

**THE EFFECT OF MICROFINANCE BANKING ON FINANCIAL INCLUSION
IN KENYA**

BY

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DECLARATION

This Research project is my original work and has not been presented for a degree in any other University.

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DEDICATION

I dedicate this study to my late father, Mr. Athanasius Kaberia, who continuously encouraged and inspired me to study and be the best I can. Thank you Dad. I owe the success of this study to you.

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ABSTRACT

Financial inclusion has been identified as one of the key factors that accelerate the growth of any economy and alleviate poverty. Financially excluded population mainly relies on their limited savings and low earnings thereby hindering them from taking advantage of the available growth opportunities. This leads them to be trapped in their poverty levels and inequality becomes rampant. The study seeks to establish the effect of microfinance banking on financial inclusion in Kenya. Social capital, Financial Intermediation and the Modern Development theories have been reviewed in the literature review. For the empirical review, various studies have been reviewed as well. The determinants of the financial inclusion are group lending, individual lending, village banking and savings mobilization. One of the measures of financial inclusion used in the study is the number of bank accounts. The study used the descriptive research methodology and the target population was all the Microfinance Institutions that are registered with the Association of Microfinance Institutions. Data collection was done by the use of both the structured and unstructured questionnaires, while the analysis of data was done by the use of descriptive statistical tools and a multivariate regression analysis model. From the data analysis, it was concluded that the availability of micro banking facilities and a strong branch network are one of the factors that enhance financial inclusion.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Around 2.5 billion people, which is a large portion of the world's grown-up population, are financially excluded. In order to achieve the goal of ensuring that this huge population is 'banked', there is a need to ensure that not only is product innovation put into place, but also the data provided is accurate, there is assessment of the financial inclusion impact among other issues.

Since 2003, there has been concerted effort and emphasis on development targeting the population who live in poverty and the financial development has a critical part to play in this procedure. It should by one means or another open up customary saving money administrations store and credit offices to poor people (Schoombee, 2004). Conventional banks customarily don't serve low-pay workers, small scale business visionaries and poor people (by and large alluded to as the unbanked), mostly because of the high operational costs in the segment. (Schoombee, 2004).

1.1.1 Micro Finance Banking

The origin of microfinance can be traced back in the European nations many decades ago, which a form of informal was banking for the poor. In Ireland, for example, the microfinance evolution commenced in the 18th Century and was mainly characterized by self help and informal way of banking.

The evolution of Microfinance sector is filled with how self-improvement led to financial advancement, lawful sponsorship and conductive direction, which led to a mass microfinance evolution (Roy, 2003).

The microfinance sector in Kenya has evolved over the years and now comprises of various organizations. They differ in their legal status, the objective of their existence, their location and area of coverage among other factors. These organizations include the

informal organization such as Rotating Savings and Credit Associations (ROSCAs), Financial Services Associations (FSAs), Savings and Credit Cooperative (SACCOs), NGOs, to conventional banks. (Kimeu, 2008).

1.1.2 Financial Inclusion

Financial inclusion is "a procedure which guarantees that the financial services are easily accessible and used in the formal financial framework by all individuals in an economy" (Sarma, 2008). In the South African setting, different elements that affect the accessibility are transport expenses to the place of business and the time spent to travel. Accessibility and use are measured by the degree of usage, the bank loans and deposits amounts in respect to the GDP of a nation. Many users of a financial system signify the extent to which the financial inclusion has penetrated an economy. (Sarma, 2008).

Carbo, Gardener and Molyneux, (2007) indicates that financial exclusion is caused by various factors which include lack of accessibility to the services, set conditions for eligibility are not achievable by the poor and the costs of accessing these products is not affordable to the poor. Access to finance can be categorized into two broad facets. The first one is from the point of view of the supply side for example, the conventional banks, microfinance banks, while the second one is from the demand point of view, mainly from the individual users, firms etc.

Measures of financial inclusion include bank accounts numbers, branches, ATMS, the amount of credit advanced and deposits mobilized. These measures do not conclusively provide information of an economy so as to determine the extent of financial inclusion. The information so provided assumes that only the clients who access financial services from the formally established financial institutions are the only ones who are active in the financial system. This assumption is not always the case since there are a number of users who access the services from the informal service providers, and hence they are cannot be categorized under the unbanked.

1.1.3 The Effect of Microfinance Banking on Financial Inclusion

Littlefield (2003) indicated that microfinance institutions in the financial system play a critical role in achieving financial inclusion. While the commercial banks target the wealthy clients who have tangible assets to act as security for loans advanced, microfinance institutions offer financial services to the population whose livelihood is low and have no tangible assets. In addition, most of the latter financial institutions are based in the rural areas where most of the poor people reside in the third world economies, while the former are usually based in the urban areas. As a result of these factors, microfinance institutions enhance financial inclusion since they operate and have products and services that are accessible and affordable to the unbanked.

Matovu (2006) concluded that there existed a direct effect between the provision of financial services and banking by microfinance institutions. He found out that after the women joined microfinance institutions and accessed their services and products, their poverty levels decreased since they were able to undertake income generating activities which earned them income.

1.1.4 Financial Inclusion in Kenya

The rate of financial inclusion has significantly increased over the years as per the Fin Access Household Surveys conducted in 2006, 2009, 2013 and 2016. The surveys main objective is to determine to what extent has the country reached out the unbanked population. The latest survey shows that 75.3 % of the total population in Kenya is now banked which is a 50 % increase from the previous survey conducted in 2016 (Fin Access, 2016).

There has been an increasing emphasis on provision of financial services to the poor over the last ten years in the development agenda of most third world countries. This is because it has been found out that reaching out to the unbanked population greatly reduces poverty (Kimani, 2012).

1.2 Research Problem

It has been found out that the rich and the poor people gap in most third world countries has been increasing with the rich growing richer while the poor becoming more poorer. This leads to stunted growth of the economies of these countries. The same scenario exists in Kenya and therefore there is an urgent need to ensure that these financial services are offered to the majority poor, who are the main drivers to economic growth (Agarwal, 2010).

A study by The Financial Services Deepening Trust conducted in 2007, indicated that about 19% of Kenyans had accessed financial services in the mainstream financial system (Rivard and Thomas, 2009). A further 43% of the Kenyans had accessed financial services from the other service providers like self help groupings and microfinance organizations. The latter therefore are very important in enhancing financial services to the unbanked and their impact cannot therefore be underestimated.

Gitau (2011) conducted a study on the relationship between the performance of commercial banks and product innovations in Kenya. Githikwa (2011) also conducted a study on the relationship between profitability and product innovation. These studies have concentrated on the commercial banks and they have differing views on the ways of enhancing financial inclusion, hence this study seeks to address the following research problem; what is the impact of microfinance banking in the provision of financial services to the unbanked?

1.3 Research Objective

To establish the effect of Microfinance Banking on Financial Inclusion in Kenya.

1.4 Value of the Study

This study assist the MFIs to understand the impact of microfinance in regard to financial inclusion in Kenya with a specific objective of improving the livelihoods of the poor. This objective focus will make the organizations develop effective strategies to ensure that they provide products and services that will be affordable and easily accessible to the unbanked.

The study shall be of great assistance to the government and policy makers since it will provide additional information that will enable the formulation of relevant and appropriate legislation to ensure that the country meets its objective of financial inclusion.

In addition, the study shall also offer appropriate information to the products and services offered by the microfinance institutions. This will reduce the information asymmetry and hence enhance financial inclusion.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter will discuss the literature related to mechanisms used by microfinance institutions in addressing the financial inclusion barriers for individuals in Kenya. It will cover theoretical perspectives related to the study. Additionally the chapter will review literature on financial inclusion.

2.2 Theoretical Review

The study shall be directed by three theories which are the social capital theory, financial intermediation theory and Modern Development theory.

2.2.1 Social Capital Theory

The idea of social capital existed as far back as when the communities formed small groups mainly based on the principle of trust and the need to help one another. These groups were formed from the perspective that they members needed to assist each other, and they were very close to each other. In addition, they set up the rules which would govern these groups to ensure that they were well run and were to exist for the long term. (Nyangena, 2008).

Social capital can be observed as an idea that social relations can lead to the development of aspects that are both of economic and non-economic benefits to its members. (Nyangena, 2008). This is on the grounds that lack of financial provision is created by numerous variables which include individual's conduct and level of pay, to policy changes among others.

The relevance of this theory is to provide insights on the fact that the capital mobilized by the society can be intermediated and be provided to the members of the groups which enhances financial inclusion. The provision of this capital will enable the members to engage in income generating activities hence improve their livelihoods.

2.2.2 Financial Intermediation Theory

Financial intermediation can be defined as process of ensuring those institutions that spend more than they have and the ones that have more resources than they need are brought together. (Ndebbio, 2004). It is imperative that banks have the ability to screen and monitor borrowers, which reduces the risk of losing out the depositors funds. They are therefore able to allocate the resources optimally with less risk of loss.

In addition, the financial institutions are capable of reducing the information assymetry since they have the necessary information to enable optimal allocation of resources thereby leading to less transactions costs. This in turn leads to affordable pricing of the financial products and services.

This theory is relevant since microfinance institutions seeks to intermediate the financial resources. They also ensure that there is no information assymetry and the transaction costs are greatly reduced which leads to the reasonable costing of these products and services.

2.2.3 Modern Development Theory

Hoff and Stiglitz (2001) developed this theory. It's main emphasis is that lack of financial access causes income inequalities and stunted economic growth in a society. In a economy that is not developed, the poor have no access to financial services hence they end up sourcing or finances from the not formal service providers which are very expensive.

In addition, the lack of access of financial services from the formal service providers leads the population to rely on their own minimal savings to invest in income generating activities and the available investment opportunities, which is not effective (World Bank, 2011).

The theory is relevant to the study since it emphasizes the fact that the poor population requires loans that are affordable thereby enabling them take advantage of the investment opportunities available hence reducing the income inequalities (Seibel, 2006). Microfinance institutions are able to provide these properly designed products and hence increase on their uptake by the financially excluded.

2.3 Empirical Review

Coleman (2016) surveyed the effect of BRAC's program on improvement of the living standards of its clients from a "human prosperity" point of view in Thailand. Among the projects evaluated during this survey were the assessment of the effects of provision of microfinance services and legal and human rights training on the clients. The findings from the study showed that with the clients' livelihoods improved drastically with noted improvement on reduced child mortality rate, improved nutrition, more educated population and a more cohesive society.

Sarma and Pias, (2016) in his study wanted to establish the relationship between microfinance institutions and improved livelihoods in Bangladesh. The study analysed the financial reports for a specified period of time and conducted multiple regression analysis to come up with the findings. As much as it was found out that microfinance institutions provided finance to the unbanked and assisted in improving the livelihoods of the population, it was also found out that the methods in which the microfinance institutions employed was not effective and it was not easy to measure the impact on how they transformed the poor peoples' lives. The study was inconclusive on this and it opened up areas for new study namely the impact of microfinance institutions on reaching the poor and their financial sustainability.

Khandker (2016) studied the role of microfinance institutions in poverty alleviation in Turkey. A descriptive survey research design was used and the sample of the firms to be selected for the study was done using the stratified random sampling technique. The study established that as much as microfinance institutions are capable of transforming the lives of their clients, it was not a solution to poverty alleviation and may not work for

everyone everywhere. However, Ittner and Larcker (2016) conducted a similar study in South Korea and concluded that microfinance institutions have a positive impact on improving people's livelihoods.

A study was conducted to evaluate the impact of financial inclusion in Bengal in India. The methodology employed the use of a composite IFI that was based on the penetration of banking in the economy, taking into consideration the availability and the intake of these services. Eighteen districts were sampled and only one of them had a high IFI while the others had a low IFI. It was found out that the cause of this low IFI was both the supply and demand factors of the services. Hence there was a prevalent use of informal service providers to bridge the gap of financial exclusion, regardless of the effort made to reach out the unbaked by the formal service providers.

Nthambi (2015) studied the effect of financial inclusion on the bank's performance. He used the hierarchical regression analysis and correlation analysis to test the study hypothesis. The study found out that financial inclusion had a direct impact on the bank's performance in Kenya. However, there was no adequate evidence to reject the theory that the stability of the bank is directly linked to the financial inclusion and the bank's financial performance. There was inconclusive finding on financial inclusion's impact on the bank's performance as per its Return on Equity and Return on Assets, though a direct impact was there on the Net Interest Margin.

Wang'oo (2015) study concluded that financial inclusion and economic development in Kenya were directly linked. The study adopted a meta-analysis research design and the data collected was analysed by the use of descriptive statistical approach. Regression and correlation analysis were also used. From the study, a direct linkage between financial inclusion and economic development was found to exist.

Rotich (2015) conducted a study on the challenges faced by commercial banks in the realization of the different financial inclusion strategies in Kenya. He used the cross sectional research design and the population was the 44 banks that operated in Kenya in

2014. Primary data which was collected by use of questionnaires was analysed. It was found out that the banks had increased their financial penetration which was evidenced by the increase in ATMs, branches opened, adoption of the mobile money, internet banking and agency banking.

Njuguna (2015) conducted a study on the impact of provision of financial services by microfinance institutions in Kilifi, Kenya. A descriptive survey research design was adopted. The study outcomes showed that there was a positive correlation between the deposits mobilised and the financial inclusion. It was also found out that there was a need by the microfinance institutions to ensure that clients' deposits were kept safely in order to enhance trust from the customers. Finally, the study concluded that financial inclusion was enhanced by microfinance institutions.

Ngugi (2015) conducted a study on the impact of mobile banking on financial inclusion in Kenya. Secondary data, which was obtained from Central Bank of Kenya and Communication Authority of Kenya from 2006 – 2016, was used. The research design adopted was descriptive. In order to obtain the relationship between financial inclusion and mobile banking, multiple regression analysis was adopted. The findings of the study showed that the transfer of funds through mobile phones had a great impact on financial inclusion.

2.4 Determinants of Financial Inclusion

The access to finance by the poor is a prerequisite for poverty reduction and sustainable economic development of an economy. It is therefore necessary to establish the determinants of financial inclusion in order to develop policies that will assist the economy achieve this objective.

2.4.1 Group Lending

Group based lending is an important approach used to lend to the poor people who do not have securities to pledge against the credit advanced. The members come together, select

themselves, and form a group where the membership varies according to the group constitution as agreed upon by the members. The members are advanced loans which are secured by the co-guarantee mechanism, where each member guarantees each other. In some instances, the groups may be required to contribute some cash which serves as cash collateral. The eligibility of who to receive the loans is mainly determined by the group members themselves and not by the lender (Murray and Boros, 2002).

2.4.2 Individual Lending

Individual lending refers to the loans that are advanced to an individual as opposed to an individual in a group setting. This type of lending to the poor is not common within the commercial banks since they are not able to provide collaterals required to secure these loans. In addition, offering of small loan amounts is not considered profitable by the commercial banks; hence these products offering are highly discouraged. However, microfinance institutions have innovative new products focusing on lending to individuals; hence they are able to meet the needs of these people who otherwise would not have accessed these loans (Murray and Boros, 2002).

2.4.3 Village Banking

Village banking occurs whereby the poor people come together and form associations whereby they start mobilizing deposits out of which they lend out loans among themselves at an interest rate agreed upon by the members. In some cases, the village banks may engage a financial service provider to provide them with capital for on-lending. These loans are not secured with any collateral and the banks offer the members an avenue to save for future needs. Like the group loans, the clients here use peer pressure to enforce loan repayment (Murray and Boros, 2002).

2.4.4 Savings Mobilization

Savings mobilization has in the recent past become as a key area of focus in microfinance. In previous years, microfinance concentrated solely on lending; deposits mobilisation was not given much importance and therefore the financial intermediation process was incomplete. When individuals are unable to save, they depend mainly on

hand-outs, ROSCAs,(Rotating Savings and Credit Associations) or shylocks among other informal service providers. Microfinance institutions offer the savings avenue for the poor which accrues immense benefits to the savers. (Elser, Hannig and Wisniwski, 2009).

2.5 Conceptual Framework

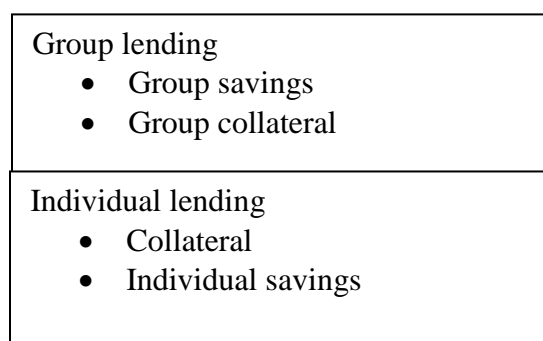
Conceptual framework enables the reader to view the proposed relationship between the various variables in the study (Mugenda and Mugenda, 2008). In this study the independent variables are group based lending, individual lending, village banking and saving mobilisation.

Group based lending entails lending to individual members in a group. These members select each other, co-guarantee each other and determine the credit worthiness of each respective member. The loan amounts advanced are small and no security is required, hence enhancing financial inclusion. Individual lending is whereby the loans are advanced to individuals and there is no security required. These products are mainly offered by microfinance institutions and there is agreeing demand on them.

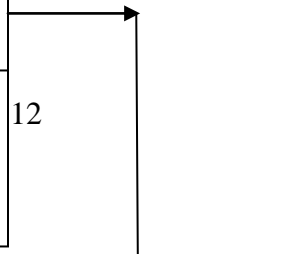
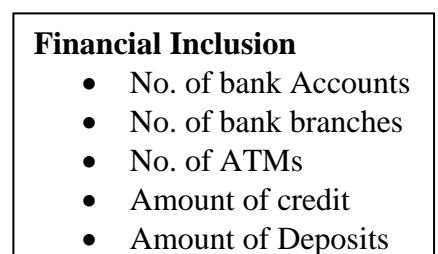
Village banks uses a model where members of a community come together and from an association whereby the save and offer credit facilities to one another. There are some instances where the village banks approach a sponsoring agent who provides any additional capital required. Savings mobilisation on the other hand enables the individuals to save money for future use and invest in business opportunities that may arise.

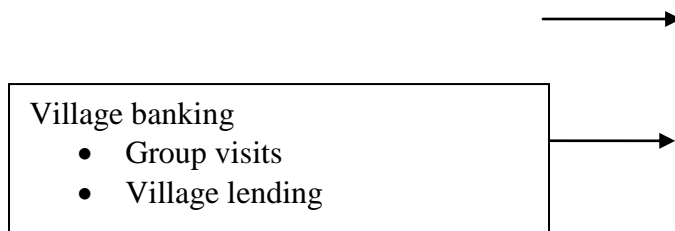
Figure 2.1: Conceptual Model

Independent Variable



Dependent Variable





Source: Researcher

2.6 Summary of the Literature Review

The social capital theory puts more prominence on the value that is socially created by microfinance institutions and not on the economic gains that accrue from them. Financial intermediation, on the other hand, is based on the ability of financial institutions to bring together the parties who have excess resources and link them up with the ones who do not have any. This is a role that is carried out by the microfinance institutions and enables them to reduce on the costs of transactions and reduce information assymetry. This therefore makes it possible for microfinance institutions to offer the financial services that are affordable to the target group (Ndebbio, 2004).

The modern development theory emphasis is on the fact that the income inequality is caused by lack of access to financial services. Therefore, in order to reduce income inequality, all people should be able to access finances.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter focused on the research design, target population, methods of data collection, data collection instruments and procedures and the data analysis.

3.2 Research Design

The study adopted descriptive research method, whereby data was gathered without the manipulation of the research environment in order to determine the effect of microfinance banking on financial inclusion (Bryman and Bell, 2007). Primary data was collected through the use of a questionnaire. Data analysis was done through the use of both quantitative and qualitative methods.

3.3 Target Population

A complete set of individuals, who have similar characteristics in which a researcher would like to generalize the results of the study, is referred to as a population (Cooper and Schindler, 2011). For this study, the population was composed of all MFI's in Nairobi that are members of the Association of Microfinance Institutions of Kenya (AMFI-K). As at 31st December 2015, 116 registered members Kenya comprising of 105 non deposit taking and 11 deposit-taking microfinance institutions.

3.4 Sample Design

Since the population was not homogeneous, stratified random sampling technique was adopted. Gill and Johnson (2006), indicates that a stratified random sampling technique is the best method to use since it generates estimates of the total population with more accuracy and enables a more representative sample to be derived where the population is comparatively homogeneous. As indicated by Mugenda and Mugenda (2008) for descriptive studies, it is advisable to use a sample of 10% - 30%, though the use of a higher sample size is highly encouraged since it increases accuracy and reliability. In this

study, a sample of 30% was used. 39 respondents were selected, 35 of which were from the non –deposit taking microfinance institutions, while 4 were from the deposit taking microfinance institutions.

3.5 Data Collection

The study used primary data inform of questionnaire which were composed of both structured and unstructured questions. The questionnaires were issued through drop and pick technique to respondents who were in-charge of credit in their respective microfinance institutions. In order to save on time and money and ensure ease in data analysis, the study used the structured questions while the unstructured questions were used to persuade the respondents to give more information on the subject matter. (Ngechu, 2004). The questionnaire included two segments of which the first segment contained bio data of the respondents, for example, age, sexual orientation and literacy level. The second segment included data on the determinants of financial inclusion.

3.6 Data Analysis

Both qualitative and quantitative data was obtained. The descriptive statistical tool assisted in describing the data and establish the extent used. Descriptive statistics, which included frequency description tables, mean, mode, median and percentages among other were used. Inferential statistics, together with SPSS were also used.

Summaries of responses for additional analysis and further comparisons were used and quantitative reports generated which included tables, percentages, measures of central tendency etc. The analysis of the qualitative data was done and represented in pros form.

3.6.1 Analytical Model

Multivariate regression model was used in order to establish the relationship of the study variables. The use of this model was neccesiated by its ability to test the nature of influence of the independent variable. In addition, it is also able to estimate the co-efficient of linear equation where one or more independent variables are used, and predict

the value of the dependent variable precisely. In order to analyze the data, linear regression analysis was used and the regression model was as follows;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where: Y = Financial inclusion as measured by the bank accounts numbers, bank branches

; β_0 = Constant Term; β_1 , β_2 , β_3 and β_4 = Beta coefficients which measure the change in financial inclusion as a result of a one unit change in group lending, individual lending, village lending and savings mobilization respectively.

X_1 = Group lending as measured by the natural log of group lending

X_2 = Individual lending as measured by natural log of individual lending

X_3 = Village banking as measured by natural log of village lending

X_4 = Saving mobilization as measured by natural log of saving mobilization

ε = Error term

3.6.2 Test of Significance

In order to determine the model significance at 95% confidence level, the Analysis of Variance (ANOVA) was adopted. This essentially tests the difference in the data sets for homogeneity purposes. Test statistic F was used where the null hypothesis was that there is not a general relationship between the response (dependent) variable and the predictor (independent) variables, and the alternative hypothesis is that there was one. The p-values of the F-test statistic were used to measure statistical significance. If p-values were very small (<0.05), there is a strong statistical evidence in support of the alternative hypothesis.

CHAPTER FOUR

DATA ANALYSIS, INTERPRETATION AND DISCUSSION

4.1 Introduction

The primary aim of the study was to establish the effect of microfinance banking on financial inclusion in Kenya. Section one gives demographic data of the respondents which indicates the qualities of respondents in microfinance organizations in Kenya. The second section consists of the data analysis of the four objectives and the analysis is based on the descriptive statistics.

4.2 Response Rate

43 respondents from microfinance institutions were targeted. Questionnaires were sent to all the respondents drawn from the credit department of the institutions (credit manager, and credit officers) who are perceived to be actively involved in the management of credit in the organization in the organization. Out of 43 questionnaires that were administered, 38 were filled and returned representing a response rate 88.83%. The response rates were viewed as adequate for analysis. According to Awino (2011), a response rate of 65 percent is satisfactory for such studies. Table 4.1 shows the response rate.

Table 4.1: Response Rate

Categories of Clients	Questionnaires administered	Questionnaires filled & returned	Percentage
Credit managers	18	15	88.88
Credit officers	25	23	73.91
Total	43	38	88.83

Source: Research Findings

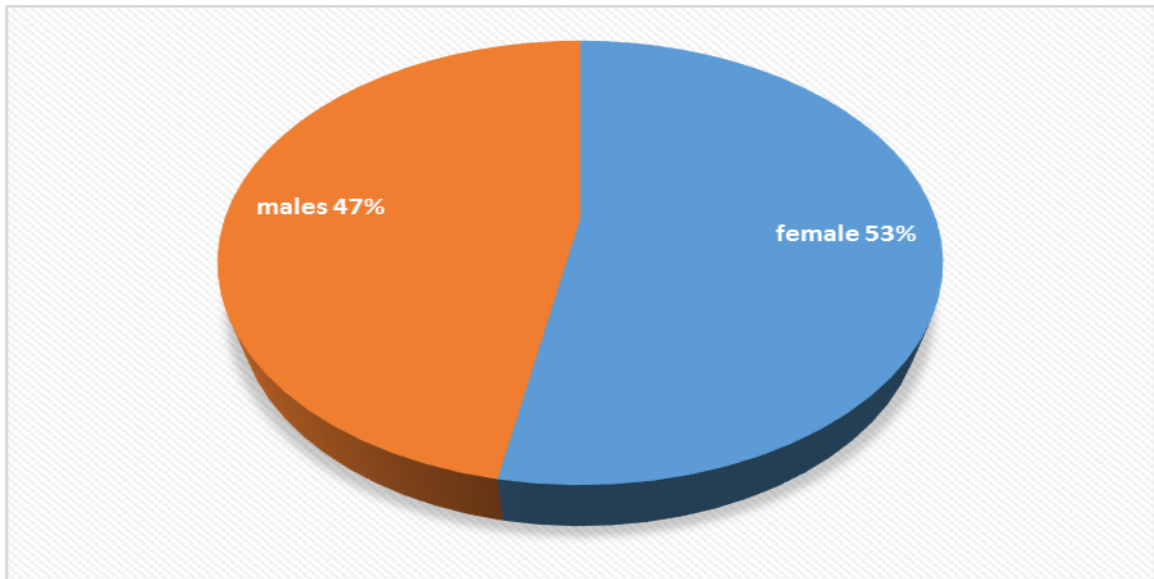
4.3 Demographic Information

The demographic information of the respondents was established in order to achieve the main objective of the study. This demographic data included: sex, age, literacy levels and number of years worked.

4.3.1 Gender of the respondents

The study sought to establish the sex of the respondents. The results indicate that there were more females than males. The female registered a high percentage of 53%, while the male were fewer at 47%. The findings were as represented in the **Figure 4.1**

Figure 4.1: Respondents Gender



Source: Researcher Findings

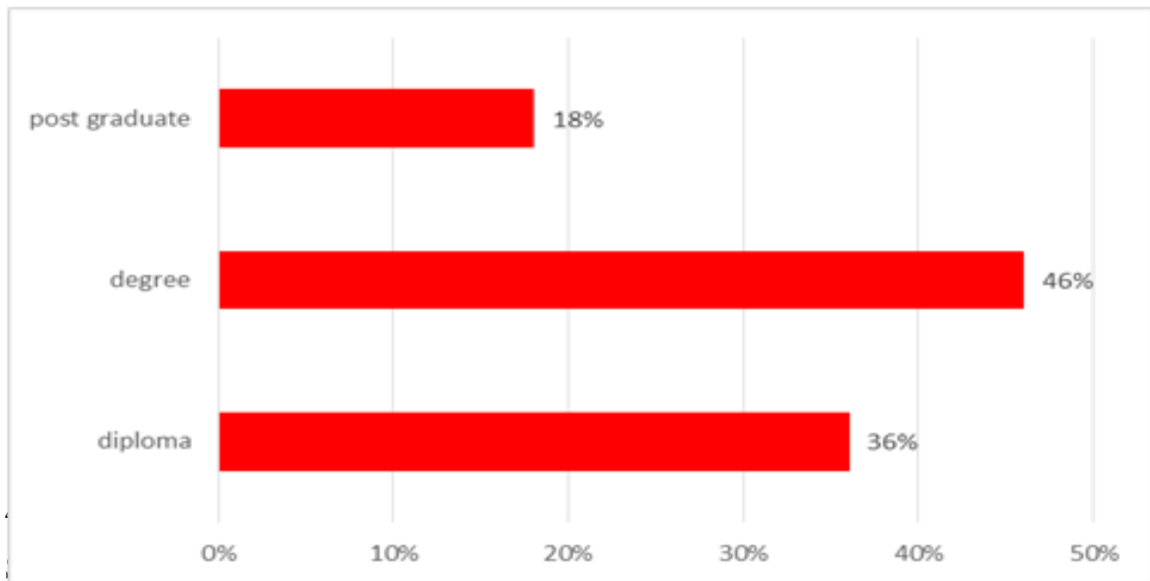
The determination of the literacy levels of the respondents was also done. This was to find out whether they had the intellectual skills and capability to perform their duties and responsibilities. It was observed that majority of them (46%) had a bachelor's degree, 36% had diploma certificate while 18% had a post graduate degree.

From the above, it is imperative that most of the respondents understood their responsibilities and duties well since they possessed undergraduate degrees. In addition,

the information sought from them was well understood by them since they were academically qualified.

Katz, Lazer, Arrow & Contractor, (2004) conducted a study whereby he wanted to find out the relationship between the literacy levels of the entrepreneurs and the success of their businesses. He found out that the businesses run by owners with high literacy levels were more successful. This was due to the fact that they were more knowledgeable than their counterparts and possessed management skills that were and useful in the modern business world.

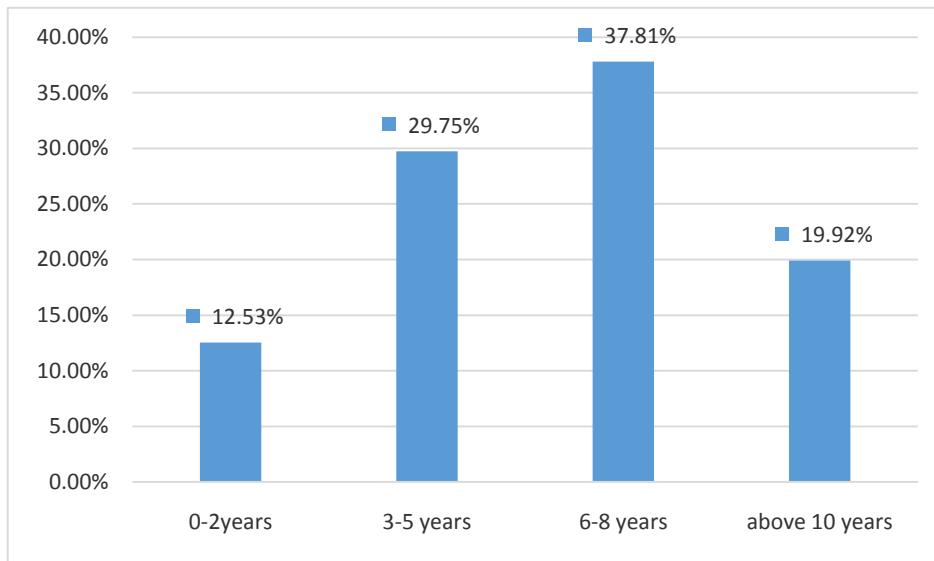
Figure 4.2 Level of Education



Source: Research Findings

The study sought to establish the respondents years of experience in microfinance institution. According to findings, 37.81% of the respondents had worked in the company for 6 to 8 years, 29.75% had worked for a period of 3-5 years. It was also noted that 19.92% of the respondents had been working in the institution for over 10 years. Some of the respondents 12.53% had worked for between 0-2 years Figure 4.3.3 below shows the summary of the findings.

Figure 4.2 Years of Experience in Microfinance Institution



Source: Research Findings

4.4: Effect of Microfinance Banking on Financial Inclusion In Kenya

4.4.1 Group lending and Financial Inclusion

The study also sought to establish whether the microfinance institutions were involved in group lending to the local population. It was established that all the institution offered group loans to different groups based on their savings and in some instances the availability of collaterals. The study went ahead and asked the respondents to designate their level of agreement based on the statement that were listed on a likert scale where 1 =Strongly Disagree, 2=Disagree, 3= Moderately agree, 4= Agree and 5=Strongly Agree.

Table 4.2 Group Lending and Financial Inclusion

Statements	Mean	Standard deviation
Our organization engages in client training and this helps them make better decisions regarding their financial resources	3.7482	0.7642
Group Lending is on one of the most important method of lending small amounts of money where no security is offered	4.4871	0.4545
Our groups before credit facilities are offered self selects themselves	3.9782	0.9675
Group members co-guarantees each other, hence they are responsible for ensuring that the individual members service their loans effectively.	4.5476	0.3557
The screening of the borrowers to ensure that they are eligible for advancement of credit is done by the members as opposed to the MFI.	4.5236	0.4231
The members do not provide collateral but use peer pressure amongst the members.	3.5785	0.3656

Source: Research Findings

The findings in the table 4.4.1 indicates that most of the respondents strongly agreed that screening of the borrowers to find out if they are eligible for loan advancement is done by the members rather than by the MFI. This was supported by a calculated mean of 4.5236 and a small standard deviation of 0.4231 which indicates that there was uniformity on the respondents. The respondents also strongly agreed that group members co-guaranteed each other and in case any of them did not pay, they would service the loan. This is illustrated by a calculated mean of 4.5476 and standard deviation of 0.3557 which implies that the respondents' responses were similar. In addition the respondents also agreed that group based loans were considered as one of the most important methods of advancing small amounts of money to many clients who cannot offer to offer security ee as represented by 4.4871. Furthermore the respondents also agreed that their institution trains the group to make informed and effective decisions with all of their financial

resources as illustrated by a computed mean of 3.7482 and a standard deviation of 0.7642 which indicates that there was moderate variation in responses made.

4.4.2 Individual Lending and Financial Inclusion

The study further sought to establish whether the MFI faced challenges when advancing individual loans as opposed to the other loan products. It was found that most of the individuals' loans are not serviced on time as compared to those issued in groups and have increased the number of non-performing loans in their institutions. Another challenge was that most individual might dispose their collateral before the loans were fully paid for.. The respondents were also required to indicate the level of agreement based on factors that influence individual lending and financial inclusion. The results calculated from SPSS were as represented in Table 4.4.2 below.

Table 4.3 Individual Lending and Financial Inclusion

Statements	mean	Standard deviation
In the microfinance sector individual lending services are expanding.	3.4765	0.6656
Many MFIs, and even today, have been conscious about the importance of serving poor people.	4.7871	0.4198
Microfinance institutions are now innovating new products to help meet these needs.	4.6922	0.5983
Most individual loans advanced to low income earners are offered by MFIs rather than the commercial banks.	2.4576	0.4545
Due to lack of provision of securities, the poor customers are classified as high risk customers.	3.9612	0.9675

Source: Research Findings

The results in the table shows that most of the respondents moderately agreed that microfinance sector individual lending services are expanding as shown by a calculated mean of 3.4765 and a standard deviation of 0.6656. Most of the respondents also strongly

agreed that many MFIs currently have been conscious about the importance of serving poor people as represented by a mean of 4.7871 and standard deviation of 0.4198. Additionally most respondents also strongly agreed that Microfinance institutions are now innovating new products to help meet the needs of their customers. This was represented by a computed mean of 4.6922 and a standard deviation of 0.5983. Further the respondents also agreed that the low income earners are considered as high risk clients since they do not possess securities for the loans advanced. This was as shown by a mean of 3.9612 and a standard deviation of 0.9675 which was relatively higher hence indicating that there was variation on responses made by the respondents. However the respondents disagreed that unlike MFIs, the commercial banks did not offer individual loans, which are unsecured, to the low income earners. This is as indicated by a calculated mean of 2.4576 and a standard deviation of 0.4545 which further shows that there was similarity on the responses made by the respondents.

4.4.3 Village Banking

Table 4.4 Village Banking and Financial Inclusion

Statement	Mean	Standard deviation
The availability of micro banking facilities and strong branch network are the major facilitators of developmental and expansionary activities	3.0877	0.6557
Our microfinance is located in an area with access to road networks	4.1466	0.4231
Our microfinance is based in an area with access to mobile telephone networks	4.5765	0.3656
Village bank gives non-collateralized advances to its individuals and offers an avenue to save and enhance cohesion amongst the members.	4.6829	0.5098
Village banking account helps poor groups to set up their own credit and associations.	3.8832	0.9331

Source: Research Findings

The results in table 4.4.3 shows that most of the respondents strongly agreed that the village banks advances loans with no securities, offers them an avenue to save and enhances their cohesion. This is illustrated by a mean of 4.6829 and a standard deviation of 0.5098 which indicates homogeneity in responses made by the respondents. It was also established that Village banking assists poor communities to establish their own credit and saving associations, or village banks as shown by a calculated mean of 3.8832 and a relatively high standard deviation of 0.9331 which indicates that there was variation on responses made by the respondents. Additionally the respondents also agreed that their microfinance is located in an area with access to mobile telephone networks as shown by a calculated mean of 4.5765 and a standard deviation of 0.5098. The study also found that availability of micro banking facilities and strong branch network are the major facilitators of developmental and expansionary activities as shown by a mean of 3.0877. This implies that the respondents moderately agreed to the statement.

4.4.4 Saving Mobilization

Table 4.5 Saving Mobilization and Financial Inclusion

Statement	Mean	Standard deviation
Member's funds are retained with the main aim being to use the funds for on-lending and expand the asset base of the bank.	4.6912	0.4358
Mobilisation of deposits is one of the major objectives of microfinance institutions.	4.2312	0.6375
The lack of suitable institutional investments facilities forces the individual to rely upon in-kind savings.	3.4530	1.2911
Deposits mobilizations are a very critical aspect in boosting development programs which are geared towards improving income levels.	3.5943	1.0011
Microenterprise projects play a critical role in deposit mobilisation among the poor.	4.2908	0.5018

Source: Research Findings

The study found that most of the respondents strongly agreed that member funds are retained with the sole aim of on-lending and expanding the asset base of the bank as shown by a high mean of 4.6912 and a standard deviation of 0.4358 which indicates similarity on respondents' responses. The results also show that lack of suitable institutional investments facilities forces the individual to rely upon in-kind savings as represented by calculated means of 4.2312 and 4.2908 respectively. However they moderately agreed that lack of suitable official savings avenues forces the individual to depend on upon in-kind savings as illustrated by a mean of 3.4530 and a high standard deviation of 1.2911 which indicates that there was deviation in responses made by the respondents.

4.5 Inferential Analysis

The study sought to establish the effect of microfinance banking on financial inclusions in Kenya. Pearson Correlation analysis was used to achieve this end at 99% and 95% confidence levels and show the association between the independent and dependent variables while the regression analysis was done to show the effect of the study variables in explaining the changes in financial inclusion.

4.5.1 Regression Analysis

In order to test the relationship of the variables on the organization's performance, multiple regression analysis was used. Statistical Package for Social Services (SPSS V 21) was used to code, enter and determine the multiple regression of the study. The Coefficient of determination shows how the dependent variables changes can be explained by changes in the independent variables.

Where: Y = Financial inclusion as measured by Number of bank Accounts

; β_0 = Constant Term; β_1 , β_2 , β_3 and β_4 = Beta coefficients which measure the change in financial inclusion as a result of a one unit change in group lending, individual lending, village lending and savings mobilization respectively.

X_1 = Group lending as measured by the natural log of group lending

X_2 = Individual lending as measured by natural log of individual lending

X_3 = Village banking as measured by natural log of village lending

X_4 = Savings mobilization as measured by natural log of saving mobilization

Regression model is used here to describe how the mean of the dependent variable changes with changing conditions. Regression Analysis was carried out and the focus was on group lending, individual lending, village banking and saving mobilization. To test for the relationship that the independent variables have on financial inclusion, the study used the multiple regression analysis.

Table 4.6 Model Summary

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate
1	0.937	0.878	0.789	0.5273

Source: Researcher

The four independent variables that were studied explain 87.8% of the financial inclusion as represented by the R^2 . This therefore means that other factors not studied in this research contribute 12.2% of the financial conclusion. This implies that these variables are very significant therefore need to be considered in any effort to boost MFIs financial inclusion in Kenya. The study therefore identifies variables as critical determinants of financial inclusion.

Table 4.7: ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	2.534	2	1.267	9.475	.0179 ^a
Residual	9.307	40	2.327		
Total	3.465	42			

NB: F-critical Value 88.33 (statistically significant if the F-value is less than 88.33: from table of F-values).

a. Predictors: (Constant), Group lending, individual lending Village banking and Saving mobilization.

Source: Researcher Findings

The significant level of 0.0179 as shown in the table above, which is below the 0.05, indicates that the model is statistically significant in predicting the effect of group lending, individual lending, village banking and saving mobilisation of MFIs in Kenya on financial inclusion. The F basic at 5% level of significance was 3.23. The F calculated is greater than the F critical (value = 9.475), and this therefore demonstrates that the model was significant.

The researcher further ran the procedure of obtaining the coefficients, and the results were as shown on the table below.

Table 4.8: Coefficient Results

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.147	1.2235		1.615	0.367
	Group lending	0.752	0.1032	0.152	4.223	.0192
	Individual lending	0.487	0.3425	0.054	3.724	.0269
	Village banking	0.545	0.2178	0.116	3.936	.0251
	Saving mobilization	0.439	0.1937	0.263	3.247	.0454

Source: Researcher Findings

Multiple regression analysis was conducted to determine the relationship between financial inclusion and the four variables. As per the SPSS generated table above, the equation ($Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$) becomes:

$$Y = 1.147 + 0.752X_1 + 0.487X_2 + 0.545X_3 + 0.439X_4$$

From the regression equation developed, taking all factors into account, (group lending, individual lending, village banking and savings mobilization) the constant at zero was 1.147. The analysis further shows that taking all the other independent variables to be constant, a unit increase in group lending will lead to a 0.752 increase in financial inclusion, while a unit increase in individual lending, village banking and saving mobilization will lead to a 0.487, 0.545 and 0.439 in financial inclusion respectively. This therefore means that contribution of the independent variables to financial inclusion can be ranked whereby the group lending has the most impact, followed by village banking, individual lending and finally savings mobilization.

At 5% significance level and 95% confidence level, group lending had 0.0192, individual level had 0.0269 and village banking had 0.0251 while savings mobilization had 0.0454. This therefore corroborates the fact that group lending is the most significant factor in financial inclusion.

4.5.2 Correlation Analysis

In order to measure the degree of association between the independent and dependent variables, Pearson correlation was used. The correlation coefficients range from -1 to +1, where the negative values indicate positive correlation while the positive values indicate positive correlation.

In addition, values <0.3 indicates a weak correlation, values $>0.3<0.5$ indicates a moderate correlation, while values >0.5 indicates a strong correlation.

Table 4.9: Correlation Coefficients

	Financial inclusion	Group lending	Individual lending	Village banking	Saving mobilization
Financial inclusion	1				
Group lending	0.672	1			
Individual lending	0.579	0.551	1		
Village banking	0.713	0.691	0.711	1	
Saving mobilization	0.611	0.324	0.614	0.713	1

*. Correlation is significant at the 0.05 level (1-tailed).

Source: Research Findings

The analysis above shows that Village banking has the strongest positive (Pearson correlation coefficient =.713; P value 0.000) influence on organization competitiveness. In addition, Group lending, Individual lending and Saving mobilization are positively correlated to organization competitiveness (Pearson correlation coefficient =.672, .579 and .611). The correlation matrix implies that the independent variables are very crucial determinants of financial inclusion as shown by their strong and positive relationship with the dependent variable which is financial inclusion.

4.6: Interpretation of the Findings

Out of 43 questionnaires administered, 38 were filled and returned representing a response rate 88.83%. This response rate was considered adequate for the analysis. The analysis of findings indicates that there were more female than male. The female registered a high percentage of 53%, while the male were fewer at 47%. However, the disparity in gender was not sufficient to create any biasness to the study findings.

It was found that majority (46%) pointed out that that they had bachelor's degree, followed by (36%) of those who indicated that they had diploma as their highest level of education. A few (18%) indicated that they had had attained post graduate as the highest level of education thus implying that all the respondents were academically qualified and also familiar with their duties and could perform them effectively in terms of professional work ability and performance.

The correlation matrix demonstrated that the independent variables are extremely significant determinants of financial inclusion as indicated by the strong and positive relationship with the dependent variable. The four independent variables that were studied clarify 87.8% of the financial inclusion as represented by R². This implies that these variables are very significant therefore need to be considered in any effort to boost MFIs financial inclusion in Kenya. At 5% level of significance and 95% level of confidence, group lending had 0.0192 level of significance, individual lending showed a 0.0269 level of significance, village banking showed a 0.0251 level of significance, and

saving mobilization showed a 0.0454 level of significance hence the most significant factor is group lending.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The chapter is a comprehensive overview of the whole study, and comprises of a summary of the findings, conclusions, recommendations and suggestions for further research.

5.2 Summary

In this section, the summary of the findings of the study, which is based on the key objective to determine the effect of microfinance banking on financial inclusion in Kenya, are highlighted. The main focus on the study is the based on the impact of group lending, individual lending, village banking and savings mobilization.

The findings indicated that most of the respondents strongly agreed that creditworthiness of the borrower is determined by the members rather than by the MFI. The respondents also strongly agreed that group members were jointly accountable for the repayment of each other's loan. In addition the respondents also agreed that group based lending is one of the most novel approaches of lending small amounts of money to a large number of clients who cannot offer collateral. Furthermore the respondents also agreed that their institution trains the group to make informed and effective decisions with all of their financial resources

The results showed that most of the respondents moderately agreed that microfinance sector individual lending services are expanding. They also strongly agreed that many MFIs currently have been conscious about the importance of serving poor people. Additionally most respondents strongly agreed that Microfinance institutions are now innovating new products to help meet the needs of their customers. Further the respondents also agreed that poorer clients are considered higher risk clients due to their lack of collateral. However the respondents disagreed that unlike MFIs, there are very

few conventional financial institutions which provide individual loans to low-income people.

Furthermore the results showed that most of the respondents strongly agreed that Village bank provides non-collateralized loans to its members and a place to invest savings and promote social solidarity. It was also established that Village banking assists poor communities to establish their own credit and saving associations, or village banks. Additionally the respondents also agreed that their microfinance is based in an area with access to mobile telephone networks. The study also found that availability of micro banking facilities and strong branch network are the major facilitators of developmental and expansionary activities.

Finally the study also found that most of the respondents strongly agreed that member's savings are kept for the purpose of lending or investing to increase the resource base of the bank. The results also show that most of the respondents agreed that Savings mobilization has recently been recognized as a major force in microfinance and that microenterprise programs can play a significant role for foster savings among the poor populations. However they moderately agreed that lack of appropriate institutional savings facilities forces the individual to rely upon in-kind savings.

5.3 Conclusion

From the findings the study concludes that to enhance financial inclusion creditworthiness of the borrower should be determined by the members rather than by the MFIs. The study also concluded that group based lending is one of the most novel approaches of lending small amounts of money to a large number of clients who cannot offer collateral hence increasing financial inclusion. Additionally the study also concluded that innovating new products helps to meet the needs of the customers. Further it was concluded that that village banks provides non-collateralized loans to its members and a place to invest savings which promotes social solidarity. In addition the study concluded that availability of micro banking facilities and strong branch network are the major facilitators of developmental and expansionary activities hence greater inclusion of

more community members. Finally the study concluded that savings mobilization is a major force in microfinance and other microenterprise programs that play a significant role for fostering savings among the poor populations.

5.4 Recommendations for Policy and Practice

Based on the findings the study recommends that microfinance institutions should take into account group lending, individual lending, village banking and saving mobilization in order to enhance financial inclusions in microfinance banking in Kenya. The study also recommends further studies to establish other factors that influence financial inclusion as the study accounted for 87.8% of the variations in financial inclusion. Further studies are also recommended to establish the influence of microfinance banking on the growth of the small and medium enterprises in Kenya.

5.5: Limitations for the Study

The study sought to determine the effect of microfinance banking on financial inclusion in Kenya; it was however subject to a number of limitations. These mainly related to the setup of the study relative to the resources available within the research period. Since the main purpose of this study was to establish the effect of microfinance banking on financial inclusion in Kenya, some of the microfinance institutions considered some information sensitive and confidential and thus the researcher had to convince them that the purpose of information is for academic research only and may not be used for any other intentions.

Owing to the sensitivity of information sought, the management considered it confidential; therefore, access was at times denied or otherwise limited. This negatively affected the validity and reliability of the data collected or unnecessarily made the research impossible. The researcher mitigated this by obtaining an introduction letter from the University of Nairobi and pledge confidentiality and assured the management of the institution that the data was to be used solely for academic purposes.

Due to inadequate resources, the researcher conducted this research under constraints of finances. Some respondents were biased while giving information due to reasons such as victimization in the event the research findings turned sour. Respondents were naturally

suspicious and uneasy when directed to cooperate in a study that they were not aware of its consequence.

5.6: Recommendations for Further Studies

The study sought to establish the effect of microfinance banking on financial inclusions. Further studies should be carried out to establish the influence Microfinance banking on the performance of financing institutions. Also, further studies should be carried out to establish the influence of Microfinance banking on the growth of small and medium enterprises in Kenya.

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APPENDICES

Appendix I: Letter of Introduction

Dear Respondent,

RE: RESEARCH PROJECT

I am a postgraduate student at Nairobi University pursuing Master of Business Administration Degree. I am carrying out a management research project aimed at assessing **THE EFFECT OF MICROFINANCE BANKING ON FINANCIAL INCLUSION IN KENYA**. The success of the research substantially depends on your cooperation. I hereby request you to respond to the questionnaire as honestly as possible and to the best of your knowledge.

The questionnaire is designed for the purpose of this study only, therefore the responses will be treated confidentially and no name will be required from any respondent.

Thanking you in advance

Yours sincerely,

PAMELA KABERIA

D61/60265/2011

Appendix II: Questionnaire

This questionnaire is designed to collect data on the effect of microfinance banking on financial inclusion in Kenya. Kindly tick in the space provided with the correct answer or supply the required information where, required, please specify and elaborate.

PART A: Respondents background information

1. What is your gender?

Female

Male

2. Indicate the age bracket to which you belong?

18-30 31-40

41-50 Above 50

3. Indicate your highest level of education qualification?

Diploma Degree

Post Graduate Others

4. Indicate the years you been working for your current employer?

0-2 years 3-5 years

6-8 years Above 10 years

PART B: ESTABLISH THE EFFECT OF MICROFINANCE BANKING ON FINANCIAL INCLUSION IN KENYA

To complete the questionnaires read and then rate each statement according to the following scale:

1 -Strongly Disagree

2 -Disagree

3 – Moderately agree

4 -Agree

5 -Strongly Agree

Section 1: Group lending on financial inclusion

5. Is your microfinance involved in group lending to the local population?

Yes

No

If yes
 how.....

6. What technical advice do you offer to various groups who want to be lent some funds?

7. What is your level of agreement with the following statements?

	1	2	3	4	5
Our institution trains the group to make informed and effective decisions with all of their financial resources					
Group based lending is one of the most novel approaches of lending small amounts of money to a large number of clients who cannot offer collateral					
Our group self-selects its members before acquiring a loan					
Group members are jointly accountable for the repayment of each other's loans					
The creditworthiness of the borrower is determined by the members rather than by the MFI					
Peer pressure and peer support among the members are considered as the bank guarantees of these loans					

Section 2: Individual lending and financial inclusion

8. What challenges do you face when lending to the individual members instead of other members?

9. What is your level of agreement with the following statements?

	1	2	3	4	5
In the microfinance sector individual lending services are expanding					

Many MFs, and even today, have been conscious about the importance of serving poor people					
Microfinance institutions are now innovating new products to help meet these needs					
Unlike MFIs, there are very few conventional financial institutions which provide individual loans to low-income people					
Poorer clients are considered higher risk clients due to their lack of collateral					

Section 3: Village Banking

10. Does your microfinance offer village banking services?

Yes

No

If yes please explain the challenges faced in their inclusion?

.....
.....

11. What is your level of agreement with the following statements?

	1	2	3	4	5
The availability of micro banking facilities and strong branch network are the major facilitators of developmental and expansionary activities					
Our microfinance is based in an area with access to road networks					
Our microfinance is based in an area with access to mobile telephone networks					
Village bank provides non-collateralized loans to its members and a place to invest savings and promote social solidarity					
Village banking assists poor communities to establish their own credit and saving associations, or village banks					

Section 4: Saving Mobilization

12. What saving mobilization strategies do you use to increase the capital of your microfinance?

.....
.....
13. What is your level of agreement with the following statements?

Attribute	1	2	3	4	5
Member's savings are kept for the purpose of lending or investing to increase the resource base of the bank					
Savings mobilization has recently been recognized as a major force in microfinance					
The lack of appropriate institutional savings facilities forces the individual to rely upon in-kind savings					
Mobilizing savings lift up important considerations for development programs that are working to boost productive income					
Microenterprise programs can play a significant role for foster savings among the poor populations					

Thank you for your time and co-operation in providing the information.