 Objectives of the Study

The objective of this study is to determine the effects of microfinance services on economic empowerment of small scale farmers in Kiambu County

1.4 Value of the Study

The findings of the study will be beneficial to microfinance management as it will help microfinance institutions to identify those factors that are vital in formulating their product packages designed for small scale farmers.

The findings of the study will add to the wide academic knowledge in this area which can be used by other researchers as reference materials in the future. The researchers and research institutions will also use this study and may come up with suggestions for further studies.

The results of the study will be valuable as it will give insight to the policy makers and relevant agencies on how they can work towards improving the working of markets for input and output to help overcome market failures that are associated with small scale farming.

The result of the study will help policy makers on how to adopt a more proactive agenda in minimizing risks associated with small scale farming. This will also come in when the policy makers are coming up with policies in regard to small scale farming.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter covers the theoretical framework of the study and the empirical studies carried out in the same subject. The chapter presents the various literatures existing in the subject in terms of introduction, theoretical reviews, critical reviews, empirical summary and research gap.

2.2 Theoretical Review

The study is grounded on three theories; that is financial deepening theory, financial inclusion and poverty alleviation theory. These theories are relevant to the study since they advocate on the benefits accrued from providing financial support to households.

2.2.1 Financial Deepening Theory

Financial deepening is the increased provision of financial services and access to basic financial services such as credit, savings and insurance. FD theory was proposed by Edward S. Shaw in 1973. The theory holds that FD is a necessary pre-condition for economic growth. It is based on the premises that credit access is enhanced and this offers the necessary financing to firms in the economy and hence economic growth is realized (Shaw, 1973). FD enables financial intermediaries perform their functions efficiently of mobilizing, pooling and channelling domestic savings into more productive capital thereby contributing to economic growth of a country.

FD plays a vital role in increasing ability of individuals and households to access basic services such as education, health and thus having a more direct impact on poverty reduction. For a financial sector to be said to have deepened the following should be evident; increase in the range of financial services, regulations and stability of the financial sector is improved, the extent to which the capital is allocated to private sector household is increased and the amount of cash intermediated is increased (Shaw, 1973). FD brings about financial inclusion which offers incremental and complementary solutions to deal with poverty. FD accelerates economic development since it increases the size of the financial system and its role in financing with a wider choice of services geared towards economic development. This theory has established a link between increased access to financial services and economic growth and empowerment.

2.2.2 Financial Inclusion Theory

Financial inclusion is seen as the process of availing an array of required financial services, at fair prices, right place, form and time and without discrimination to all members of the society (Aduda & Kalunda, 2012). Financial inclusion help individuals cope better with poverty especially the challenges of irregular income. Further, Aduda and Kalunda (2012) opined that the main objective of financial inclusion should be advantaging the poor majority of those who do not use formal financial services. Proponents of financial inclusion theory opine that for micro-enterprises, financial inclusion can provide funds for setting up and expanding and for improving their income. Financial inclusion goes a long way in providing the poor individuals with opportunity to improve their standard of living and has a potential for social and economic empowerment. According to a report by Simpson and Buckland (2009), micro finance addresses the issue of financial exclusion where people do not have sufficient financial services. Financial inclusion therefore has provided a solution to the need of low income household and rural people who were left out by formal financial institution. The theory has established a positive link between financial access and economic growth and empowerments.

2.2.3 Poverty Alleviation Theory

The concept of Micro financing arose out of the need to provide to the low income earners and the rural people who were left out by formal financial institutions (Wahid, 1994). The theory is anchored on the idea of Grameen Bank concept in Bangladesh. Grameen Banking is the mechanism under which credit can be provided to the poorest of the poor on group liability basis instead of any collateral. Grameen Banking mostly applied in the rural areas. The pressing need for rural economy is to create jobs for the large unemployed, underemployed labour force, to enhance productivity to the farmers and growth and development for the non -farm activities. Creation of employment requires investments in small working capital which as a result will help generate more returns and in return living standards of people is improved. Thus obtaining credit from microfinance can go a long way in helping the poor accumulate their own capital and hence improve their living standards investment through the income generated

2.3 Determinants of Economic Empowerment

Economic empowerment of small scale farmers is determined by a number of factors which include microfinance, access to credit, financial literacy and access to market.

2.3.1 Microfinance

Microfinance covers a broad variety of institutional arrangements and approaches which include; small help groups, NGOs, Savings and loans companies, Credit Unions, Government Banks, Commercial Banks, or Non Bank Financial institutions (Kimanjara, 2013). The term microfinance usually refers to small loans to low income clients for self employment, often with simultaneous collection of small savings (Oware, 2012). According to Oware (2012), some of the key features associated with microfinance include: small loans for small scale farming activities; collateral free loans; group lending; target poor clients and provision of services in underserved communities. Kyale (2013) further states that microfinance is based on the premise that the poor has the capability to repay the loans, pay the real cost of the loans and generate savings. Micro finance clients are typically self employed, low income small scale farmers in both rural and urban areas. The clients are often traders, street vendors, small farmers, service providers, artisans, and small producers such as blacksmith (Kyale, 2013).

The aim of microfinance according to Mustaq (2008) is not just about providing capital to the poor to combat poverty on individual level, but it has got the role of institutional level also. It seeks to create institutions that deliver financial services to the poor who are continuously ignored by formal banking sector. A report by Simpson and Buckland (2009) noted that microfinance addresses the issue of financial exclusion where people do not have sufficient financial services and cannot either sustain retirement savings or collect lending products to create productivity and wealth.

In Kenya, Microfinance gained momentum in 1980s as a result of the poor people being excluded from formal financial institution mainly bank. It emerged with the aim of filling in the gap left by formal financial institutions in providing credit to individuals and MFIs which were on the rise during the period (Kisaka et al., 2014).

2.3.2 Access to Credit

Some of the major constraints by small scale farmers to access credit include; lack of information, high interest rates, low level of education and risk adverse. Adams (2010) noted that access to credit for farmers provide a potent tool for expanding economic opportunities and reducing the vulnerabilities of the poor. He further argued that access to credit provides the poor with productive capital that helps build up their sense of dignity, autonomy hence they are motivated to become participants in the rural economy development. He asserted that microfinance alone was not enough to enhance productivity. Other support services are for instance literacy classes and training programmes, community development, market based farm development and market based development services. Karlan and Zinman (2006) confirmed the above findings from their study in South Africa where the recipients of the access to credit were shown to be better off than non beneficiaries. Guirkinger and Boucher (2007) made a similar observation that in rural areas of developing countries credit constraints have significant adverse effects on farm output and the level of farm profits. Munyori and Njugi (2014) posited that production challenges facing the farmers could be attributed to the limited access to finances despite the existence of various financial institutions. The main reason behind the limited access is because of the stringent conditions put in place by the financial institutions that the farmers are not able to meet.

Meeme (2013) asserted that provision of credit can encourage farmers to invest in new technology and purchase farm inputs hence bringing them to a higher productivity and as a result empowerment to the small holder farmers is realized through increased income. Meeme (2013) posited that agricultural credit can be used by farmers to enhance their bargaining power through establishment of storage facilities and providing transport system. A similar observation was made by Reyes (2014) that access to credit allows farmers to satisfy their needs induced by agricultural production cycle and consumption requirements

Njugi and Keron'go (2014) in their study posited that expanding credit is not associated with increase in investment, but only with profit particularly for those people with high income. Expansion of credit programmes have an impact on productivity of small holders and rural incomes as credit enables farmers to procure farm inputs and adoption of alternative crops which are likely to boost the income of indigenous crops (Meeme, 2013). Kimanjara (2013) narrated that microfinance has a positive effect on empowerment as it helps create independence contributions to household income. A similar view was expressed by Mamun et al. (2010) that participation in access to credit program increases employment rate among clients households. Adam (2010) asserted that access to credit for small farmers aids in diversification of livelihoods in terms of income generation and labour supply across seasons which in turn is associated with a reduction in the variability of consumption across seasons.

2.3.3 Financial Literacy

Robinson (2001) observed that the rural population is denied access to credit since most of them are unable to meet the collateral requirements, inadequacy of complete information and the viability of credit services. Mwongera (2013) described financial literacy as the ability to have appropriate book keeping skills and financial management skills. Girabi and Mwakaje (2013) observed that one of the major factors constraining access to credit by small holder farmers was lack of microfinance credit information. Meeme (2013) argued that education on small holder farmers is of paramount importance. She argues that better equipped farmers with financial skills will be better placed to form trusting relationships with sales banking institution.

Kimanjara (2013) posited that the main causes of failure of small enterprises are lack of planning, improper financing and poor management. He further posited that financial management is not a choice if one has to become economically empowered because it is a necessity for survival especially in financial transactions where large amount of income is to be financially managed. Mamun et al. (2010) in his study found out that the followers of Grameen

Bank group used micro credit model to provide training in order to improve microenterprises management skills to enable their clients to take advantage of income and employment generating opportunities. Kyale (2013) in his study on impact of microfinance institutions on economic empowerment observed that provision of financial management skills by microfinance institutions helped the MFIs owners to be better placed in managing their finances hence growth was realized.

2.3.4 Market Access

Lack of sufficient market information predisposes small enterprises to a great challenge. Adams (2010) in his study asserted that lack of market for the products contributed to most of the farmers being unable to pay off their debt. Girabi and Mwakaje (2013) in his study on small holders in Tanzania posited that access to market for the agricultural products impacted positively on agricultural productivity and in turn economic empowerment of small scale holders is enhanced. However, Pender et al. (2004) observed that access to market for agricultural produce is not enough by itself but the market has to be efficient. Baloyi (2010) made a similar conclusion that access to market alone is not good enough but market information is also necessary. Market information include; product prices at national level, quality requirements, the best places and time to sell their products and information about their competitors and potential customers. Similarly, Davis (2008) argued that lack of market accessibility could hinder farmers from being able to procure farm inputs and sell their output and as a result their efforts in the farm are jeopardized.

Baloyi (2010) observed that one of the greatest impediments of development of rural farmers is lack of markets in rural areas. He contends that most small holders are located in rural areas where there are no formal markets. The farmers are compelled to market their produce to local communities in their areas, sometimes at a lower price or transport their produce to towns at a higher cost. According to Baloyi (2010), this further leads to low bargaining power since they have poor access to market information and limited access to financial markets, which hinders them from selling their produce at competitive prices. Baloyi (2010) recommended that in order to ensure market participation by small holder farmers it requires that they gain access to reliable and high quality farmer support services such as production inputs, on farm infrastructure, training and extension services.

Kyale (2013) observed that microfinance institutions have managed to register MFIs in farm associations and updated their data bases as a way to facilitate marketing. He further posited that those who were beneficiaries of market facilitation by MFI said that it boosted their income from their farms. Kyale (2013) recommended that intensified use and facilitation of ICT would go a long way in helping the MFIs to boost their income.

2.4 Empirical Review

Adam (2010) did a study on the impact of microfinance on maize farmers in Nkoranza (Brong Ahafo Region of Ghana). The main objective of carrying out the study was to examine the impact of microfinance on maize farmers. The findings of the study suggested that microfinance had a marginal effect on both the economic and social well being of the recipients of credit facility. Adam from his study found that a significant positive relationship existed between credit and their social and economic status. 52% said that credit from microfinance had a positive impact, 14% said that it didn't have any impact in their lives and 34% indicated that credit had made their lives worse off. It was also evident from the study that the farmers were also facing major challenges in their farming activities apart from limited access to credit. These other challenges as mentioned by the respondents included; individual product prices, land tenure, technology and market access. It was evident that 99% of the respondents confirmed that microfinance program had impacted on their social life in terms of community participation. This was realized through the payment of community levies from their farm produce which gave the farmers a sense of belonging.

Girabi and Mwakaje (2013) did a study on impact of microfinance on small holder farm productivity in Tanzania. The main objective of the study was to test a hypothesis on whether there has been any significant impact of microfinance on agricultural productivity by small holder farmers in Tanzania with the case of Iramba District. Multiple regression analysis was used to analyze the data collected from the study. The findings of the study reported a positive relationship between credit and small holder farmers' productivity. Access to credit improves market accessibility to their products. The study showed that the main reason for failure to access microfinance services was lack of MFI information, inadequate credit supply and high interest rates.

In their study on impact analysis of microfinance on crop production in Ghana, Nuhu et al. (2014) found out that microfinance played a significant role to rural farmers in their production with a significant relationship existing between microfinance and crop production. The aim of the study was to assess the impact of microfinance on crop production and magnitude of impact in East Mamprusi district of Ghana. Regression analysis was to determine the impact of microfinance on crop production for rural farmers in Ghana. The regression results showed that a one GHC1 increase in access to credit by the farmers would increase crop production by more than a third. The study suggested that those farmers who had access to credit reported higher results than their counterparts.

In his study on whether microfinance is achieving its goal among small holder farmers in Africa Owour (2009) found out that microfinance credit improves household productive incomes. The aim of the study was to determine whether microfinance is achieving its goal among small farmers in Africa. Propensity score matching method to evaluate effects of microfinance credit on borrower's productive performance in Africa was used. The study revealed that participation of microfinance credit improves household income by a range of between 200 $ and 260 $ in a single production period. However, the researcher observed that participation in the microfinance among farmers is constrained by low literacy levels and poor road infrastructure. His recommendation was that MFIs should consider issuing different credit products that meet both productive and consumptive motives to avoid fungible of credit meant for production. This is due to the fact that most small holder farmers borrow credit for production purposes and end up diverting the proceeds of credit to subsistence consumption and they end up defaulting on that credit since it did not yield returns.

Matumaliza (2009) conducted a study on Micro finance services and their effects on small holder farmers' income in Nyamagabe District, Rwanda. The study sought to examine the contribution of microfinance services to the income of small holder farmers. Propensity score matching model was used to assess the effects of microfinance services on small holder farmers' income. The study showed that out of 240 households interviewed, only 117 had participated and the rest had not participated in micro finance services. Those who participated had increased their total annual income to an equivalent of Ksh 32,284 than non participants. Results indicated that microfinance services had an effect on small holder farmers particularly in household income and greater in increasing household yields.

Omunjalu and Fondo (2014) carried out a study on the role of microfinance in economic empowerment of the youth a case of Mombasa County. The main aim of the study was to establish the role of micro finance in economic empowerment of the youth. Descriptive technique was employed in analysis and interpretation of the findings. The result of the study showed that MFIs have played a great role in economic empowerment of the youths in Mombasa County. The findings confirmed that micro financing influenced economic status, decision making power and knowledge hence was effective in graduating the poor youth and middle class to higher living standards.

In his study on the effect of microfinance services on financial performance of small and medium enterprises in Narok County, Leseyio (2014) found out a positive relationship between micro finance and financial performance of MFIs. The aim of the study was to investigate the effect of microfinance services on financial performance of MFIs in Narok County. Multiple regression analysis was employed to measure the relationship of the variables. The regression results showed a positive relationship between variables. The study showed that existence of MFI contributed to the development of MFIs' and the provision of credit has increasingly been regarded as an important tool for raising incomes for the youth.

In his study on influence of microfinance on economic empowerment of women, Kimanjara (2013) concluded that access to microfinance services had a positive influence on women in Nakuru County. The study was set to explore the influence of microfinance on economic empowerment of women case of Kenya Women Finance Trust Nakuru County. The results showed that 97 % of the women who participated in accessing credit confirmed that their livelihood had improved. They confessed that access to credit had increased their participation in economic activities, increased levels of income enabling them to buy and own property and assets which has generally improved their welfare and standard of living. Kimanjara recommended that MFIs need to come up with vibrant awareness programs of their products as this would go a long way in empowering women and other members of the society hence an overall national economic growth.

Reyes et al. (2012) carried out a study on the impact of access to credit on farm productivity of fruit and vegetable growers in Chile. The main purpose of their study was to determine to what extent available credit affects farm productivity of credit constrained farmers. Regression model was used to test the correlation between credit accessibility and farm productivity. The findings of the study were that although credit constrain had a negative impact on productivity of the constrained farmers, availability of short credit did not have an impact on productivity. The study showed that other factors like education and training on farmers other than credit alone had more impact on productivity. Further, Access to credit didn't seem to change farmer's production decisions implying that they didn't need more credit to improve their income per hectare. Credit alone cannot influence productivity as proper management is also needed for it to yield the expected results.

Karnani (2007) did a study on Microfinance Misses its Mark. Karnani observed that microfinance seems to be doing more harm than good to the poor people. This is because of the high interest charged by microfinance and if the client is not able to generate higher returns than the interest paid it makes the client worse off. His study revealed that indeed access to credit makes life at the bottom of the pyramid worse. He contends that microloans are more beneficial to borrowers living above poverty line than to borrowers living below poverty line. The reason being, clients with more income are more willing to take risks such as investing in new technology contrary to low income earners who are risk averse and has a tendency to take out conservative loans and rarely invest it in new technology.

Roux (2007) in his study on how microfinance contribute to agriculture in developing countries contended that despite the immense contribution of agriculture to national income of the developing countries, the supply of financial services is still inadequate. The aim of the study was to determine under what conditions can microfinance help farmers in developing countries access credit to improve competitiveness. According to Roux, the more the rural populations contribute to the GDP the lower the rate of financial inclusion. The farmers in the rural areas are sidelined as most financial institutions concentrate on the urban areas and the small portion channelled to agriculture varies considerably.

2.5 Summary of the Literature

This chapter has reviewed several studies relating to micro finance and how micro finance services affect economic empowerment of small scale farmers. Factors such as micro finance, access to credit, financial literacy, market access and economic empowerment of small scale farmers have been discussed.

Financial deepening, poverty alleviation theory and financial inclusion are the theories anchoring the study. Financial deepening is the increased provision of financial services such as credit, savings and insurance. The theory is based on the premises that financial deepening is a necessary condition for economic growth. The three theories emphasizes on the importance of availability and accessibility of finances for economic empowerment to be realized.

The area of microfinance in relation to their effect on small scale farmers has been researched in various countries. For instance, Matumaliza (2009) conducted effects of microfinance on small holder farmers in Rwanda and the results indicated that microfinance had an impact on household income. Owour (2009), analyzed whether microfinance is achieving its goal on small scale farmers in Africa and the results indicated that access to credit had improved productive income. Girabi and Mwakaje (2013), impact of microfinance on small farm holder productivity in Tanzania and the results indicated that a positive relationship between credit, income and market accessibility existed. Adam (2010) conducted a study in Ghana on impact of micro finance on maize farmers and established that micro finance had marginal effect on economic and social well being of recipients of credit facilities. There is no known study conducted on effect of microfinance on economic empowerment of small scale farmers in Kenya. This study therefore sought to fill in the gap by examining the effect of microfinance on economic empowerment of small scale farmers in Kiambu.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter explains the research methodology adopted for the study. The chapter examines and justifies the research design to be employed in the study. The chapter also describes the population of interest and the sample to be used. It also states the data collection method and data analysis technique to be used.

3.2 Research Design

The study applied descriptive research design method with the aim to determine the effects of microfinance on small scale farmers. A descriptive design was suitable due to the fact that several small scale farmers were to be sampled. According to Mjomba (2011), a descriptive study is concerned with evaluating what and how of a phenomenon.

3.3 Population

Population refers to all items in the field of enquiry. This is supported by Kimanjara (2013) who defined target population as all individuals, objects or things that the researcher can reasonably generalize his/ her findings to. Records from the Kiambu Agriculture, Livestock and Fisheries 2013-2017strategic plan showed that a population of 304,449 depending on small holder farming for their livelihood. This formed the target population of the study. Wherever there was more than one farmer in a household, a response from one of them would be conducted.

3.4 Sample and Sampling Method

Sampling is defined by Kyale (2010) as a method used in drawing samples from the population usually in a manner that the sample facilitated determination of some hypothesis concerning the population. The sampling frame comprised small scale farmers. A non-probability sampling was employed and this included the use of purposive sampling to select farmers practicing small scale farming in Kiambu County. Purposive sampling is a non probability sampling technique which is a non-representative subset of some larger population constructed to serve a very specific need or purpose (Tongco, 2008). Since it was not possible to reach all small scale farmers in Kiambu, a representative sample of 100 farmers was used. Eight key informants were purposively selected from each of the twelve constituencies to inform the study. This satisfied the law of statistical regulations which states that if a sample is chosen at random, on average it has the same characteristic and composition as the population (Kothari 2009).

3.5 Data Collection

The researcher used primary data to accomplish the research objectives. Primary data was collected using structured and unstructured questionnaires with both open and closed ended questions. Questionnaires were preferred as it was relatively quick to collect the information in a standardized and more objective way certainly more so than interviews although in some instances it can take longer time especially when it come to analyzing the data collected. The questionnaires helped in making comparison between economic conditions that existed before the micro finance services and after the provision of those services. The questionnaires were administered through drop and pick later method to the selected sampled population.

3.6 Data Analysis

Quantitative and qualitative techniques were used in the study. Quantitative analysis involved use of numeric measures for example in terms of increment in income and savings. Qualitative analysis involved explanation of information obtained from open ended questionnaires. The study applied descriptive analysis technique to analyze the data. Descriptive statistics such as mean, standard deviation and frequency distribution tables were used to analyse the data. The qualitative data was presented using tables for ease of presentation and interpretation.

A multiple regression was undertaken to establish the relationship between access to credit, financial literacy and market access and economic empowerment of small scale farmers within Kiambu County. The regression model used is the model indicated below

$$Y=\alpha+\beta_1X_1+\beta 2X_2+\beta 3X_3+\varepsilon$$

Where y= Dependent variable (economic empowerment of small scale farmers)

a= is the constant

β'S = coefficients to be estimated

X_1 = Access to credit

X_2= provision of financial literacy

X_3= Access to market

ε = error term

Economic Empowerment= $\alpha + \beta_1$(Access to Credit)+β_2(Provision of Financial Literacy)+β_3(Access to Market)+ε

The strength of the relationship was determined using r^2. The value of r^2 ranges from 0-1. The value of 0 shows no relationship at all, 0.5 shows moderate relationship and from 0.6 to 1 shows a strong relationship.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSIONS

4.1 Introduction

The study intended to assess the effects of micro finance services on economic empowerment of small scale farmers in Kiambu County. This chapter shall contain data analysis, presentation and interpretation of research findings. The study sought to establish whether access to credit, financial literacy level and access to market influence economic empowerment of farmers. The researcher has made use of frequency tables, percentage, mean and standard deviation to present the data.

4.2 Descriptive Statistics

The study established the following descriptive statistics, as shown table 4.2.1

Table 4.2.1 Descriptive Statistics

	Financial Literacy	Access to Credit	Access to Market	Economic Empowerment
Mean	26.032	27.726	24.839	24.968
Std. Error of Mean	1.4944	1.4657	1.4369	1.3663
Median	28.000	28.000	27.000	27.000
Mode	28.0	32.0	27.0	27.0[a]
Std. Deviation	11.7668	11.5406	11.3140	10.7581
Variance	138.458	133.186	128.006	115.737
Skewness	.132	-.026	.214	.075
Std. Error of Skewness	.304	.304	.304	.304
Kurtosis	-.471	-.885	-.061	-.699
Std. Error of Kurtosis	.599	.599	.599	.599
Range	50.0	43.0	50.0	42.0
Minimum	6.0	8.0	4.0	7.0
Maximum	56.0	51.0	54.0	49.0
Sum	1614.0	1719.0	1540.0	1548.0

a. Multiple modes exist. The smallest value is shown

Source: Study Findings

The study findings revealed that economic empowerment of small scale farmers is influenced mostly by access to credit, followed by financial literacy and lastly access to market as shown by the corresponding mean shown in table 4.2.1. The study findings were not exactly normally distributed since mean, median and the mode are not equal, though they were sufficiently appropriate for the purpose of this study.

4.3 Correlation Analysis

This study adopted a correlation analysis to establish statistical relation between two or more variables such that systematic changes in the value of one variable are accompanied by systematic changes in the other variable. Pearson correlation established the variables used in the study had strong relationship, as shown in table 4.3.1.

Table 4.3.1: Pearson Correlation

Correlations

	Access to Credit	Provision of Financial Literacy	Access to Market	Economic Empowerment
Access to Credit	1	.895	.854	.904
Provision of Financial Literacy	.895	1	.927	.967
Access to Market	.854	.927	1	.953
Economic Empowerment	.904	.967	.953	1

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Research Findings

4.4 Regression Analysis

The study sought to establish the nature of the relationship (strength and the direction of the relationship) that exists between the study variables. The regression analysis results were as shown in table 4.4.1 below.

4.4.1 Model Summary

Table 4.4.1: Model Summary

Model	R	R Squared	Adjusted R Squared	Std. Error of the Estimate
1	.981[a]	.961	.959	2.201

a. Predictors: (Constant), Access to Market, Access to Credit, Financial Literacy

R squared is the co-efficient of determination that gives the variation in the dependent variables caused by changes in the independent variables. From the findings presented in table 4.4.1, the value of adjusted R-squared was given as 0.959 which showed that there was a 95% growth in economic empowerment among small scale farmers as a result of changes in access to credit, provision of financial literacy and access to market provided at 95% confidence interval.

R refers to correlation co-efficient that indicates the relationship between the variables used in this study. The findings establish a strong relationship of 0.981 between the study variables. This study focuses on dependence and independence association, which has been analysed with the use of multiple regression analysis. The multiple regression analysis is mathematically expressed as: $Y=\alpha+\beta_1X_1+\beta 2X_2+\beta 3X_3+\varepsilon$

Where y= Dependent variable (economic empowerment of small scale farmers)

a= is the constant

β'S = coefficients to be estimated

X_1 = Access to credit

X_2= provision of financial literacy

X_3= Access to market

ε = error term

The use of multiple regression analysis was used to the importance of the four variables in the study, with a focus on microfinance services on economic empowerment of small scale farmers in Kiambu County in Kenya.

4.4.2 Analysis of Variance

The probability value (p-value) of a statistical hypothesis test refers to obtaining a value of the test statistic as either extreme or more than extreme than that observed by chance alone, that is, if the null hypothesis H_0 is true. The p-value is compared with the actual significance level of the test and, if it is smaller, the result is significant. The smaller it is the more convincing is the rejection of the null hypothesis.

ANOVA findings in table 4.4.2 indicates that a correlation exists between the predictor variables (Access to Credit, Provision of Financial Literacy and Access to Market) and the response variable, which economic empowerment since P- value of 0.000 is less than 0.05.

Table 4.4.2 ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6774.898	3	2258.299	466.169	.000[b]
	Residual	271.285	56	4.844		
	Total	7046.183	59			

a. Dependent Variable: Economic empowerment

b. Predictors: (Constant), Access to Market, Access to Credit, Financial Literacy

Source: Author's Computation 2015

Letters used in the table above can be explained as; df; to denote degrees of freedom; F denotes Anova; α denotes level of significance

a. Dependent Variable refers to economic empowerment while b. Predictors: (Constant) are Access to Credit, Provision of Financial Literacy, and Access to Market

The ANOVA summary provided above facilitates discussion and variance analysis. Variance analysis tests differences in variables means or group means for statistical significance. Variance analysis partitions the total variance into component that is due to true random error and that due to differences between means.

The ANOVA analysis investigates whether the variation in the independent variables explain the observed variance in the outcome this study has on the economic empowerment. The results of ANOVA show that the independent variables significantly ($F=466.169$, $p=0.000$) explain the variance on economic empowerment. As stated in the previous discussions, the dependent variable is the level of economic empowerment whilst the independent or the predictor variables are Access to Credit, Provision of Financial Literacy and Access to Market.

4.4.3 Regression Model Coefficients

The following table shows the determination of coefficients regression equation.

Table 4.4.3: Regression Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.650	.739		.880	.383
	Access to Credit	.138	.055	.148	2.501	.015
	Financial Literacy	.442	.074	.483	6.002	.000
	Access to Market	.362	.064	.380	5.655	.000

a. Dependent Variable: Economic Empowerment

Source: Author's Computation 2015

From the table above, the established regression equation can be represented as shown below.

$Y = 0.650 + 0.138 X_1 + 0.442 X_2 + 0.362 X_3$

Where

Constant = 0.650, shows that if microfinance services such as access to credit, provision of financial literacy, and access to market were rated zero, then economic empowerment would be 0.65

X_1= 0.138 indicates that a unit change in access to credit results in 0.138 units increase in economic empowerment.

X_2= 0.442 shows a unit change in provision of financial literacy that leads to 0.442 units increase in economic empowerment.

X_3= 0.362 indicates a unit change in access to market that results in 0.362 units increase in economic empowerment.

4.5 Discussion of Findings

The study was to investigate dependence and independence relationship. Multivariate model was applied to determine the relative effect of each of the four variables with respect to the effects of microfinance services on the economic empowerment of small scale farmers in Kiambu County.

The study results have revealed that access to credit, provision of financial literacy, and access to market influence economic empowerment of small scale farmers. Descriptive statistics findings established that access to credit has the most influence on economic empowerment, among the three variables, as shown in table 4.2.1.

Results obtained from the regression analysis and the coefficient of determination (the R squared of 0.065) in table 4.4.1 show the variation in the dependent variable as a result of changes that occurred in the independent variables. The findings of this study reveal that the regression analysis indicates access to credit, provision of financial literacy and access to market at 95% confidence interval. R is the correlation coefficient that presents the relationship between the study variables. From the findings shown in table 4.4.1, there was a strong positive relationship between the study variables as shown by the correlation coefficient R of 0.981.

The ANOVA analysis aimed to establish whether variation in the independent variables explain the observed variance in the outcome, which is the economic empowerment in this study. ANOVA findings in table 4.4.2 indicate that there is correlation between the predictor variables, which are Access to credit, provision of financial literacy, and access to market, and the response variable is the Economic empowerment since P-value of 0.000 is less than 0.05. This study establishes that there is strong relationship between the study variables. The coefficient of determination R, explains the extent to which the dependent variable can be explained by the independent variable.

From table 4.4.3, the constant of 0.650 indicates that if access to credit, financial literacy, and access to market were rated as zero, economic empowerment would be 0.650. X_1 0.138 indicates that one unit change in Access to credit results in 0.138 units increase in economic empowerment, while X_2 0.442 shows that one unit change in the Provision of Financial literacy results in 0.442 units increase in economic empowerment. $X_3 = 0.362$ indicates that one unit change in access to market results in 0.362 units increase in economic empowerment. From these findings, it implies that provision of financial literacy has the greatest positive impact on economic empowerment, and this is followed by access to market and finally access to credit.

The findings of this study concur with Adams' (2010) assertion that farmers' access to credit offers a critical tool for expanding economic opportunities and reducing the vulnerabilities of the poor; and offering other support services including literacy classes and training programmes, market based farm development, community development, and market based development services. This also conforms to the findings of Karlan and Zinman (2006), who confirmed Adams (2010) findings from their study in South Africa where the recipients of the access to credit were found to be economically better off than non beneficiaries.

The conclusion also concurs with assertion made by Meeme (2013) that provision of credit encourages farmers to make investments in new technology as well as purchasing farm inputs, thus bringing them to a higher productivity and consequently empowerment of the small holder farmers is attained through increased income. In addition, the conclusion of this study concurs with assertion made by Kimanjara (2013) that microfinance has a positive effect on empowerment since it helps create independence contributions to household income. However, the findings of this study disagrees with the study conducted by Njugi and Keron'go (2014) in which they established that expanding credit is not associated with increase in investment, but only with profit specifically for those people with high income.

The study findings concur with Kyale's study on impact of microfinance institutions on economic empowerment which observed that provision of financial management skills by microfinance institutions enabled the MFIs owners to be better placed in managing their finances, thus growth was realized. The study also agrees with the study findings on small holders in Tanzania by Girabi and Mwakaje (2013) that access to market for the agricultural product had positive impact on agricultural productivity and in turn economic empowerment of small scale holders is enhanced. This study also conforms to the findings of the study conducted by Owuor (2009) on whether microfinance is achieving its goal among small holder farmers in Africa, which revealed that microfinance credit improves household productive incomes. However, this study disagrees with the findings observation by Karnani (2007) that microfinance seems to be doing more harm than good to the poor people.

CHAPTER FIVE

SUMMARY AND CONCLUSIONS

5.1 Introduction

This chapter provides a summary of findings of the study. Section 5.2 is a summary of the findings. Section 5.3 discusses the conclusion. Section 5.4 explains the limitations of the study and Section 5.5 gives the recommendations for further research.

5.2 Summary of the Study

The study sought to determine the effects of microfinance services on economic empowerment of small scale farmers in Kiambu County. A quantitative descriptive design was used to study 100 small scale farmers in Kiambu County. Structured questionnaires were used to collect data from 100 farmers. The sample of 100 farmers from a list of 304,449 was taken as a representative population in the county. The study focused on dependence and independent relationship with moderate multiple regression analysis being employed. A multivariate regression model was used to establish the relative importance of each of the three variables which are access to credit, provision of financial literacy and access to market, with respect to the effects of microfinance services on the economic empowerment.

Descriptive statistics established that economic empowerment of small scale farmers is influenced mostly by access to credit. This was followed by financial literacy and then access to market as shown by the corresponding mean shown in table 4.2.1. However, the study findings were not exactly normally distributed since mean, median, and the mode were not equal, though, they were sufficiently appropriate for the purpose of this study.

The ANOVA analysis was conducted to determine whether the variation in the independent variables explains the observed variance in the outcome, which is the economic empowerment used in this study. ANOVA findings in this study revealed that there was correlation between the predictor variable, that is, access to credit, provision of financial literacy and access to market) and response variable being economic empowerment since P- value of 0.000 was less than 0.05. This revealed that there was a strong positive relationship between variables employed in this study.

The probability value (p-value) of a statistical hypothesis test is obtaining a value of the test statistic, which is either extreme or more extreme than that observed by chance alone, and this implies if the null hypothesis H_0 is true. The probability value (p-value) is compared with the actual significance level of the test and, if it is smaller, the result is significant. The smaller it is the more convincing to reject the null hypothesis. ANOVA analysis indicated that there was correlation between the predictor variables which are access to credit, provision of financial literacy and access to market and response variable is economic empowerment since P-value of 0.000 was less than 0.05. The results obtained from ANOVA analysis indicated that the independent variables significantly (F=466.169, p=0.000) explain the variance in economic empowerment.

A regression analysis was performed to determine that three of the independent variables have a positive correlation with the dependent variable. Access to credit, provision of financial literacy and access to market contribute positively to economic empowerment. The regression analysis obtained coefficient of determination (R-squared), correlation coefficient (R), F-test statistics and P-value represented as 0.981, 0.961, 466.169 and 0.000 respectively, and since R was positive

(0.981), the relationship between microfinance services and economic empowerment of smallholder farmers was positive.

5.3 Conclusion and Policy Recommendations

Based on the findings obtained from this study, it can be concluded that expanded economic empowerment is as a result of increased changes in access to credit, provision of financial literacy and access to market. The government through the ministry of agriculture should partner with microfinance institutions to provide more and cheaper loans to smallholder farmers.

The results from this study indicate that there is a positive relationship between microfinance services and economic empowerment. The study further concludes that access to credit, provision of financial training and access to market lead to economic empowerment of small scale farmers in Kiambu County. The government of Kenya, through the ministry of education and that of agriculture should provide more financial trainings and literacy skills to small scale famers. Moreover, it can be concluded that effect of access to credit, provision of financial literacy and access to market on the economic empowerment of small scale farmers in Kiambu county was a positive performance ($p = 0.000$). County governments should create and source for markets for smallholder farmers' agricultural products, within and across other counties.

5.4 Limitations of the Study

The study was limited to Kiambu County and time was inadequate to collect data from the whole county. Time allocated to the project was limited since lot of time was spent in conceptualising the study.

Cost constraint was also a limiting factor hence the sample of 100 small scale farmers from the whole county was significantly low. The researcher had limited funds to survey the whole county since there was no additional funding, apart from the researcher's cash injection to support this research.

Several small scale farmers were reluctant to fill in the questionnaires after they realised that financial information on their farms would be required. They argued that their financial information was sensitive and confidential. The researcher could not obtain all the information from the respondents, specifically on money matters.

Some respondents did not complete the questionnaires. The researcher had no control over this since the survey was voluntary, and the respondents had to fill in the information at free will.

Quite a number of farmers did not keep records owing to illiteracy or inadequate knowledge and skills in book keeping. The researcher had no control over respondents' book keeping or provision of financial literacy to the farmers.

5.5 Suggestion for Further Research

Since the study was limited to micro finance services on the economic empowerment of small scale farmers in Kiambu County, further studies are recommended to be done in other counties in Kenya.

Different counties have unique characteristics and diverse contextual realities that might affect the provision of micro finance services. The study should therefore be extended to cover other counties across Kenya.

Further studies are recommended on the extent of expansion of microfinance services. It can also be suggested a study be conducted to find out whether the products and services offered by microfinance institutions meets the need of the small scale farmers.

In addition, studies that seek information about farm records, small scale farmers' income records and the data collection tools be designed to seek both facts and opinions. Such information would be critical in coming up with recommendations and developing favourable policies for smallholder farmers.

Finally, a further study is suggested to explore challenges in provision and uptake of microfinance services among small scale farmers. This is critical since the research has not dealt fully on the potential challenges.

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APPENDICES

APPENDIX I: RESEARCH QUESTIONNAIRE

SECTION A: BIODATA & STATUS

1. Kindly indicate your area of residence ………………….

2. Please indicate your age

Below 18 years [ ] between 19- 35 years [ ] between 36-50 years [ ]

Above 50 years [ ]

3. Please indicate your marital status

Single [ ] Married [ ] Divorced [ ] Separated [ ]

4. What is your level of education?

Primary [ ] Secondary [ ] College [ ] Post graduate [ ]

Have never attended school [ ]

5. Please indicate your land tenure status

Owner [ ] Lease [ ] Partnership [ ]

Others, specify……………………………………………………………………………….

6. Please indicate your farm size

Less than one acre [ ] 1-3 acres [ ] More than 3 acres [ ]

7. How long have you be into farming?

Less than 1 year [ ] 1-3 years [ ] 3-5 years [ ] more than 5 years [ ]

SECTION B:

A. ACCESS TO CREDIT

8. Do you own at least an account with any microfinance institution?

Yes [ ] No [ ]

9. For how long have you been a microfinance customer?

Less than six months [ ] 1-3 years [ ] 3-5 years [ ] More than 5 years [ ]

10. Are you a participant of any microfinance credit program?

Yes [ ] No [ ]

11. Do you have access to credit from other sources other than microfinance institution?

Banks [ ] Relatives [ ] Friends [ ] Shylock [ ]

Others, please specify…………………………………………………………………………

12. Did you have a source of income for your household before the loan?

Yes [ ] No [ ]

If yes, specify the average monthly income in KSH

13. What is your average monthly income after taking the loan?

14. What was your average monthly expenditure of your household before the loan?

Below 1000 [ ]   1001- 3000 sh [ ]   3001-5000 [ ]   More than 5000 [ ]

15. What is your average monthly house household after the loan?

Below 1000 [ ]   1001- 3000 sh [ ]   3001-5000 [ ]   5001-10000 [ ]   More than 10000 [ ]

16. Has your lifestyle improved after the loan?

Yes [ ]   No [ ]

B. FINANCIAL LITERACY

17. Before taking any loan did you receive any financial training?

Yes [ ]   No [ ]

If yes, was it beneficial to you?

18. What kind of financial literacy has Microfinance offered you?

Loan use [ ]   Book keeping skills [ ]   saving [ ]

Farm Management [ ]   Access to credit [ ]

19. Which kind of training offered do you think will transform you?

20. Has your participation in microfinance financial training program led to a feeling of being more capable of handling money and making economic decisions?

Yes [ ]   No [ ]

21. Increased financial knowledge has increased your level of income

Strongly agree [ ]   Agree [ ]   Undecided [ ]   Disagree [ ]

Strongly disagree [ ]

22. What was your average level of income before you received financial training?

Below 5000 [ ]   5001- 10000 [ ]   10001-15000 [ ]   More than 20 000 [ ]

23. What is your average current income after the financial training?

Below 5000 [ ]   5001- 10000 [ ]   10001-15000 [ ]   More than 20 000 [ ]

C. ACCESS TO FINANCIAL SERVICES

23. Did you participate in saving program?

If yes, how much was your savings amount before participating in savings program?

24. How much is your current savings after participating in the program?

25. Savings Program has increased household savings and expenditure?

Yes [ ]   No [ ]

26. If yes, what was your average monthly expenditure of your household before the saving program?

Below 1000 [ ]   1001- 3000 [ ] 3001-5000 [ ]   More than 5000 [ ]

27. What is your average monthly house household after the saving program?

Below 1000 [ ]   1001- 3000 [ ]   3001-5000 [ ]   5001-10000 [ ]   More than 10000 [ ]

D. ACCESS TO MARKET

28**.** Has your participation in microfinance services improved your accessibility to the market?

Yes [ ]   No [ ]

E. ECONOMIC EMPOWERMENT ON FARMERS

29. How has microfinance services accessed impacted your life?

1. Increased farm productivity [ ]
2. Improved my income from farming [ ]
3. Increased financial independence [ ]
4. Increased saving [ ]
5. Led to self employment [ ]
6. Acquisition of more assets [ ]

30. What impact has microfinance had on your living standards?

1. A lot of positive change
2. Moderate change
3. No change

4. Negative change

30. Has your farming proceeds improved as a result of microfinance services accessed?

Yes [ ]   No [ ]

31. Kindly indicate other ways in which microfinance services have contributed towards growth and development of your small scale farming.

………………………………………………………………………………………………………

32. What is the effect of microfinance services as far as facilitating your economic empowerment is concerned?

………………………………………………………………………………………………………

………………………………………………………………………………………………………

33. What are some of the challenges that hinder your empowerment economically as a farmer?

1. Lack of finances
2. Lack of financial management
3. Inadequate financial literacy
4. Lack of market for your products

Thank you for your participation and responses.

Appendix II: Raw Data

$$Y=\alpha+\beta_1 X_1+\beta 2 X_2+\beta 3 X_3+\varepsilon$$

Where y= Dependent variable (economic empowerment of small scale farmers)

a= is the constant

β'*S* = coefficients to be estimated

X_1 = Access to credit

X_2= provision of financial literacy

X_3= Access to market

ε = error term

X1	X2	X3	Y
43	32	32	32
38	27	21	28
42	34	27	27
24	17	31	23
42	24	27	21
34	28	26	29
31	28	27	22

20	28	26	23
34	32	30	31
29	28	28	28
27	32	30	29
32	31	28	31
25	38	36	33
38	56	54	49
42	42	38	41
37	32	34	35
38	36	37	36
41	38	54	42
42	38	39	41
29	29	26	27
27	31	30	28
32	28	26	27
31	29	30	32
29	28	27	28
25	29	30	27

33	29	31	30
44	48	42	45
51	47	38	44
41	38	28	37
32	30	29	28
33	36	27	31
25	29	27	26
32	29	28	27
48	45	37	38
25	22	21	23
48	45	42	38
44	42	39	41
35	28	27	24
23	22	21	22
19	14	11	12
18	17	15	14
17	16	13	12
12	13	4	7

13	11	9	11
14	6	5	9
9	7	8	7
10	8	11	12
9	6	10	8
22	14	15	17
17	12	18	16
22	17	18	19
9	8	7	8
11	9	8	8
10	9	14	13
9	13	11	9
23	19	21	18
21	19	18	20
19	14	11	15
8	13	14	13
22	25	12	21