IMPACT OF MICROFINANCE ON POVERTY ALLEVIATION IN
KAKAMEGA COUNTY, KENYA

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D61/60584/2010

A MANAGEMENT RESEARCH PROPOSAL SUBMITTED IN PARTIAL
FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF A MASTER OF
BUSINESS ADMINISTRATION(MBA) DEGREE, SCHOOL OF BUSINESS,
UNIVERSITY OF NAIROBI.

NOVEMBER, 2011
DECLARATION

This management research project is my original work and has never been presented for the award of a degree in any other university.

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ACKNOWLEDGEMENT

I wish to recognise the invaluable assistance of my supervisor, Mr. Luther L.O. Despite his busy schedule he was able to spare adequate time to guide me through writing this proposal. He also offered very constructive criticism and encouraged me to draw from the classroom knowledge and read widely to come up with a thorough research paper.

My appreciation also goes to my dear mum, Jemmimah Muli and late dad, Joel Muli Maingi for their support, gift of education, and virtues of hard work that they instilled in me at an early age. They have always been the source of inspiration for advancement of my studies.
DEDICATION

Dedicated to students and practitioners in this novel and exciting field of microfinance
ABSTRACT
Various researches seeking to investigate the impact of microfinance on poverty alleviation have been carried out in different locations across the world. But the most notable thing is the fact that there seems to be no consensus on the research findings. Therefore, this research seeks to find out the impact of microfinance on poverty alleviation in Kakamega County, Kenya. Governments, donor agencies, and private investors are funding an increasing number of microfinance programs in low-income countries. The findings of this research would enable all these financiers to know if their efforts are creating a meaningful impact on poverty alleviation, and also inform them about the areas they need to make improvements in order to achieve the end goal more effectively.

A sample survey research design is employed in this study. This enabled the researcher to give adequate attention to each return received from the respondents in order to enhance accuracy. All the microfinance institutions (MFIs) operating within the county are involved in the study with a proportionate sample of beneficiaries being obtained from each MFI on the basis of customer numbers. A likert scale questionnaire is used to measure the respondents' perceptions about the impact of microfinance.

Descriptive and inferential statistics are used for the purpose of data analysis. Mean is used to measure the average satisfaction level, standard deviation to measure the extent of diversity of respondents' opinions (agreement level), Z-test to measure the extent of impact for the different constructs that constitute poverty alleviation, and Chi-square to measure the general relationship between microfinance and poverty alleviation. The research finds out that microfinance has had a positive impact on the various dimensions that constitute poverty alleviation.

The research concludes that microfinance has led to poverty alleviation in Kakamega County, Kenya. However, the MFIs are only able to reach a limited number of beneficiaries. Therefore, its incumbent upon the government and other players to enhance the outreach of MFIs by offering the requisite resources and an enabling legal environment.
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LIST OF ABBREVIATIONS

ASCRAs- Alternative Savings and Credit Associations
CBS- Central Bureau of Statistics
CIDA – Canadian International Development Agency
CPI – Consumer Price Index
KADET – Kenya Agency for the Development of Enterprise and Technology
K-Rep –Kenya Rural Enterprise Programme
KWFT – Kenya Women Finance Trust
MDGs- Millenium Development Goals
MFIs- Microfinance Institutions
NGO – Non-Governmental Organisation
OMIS – River Basin Development Organisation
PRSP- Poverty Reduction and Strategy Paper
ROSCAs- Rotating Savings and Credit Associations
SMEP- Small and Micro-enterprises Programme
USAID – United States Agency for International Development
CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter gives an overview of the study. A background of the study is given which brings out the research problem. Research questions are posed and the research objectives clearly stated. The value of the study is also highlighted. Finally, a conceptual framework depicting operationalisation of study variables and how they interact is given.

1.1 Background

Poverty is a big problem in the world. It is a global phenomenon. However, according to World Bank (2006), there is no place where extreme poverty is more evident than Sub-Saharan Africa. Almost 50% of the population live on under a $1 a day-the highest rate of extreme poverty in the world. Kenya is ranked as among the world’s 30 poorest countries (Watkins et al., 2006). The Kenya Bureau of Statistics Poverty Index Report of 2003, described most regions of Kenya as having high levels of hunger and extreme poverty.

1.1.1 Causes of Poverty

The causes of poverty are multi-faceted: economic, social and political; national (macro) and micro. One of the key causes of poverty is macro-economic instability. For instance empirical evidence in Phillipine demonstrated that despite a GDP growth of more than 4% over a period of three years, the poverty head count increased because of the, average inflation of 13.9% which was recorded over the same period (World Bank, 2000). Secondly, the links between rapid population growth and persistent poverty have been well established. It reduces growth in per capita incomes and thus savings. Population growth also outpaces the capacity of industry to absorb new labour hence unemployment. According to Orbeta (2002), high fertility is associated with decreasing investments in human capital (health and education). Empirical analysis shows that population is not the only cause of the poor performance of economy, but is the most significant one, ahead of corruption for example (World
Bank, 2000). Thirdly, it has been established that there is a bi-directional causal relationship between poverty and conflict. Conflict causes poverty, and poverty can be one of the causes of conflict. Goodhand (2001) discussed that conflict is both direct and indirect cause of poverty. Fourthly, there is also a bi-directional causal relationship between poverty and disability. Disabled people are disproportionately found among the poorest of the poor in all parts of the world, and the disabled tend to be chronically poor (Schelzig, 2005). The fifth and fundamental cause of poverty is unemployment. Unemployment and under-employment are key determinants of poverty (Schelzig, 2005).

An array of poverty alleviation strategies have been suggested by various players. Some of the most popular strategies are discussed below. It has been established that countries that have been able to achieve rapid poverty reduction-Chile, China, Costa Rica, Indonesia, The Republic of South Korea have done so through sustained per capita economic growth (Rodrik, 2003). Another strategy is having more open political processes which mobilise pro-poor stakeholders. An example is free primary education, a key demand of the poor, which occurred in some East and Southern-African countries (Fox and Liebenthal, 2006). Thirdly, another popular strategy is that of forging regional economic integration. For instance, the lack of regional economic integration has meant that Africa, a large and sparsely populated continent has not been able to achieve economies of scale in areas such as resource development and regional infrastructure networks (World Bank, 2006).

1.1.2 Microfinance

It is now widely recognised that development needs to be based on a broadly owned strategy that empowers the poor. In an attempt at alleviating poverty, governments, donor agencies, and private investors have identified one of the key solutions as that of building a critical mass of the population participating in economic activity. In 2006, the Nobel Committee while awarding a Nobel Peace Prize to Professor Yunus Mohammad pointed out that sustainable development cannot be achieved unless large population groups find ways in which to break out of poverty. Microfinance has been suggested and indeed used as a tool towards this endeavour across the world because it assists in mainstreaming the poor into economic participation through provision of
credit and other financial services. Kenya has not been left behind, courtesy of
government and donor community efforts. One of the key causes of poverty in the
Kenyan economy is the high rate of unemployment. Sabana (2003), argues that this has
consequently forced many Kenyans into self-employment and other informal
activities. She further points out that the big challenge however is lack of access to
finance among the poor. The traditional banking system is elitist and inaccessible to
the poor because the banks are wary of the attendant credit risk and high transaction
costs.

The concept and practice of micro-finance has of late gained a lot of urgency in Kenya.
This is upon realisation that there is an urgent need to empower the poor by way of
availing affordable credit to them for sustainable economic development. This is seen
by way of legislation and efforts from top government officials including the president
and ministers. In 2006, Kenya enacted the micro-finance Act which provides a
framework for regulation of micro-finance activities. In addition, development
organisations and policy makers have included access to credit for people as a major
aspect of many poverty alleviation programmes. The basic idea of micro-finance is
simple: If poor people are provided access to financial services, including credit they
may very well be able to start or expand a micro-enterprise that will allow them to
break out of poverty (Yunus, 2006). Some of the notable programmes locally and
internationally that have identified micro-finance as one of the solutions to poverty
includes: Millenium Development Goals (MDGs); Poverty Reduction and Strategy
Paper (PRSP); Economic Recovery Strategic Paper for Wealth and Employment
Creation; and Vision 2030 etc.

1.1.3 Impact of Microfinance on Poverty in Different Contexts

Theorists across the world have either supported or criticized the effectiveness of
microfinance as a poverty alleviation tool. For instance, economist Adams and Von
Pische (1992) have argued that debt is not an effective tool for helping most people
enhance their economic conditions - be they operators of small farms or micro-
enterprises, or poor women. In most cases lack of formal loans is not the most pressing
problem faced by these individuals. On the other hand, Mohammad Yunus (1994),
states that “If we are looking for one single action which will enable the poor to
overcome their poverty, i will go for credit". Empirical studies have been carried out over time in different regions to verify these theories. The most commonly used impact indicators are household income, expenditure patterns, vulnerability, and women empowerment.

The empirical evidence on the impact of microfinance on poverty alleviation across the world is as conflicting as the theories themselves. At the household level, most impact assessment studies have found that borrowers of micro-finance institutions experience positive impacts, asset accumulation and consumption (Sebstad and Chen, 1996). Hulme and Mosley (1996) found a trade-off between changes in income and vulnerability: Poverty as measured by income can be reduced by borrowing, but such debt can make the poor more vulnerable because of added risks associated with borrowing. Many qualitative and quantitative studies have documented how access to financial services especially those targeting poor women has improved the welfare of women within the family and community making them more assertive (Mayoux, 1999). A study of El-salvador found that development of successful enterprises and improvement of the income of very poor people were conflicting goals. Programs that selected those enterprises most likely to be successful for credit and training moved away from the poorest clientele (Tomlison, 1995). In Johnson and Rogaly (1997), 'from five case studies in Mexico, Pakistan, the United Kingdom, Gambia and Ecuador, and from case studies conducted by other researchers, Johnson and Rogaly (1997) conclude that most micro-finance programs are unlikely to improve the income of the poorest people but do have an impact on better-off but still poor, people. A study from India supports the conclusion that there are strong limits to the ability of the poorest to absorb and take advantage of credit. Among such limits were lack of skills, technology and marketing opportunities (Mayoux, 1997).

1.1.4 Kakamega County

Western Kenya made up of two provinces-Nyanza and Western (Kakamega County), is one of the most densely populated areas of sub-Saharan Africa with a high level of hunger and extreme poverty with a population ranging from 58 per cent to 68 per cent living below poverty line (Republic of Kenya, Central Bureau of Statistics, 2003). Population density of over 1,000 per square kilometre has been described as a stressor.
that may induce shifts in livelihood strategies (Tittonell, 2008). Potable water, paved roads, electricity, and most other infrastructure are all scarce in western Kenya. Over 21 per cent of the region’s children < 5 years of age are malnourished and underweight. Adult HIV/AIDS prevalence rate is estimated at 30%, resulting to numerous deaths, a large pool of orphans and several child-headed homes.

Kakamega County is a county in Western province of Kenya. It has a population of 1,660,651 according to the 2009 census and an area of 1,395 sq. Km. The larger county has seven divisions: Kabras, Shinyalu, Navokholo, Lurambi, Ikolomani, Ileho and Municipality divisions. Average population density is 495 persons per sq. Km. Local inhabitants are mostly Luhya tribe, whose economic activity is mainly farming and fishing. The main sources of income are: Sale of farm produce, Petty trade, casual/waged labour, Maize, livestock and livestock products, brokerage services and Boda-Boda transport (bicycles and motor cycles).

1.2 Statement of the Research Problem

Microfinance has been used by governments, donor agencies, and private investors across the world as one of the tools for poverty alleviation. Kenya has not been left behind. So, does microfinance actually lead to poverty alleviation? To answer this question, impact assessment studies have been conducted on different levels across the world. However, most interestingly different researches have returned conflicting verdicts. In a study from Ecuador, Berger and Buvinic (1989) found that clients of the NGO FED experienced improved welfare. In Chile, Time (1995) demonstrated that the MFI, Bonco Del Desanollo led to increased consumption among households, improved quality in children’s education, increased income and improved employment generation. Hulme and Mosley (1996) found evidence of women being less isolated after joining a microfinance program. In a study of five group based microfinance programs from South Asia, Bernett and Goldberg (1993) conclude that all five programs had strong impact on women’s sense of empowerment.

Some researchers however, find evidence that the impact of micro-finance programs may be negative. Hulme and Mosley mention several examples. In Bolivia, 10-15 Per cent of Bancosol’s client enterprises go bankrupt. In Bangladesh, drop-out rates for MFIs range between 10-25 per cent. In India, many programs have had negative
impact on women, such as costs related to heavier workload and control and mis-use of their loans by men (Mayoux, 1997).

Therefore, it is evident that there is less consensus about to what degree, how and when the problem of poverty can be reduced through microfinance. This has triggered my curiosity to find out the situation in the Kenyan context. What about Kenya? Have microfinance efforts led to poverty alleviation in Kenya?

1.2.1 Research Questions

This research seeks to answer the following questions:

- Has provision of microfinance services increased income generation among the beneficiaries?

- Has provision of microfinance led to increased savings among the beneficiaries?

- Has provision of microfinance services led to empowerment and enhancement of beneficiaries’ dignity (women)?

- Has provision of microfinance services led to improved financial management among the beneficiaries?

- Has provision of microfinance services led to accumulation of more assets among the beneficiaries?

- Has provision of microfinance services led to enhanced access to healthcare and educational services?

- Has microfinance led to creation of employment opportunities?

1.3 Objective of the Study

The objective of this research is to find out whether micro-finance has had an impact on poverty alleviation in Kakamega County, Kenya.
1.4 Value of the Study

The rapidly growing micro-finance industry has profound implications for social and economic development. It is important to ensure that MFIs meet their noble goals of: eradicating poverty; promoting gender equality and empowering women economically; ensuring access to financial services which previously were available only to the upper and middle income population; and developing global partnership for development.

The phenomenal development of micro-finance over the years has attracted the attention of donors, policy makers, as well as academicians who question their relevance and effectiveness.

This study will therefore help:

Micro-finance institutions: To understand the poor and low-income clients. This will be essential for identifying niche markets, designing appropriate products and services, and developing and maintaining client loyalty.

Government and Policy Makers: To create enabling environment for the creation, proper regulation, and expansion of micro-finance institutions. To understand the operations and impact of MFIs better and hence create a regulatory framework that will foster their success.

Donors: To know whether their funding is generating the desired objective of poverty reduction, and if their resources are being properly utilised.

Academicians: To add to the body of knowledge in the novel micro-finance sub-discipline. This will form a foundation for further and future research on micro-finance.

1.5 Conceptual Framework

Impact refers to the effects of micro-finance on the livelihoods and welfare of their clients. This paper will explore the possibilities and limitations of poverty reduction through micro-finance.

Microfinance can generate various outcomes as outlined below:
Independent variable includes the services offered by various micro-finance providers. They include loans, insurance, savings and training.

Contextual factors are external circumstances such as regulatory frameworks and local infrastructure that may affect the outreach of micro-finance institutions and the welfare of micro-enterprises and households. Other sources of financial services can also impact the welfare of microfinance beneficiaries.

Together, these conditions constitute the basis for poverty reduction through micro-finance.

Change in client’s income is the main impact of micro-finance. However, income generation is not a direct result of use of financial services and not always the main reason for demand and supply of such services.
- Financial services provide a means to manage money, and more efficient financial management constitutes one of the main financial impacts of microfinance. Improved money management can enable income generation, reduce vulnerability and empower individuals and household.

- Improved living standards enhances access to education and healthcare. Increase in income also leads to purchase of more assets and creation of employment opportunities for both beneficiaries and the wider society.
2.0 Introduction

This chapter reviews theoretical and empirical literature on the relationship between microfinance and poverty alleviation. Different dimensions of microfinance and their attendant impact are discussed. The concept of poverty has also been analysed. Consequently, the research gap comes out clearly.

2.1 Concept of Microfinance

Microfinance refers to small-scale financial services—primarily credit, savings and insurance. It offers poor people access to basic financial services, such as loans, savings, money transfer services, and microinsurance. Savings services allow savers to store excess liquidity for future use and to obtain returns on their investments. Credit services enable the use of anticipated income for current investment or consumption. Overall, microfinance services can help low-income people reduce risk, improve management, raise productivity, obtain higher returns on investments, increase their incomes, and improve the quality of their lives and those of dependents (Robinson S, 2001).

Such services are rarely accessible through the formal financial sector, however. Credit is widely available from informal commercial moneylenders but typically at very high cost to the borrowers—especially poor borrowers. Banks generally assume that providing small loans and deposit services would be unprofitable. The successful development of large-scale-savings and credit services for economically active low-income people in different occupations was too complex for the tools of any one discipline. But gradually a financial systems approach developed that joined principles of commercial finance with the growing knowledge of the demand for financial services among poor people in developing countries. What resulted was a model for financing the economically active poor through profitable financial institutions.
The Canadian International Development Agency (CIDA) defines microfinance as, "the provision of a broad range of financial services to poor, low income households and micro-enterprises usually lacking access to formal financial institutions" (CIDA, 2002).

2.1.1 Methodology of Microfinance

Most of the microfinance institutions provide credit on a solidarity-group lending basis without collateral. Some MFIs start with one methodology and later on diversify to another methodology so that they do not exclude certain socio-economic categories of clients. So, it becomes important to have a basic understanding of methodologies and activity of MFIs (Murray and Boros, 2002).

Various approaches to credit for micro and small enterprises have been tried by different institutions with varying degrees of success and failure. Major approaches include: Minimalist versus integrated approaches; Group based lending versus lending to individuals; village banking and linkage programs.

Minimalist approaches and group based lending have been very popular and much tried by leading NGOs in the field of micro-finance. Minimalist approaches basically concentrate on the provision of loans giving no or atmost some functional attention to training or technical assistance (Henderson and Kuru, 1997).

Group based lending schemes have been very often based on the Grameen Bank method. This method has been designed and developed in Bangladesh with a view to deliver financial services to the poor, who have no access to formal banking services. Key features of Grameen Bank method are:

-Group lending approaches: Organisation of clients into groups or use of informal groups for purposes of attaining economies of scale from the small scale transactions and instituting group guarantee mechanisms.

-Character Based Credit Appraisal: Is based on character assessment rather than traditional collateral (ownership of land or other assets) and viability of projects to be financed.
Focus on Micro-Enterprise: A special focus on financing very small business and the poor.

Unlike MFIs, there are very few conventional financial institutions which provide individual loans to low-income people because poorer clients are considered higher risk clients due to their lack of collateral, plus the labour-intensive nature of the credits and hence the lack of profitability of small-credits (Murray and Boros, 2002).

2.2 Concept of Poverty

Poverty is a complicated concept. Poverty is a condition in which a person of community is deprived of the basic essentials and necessities for a minimum standard of living. The basic essentials may be material resources such as food, safe drinking water and shelter, or they may be social resources such as access to information, education, healthcare, social status, political power, or the opportunity to develop meaningful connections with other people in society.

According to the world Bank’s (1980) definition of poverty, “A condition of life so characterised by malnutrition, illiteracy, and disease as to be beneath any reasonable definition of human decency”. Extreme poverty is the most severe state of poverty, where people cannot meet their basic needs for survival, such as food, water, clothing, shelter, sanitation, education and health care. To determine the number of extreme poor people around the world, the World Bank characterises extreme poverty as living on the daily income of US $ 1 or less. Moderate poverty indicates the condition where people earns about $1 to $2 a day, which enables households to just barely meet their basic needs, but they still have to go for many of the other things—education, healthcare—that many of us take for granted. Finally, relative poverty means that a household has an income below the national average income (Ghalib A.K, 2007).

2.2.1 Causes of Poverty

The causes of poverty are multi-faceted: economic, social and political; national (macro) and micro. The following are some commonly discussed causes of poverty:

Economic growth is a necessary pre-condition for poverty reduction, but the quality of that growth is important, and not all growth is pro-poor. The philippine empirical
evidence demonstrates that the poverty head count declines when the growth rate of average family income is higher than the rate of inflation (World Bank, 2000).

Labour is the most important asset of the poor. Unemployment and under-employment are thus key determinants of poverty, as is the sector of employment. In Malaysia, of the 16.4% of families whose heads were unemployed in 2000, 15.7% were poor. Of the employed households, poverty rates were higher among the self-employed than the wage earners, 36.5% and 23.6% respectively (Schelzig, 2005). One of the key causes of poverty in the Kenyan economy is the high rate of unemployment. Sabana (2003), argues that this has consequently forced many Kenyans into self-employment and other informal activities.

The larger the family, the more likely it is to be poor. Orbeta (2002) reviews the empirical evidence to show that high fertility is associated with decreasing investments in human capital (health and education), children in large families perform less well in school, have poorer health, lower survival probabilities, and are less developed physically. The problem is one of resource dilution, where each additional child means a smaller share of family resources including income, time and nutrition. The empirical analysis shows that population is not the only cause of the poor performance of economy, but it is the most significant one, ahead of corruption for example (World Bank, 2000).

There is a bi-directional causal relationship between conflict and poverty. Conflict causes poverty, and poverty can be one of the causes of conflict. Goodhand (2001) discusses that conflict is both direct and indirect cause of poverty. Direct impacts are death, disablement and displacement. Chronic poverty is likely to increase as a result of loss of bread winners, higher dependency ratios, and so on. Poverty as a cause of conflict is also indirect. Uneven development processes lead to inequality, exclusion and poverty. This contributes to growing grievances, especially when poverty coincides with ethnic, religious, language or regional boundaries. Underlying grievances can explode into open conflict. Few people argue that poverty directly causes conflict, but research points to the importance of extreme inequalities as a source of grievance that can be exploited by leaders to mobilise followers and to validate violent actions (Goodhand, 2001).
The causal relationship between disability and poverty is also bi-directional. First, poverty causes disability. Not all disability is caused by poverty, but poor people are more likely to have poor health, poor living conditions. Disability causes poverty: Exclusion and marginalisation of disabled people reduces their opportunities to contribute productively to the household and to the community, which in turn increases the risk of poverty. Disabled people are disproportionately found among the poorest of the poor in all parts of the world, and the disabled tend to be chronically poor (Schelzig, 2005).

### 2.2.2 Poverty Alleviation Strategies

Some of the most popular poverty alleviation strategies from the development discourse are articulated below:

Countries that have been able to achieve rapid poverty reduction—Chile, China, Costa Rica, Indonesia, The Republic of South Korea—have done so through sustained per capita economic growth (Rodrik, 2003). Sustained growth requires stable and sound economic fundamentals at all levels. Poverty reduction can be achieved when the political system is able to support stable economic policies in a nationally led environment of gradual but continuous reform. By putting the essential building blocks in place early—consistently good macro-economic management, trade openness, and a focus on getting services to the poor, especially in rural areas—and sticking with the vision as it started to show results (Fox M.L & Liebenthal R, 2006).

Competitive economic environment and innovation can alleviate poverty. The development of Kenya’s horticultural industry demonstrates the potential of private sector led development of high-value exports to create income opportunities for farmers and workers. Over a 30 year period horticulture exports have grown to become Kenya’s second largest foreign exchange earner—and they are expected to over-take the current leader, tea, in a few years. Both entrepreneurs and workers have benefitted, with employees and self-employed contract farmers earning higher incomes than they could outside the sector, helping to lift their families out of poverty (World Bank, 2006).
Political Processes which Mobilise Pro-Poor Stakeholders often produces success stories, but leadership is key in translating that mobilisation into practice. An outstanding example is South-Africa’s drive to extend water supply to 7 million additional rural consumers after 1994-apartheid. Another example is the spread of free primary education, a key demand of the poor, which occured in some East and Southern African countries when politicians began needing votes (Fox M.L & Liebenthal R, 2006).

2.3 Savings and Poverty

In 1984, Robert Vogel (1984) Called savings “the forgotten half of rural finance”. For more than 20 years Dale W. Adams, his colleagues at Ohio State University, and others have argued that there is large demand for financial savings in rural areas of developing countries, and that savings is more crucial for micro-finance clients than credit. Yet savings remains forgotten in much of institutional micro-finance, rural and urban.

All over the world, however, the economically active poor save in a variety of forms, financial and non-financial. They save at home, in rotating savings and credit associations (ROSCAs), and in other savings and loan associations. Opinions on the role of savings in institutional commercial micro-finance, as expressed in the literature on rural development and local financial markets, vary greatly—from utter neglect to aggressive skepticism (Schmidt and Zeitinger 1994) to advocacy of specialised deposit institutions for micro-savings (Gadway and O’Donell 1996) to the strong advocacy of savings mobilisation.

In some countries government regulations—such as mandated interest rate spreads that are too low for institutional profitability—impede the mobilisation of micro-savings. Other obstacles may result from authorities’ inability to supervise institutions that capture voluntary microsavings. Where they exist, these issues are crucial. Other obstacles are found under particular circumstances. Thus savings cannot be mobilised cost-effectively in areas that are very sparsely settled, where basic infrastructure is lacking, or where monetization is low. To resolve the kinds of problems, there is no alternative but to change the regulation or improve the infrastructure.
However, three major obstacles to mobilising micro-savings remain in the minds of beholders in the formal financial sector. Despite substantial evidence to the contrary, it is still widely believed that the poor do not save, or will not save in banks; that the aggregate value of savings of the poor is too small to be worth capturing in the formal sector; and that banks could not collect small savings profitably. These mistaken perceptions can largely be overcome with information, incentives, and political will.

### 2.3.1 Mobilisation of Small Savings

In the late 1960s and the 1970s many articles demonstrated the distortions that had resulted from subsidized rural credit programs. Some of these writings also highlighted the potentially vital but seriously neglected role of rural savings in developing healthy financial institutions and in improving rural financial markets.

A number of economists argued, as Adams (1978) put it, that “financial markets influence the forms in which savings are expressed, as well as the total amount of potential consumption which is diverted to savings.” Adams, Bouman, Vogel, and others suggested that appropriate savings instruments providing positive real rates of return to the household can induce rural people to put more of their savings into financial form. This, in turn, “may increase the average rate of return realised by the household on its savings portfolio and induce the household to divert more of its income to \( S \) (savings-investment activities)” (Adams 1978)

In addition, evidence has shown that household savings are extensive in developing countries, even in low-income economies. In fact, households are especially induced to save in countries where complementary markets (such as credit and insurance) are still at low level of development. A 1962 United Nations study showed that household savings made up one-half to two-thirds of total savings in seven Asian countries. Since then substantial savings by both households and enterprises have been reported from developing countries world wide. Informal savings, as well as savings in formal financial institutions have been widely documented in Asia, Africa, and Latin America.

The argument for specialised savings institutions that do not provide credit (Gadway and O’Donnell 1996) is compelling only in regulatory environments where no other
choice is possible. Under other circumstances government-supervised, sustainable microfinance intermediaries can be encouraged to mobilise savings from the public (Vogel 1995; Robinson 1997). Institutions that begin with savings and move to credit in a second stage represent a possible approach, but one that is usually not necessary. Because there is typically high demand for both services, financial intermediation is normally the better approach for a micro-finance institution that is qualified and licensed to mobilise public savings. In addition, micro-finance has relatively high operating costs, and in most cases the most profitable way to use locally mobilised deposits is to lend them out to credit worthy small borrowers.

2.4 Income and Poverty Alleviation

Development is deeply related to rising income. However, it is true that other variables have also deep relation with development. Goals of development emphasize on the reduction of poverty rather than raising average incomes. All microfinance program targets one thing in general: human development that is geared towards both the economic and social uplift of the people they cater for. Tackling poverty has taken a new broader dimension. Now the escalating income and savings, and building the assets are not only means to fight the poverty. Tackling poverty points to multidimensional concepts that emphasizes on reducing unemployment, infant mortality, maintaining essential healthcare, sanitation, food, nutrition, basic hygiene, establishing gender equality etc (Ghalib, 2007). On the other hand, how these kinds of development can be achieved? It is possible to achieve those development indexes, if disposable income is increased. Without maintaining balance between income and expenditure, it is difficult to tackle poverty.

Financial services help poor and low-income households increase their incomes and build the assets that allow them to mitigate risk; plan for the future; increase food consumption; and invest in education, health, housing, water and sanitation (Coetzee et al, 2003)

Material deprivation is at the core of poverty; low income resulting in poor nutrition, inadequate clothing, and low quality housing. But poverty is not just about income- it also includes deficient command over productive assets and access to key public services. Vulnerability and its resulting insecurity are further characteristics
aggravated by lack of income to make provision for emergencies: Vulnerability to droughts, floods and other natural disasters such as the death or illness of a breadwinner, as well as war and civil disturbance and economic phenomenon such as inflation and market collapses (Sahn, Stifel and Younger, 1999).

The different dimensions of poverty interact in various ways. Poor education and ill health, which are most common among the children of parents with low income, restrict earning potential. Income poverty has been shown to be one of the factors that explain inter-country variations in health outcomes in addition to country’s over all level of economic development (Carrin and Politi, 1995). Greater stocks of assets make the non-poor less vulnerable to external shocks than the poor, and the need of the poor to hold assets as a hedge against shocks mean that they cannot use them as their better-off neighbours.

2.5 Empowerment and Poverty Alleviation

Empowerment refers broadly to the expansion of freedom of choice and action to shape one’s life. It implies control over resources and decisions. For people, that freedom is severely curtailed by their voicelessness and powerlessness in relation particularly to the state and markets. Empowerment is the expansion of assets and capabilities of poor people to participate in, negotiate with, influence, control, and hold accountable institutions that affect their lifes (Parker D.P, 2002).

Since poverty is multi-dimensional, poor people need a range of assets and capabilities at the individual level (such as health, education and housing) and at the collective level (such as the ability to organise and mobilize to take collective action to solve their problems). Empowering poor men and women requires the removal of formal and informal institutional barriers that prevent them from taking action to improve their well-being-individually or collectively-and limit their choices. The key formal institutions include the laws, rules, and regulations upheld by states, markets, civil society, and international agencies. Informal institutions includes norms of social solidarity, sharing, social exclusion, and corruption among others.

Poverty and vulnerability will not be reduced without broad based growth fueled by private sector activity. However, economic growth cannot be sustained if the poor are
Poverty as vulnerability is related to risk. Morduch (1994) mentions that lack of access to consumption smoothing mechanism may be as detrimental to the poor as deprivations in health and nutrition, which are considered as a part of poverty. The poor are often the least insured against risk. For example, Jalan and Ravallion (1999) find that in rural China the poorest wealth decile can only insure 60 per cent of the income shocks but the richest third of households are protected from 90 per cent of the income shocks. Rosenzweig and Binswager (1993) also find that the rich are much better insured than the poor using a data set from India. Risk averse households may choose not to invest in profitable activities because they cannot bear the shocks which may occur (Dercon, 1996). This choice leads them to a low rate of return on their production, often causing poverty.

The two views are different. As Banerjee puts it, "poverty as desperation" means that the household has nothing to lose but "poverty as vulnerability" means that the household is afraid of losses. They are almost opposite to each other. In the first view, the household is passive since it does not have the choice to invest more. In the second view, the household is poor because of its choices.

Due to the effects of risk on poverty, researchers and practitioners are exploring the possible ways to help rural households cope with risk. Formal insurance is one of the ways, in recent years, microfinance institutions and even insurance companies in developing countries have started to provide insurance to low income households (Dercon, 2005). These insurance schemes are designed to better protect the poor households against hardship. Compared to the formal risk sharing networks, these insurance schemes have the advantage that they can insure not only idiosyncratic shocks informal risk sharing networks. However, we need to consider two questions before implementing formal insurance to rural areas of developing countries. First, whether formal insurance is implementable? Second, how much does formal insurance improve the welfare of the household?

The findings in the literature of asymmetric information and moral hazards in general apply to the implementation of formal insurance for rural households (Thomas and Worrall, 2000). Complete insurance will certainly be difficult to implement. If the compensation of insurance is based on farm outputs, how to verify the outputs is
always an issue for the provider of the insurance. Under complete insurance, households income does not depend on their outputs. Therefore, households may not exert enough efforts. An insurance scheme needs to overcome these difficulties.

2.7 Microfinance, Education and Health

Microfinance programs target both economic and social poverty. To assess the success of their efforts, microfinance institutions need to measure the impact on the borrowers. The primary objective of all MFIs intervention is poverty reduction. Poverty reduction is perceived from the economic point of view. On the other hand, MFIs interventions promote living conditions of poor people by offering supportive service. These supportive services are important indicators of human development. As a strategy for removing poverty, microfinance institutions emphasize on improving health of the poor, which is a main concern worldwide and particularly in low-income countries, where the burden of disease is heaviest(Debra, 1998).

Another important goal of MFIs is to spread the light of education through out the society. Development through this program, along with the health program, indicates human development among the people. Their effort and mission is to build up a society free of poverty, illiteracy and disease. Their goals are to expand education opportunities for disadvantaged children and provide them with necessary technical and financial support.

In the developing countries, achieving household food security remains a critical objective of rural development. This can be done in principle by escalating agricultural productivity and off-farm income, thus improving the capability of households to steady their income and food purchasing power. Food security, at the household level, is defined in its most basic form as access, by all people at all times, to the food needed for a healthy life(Zeller et al,2002).

2.8 Research Hypothesis

Based on the literature reviewed above, the following hypotheses is generated. The null hypothesis for this study is:
Ho: Micro-finance has had no positive impact on poverty alleviation in Kakamega County, Kenya.

Which is tested against alternative hypothesis:

-H1: Micro-finance has had a positive impact on poverty alleviation in Kakamega County, Kenya.
CHAPTER THREE
RESEARCH METHODOLOGY

3.0 Introduction

This chapter describes the research design, population of study, data collection procedures, sample design and data analysis framework.

3.1 Research Design

The research design of this study was a sample survey. Data collection procedures that employ interviewing, questionnaire and sampling were used to produce qualitative and quantitative data sets.

3.1.1 Justification

Sampling enables the survey to give more attention to each return received and to make certain that the data are as accurate as possible. This attention may lead to more precise information than would a less careful collection of data from the entire population. Therefore, surveys are useful in describing characteristics of a large population (Kothari, 2010).

3.2 Population

The population for my study was all the beneficiaries of microfinance services in Kakamega County.

3.3 Sample Design

For the purpose of this study, beneficiaries of all ten (10) MFIs in Kakamega county were studied. The ten (10) MFIs and respective number of clients served by each are shown in the table below.
Table 1: Population of study (MFIs beneficiaries)

<table>
<thead>
<tr>
<th>Name of MFI</th>
<th>Est. number of clients</th>
</tr>
</thead>
<tbody>
<tr>
<td>KWFT</td>
<td>7,500</td>
</tr>
<tr>
<td>SMEP</td>
<td>7,000</td>
</tr>
<tr>
<td>FAULU KENYA</td>
<td>6,000</td>
</tr>
<tr>
<td>K-Rep Development Agency</td>
<td>1,800</td>
</tr>
<tr>
<td>KADET</td>
<td>300</td>
</tr>
<tr>
<td>ECLOF KENYA</td>
<td>450</td>
</tr>
<tr>
<td>PRIDE KENYA</td>
<td>1000</td>
</tr>
<tr>
<td>OPPORTUNITY KENYA</td>
<td>800</td>
</tr>
<tr>
<td>RUPIA</td>
<td>500</td>
</tr>
<tr>
<td>DAIMA</td>
<td>250</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>25,600</strong></td>
</tr>
</tbody>
</table>

Source: Regional branch / Unit managers of respective MFIs and Ministry of Trade (Department of social services)

The sampling frame is all the customers of the ten (10) MFIs, that is 25,600 beneficiaries. A sample size of 96 was selected. The sample size is calculated with the mathematical model propounded by the Air University of USA (Air University, 2002).

\[
n = \frac{NZ^2 \times 0.25}{d^2 \times (N-1) + [Z^2 \times 0.25]}
\]

Where, \(n\) = sample size, \(N\) = sample frame, \(d\) = precision level, \(Z\) = number of standard deviation units corresponding to confidence level, 1 = mathematical constant.

\[
n = \frac{25,600 \times 1.96^2 \times 0.25}{0.1^2 \times (25,600-1) + [1.96^2 \times 0.25]} = 95.685
\]

24
Proportionate sampling was used to select the number of beneficiaries to be questioned from each MFI. The basis of the number of beneficiaries selected was the estimated total number of clients served by each MFI. The following table shows the respective proportionate sample sizes obtained from different MFIs.

<table>
<thead>
<tr>
<th>Name of MFI</th>
<th>Number of beneficiaries selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>KWFT</td>
<td>27</td>
</tr>
<tr>
<td>SMEP</td>
<td>25</td>
</tr>
<tr>
<td>FAULU KENYA</td>
<td>23</td>
</tr>
<tr>
<td>K-Rep Development Agency</td>
<td>7</td>
</tr>
<tr>
<td>KADET</td>
<td>2</td>
</tr>
<tr>
<td>ECLOF KENYA</td>
<td>2</td>
</tr>
<tr>
<td>PRIDE KENYA</td>
<td>4</td>
</tr>
<tr>
<td>OPPORTUNITY KENYA</td>
<td>3</td>
</tr>
<tr>
<td>RUPIA</td>
<td>2</td>
</tr>
<tr>
<td>DAIMA</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>96</strong></td>
</tr>
</tbody>
</table>

Table 2: Proportionate sample size per MFI

I went to each of the ten (10) MFIs and selected each 5th client who came to be served at the MFI systematically until I obtained the requisite number of beneficiaries for the purpose of administering the questionnaires.
3.4 Data Collection

"Likert scale" questionnaire was used to measure the respondents' perceptions based on some statements to perceive the impact of microfinance on their overall living standards. The points of scale indicate the degree of satisfaction or agreement level of the household or a person after he/she has received services from a MFI. The questionnaire comprised questions related to income, savings, assets, access to education and healthcare etc.

Secondary data was gathered from individual MFI records and clients personal & business records. I also consulted current sources of information like books, journals, newspapers, magazines and the internet. This information was valuable in understanding concepts, definitions, theories and empirical results.

3.5 Data Analysis

Descriptive and inferential statistics was used to analyse the sample information to explain and make abstractions of population phenomenon.

Impact of microfinance on poverty alleviation was measured by analysing the questionnaire responses from the beneficiaries. The questions were structured to capture all the four indicators of microfinance (i.e micro-credit, savings, micro-insurance and savings). For each indicator of microfinance, questions were asked to obtain beneficiary opinion on how it has impacted on different dimensions that constitute poverty alleviation as operationalised in the conceptual framework (i.e Improved financial management, Income generation, Empowerment and dignity, Asset accumulation, Creation of employment, Improved access to healthcare and education).

3.5.1 One Sample Statistics and Z-test of Different Variables

Descriptive statistics of mean, standard deviation and standard error mean were used to measure the level of satisfaction on the variables captured in the questions. Mean was used to gauge the average level of satisfaction for the various dimensions being measured e.g. A mean of 5 implies that most beneficiaries strongly agree with a given statement in the questionnaire. While a standard deviation of zero means that
beneficiaries are in a complete consensus about the impact of a given dimension (statement). The below shows a framework to be used for analysis.

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>e.g Increase in income</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3: General descriptive statistics

All the statements in the questionnaire were examined on the basis of the following few examples given. For instance:

(a) To examine the statement, “interest rate of micro-credit is reasonable or not”, i developed an hypothesis and set the level of significance for rejecting/accepting the hypothesis. I took the null hypothesis to be, borrowers are less satisfied than the average level of satisfaction (2.5), in terms of the interest rate of microcredit. Therefore, the alternative hypothesis is the borrowers are satisfied more than the average satisfaction level.

(b) To examine the statement, “the procedure of obtaining loans from MFIs is easier or not than conventional banking”. I developed a statistical test to check the comfort level of the people obtaining the loans from MFIs in comparison to the traditional banking. My null hypothesis was that obtaining loans from MFIs, is not easier than conventional banking. The alternative hypothesis is the procedure of obtaining loans is easier than conventional banking.

(c) A mean level of financial management skills from respondes was obtained according to the degree of satisfaction within the likert scale. Then the Z-statistic and significance level were applied to either accept or reject the null hypothesis.

(d) The mean and standard deviation for the satisfaction level for employment opportunity, was calculated. The null hypothesis was then tested on the basis of corresponding Z-statistic and the significance level.
CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.0 INTRODUCTION

This chapter presents the empirical findings obtained from the collected data. It provides information about the perceptions of respondents on the impact of microfinance on poverty alleviation in Kakamega County, Kenya.

4.1 Reliability of Collected Data

To test reliability of the collected data, I calculated Cronbach’s Alpha Co-efficient to ascertain internal consistency of the likert scale questionnaire that I used for data collection. The general rule of thumb is that a co-efficient of not less than 0.7 lends credence to the internal consistency of the items used to measure the construct (Gliem A.J and Gliem R.R, 2003)

From the analysis shown in the appendix, I obtained a co-efficient of 0.9524. This is a strong indication that the data collection tool that I used is very reliable.

Cronbach’s $\alpha$ is a reliability coefficient based on the average covariance among items in a scale. We assume that items on a scale are positively correlated with each other because they’re all tapping into the same construct; that is, they’re all measuring a common entity (some items may need to be reverse scored so that they are all positively correlated). The average correlation of an item with ALL OTHER ITEMS IN THE SCALE tells us about the extent of the common entity.

Because $\alpha$ can be interpreted as a correlation coefficient, it ranges in value from 0 to 1. (Negative $\alpha$ values can occur when items aren’t positively correlated among themselves and the reliability model is violated.). Anything above 0.7 is considered.
4.2 One Sample Statistics and Z-test of Different Variables

The following table displays the mean, standard deviation, standard error mean, and limits within which the sample mean falls at 95% confidence level using Z-test for ten variables: financial management, change in income, change in savings, empowerment and dignity, asset accumulation, employment opportunities, access to education and healthcare, protection of business from risk exposure, reasonability of MFI services, and family standard of living. All the variables show the satisfaction level to be more than average level of satisfaction (2.5).

The following table gives an analysis of the descriptive statistics concerning the different dimensions that constitute poverty alleviation. The analysis is based on the responses obtained from the respondents. An interpretation of the results is also given there of.
<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Mean / Interpretation</th>
<th>Standard Deviation</th>
<th>Standard Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Improved Financial Management</strong></td>
<td>96</td>
<td>3.95</td>
<td>0.834</td>
<td>±0.01668</td>
</tr>
<tr>
<td><strong>Increased Income</strong></td>
<td>96</td>
<td>4.20</td>
<td>0.398</td>
<td>±0.07957</td>
</tr>
<tr>
<td><strong>Increased Savings</strong></td>
<td>96</td>
<td>4.75</td>
<td>0.433</td>
<td>±0.08663</td>
</tr>
<tr>
<td><strong>Empowerment and Dignity</strong></td>
<td>192</td>
<td>4.39</td>
<td>0.643</td>
<td>±0.09094</td>
</tr>
<tr>
<td><strong>Asset Accumulation</strong></td>
<td>192</td>
<td>4.03</td>
<td>1.013</td>
<td>±0.14328</td>
</tr>
<tr>
<td><strong>Employment Creation</strong></td>
<td>192</td>
<td>3.43</td>
<td>1.148</td>
<td>±0.16248</td>
</tr>
<tr>
<td><strong>Increased Access to Education and Health care</strong></td>
<td>192</td>
<td>4.45</td>
<td>0.619</td>
<td>±0.08761</td>
</tr>
<tr>
<td><strong>Protection from Risk Exposure</strong></td>
<td>288</td>
<td>3.47</td>
<td>1.060</td>
<td>±0.1225</td>
</tr>
<tr>
<td><strong>Reasonability of MFI services(interest rates and procedures)</strong></td>
<td>192</td>
<td>3.54</td>
<td>1.103</td>
<td>±0.15602</td>
</tr>
<tr>
<td><strong>Family Standard of Living</strong></td>
<td>96</td>
<td>4.88</td>
<td>0.688</td>
<td>±0.13759</td>
</tr>
</tbody>
</table>

Table 4: General Descriptive Statistics and One-Sample Z-test

To examine the different variables captured in the table above, I developed hypotheses and picked 5% significance level as the benchmark for rejecting/accepting the
hypothesis. Survey respondents indicated their perceptions using the scale, with 5= strongly agree and 1= strongly disagree. Therefore, the average level of satisfaction is 2.5. The different variables are analysed as follows:

To examine the statement, microfinance has led to improvement in financial management among the beneficiaries or not, I developed a null hypothesis to be, beneficiaries are less satisfied than the average level of satisfaction (2.5), in terms of improvement in financial management. Therefore, the alternative hypothesis is the beneficiaries are satisfied more than the average satisfaction level. The analysis in the table demonstrates that the null hypothesis is rejected and it is strongly significant. So, my results are in favour of alternative hypothesis. This means that the satisfaction level of the respondents, about acquisition of financial management skills, is more than the average satisfaction level. From this study, I conclude that the level of average satisfaction is high. This is in concurrence with the analysis captured in the literature review also where different researchers have generally concluded that microfinance leads to acquisition of financial management skills among the beneficiaries.

To examine the statement, whether microfinance has led to increase in income levels among the beneficiaries or not, I developed a null hypothesis to be, beneficiaries are less satisfied than the average level of satisfaction (2.5), as far as increase in income is concerned. The alternative hypothesis is the beneficiaries are satisfied above the average level of satisfaction. From the results of my analysis, I accept the alternative hypothesis and reject null hypothesis. Therefore, microfinance beneficiaries have experienced increased income levels with quite high average level of satisfaction. The result of this analysis is borne out by most previously researches discussed in the literature review, where beneficiaries generally experienced improved income levels.

My analysis also demonstrates that microfinance beneficiaries are quite satisfied that their savings have increased. The analysis is based on the null hypothesis that the satisfaction is below the average level (2.5). This was tested against the alternative hypothesis that beneficiaries are more satisfied than the average level of satisfaction. Therefore, the null hypothesis is rejected in favour of the alternative hypothesis. This is a result that was obtained in most researches captured in my literature review. This
Microfinance has empowered beneficiaries at the household level and enlightened them more on the wider societal issues e.g politics. For the purposes of measuring this dimension, I developed null hypothesis that the beneficiaries are less satisfied than the average level of satisfaction. The alternative hypothesis was that beneficiaries are satisfied above average. The results of my analysis vindicates the alternative hypothesis and disapproves the null hypothesis. This result is in agreement with the discussion in my theoretical framework where theorists and researchers have asserted that microfinance gives the beneficiaries a "voice" in the society and more so the women.

Residents of Kakamega County have accumulated more assets as a result of microfinance. This is based on the response to the question, "has microfinance led to increase in assets"? My null hypothesis was based on an assumption that microfinance has not led to increase in asset accumulation and therefore beneficiaries satisfaction level is below average. However, as can be seen in the analysis table, the respondents are in favour of the alternative hypothesis, that they are satisfied more than the average level of satisfaction. Building assets has been described in my review as one of the means to breaking out of poverty. Microfinance has been discussed as one of the enablers. This literature has further been vindicated by my findings.

Employment creation as a goal of microfinance is supported by respondents as achievable. Beneficiaries are satisfied above average that microfinance has led to employment opportunities albeit at a lesser scale in comparison to the rest of the indicators analysed above. Once, again my null hypothesis that microfinance has not led to creation of employment is rejected. I accept the alternative hypothesis that microfinance has created employment opportunities. It has been discussed in the literature review that microfinance is one sure way to create employment. This assertion has been supported by my analysis. Although, the level of employment creation has not been as high as would have been expected.

Increased access to education and healthcare are the key social indicators of poverty alleviation. Residents of Kakamega county, have owned up that microfinance has indeed enhanced their access to these crucial essentials. The results depicted in my
analysis table above led to the rejection of my null hypothesis, that microfinance has not led to enhanced access to education and healthcare among the beneficiaries. The alternative hypothesis won to the extent that microfinance has led to increased access to education and healthcare services. My literature has put alot of emphasis on these social indicators of poverty alleviation as facilitated by microfinance. The analysis has indeed demonstrated that microfinance has enhanced access to these critical social services.

Many potential low income investors have shied away from taking up investment opportunities because of the attendant risk. My analysis above confirms that microfinance has protected beneficiaries against risk exposure and enabled the to invest without fear. I had developed a null hypothesis that the beneficiaries are less satisfied below average level about coverage against business risk exposure by microfinance. However, their response was to a greater extent in agreement that microfinance has provided protection against risk although the sentiment was not as strong. Therefore, i accepted the alternative hypothesis. The literature review has in detail discussed how microfinance reduces vulnerability among the poor. The analysis above supports this argument.

The mainstream banks are elitist and inaccessible to the poor. Microfinance has modelled products to reach the poor segment of the society. But are microfinance beneficiaries happy with product and service offerings especially as regards interest rates and the requisite procedures before accessing the services? I developed a null hypothesis that, the beneficiaries are less satisfied below average level of satisfaction. The results of analysis indicate otherwise, that beneficiaries are above average in agreement about the reasonability of MFI services. The alternative hypothesis is embraced by the results of analysis although there is a high degree of diversity of opinions as can be seen in the relatively high standard deviation. The degree of consensus on the reasonability of MFI services vis-a-vis other financial service providers is low among the beneficiaries. From the literature it has been discussed that one of the undoing of MFIs is the high interest rates that the charge. The analysis brings this out in the form of the high standard deviation, an indication that the level of consensus on the reasonability of MFI services is still low.
Finally, the respondents seem to be in a very strong agreement that microfinance has led to improved standard of living for their families. As it were, standard of living is a dimension that more or less encompasses all the other indicators discussed above. It records the highest degree of agreement as can be seen in the table. The analysis affirms my alternative hypothesis that microfinance has led to improved standard of living for the families of beneficiaries. The null hypothesis which opposed this assumption is therefore rejected. This position has been supported by most researchers whose discussions are captured in the literature review.

4.3 Relationship Between Micro-finance and Poverty Alleviation

I used Chi-square to determine the relationship between microfinance and poverty alleviation. Chi-square is able to bring together the entirety of all the variables of study and give the extent of their inter-relatedness. The results of analysis are as tabulated in the tables below:

**Table 5: Beneficiaries’ Response on Impact of Microfinance**

<table>
<thead>
<tr>
<th>Variables</th>
<th>SA</th>
<th>A</th>
<th>UD</th>
<th>DA</th>
<th>SD</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income has increased</td>
<td>19</td>
<td>19.79</td>
<td>77</td>
<td>80.21</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Savings has increased</td>
<td>72</td>
<td>75</td>
<td>24</td>
<td>25</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Employment opportunities</td>
<td>17</td>
<td>17.71</td>
<td>38</td>
<td>39.58</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Better pay for employees</td>
<td>15</td>
<td>15.63</td>
<td>51</td>
<td>53.13</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Increased asset accumulation</td>
<td>42</td>
<td>43.75</td>
<td>48</td>
<td>50</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Increased net assets</td>
<td>30</td>
<td>31.25</td>
<td>34</td>
<td>35.42</td>
<td>9</td>
<td>9.38</td>
</tr>
<tr>
<td>Improved financial management</td>
<td>21</td>
<td>21.88</td>
<td>59</td>
<td>61.46</td>
<td>6</td>
<td>6.25</td>
</tr>
<tr>
<td>Better access to education</td>
<td>60</td>
<td>62.5</td>
<td>36</td>
<td>37.5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Better access to education</td>
<td>40</td>
<td>41.67</td>
<td>43</td>
<td>44.79</td>
<td>13</td>
<td>13.54</td>
</tr>
<tr>
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</tr>
<tr>
<td>Healthcare</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empowerment at household level</td>
<td>17</td>
<td>17.71</td>
<td>62</td>
<td>64.58</td>
<td>17</td>
<td>17.71</td>
</tr>
<tr>
<td>Empowerment at society level</td>
<td>74</td>
<td>77.08</td>
<td>22</td>
<td>22.92</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Interest rate is reasonable</td>
<td>5</td>
<td>5.21</td>
<td>67</td>
<td>69.79</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Procedure of obtaining loan is easier</td>
<td>15</td>
<td>15.63</td>
<td>53</td>
<td>55.21</td>
<td>11</td>
<td>11.46</td>
</tr>
<tr>
<td>Reduced exposure to business risk</td>
<td>7</td>
<td>7.29</td>
<td>27</td>
<td>28.13</td>
<td>13</td>
<td>13.54</td>
</tr>
<tr>
<td>Increased investment due to insurance cover</td>
<td>13</td>
<td>13.54</td>
<td>38</td>
<td>39.58</td>
<td>8</td>
<td>8.33</td>
</tr>
<tr>
<td>Easy credit access due to group guarantee system</td>
<td>20</td>
<td>20.83</td>
<td>76</td>
<td>79.17</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Improvement in family living standards</td>
<td>66</td>
<td>68.75</td>
<td>30</td>
<td>31.25</td>
<td>6</td>
<td>6.25</td>
</tr>
</tbody>
</table>

Source: Field survey

At $\alpha = 5\%$

$X^2_{0.05,64} = 83.675$

Reject $H_0$ if $X^2 > 83.675$

Accept $H_0$ if $X^2 < 83.675$
The following table summarises the final analysis of the MFIs beneficiaries responses. The data is presented in a format that makes it easy to obtain the Chi-square.

**Table 6: Analysis of Respondent’s Responses**

<table>
<thead>
<tr>
<th>Variables</th>
<th>SA</th>
<th>A</th>
<th>UD</th>
<th>DA</th>
<th>SD</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income has increased</td>
<td>19</td>
<td>31</td>
<td>77</td>
<td>46.176</td>
<td>0</td>
<td>4.882</td>
</tr>
<tr>
<td>Savings has increased</td>
<td>72</td>
<td>31</td>
<td>24</td>
<td>46.176</td>
<td>0</td>
<td>4.882</td>
</tr>
<tr>
<td>Employment opportunities</td>
<td>17</td>
<td>31</td>
<td>38</td>
<td>46.176</td>
<td>0</td>
<td>4.882</td>
</tr>
<tr>
<td>Better pay for employees</td>
<td>15</td>
<td>31</td>
<td>51</td>
<td>46.176</td>
<td>0</td>
<td>4.882</td>
</tr>
<tr>
<td>Increased asset accumulation</td>
<td>42</td>
<td>31</td>
<td>48</td>
<td>46.176</td>
<td>0</td>
<td>4.882</td>
</tr>
<tr>
<td>Increased net assets</td>
<td>30</td>
<td>31</td>
<td>34</td>
<td>46.176</td>
<td>9</td>
<td>4.882</td>
</tr>
<tr>
<td>Improved financial management</td>
<td>21</td>
<td>31</td>
<td>59</td>
<td>46.176</td>
<td>6</td>
<td>4.882</td>
</tr>
<tr>
<td>Better access to education</td>
<td>60</td>
<td>31</td>
<td>36</td>
<td>46.176</td>
<td>0</td>
<td>4.882</td>
</tr>
<tr>
<td>Better access to healthcare</td>
<td>40</td>
<td>31</td>
<td>43</td>
<td>46.176</td>
<td>13</td>
<td>4.882</td>
</tr>
<tr>
<td>Empowerment at household level</td>
<td>17</td>
<td>31</td>
<td>62</td>
<td>46.176</td>
<td>17</td>
<td>4.882</td>
</tr>
<tr>
<td>Empowerment at society level</td>
<td>74</td>
<td>31</td>
<td>22</td>
<td>46.176</td>
<td>0</td>
<td>4.882</td>
</tr>
<tr>
<td>Interest rate is reasonable</td>
<td>5</td>
<td>31</td>
<td>67</td>
<td>46.176</td>
<td>0</td>
<td>4.882</td>
</tr>
<tr>
<td>Procedure of obtaining loan is easier</td>
<td>15</td>
<td>31</td>
<td>53</td>
<td>46.176</td>
<td>11</td>
<td>4.882</td>
</tr>
<tr>
<td>Reduced exposure to business risk</td>
<td>7</td>
<td>31</td>
<td>27</td>
<td>46.176</td>
<td>13</td>
<td>4.882</td>
</tr>
<tr>
<td>Increased investment due to insurance cover</td>
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<td>31</td>
<td>38</td>
<td>46.176</td>
<td>8</td>
<td>4.882</td>
</tr>
<tr>
<td>Easy credit access due to group guarantee system</td>
<td>20</td>
<td>31</td>
<td>76</td>
<td>46.176</td>
<td>0</td>
<td>4.882</td>
</tr>
<tr>
<td>Improvement in family living standards</td>
<td>60</td>
<td>31</td>
<td>30</td>
<td>46.176</td>
<td>6</td>
<td>4.882</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>527</td>
<td>785</td>
<td>83</td>
<td>221</td>
<td>16</td>
<td>1632</td>
</tr>
</tbody>
</table>

Source: Field survey
\[ X^2_{\text{cal}} = \sum \sum \frac{(O_{ij} - e_{ij})^2}{e_{ij}} \]

Where \( e_{ij} = \frac{RT \times CT}{n} \)

\( O_{ij} \) = Observed frequency

i= row  j= Columns

RT= Row total ,

CT= Column total

N= grand total

Degrees of freedom = \((r-1)(c-1)\)

Critical value at \( \alpha = 5\% \)

\[ X^2_{0.05,64} = 83.675 \]

**Decision Rule**

Reject \( H_0 \) if \( X^2_{\text{cal}} > 83.675 \)

Accept \( H_0 \) if \( X^2_{\text{cal}} \leq 83.675 \)

\( df = (r-1)(c-1) \)

\((17-1)(5-1)\)

16X4=64

Note:

\( e_{11} = \frac{527 \times 96}{1632} = 31 \)

\[ X^2_{\text{cal}} = \left[ \frac{(19-31)^2}{31} \right] + \ldots + \left[ \frac{(0-0.941)^2}{0.941} \right] \]

\[ X^2_{\text{cal}} = 333.0465 \]

At 5% significance level the \( X^2 \) calculated (333.0465) is greater than the table value (83.675). This data suggest that microfinance and poverty alleviation are dependent, which implies significant relationship between microfinance efforts and poverty alleviation among the residents of Kakamega County, Kenya. Therefore, the null hypothesis is rejected in favour of the alternative hypothesis which asserts that microfinance has had an impact on poverty alleviation in Kakamega County.
CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 INTRODUCTION

This chapter crystalises my research findings in the form of a concise summary. It further gives my verdict about the outcome of the research and a set of suggestions thereof.

5.1 SUMMARY OF FINDINGS

The objective of this research was to study the impact of microfinance on poverty alleviation in Kakamega County, Kenya through increased income generation, increased savings, asset accumulation, creation of employment, increased access to education and healthcare, and empowerment among the beneficiaries.

The analysis of data using the survey that I did, demonstrates that microfinance has led to improved financial management among the beneficiaries. Financial services provide a means to manage money, and more efficient financial management constitutes one of the main financial impacts of micro-finance. Improved money management can enable income generation, reduce vulnerability and empower individuals and household.

In addition, the analysis of the data obtained in this study indicates that most beneficiaries have experienced increased income levels as a result of microfinance. Change in client’s income is the main impact of micro-finance. Financial services help poor and low-income households increase their incomes and build the assets that allow them to mitigate risk; plan for the future; increase food consumption; and invest in education, health, housing, water and sanitation.

Furthermore, results of this research portray that a significant portion of respondents have experienced increased savings as result of microfinance. Savings help in building capital for investment, consumption and accumulation of assets. This in turn mitigates exposure to risk:
The study also established that microfinance has led to empowerment of beneficiaries at the household and society level. Beneficiaries have experienced increased role in family decision making. They are also more enlightened to participate in making opinions and decision making on societal issues like politics. Ability to make decisions reduces vulnerability of the participants and hence empowering them.

Residents of Kakamega County have accumulated more assets as a result of microfinance. Increased assets protects the subject against future uncertainties. Majority of the respondents reported acquisition of additional assets as result of microfinance which is an indicator of poverty alleviation.

Another impact of microfinance that was found to be important is the creation of employment opportunity. From the study, it can be interpreted that microfinance affect the creation of employment. The results of this study have demonstrated modest creation of employment opportunities as a result of microfinance. Employment creates purchasing power among the beneficiaries hence reducing their poverty level. To a modest extent, microfinance has been able to achieve this goal in Kakamega County.

Increased access to education and healthcare are key social indicators of poverty alleviation. Majority of residents in Kakamega county, have attested that microfinance has indeed enhanced their access to these crucial essentials. Education loans have particularly helped the beneficiaries to take their children to school, and this gives them an opportunity to look forward to a promising future.

An analysis of the data obtained in this study indicates that the procedure of accessing services from MFIs is easier than mainstream banks. However, a fair number of respondents reported dissatisfaction with the rates of interest charged by MFIs. But generally, most respondents were afforded an opportunity to access services they couldn't from mainstream banks.

In general, it can be discerned from my overall analysis that there is a significant impact of microfinance activities on reduction of poverty both from economic and social perspective. There is a noticeable and positive impact of microfinance activities on poverty alleviation among the poor people in the society.
5.2 CONCLUSION OF THE STUDY

As demonstrated in the analysis, there is a positive correlation between microfinance and poverty alleviation. It has been established that microfinance has had a positive impact on all the variables that operationalise poverty alleviation.

From the analysis, it has been shown that microfinance impacted on the different dimensions of alleviation at varying degrees. Majority of respondents reported high satisfaction levels on the elements of increased income, increased savings, empowerment, good financial management, creation of employment, and access to education and healthcare. However, on the aspect of the interest rate charged there was a significant disparity on the comfort levels. While fair number of respondents were satisfied, an equally large portion of them expressed dissatisfaction.

Therefore, MFIs should know that their efforts are playing a significant role in lifting the bottom of the society. But they should also note the concern of their clients especially on the dimension of high interest rates inorder to achieve their ultimate objective(poverty alleviation) more effectively.

5.3 RECOMMENDATIONS

This study was based on a small sample size taken from a single county in Kenya. It was done within Kakamega County alone. This raises concern about the application of findings to other contexts. The study is limited in terms of representativeness and generasability. However, it may be possible to conduct a wider study, drawing on the findings here as a basis for future research. Therefore, the results cannot be generalised to other counties in Kenya especially in the analytical terms. Further research done on a bigger scale with large sample size could shed more light on how microfinance activities impact on poverty alleviation on the poor people in Kenya.

Furthermore, this research was a cross-sectional study as opposed to a longitudinal study. It was carried out only at a point in time. This is because of the limited time available to carry out this research. A longitudinal study would have given a better insight into how micro-finance has impacted on residents livelihoods over
time. Therefore, it is recommended that the same study be done on a longitudinal basis inorder to give a more clear picture.

Finally, I also experienced difficulties in handling especially the semi-illiterate respondents. In addition, some MFIs managers were not comfortable with my accessing their clients because of fear that the information they gave out might be used for commercial purposes by their competitors. I noted they need more awareness on the value of such researches.

It has been demonstrated from the results of this study that microfinance can lead to poverty alleviation. However, poverty reduction can only be achieved on a wider scale if we can be able to build a critical mass of the beneficiaries. In the case of Kakamega County, the MFIs are only able to reach a handful of beneficiaries, that is approximately 25,600. A real impact can only be felt at a wider societal level if all the players work to enhance the outreach of MFIs to benefit as many poor people as possible.

This can be achieved through increased funding and also ensuring that there is an enabling environment that fosters the growth of MFIs. Therefore, the challenge is for the policy makers to make MFIs reach all the industrious poor people.

5.4 LIMITATIONS OF THE STUDY

The outcome of this study cannot be completely satisfactory because of a couple of the following limitations:

**Nature and Size of Sample:** The study was done within Kakamega County only. This raises concern about the application of findings to other contexts. The study was limited in terms of representativeness and generalisability. However, it may be possible to conduct a wider study, drawing on the findings here as a basis for future research.

**Time Constraints:** This research was a cross-sectional study as opposed to a longitudinal study. It was carried out only at a point in time. This is because of the limited time that was available to carry out the research. A longitudinal study would
have given a better insight into how micro-finance has impacted on residents livelihoods over time.

**Financial Constraints:** My limited financial resources did not allow me to engage research assistants who could have helped me in expanding my coverage.

**Semi-illiterate Respondents:** I encountered difficulties in handling especially the semi-illiterate respondents. I encountered problems because some respondents seemed to be suspicious about my motives, while others expected monetary compensation in return for offering information.

### 5.5 RECOMMENDATION FOR FURTHER RESEARCH

The research focused on how microfinance has impacted on poverty alleviation among the beneficiaries. The outcome was that microfinance has had a positive impact on poverty alleviation among the beneficiaries in Kakamega County, Kenya.

However in the course of the data analysis there are some issues of interest that came up which captured my curiosity and therefore might need to be probed in future researches. The average response about the reasonability of microfinance services was that most beneficiaries were in agreement that MFI services are generally reasonable. But there was a diversity of opinions concerning this aspect, because a good number of respondents were particularly not satisfied with the interest rates charged by MFIs. Therefore, I recommend that a further research should be done to establish the relationship between the cost of services offered by MFIs vis-a-vis the cost of services in the mainstream banks. In addition, the impact of microfinance on employment creation was not as significant as expected. Majority of respondents were undecided about the impact on this aspect. Probably, a research should be carried out to find out why the impact on this dimension is minimal, yet it is one of the key reasons why microfinance exists.
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New York


APPENDIX

QUESTIONNAIRE

Am studying Master of Business Administration (MBA) program at the University of Nairobi. I have designed the following questionnaire for a study about the impact of microfinance on poverty alleviation in Kakamega County, Kenya. A research project is an integral part of my course requirements.

I would highly appreciate if you fill this questionnaire. It will take 10-15 minutes. I expect your kind cooperation in this respect.

SECTION A: BENEFICIARY PERCEPTIONS ABOUT IMPACT OF MICROFINANCE

The numbers of the following table indicates the degree of satisfaction or agreement level (on a scale of 1-5*) of the household or a person after he/she has received loan and (or) other services from a microfinance institution. Please tick inside the box, which accurately reflects your opinion.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>The rate of interest on micro-credit is reasonable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2)</td>
<td>The procedure of obtaining loans from MFIs is easier than conventional banks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3)</td>
<td>The income has increased after micro-credit financing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4)</td>
<td>The savings have increased after joining a microfinance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5)</td>
<td>Microfinance has led to better access to education</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Microfinance has led to better access to health care</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>My role in family decision making has increased after accessing microfinance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Microfinance has broadened my freedom of choice in matters of the society e.g. politics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Training and operational assistance received from MFIs has been helpful in running of the business</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>I have purchased more assets because of microfinance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>My credit obligations are now less than assets after accessing microfinance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>I have employed more staff than previously after accessing microfinance services</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Rate of pay for my employees has increased after accessing microfinance services</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Micro-insurance has helped my business to cope with risk of losses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Micro-insurance has enabled me to invest in profitable risky ventures</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Group guarantee system (insurance) has made it possible for me to access financing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Improvement in the living standard of the family</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SECTION B: QUANTITATIVE CHANGES IN POVERTY ALLEVIATION

INDICATOR VARIABLES

1. What changes in employment have occurred between now and the time immediately before accessing microfinance services?
   NOW:
   - Total number of employees 
   BEFORE:
   - Total number of employees 

2. How have the rates of pay of your employees changed over the same period?
   NOW:
   - Pay per day (Ksh.) 
   BEFORE:
   - Pay per day (Ksh.) 

3. What relative change have occurred in the asset structure of the business between now and the time before accessing microfinance services?

   NON-CURRENT ASSETS:
   Estimated relative value:

<table>
<thead>
<tr>
<th>Asset Type</th>
<th>Up</th>
<th>Down</th>
<th>No change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Livestock</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Premises</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tools and equipment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixture and fittings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (specify)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

   CURRENT ASSETS:

<table>
<thead>
<tr>
<th>Asset Type</th>
<th>Up</th>
<th>Down</th>
<th>No change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw materials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unfinished goods</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goods for sale</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash at bank</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Petty cash</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Money owed by customers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suppliers credit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (specify)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. How has your monthly income changed between now and before accessing microfinance services?

   NOW:
   Estimate monthly income (Ksh.) 
   BEFORE:
5. How has the amount of your monthly savings changed after accessing microfinance services?

NOW:
Estimate monthly savings (Ksh.)

BEFORE:
Estimate monthly savings (Ksh.)
<table>
<thead>
<tr>
<th>Variables</th>
<th>SA</th>
<th>A</th>
<th>UD</th>
<th>DA</th>
<th>SD</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income has increased</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Savings has increased</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment opportunities</td>
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<td>Better pay for employees</td>
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<tr>
<td>Increased asset accumulation</td>
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<tr>
<td>Increased net assets</td>
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<tr>
<td>Improved financial management</td>
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<tr>
<td>Better access to education</td>
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<tr>
<td>Better access to healthcare</td>
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<td>Empowerment at household level</td>
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<td>Empowerment at society level</td>
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<tr>
<td>Interest rate is reasonable</td>
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<td>Procedure of obtaining loan is easier</td>
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<tr>
<td>Reduced exposure to business risk</td>
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<tr>
<td>Increased investment due to insurance cover</td>
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<tr>
<td>Improvement in family living standards</td>
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</table>

Table 7: Chi-Square Analysis Framework

At \( \alpha = 5\% \); Reject \( H_0 \) if \( X^2 > 83.675 \)

\[ X^2_{0.05,64} = 83.675 \]; Accept \( H_0 \) if \( X^2 \leq 83.675 \)
# Table 8: COMPUTED CRONBACH ALPHA CO-EFFICIENT:

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>INCOINC</td>
<td>19.2000</td>
<td>33.3422</td>
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<tr>
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<tr>
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<td>5.0</td>
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<td>28.3337</td>
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</table>

Statistics for Mean Variance Std Dev Variables
SCALE 327.6000 104922.800 323.9179 17

Reliability Coefficients

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<th>Variables</th>
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<th>Variance</th>
<th>Std Dev</th>
<th>Cases</th>
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Alpha = 0.9524

Correlation Matrix

<table>
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<th>EMPOPP</th>
<th>BEATPAY</th>
<th>INASSACC</th>
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<tbody>
<tr>
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<td>0.3289</td>
<td>0.5319</td>
<td>0.8187</td>
<td>0.8360</td>
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<tr>
<td>SAVINC</td>
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<td>INASSACC</td>
<td>0.8360</td>
<td>0.7839</td>
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<td>0.4992</td>
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</table>

...
### Correlation Matrix

|       | INCNTASS | IMPFM | BETACCED | BETACTHE | EMASHS | EMATSOC | INRTREA | PROLOAEA | REDEXBSR | INCINVIN | IZCRGRGR | IMPFAMIL | EMATSOC | INRTREA | PROLOAEA | REDEXBSR | INCINVIN | IZCRGRGR | IMPFAMIL |
|-------|----------|-------|----------|----------|--------|---------|---------|----------|----------|----------|----------|----------|----------|---------|---------|----------|----------|----------|---------|----------|----------|
| INCNTASS | 1.0000  |       |          |          |        |         |         |          |          |          |          |          |         |         |          |          |          |         |          |          |
| IMPFM     | .7977   | 1.0000|          |          |        |         |         |          |          |          |          |          |         |         |          |          |          |         |          |          |
| BETACCED  | .7450   | .5926 | 1.0000   |          |        |         |         |          |          |          |          |          |         |         |          |          |          |         |          |          |
| BETACTHE  | .7744   | .8130 | .9042    | 1.0000   |        |         |         |          |          |          |          |          |         |         |          |          |          |         |          |          |
| EMASHS    | .6369   | .9514 | .5021    | .8058    | 1.0000 |         |         |          |          |          |          |          |         |         |          |          |          |         |          |          |
| EMATSOC   | .6112   | .3341 | .9559    | .7631    | .8627  | .9277   |         |          |          |          |          |          |         |         |          |          |          |         |          |          |
| INRTREA   | .4901   | .8916 | .2875    | .5373    | .6994  | .4364   | .1591   | .2839    | .4939    |          |          |          |         |         |          |          |          |         |          |          |
| PROLOAEA  | .7832   | .9744 | .4364    | .6994    | .4364  | .1591   | .2839   | .4939    |          |          |          |          |         |         |          |          |          |         |          |          |
| REDEXBSR  | .4752   | .2546 | -.2105   | -.1427   | .9042  | .5021   | .8058   | .1000    |          |          |          |          |         |         |          |          |          |         |          |          |
| INCINVIN  | .7658   | .6677 | .1591    | .2839    | .4939  | .5021   | .8058   | .1000    |          |          |          |          |         |         |          |          |          |         |          |          |
| IZCRGRGR  | .7101   | .9881 | .5754    | .8023    | .4939  | .9559   | .8627   | .5021    |          |          |          |          |         |         |          |          |          |         |          |          |
| IMPFAMIL  | .6740   | .4626 | .9842    | .8585    | .3911  | .6112   | .9514   | .5021    |          |          |          |          |         |         |          |          |          |         |          |          |
| EMATSOC   |         |       |          |          |        |         |         |          |          |          |          |          |         |         |          |          |          |         |          |          |
| INRTREA   |         |       |          |          |        |         |         |          |          |          |          |          |         |         |          |          |          |         |          |          |
| PROLOAEA  |         |       |          |          |        |         |         |          |          |          |          |          |         |         |          |          |          |         |          |          |
| REDEXBSR  |         |       |          |          |        |         |         |          |          |          |          |          |         |         |          |          |          |         |          |          |
| INCINVIN  |         |       |          |          |        |         |         |          |          |          |          |          |         |         |          |          |          |         |          |          |
| IZCRGRGR  |         |       |          |          |        |         |         |          |          |          |          |          |         |         |          |          |          |         |          |          |
| IMPFAMIL  |         |       |          |          |        |         |         |          |          |          |          |          |         |         |          |          |          |         |          |          |

### Statistics for Mean Variance Std Dev

| Scale    | 327.6000 | 104922.800 | 323.9179 | 17 |

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**RELIABILITY ANALYSIS - SCALE (ALPHA)**

**Reliability Coefficients** 17 items

**Alpha** = 0.9524  
**Standardized item alpha** = 0.9576
Date: 9th September 2011

TO WHOM IT MAY CONCERN

The bearer of this letter Muli Wycliffe Maingi

REGISTRATION NO: D61/60584/2010

The above named student is in the Master of Business Administration degree program. As part of requirements for the course, he is expected to carry out a study Impact of Micro Finance on Poverty Alleviation in Kakamega County, Kenya

He has identified your organization for that purpose. This is to kindly request your assistance to enable him complete the study.

The exercise is strictly for academic purposes and a copy of the final paper will be availed to your organization on request.

Your assistance will be greatly appreciated.

Thanking you in advance,

Sincerely,

MR. ALEX JALEHA
COORDINATOR, SOB. KISUMU CAMPUS

Cc File Copy

ISO 9001: 2008 Certified