

**EFFECT OF JOINT LIABILITY LENDING MODELS ON
LOAN REPAYMENTS AMONG MICROFINANCE
INSTITUTIONS IN KENYA**

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D63/76165/2012

**A RESEARCH PROPOSAL SUBMITTED IN PARTIAL
FULFILLMENT OF THE REQUIREMENT FOR THE
AWARD OF THE DEGREE OF MASTERS OF SCIENCE
IN FINANCE, UNIVERSITY OF NAIROBI.**

JULY 2013

DECLARATION

This research is my original work and has not been presented for a degree in any other university.

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DEDICATION

This research study is dedicated to my parents, for their unwavering support, love and encouragement that they have given me since the beginning of this study. To my siblings Japheth, Jared, Jaspheer and Matilda may this be an example and encouragement to you that with determination, hard work and perseverance anything is possible.

ACKNOWLEDGEMENT

I wish to express my sincere gratitude and appreciation to my supervisors Dr Josiah Aduda for his valued assistance, guidance and contribution towards the success of this research.

I thank my colleagues for their encouragement and motivation. I also owe thanks to my family for their encouragement and financial support that enabled this work to be accomplished. Above all, thanks go to the Almighty God for the good health, knowledge and grace that has been sufficient during my study.

ABSTRACT

The objective of this study was to establish the effect of joint liability (group) lending model effect on loan repayment rates among microfinance institutions in Kenya. Microfinance program is an effort to reduce poverty and improve life quality for the poor and low income individuals. This program enables borrowers who do not have any physical collateral but still can borrow small loans to realize their business ideas. However, despite many positive achievements, microfinance still faces the challenge regarding default risks.

The objectives were: to establish the causes of default in group lending; to establish how screening and monitoring affects repayments rates; and to establish how enforcement mechanisms affect repayment rates among micro finance institutions in Kenya. The analytical techniques used were descriptive statistics in form of percentages, inferential statistics, Pearson correlation, ANOVA and multiple regression models.

The study found out that joint liability has a strong positive effect on loan repayment because of social cohesion and better information flow. Joint liability lending mechanisms were effective in ensuring timely repayments of funds, instilling supervision and administration traits among the group members. The study concluded that the group mechanisms should be upheld as they ensure increased probability of repayment rates and leads to creation of customer loyalty. The findings further indicated the positive impact of business training on repayment rate as the MFIs, which offers business training to its clients, has had higher repayment rate and less default than the with no training. In addition, the loan issued is secured by the co-signature of members within the group and not by the microfinance institution. Each member will put pressure on the others in the group to meet the loan repayment schedule. Thus, group sanction is reducing defaults among members in microfinance as all members of a group are jointly liable for default.

TABLE OF CONTENTS

DECLARATION	ii
DEDICATION	iii
ACKNOWLEDGEMENT	iv
ABSTRACT	v
LIST OF TABLES	ix
LIST OF FIGURES	x
LIST OF ABBREVIATION	xi
CHAPTER ONE: INTRODUCTION	1
1.1 Background Information.....	1
1.1.1 Lending Model.....	3
1.1.1.1 Group Lending.....	3
1.1.2 Loan Repayments.....	4
1.1.3 Effect of Lending Models on Loan Repayments.....	6
1.1.4 Microfinance Institutions in Kenya.....	8
1.2 Problem of the Study.....	10
1.3 Research Objectives.....	12
1.4 Value of the Study.....	13
CHAPTER TWO: LITERATURE REVIEW	14
2.1 Introduction.....	14
2.2 Theoretical Review.....	14
2.2.1 Moral Hazard Model.....	14
2.2.2 Strategic Default Model.....	17
2.2.3 Adverse Selection.....	18
2.4 Conclusion.....	26
CHAPTER THREE: RESEARCH METHODOLOGY	27
3.1 Introduction.....	27

3.2 Research Design.....	27
3.3 Population	27
3.4 Data Collection Method.....	27
3.5 Data Analysis and Reporting	28
3.6 Research model.....	28
3.7 Data Validity and Reliability	29
CHAPTER FOUR: DATA ANALYSIS AND PRESENTATION OF FINDINGS	30
4.1 Introduction.....	30
4.2 Data Presentation	30
4.2.1 Years of Operation	30
4.2.2 Causes of Loan Default	30
4.2.2.1 The Loan Products	30
4.2.2.2 Frequency of Repayment	31
4.2.3 Screening and Monitoring Mechanisms.....	32
4.2.3.1 Client Screening	32
4.2.3.2 Credit Use.....	32
4.2.3.3 Training	33
4.2.3.4 Supervision.....	34
4.2.3.5 Collateral	34
4.2.4 Enforcement Mechanisms	35
4.2.4.1 Loan Monitoring and Follow Up Action	35
4.2.4.2 Progressive Lending.....	36
4.3 Regression.....	37
4.4 Summary and Interpretation of Findings	39

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS	43
5.1 Summary	43
5.2 Conclusions.....	44
5.3 Recommendations to Policy	45
5.4 Limitations of the Study.....	47
5.5 Suggestions for Further Studies	47
REFERENCES.....	49
APPENDICES	54
APPENDIX 1: QUESTIONNAIRE	54
APPENDIX 2: LIST OF MICROFINANCE INSTITUTIONS	56

LIST OF TABLES

Table 4.1 Description of the main characteristics of the loan product	29
Table 4.2 Descriptions of features considered in approving loans.....	31
Table 4.3 Respondent by use of which they took the loan for.....	32
Table 4.4: Regression model.....	36
Table 4.5 Summary ANOVA.....	37

LIST OF FIGURES

Figure 4.1 Importance of training.....	32
Figure 4.2 Importance of collateral.....	33
Figure 4.3 Enforcement mechanisms.....	34
Figure 4.4 Progressive lending.....	35

LIST OF ABBREVIATION

AMFI	-	Association of Microfinannce Institutions
MFI's	-	Microfinance Institutions
NGO's	-	Non-governmental Organizations
SACCO	-	Savings and Credit Co-Operative
SME	-	Small Medium Enterprises

CHAPTER ONE: INTRODUCTION

1.1 Background Information

The need for financial access is evident as Beshouri and Gravak (2010) contended that the very poor in emerging economies have a surprising interest in financial services, and use them enthusiastically whenever possible. In spite of their interest, Chaia et al (200) estimated that over half of the world's adult population do not use any form of formal or semi-formal financial services.

In 2000 the United Nations set up the "Millennium development goals" striving to make the world a better place. One of these eight goals was to reduce poverty by half by the year 2015. A promising tool for this is microfinance, which has evolved into a global phenomenon and gained supporters across the globe. Much of the international attention on microfinance today is a result of the work by Nobel peace prize laureate Dr Mohammed Yunus and his Grameen bank in Bangladesh.

The combined effort of different organizations, companies and groups has laid the foundation for modern microfinance with new projects starting on a regular basis helping millions of people around the world. Microfinance has carved out a niche to help poor people in especially rural areas to overcome poverty and to take part in the society on a more extensive level. In order to evaluate microfinance a definition is needed to outline the different activities that the microfinance industry embraces.

Micro Finance means providing very poor family with very small loans to help them engage in productive activities and grow their tiny businesses over the time (Gonzalez, 2008). Today, MFIs have spread around the world, not only in developing countries but also in many richer western countries. Microfinance practitioners

estimate that 500 million poor people worldwide demand financial services, while MFIs reach only 15 to 70 million of them (CGAP, 2001).

Although there have been organizations concentrating on offering loans and saving opportunities to needy people before (Counts, 2008), Grameen Bank is known for successfully implementing the system of group-lending. Yunus (2007) argues that global poverty does not emerge from market failures, but from capitalism as a theoretical concept which does not fully model real economic structures in general and economic behavior of each individual in particular.

MFIs provide access to capital on smallest scales, and ideally act as social businesses realizing economic behavior augmented by social preferences. They enable poor and low income people to engage in productive economic activities and thus contribute to development in low income population. According to Masanjala (2002), their mechanisms constitute a for a long time missing link between the "arbitrariness of informal lenders" and the problems related to formal banking institutions.

Microfinance has achieved astonishing accomplishments over the past 30 years. It has demonstrated that poor people are viable customers, created a number of strong institutions focusing on poor people's finance, and begun to attract the interest of private investors. But despite these achievements, there is still a long way to go to extend access to all who need financial services (Helmes, 2006).

1.1.1 Lending Model

Methods of credit delivery can generally be divided into two broad categories of individual and group approaches based on how the MFI delivers and guarantees the loan. Individual loans are delivered to individuals based on their ability to provide the MFI with assurance of repayment and some level of security. Group based approaches make loans to groups, that is, either to individuals who are members of a group and guarantee each other or to groups that then sub-loan to their member.

1.1.1.1 Group Lending

The emergence of innovative group lending models in the field of microfinance is celebrated as a contractual innovation that has achieved the perceptible miracle of enabling previously unbankable or marginalized borrowers to lift themselves up by their own bootstraps by creating “social collateral” to replace the missing physical collateral that excluded them from access to more traditional forms of financial services, like credit, savings, and so on (Conning, 2000).

According to Ledgerwood (2000) group based lending involves the formation of groups of people who have a common wish to access financial services. And are frequently build on or imitate existing informal lending and savings group. He further states that group lending approaches have adapted the model of rotating savings and credit associations to provide additional flexibility in loan size and terms and generally to allow borrowers to access funds when needed rather than wait for their turn.

More well know group lending models include the Grameen Bank in Bangladesh and ACCION International’s solidarity group lending both of which facilitate the formation of relatively small groups (of 5 to 10 people) and make individual loans to

group members. Other models such as Foundation for International Community Assistance (FINCA) village banking model utilize larger groups of between 30 and 100 members and lend to the group itself rather than to individuals.

1.1.2 Loan Repayments

Lending is a risky enterprise because repayment of loans can seldom be fully guaranteed. The capability of borrowers to repay their microcredit loans is an important issue that needs attention. Borrowers can either repay their loan or choose to default. Borrower defaults may be voluntary or involuntary (Brehanu & Fufa, 2008). According to Brehanu and Fufa involuntary defaults of borrowed funds could be caused by unexpected circumstances occurring in the borrower's business that affect their ability to repay the loan.

Unexpected circumstances include lower business revenue generated, natural disasters and borrowers' illness. In contrast, the author further argues that voluntary default is related to morally hazardous behaviour by the borrower. In this category, the borrower has the ability to repay the borrowed funds but refuses to because of the low level of enforcement mechanisms used by the institution.

Repayment performance refers to the total loans paid on time as stated in the loan agreement contract. Godquin (2004) defines repayment performance in terms of binary variable; based on an arbitrary definition of what constitutes repaying "on time" (a given maximum "grace period" is allowed). Guttman (2007) measures repayment performance based on the degree of arrears. While, the term delinquency is defined as a failure to meet the repayment obligations at the date complete repayment

was promised (Nannyonga, 2000) and delinquent loans are loans that have been written off by a MFI (Norell, 2001)

According to Kassim and Rahman (2008) the causes to default risk are mainly from: the lack of post- disbursement supervision, which lead to moral hazard and; the lack of training on basic business skills and knowledge. They further argue that the absence of post-disbursement supervision regarding how funds are being used, can lead to a situation when borrower tend to use the funds for other purposes rather than investing in new or existing businesses. When borrowers use the loans for other purposes than for business investments, they might fail to repay their loans. The second cause of loan default is the lack of business knowledge. The authors further posit that the lack of knowledge on how to drive business can lead to excessive debts. Lack of basic business skills such as bookkeeping of sale transactions can also cause repayment default.

The success of the microfinance industry is largely attributable to product simplicity, standardization, and the capacity to stimulate clients' payment discipline (Armendariz and Morduch, 2010). The most widespread product, microcredit, has standardized features: short-term duration, small weekly installments starting right after loan disbursement, compulsory savings, progressive lending, and zero tolerance policy toward default. These features are indeed efficient for enhancing clients' discipline

Poor and low income individuals lack formal credit because lenders have little means to screen clients, monitor the use of funds, or enforce repayment. In recent years many development organizations have used group lending to deliver credit to these

individuals. Furthermore, group loans help formal lenders overcome the prohibitively high fixed cost of delivering small loans. Monitoring and enforcement are distinct, although difficult to distinguish empirically. According to Karlan (2006) monitoring itself does not guarantee repayment, but it allows a lending organization to know whom to punish for not repaying. Although a commercial bank can attempt to monitor business and life outcomes for individuals, it is both difficult and costly to do so. Group lending mechanisms provide incentives to the borrowers to monitor each other to see who can pay and who can not pay. Monitoring can take on several forms, such as observing repayment of the loan, visiting another's business to verify that it is in operation, showing receipts to demonstrate that inventory was purchased with the loan proceeds, and talking to others in the community to confirm negative shocks like illness.

Churchill (1999) records a certain level of experience in the field; he highlights the guiding principles of individual microcredit. Among these, recourse to (the) guarantor(s) or to non-conventional guarantees seems to be frequently used by MFIs. Nonetheless, as Churchill indicates, the individual guarantee mechanism used in micro financing has few points in common with the traditional concept developed in financial theory. In particular, it is not generally a question of finding an alternative source of repayment but of integrating the social sanction mechanism into the individual loan agreement. The purpose of these mechanisms is primarily to limit overdue repayment.

1.1.3 Effect of Lending Models on Loan Repayments

To enforce lending contracts, lending institutions typically resort to legal options, such as seizing property of the borrower or garnishing wages directly from the

employer. In most poor communities, such punishments fail for one of two reasons, either the legal infrastructure does not support such action, or the borrower has no ceazable assets or wages (Karlan, 2006). Group lending purports to overcome these failures by using people's desire to protect their social connections (and social capital) and avoid any possible repercussions. Such repercussions could be economic and result in reduced trading partners for one's business, social and lead to loss of friends, or psychological and damage one's self-esteem.

The expected relationship between the lending model was as follows: the researcher anticipates either a positive or negative relationship of the group lending models on loan repayments. Research has shown that a group lending mechanism is effective in reducing borrower defaults (Armendariz de Aghion, 1999). In group lending, the loan is secured by the co-signature of members within the group and not by the microfinance institution. Each member will put pressure on the others in the group to meet the loan repayment schedule. Thus, group sanction is important in discouraging defaults among members in microfinance (Van Tassel, 1999).

Along the joint liability of the borrowers, the group mechanism employs a combined set of incentives including also the so-called credit rationing (repeated access to further credits if previous loans are repaid), the dynamic incentives of increasing loan sizes, and the regular repayment schedules. A number of theoretical models explain how the combined mechanism drives high repayment rates. Nevertheless, doubts have been expressed that the mechanism per se, without the influence of other factors not considers in the models, is able to induce on-time repayments. The main reason for this skepticism is the fact that along the MFIs, which report repayments of nearly 100

percent, there are projects where the delinquency rate grows to sometimes 70 percent. The experience shows that often the reason for the breakdown is the loan officers' failure to fulfill their duties in the screening and enforcement process.

There are many MFIs all over the world which use either individual or group contract to achieve high repayment rates and secure their operational and financial self-sustainability. Nevertheless, proponents of both methods criticize the work of the other side and suggest that the one method should be substituted by the other. The main argument raised against the MFIs offering only individual contract is that they serve predominantly entrepreneurs whose income lays high above the poverty line since the collateral requirement per se makes it impossible for the poor people to apply for a loan. The group-lending contract is criticized for transferring the biggest part of the lending risk and costs from the lender to the borrowers (by inducing peer monitoring, peer pressure, mutual auditing, etc.), thus significantly increasing the price of the borrowed capital. Further, it is assumed that the restrictive increase of loan size decelerates the development of clients' businesses.

1.1.4 Microfinance Institutions in Kenya

Kenya's microfinance industry has come a long way since the 1980s, and particularly since the landmark Microfinance Intermediaries Act of 2006. The sector is one of the most vibrant in Sub-Saharan Africa. It includes a diversity of institutional forms and a fairly large branch network to serve the poor. In the 2000's, the microfinance sector witnessed emergence of large number of MFIs with some transforming to commercial banks and deposit taking institutions. The focus of these institutions gradually shifted from emphases on the very poor to the enterprise poor as demands on these

institutions to be become financially sustainable increased. The Microfinance Act 2006 became operational in May 2008.

The Act empowered the Central Bank of Kenya (CBK) to license and supervise deposit taking microfinance institutions. As of May 2010, non-deposit-taking microfinance institutions did not fall under the jurisdiction of the Central Bank's microfinance regulations, and as such they fall under either the SACCO category supervised by the SACCO Societies Regulatory Authority, or the informal microfinance category, which is unregulated except for the licensing required of all NGOs in Kenya.

The Association of Microfinance institutions of Kenya is a member institution that was registered in 1999 under the societies Act by the leading Microfinance Institutions in Kenya to build capacity of the microfinance industry in Kenya. AMFI presently has 59 member institutions serving more than 6,500,000 poor and middle class families with financial services throughout the country (AMFI). In 2007, Kenya received global recognition during the Group of Eight (G8) summit in Berlin for the progress made in the microfinance sector. On behalf of the sector, James Mwangi of Equity Bank was honored at the summit with the 2007 Global Vision Award on Microfinance (Ombara, 2007), a considerable milestone, which has highlighted the success of microfinance in the country.

Financial systems in developing countries are usually well described by theoretical models of market imperfections or market failures. These are characterized by the inefficient allocation of goods and services: the demand for credit or saving options is

usually higher than the supply of these financial services. The lack of collateral, as well as of borrowers' certain, stable and documented revenues, has always represented the main limitation to access formal credit for financially excluded customers and for poor people (La Torre et al, 2006). This is the case of poor people in developing countries that have no access to credit because they lack the financial collateral that financial institutions require to assure that the default probability of their clients is low.

Group based microcredit program is one of the most important innovations in development policy in the last fifty years. The group based microcredit program, central feature of Grameen Bank-style microfinance, allows borrowers who cannot provide collateral, to form their own group where members are mutually liable for each other's repayments although loans are provided to individuals (Guttman, 2007). The Grameen Bank website even claims "there is more to the bank than just the balance sheet; it ties lending to a process of social engineering." The peer lending context has been exported and replicated across the globe to diverse cultures and settings and has remained surprisingly successful at providing strong incentives for loan repayment.

1.2 Problem of the Study

Across developing countries, micro, small and medium enterprises are turning to microfinance institutions (MFIs) for an array of financial services, the most common being microcredit (Helmes, 2006). This is because microcredit is acknowledged as one of the prime strategies to achieve the 1st and 3rd millennium development goals, namely eradication of extreme poverty and hunger and promotion of gender equality

and empowering women. The MFIs employ group lending mechanism to meet the demands of these entrepreneurs.

Recent theoretical work, however, has begun to cast a skeptical eye on peer group lending, suggesting that a range of simpler borrowing schemes (from greater lender monitoring to regular repayment schedules) offer more effective repayment techniques than peer group liability (Armendáriz de Aghion et al,2000). Other researchers,(Diagne , 2000) indicate that even those with favorable views towards peer group lending, acknowledge that peer group pressure may generate conflicts, which may negate the positive benefits associated with group liability.

The experience from the breakdowns revealed that several prerequisites have to be fulfilled to induce high repayment rates: the focus on the target group - mostly borrowers who have no access to the regular banking system should be accepted, otherwise the non-refinancing threat will not be meaningful; secondly the deliberate grouping by its eventual members and not by the loan officers to ensure mutual responsibility for the joint-liability; moreover the restriction of the group size; and finally the enforcement of the group liability mechanism - exclusion from access to further loans must be made real to the complete group if it fails to repay all loans.

Kinyanjui (2010) undertook a study to establish whether gender influences the loan repayment behavior amongst the MFI in Kirinyaga district. His research found out that there is gender influence on loan repayment behavior among the Micro Finance Institutions and the nature of gender; the gender management skills; the gender loan experience and the gender loan strategies determine the success of loan repayments in

group lending approaches. Kiragu (2013) sought to find out how the group lending mechanisms affect the development of women based enterprises in rural areas in Kenyeny, Kisii county.

The researcher concluded that the group lending mechanisms were effective in ensuring timely access to funds, instilling supervision and administration traits among the entrepreneurs as well as enhancing enterprise stability and development over time, and the mechanisms should be upheld as they ensure increased probability of accessing funds and leads to establishment of essential business linkages and partners. Kendi (2013) conducted a comparative study of the preference of MFI's individual lending versus group lending and found out that MFI's in Kenya prefer lending to individuals. This research analyzed how group(joint liability) lending models affect repayment rates by examining what countervailing processes may affect repayments which have not yet been analyzed.

1.3 Research Objectives

The main objective of this study was to determine the impact of group lending models on loan repayments among microfinance institutions.

The specific objectives for the study were:

1. To establish the causes of default in group lending among MFIs in Kenya.
2. To establish how screening and monitoring affect repayment rates among MFIS in Kenya.
3. To establish how enforcement mechanism affects repayment rates in MFIs in Kenya.

1.4 Value of the Study

Findings of this research will be of importance to the academic world by contributing knowledge of group lending models and repayments and in laying a platform for future studies. It will assist the policy makers in reviewing current models and coming up with new models to assess the credit reliability of groups to be issued with loans.

The study findings are expected to enhance further research in the MFI industry both in Kenya and internationally on microfinance outreach.

The study is expected to enable the identification of better lending policy strategies that are critical for better outreach of MFIs. MFI used in the study, will benefit from this research by improving on the understanding of how the lending models affect repayment rates and give them a better understanding on how better formulate policies that will reduce the default rates.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter contains a review of theories and empirical review in the sector of joint liability lending for micro financial institutions.

2.2 Theoretical Review

Theoretical and empirical literature on group lending addresses the central problem of designing mechanisms in a way that borrowers have an incentive to repay their loans as well as an enforcement mechanism (Egli, 2004). This section will look at the various theories that have been advanced relating to loan repayments. The theoretical literature on micro-lending addresses the central problem of designing mechanisms in a way that borrowers have an incentive to repay their loans. It provides a comprehensive overview about the mechanism of joint liability, in particular how it alleviates the difficulties of adverse selection, moral hazard, and repayment enforcement (strategic default), problems which have to be solved in any loan contract. This research aims to analyze how the typical problem of loan default can be solved by employing the individual and group lending models.

2.2.1 Moral Hazard Model

The theory of moral hazards refers to the possibility of a person being less concerned about negative consequences of undertaking a risk as a result of having some form of insurance. The problem may arise when individuals or institutions do not alone bear the full risk of a transaction and therefore will not act as carefully as they would if that was the case. This, in turn, may jeopardize the returns of the transaction, i.e. the investment- or project return. Armendáriz de Aghion and Morduch (2005) states that moral hazard in lending refers to situations where lenders cannot observe either the effort made or action taken by the borrower, or the realization of project returns. Any

lack of information that the lender has about borrower's action between the time the loan has been disbursed and the borrower's project outcome has been realized is classified as *ex ante* moral hazard. *Ex ante* moral hazard relates to the idea that unobservable actions or efforts are taken by borrowers after the loan has been disbursed but before project returns are realized.

The theoretical model by Stiglitz (1990) shows how peer monitoring under joint liability lending can help to mitigate *ex-ante* moral hazard. In his work, he argues that the group-lending contract circumvents *ex ante* moral hazard by inducing borrowers to monitor each others' choice of projects and to inflict penalties upon borrowers who have chosen excessively risky projects. The author further asserts that the repayment rate decreases with the interest rate and the size of the loan. In both cases, success becomes a less attractive outcome compared to the case in which the project fails; therefore, an increase in the interest rate or in the size of the loan causes the risky project to dominate the safe project. Banerjee et al. (1994) also studies how joint liability lending can help to overcome the problem of *ex ante* moral hazard. The authors introduce monitoring and demonstrate how local information facilitates the role of borrowers as monitors since they can impose higher penalties on their peers in case of default.

Another source of credit market imperfection is often referred to as "*ex post* moral hazard" or the "enforcement problem." The term *ex post* refers to difficulties that emerge after the loan is made and the borrower has invested. Even if those steps proceed well, the borrower may decide to "take the money and run" once project returns are realized (Armendáriz de Aghion et al, 2005). This kind of situation arises

either when the lender does not fully observe the borrowers' profits (so the borrower can falsely claim a loss and default), or, when having observed returns, the lender cannot enforce repayment by the borrower. Group lending with peer monitoring can, however, induce each group member to incur a monitoring cost ex post to check the actual revenue realization of her peer.

Ghatak (1999) argues that despite information asymmetry, joint liability lending allows for pareto superior equilibrium in credit markets if group formation is conducted appropriately. Ghatak shows how groups formed through self selection will result into members with homogenous quality. The author further explains that through the assortative matching process, groups end up with less risk borrowers, directly reducing moral hazard, which leads to a lower equilibrium interest rate leading to a pareto superior outcome relative to individual lending.

The main tool used by the individual lenders to prevent the clients from moral hazard behavior is the regular repayment schedule. Armendariz and Morduch (1999) argue that regular repayment schedules screen out undisciplined borrowers; give loan officers early warning about emerging problems; and provide bank staff with valuable information about clients' behavior over time. For example, if the loan contract foresees weekly or monthly installments, the loan officer receives early information if the borrower is undisciplined or faces a problem in his business. Furthermore, regular repayments, in particular if the repayment schedule has started before the investment has created income to the borrower, enables the MFI to lend against further income streams of the borrower's household. Hence, with introducing this program feature

the MFIs expect to both sufficiently reduce the possibility of moral hazard behavior and diversify the business risk in the credit groups.

The analysis of group contracts show that an access to higher loans (dynamic incentives) induces peer monitoring, peer support and peer pressure among the borrowers when access is made dependent on the repayment of all borrowers in the group. Denitsa and Vigenina(2005) asserts that threatened with exclusion from further loans if one (or more) of its members is not able to repay (a failure burdening the rest of the group with additional payments), each person will monitor the other members so that investments are undertaken in a profitable way. Further, each person will support the other group members if they face repayment problems they are not responsible for, and each borrower will be put under pressure if he misuses his loan. As a result, the probability of moral hazard is reduced because, by introducing joint-liability contracts, a considerable part of the risk is transferred from the lender to the borrowers.

2.2.2 Strategic Default Model

The problem of strategic default arises when borrowers are able but unwilling to meet their obligations. The lender's enforcement capacity is created through the termination threat. Besley and Coate (1995) analyze the borrowers' decision regarding whether to repay the loan or not after the project returns are realized. This decision depends on the cost of repayment (i.e. the gross interest rate) and the severity of the penalties imposed by the lender and the group or community. The Besley & Coate model of strategic default or limited enforcement is instinctly different from the others in that there is no moral hazard and no adverse selection problem. According to Ghatak and Guinane (1999) enforcement problem arises not from informational

asymmetries but from the lender's limited ability to apply sanctions against a delinquent borrower. Even if the borrower's project succeeds so that she/he is able to repay, she/he may still refuse to repay if the legal system does not work very well and if the poverty of the borrower restricts the amount of effective sanctions.

The lender's enforcement capacity is created through the termination threat (Besley and Coate 1995, Armendariz 1999, Kritikos 1999 as cited by Denitsa and Vigenina,2005). With joint-liability, if a borrower rejects to repay his share of the loan, the whole credit group is considered as being in Default losing access to subsequent loans. This induces the group either to repay for the delinquent partner, or to exert social pressure on him. As a consequence of these incentives, lenders are able to achieve the repayment of all loans with high probability.

When it comes to the enforcement of loan contracts (if a borrower rejects loan repayment), the loan officers again plays the main role by warning and if necessary sanctioning defaulting clients. Except the threat of selling the collateral within few days, they can cut off borrowers from further access to loans. The effects of non-refinancing threats were first formalized in Bolton and Scharfstein (1990) as cited by Vigenina (2004). Borrowers with satisfactory repayment records may receive access to further loans of increasing volume. This gives sufficient incentives to all entrepreneurs who expect positive utility out of future investments (financed by future loans) to repay their current loan as scheduled.

2.2.3 Adverse Selection

Adverse selection arises when borrowers have characteristics that are unobservable to the lender but affect the probability of being able to repay the loan and is a

consequence of market imperfections in the form of information asymmetry between economic agents. Ghatak (1999) analyzes how joint liability lending programs take advantage of local information that borrowers have about each other's projects through self-selection of group members. Ghatak & Guinnane (1999) posit that lender can try to deal with this information problem directly, by trying to assess these characteristics, or indirectly by offering loan terms that only good risk will accept. The typical method for separating good risks from bad risks is to ask the borrower to pledge collateral. Risky borrowers are likely to fail more often and lose their collateral. If the bank offers two different contracts, one with high interest rates and low collateral and the other with the opposite, risky borrowers will select the former and safe borrowers the latter. But poor people by definition do not have assets that make useful collateral, meaning that lenders have no effective way to separate good risks from bad.

Group lending deals with adverse selection by drawing on local information networks to achieve the equivalent of gathering direct information on borrowers and using differences in loan terms to separate good from bad borrowers. Several recent papers have examined the effect of joint-liability on the selection of groups (Sadoulet, 1998; Ghatak, 1999 ; Laffont and N'Guessan ,1999 as cited by Ghatak and Guinane 1999). Most of these studies use an adverse-selection framework where borrowers know the characteristics of each other's projects relevant to their creditworthiness, but the bank does not.

To mitigate adverse selection problems, microfinance institutions, like most conventional credit providers, take their loan applicants through an elaborate

screening procedure before granting a loan. Most individual MFIs provide financial services only to entrepreneurs who are able to pledge collateral as the main mechanism for tackling adverse selection. Collateral - covering as a general both the loan amount and the interest payment - signals the borrower's willingness to fully repay the loan. To further mitigate the adverse selection process the individual micro-lending institutions introduce a complementary screening process. The main role is given to the loan officers who try to generate as much information about the borrower's capacity and willingness to repay as possible.

Most empirical studies have focused on how peer group schemes can overcome the inherent problems associated with credit constraints and asymmetric information in financial markets. Specifically, in a world where borrowers lack collateral, group lending has been shown to mitigate problems associated with adverse selection, moral hazard, contract enforcement, and state verification. Group lending with joint liability overcomes these problems by passing the monitoring activity onto the borrowers themselves (Ghatak *et al*, 1999). The underlying idea is that group members will monitor their peers and pressure individuals who might misuse their loans not to do so. While this monitoring activity is costly for the borrower, it is assumed to be much less costly than for the lender, since group members will typically know each other well in advance of the date of borrowing.

A key feature of MFIs that is often linked to delinquency risk is the frequent collection of loan installments. A study carried out in India by Field and Pande (2006) concludes that to improve repayment performance most microfinance contracts require that repayments start nearly immediately after loan disbursement and occur

weekly thereafter. Even though economic theory suggests that a more flexible repayment schedule would benefit clients and potentially improve their repayment capacity, microfinance practitioners believe that fiscal discipline imposed by frequent repayment is critical to preventing loan default. Nonetheless, frequent repayments increase transaction costs and increase default risk when clients graduate to larger loans since this increases the amount of their cash outlays. According to Dixon et al (2007) default risk has also been found to increase when loan officers fail to undertake their key roles – screening and encouraging clients, and training them on financial discipline – properly.

Empirical investigations have pointed out a number of factors that may affect the likelihood of delinquency on microcredit obligations. In their study in Malaysia on factors affecting loan default Mokhtar et al. (2009) found that training an MFI borrower and the loan amount advanced are significant factors affecting loan default. In addition Laure and Baptiste (2007) found that loan amount is a significant variable affecting default in microcredit programs. The interest rate has also been found to be an important factor affecting microcredit loan delinquency (Pereira and Mourao, 2012).

According to Vigenina and Kritiko (2004) the three leading elements that have been found to enhance loan repayment are: the demand for and use of nonconventional collateral, a screening procedure which combines new with traditional elements in conjunction with dynamic incentives coupled with the threat to terminate loan at anytime evidence of default is noticed. According to Roslan *et al.* (2007) close and

informal relationship between MFIs and borrowers may help in monitoring and early detection of problems that might lead to non-payment of loans.

Hulme and Mosley (1996) argue that the important factors contribute to loan repayment performance are the design features of the loan. They categorize the design features into three categories namely access methods, screening methods and incentive to repay. Access methods generally ensure that poor people access the loans not the richer ones and the features include maximum loan ceilings and high interest rate. While, screening methods are used to screen out bad borrowers.

Viganò (1993) uses data from a CNCA group lending project in Burkina Faso to create a credit scoring model. Viganò argues that five factors affect credit risk including ability to repay, willingness to repay, favorable external conditions, quality of information upon which analysts base their judgment, and the bank's ability to ensure the customer's willingness to repay through an effective incentive structure.

Wenner (1995) studied the validity and cost effectiveness of group lending as a means to transmit information about borrower credit worthiness using information of 25 groups from a lending programme in Costa Rica. In his studies he found that groups that screened on the basis of an internal written code of regulations had better internal as well as external repayment rates than those that did not. This variable implicitly measures screening, monitoring and enforcement activities that take place within the groups. Another variable that is found to determine repayment is the location of groups: if groups were located in remote areas this reduces their possibilities for

access to alternative sources of credit, which stimulates them to ensure group repayment as much as possible in order to have future access to loans.

Wydick (1995) demonstrates that the social cohesion of groups in Guatemala, by mitigating adverse selection and moral hazard and by encouraging mutual insurance, is the primary determinant of group lending's high repayment rates. In a peer-monitored loan each member of the group must be given incentives to act both as a borrower on his financed production project and as a delegated monitor choosing the optimum intensity to monitor and/or otherwise attempt to control the actions of other members in the group.

Sharma and Zeller (1997), empirically prove that groups formed with self selection perform better in terms of loan repayment as compared to the opposite situation. This is due to the fact that group members have privileged access to information about their peers because they are part of the same social network. Consequently, they are better able to select the best peers, monitor them and enforce loan contracts. By using data of 128 groups from four group lending programmes in Bangladesh they indicate that if borrowers are more credit rationed this increases repayment performance. This result can be taken as evidence for the fact that group members have more incentives to screen, monitor and enforce if they have no alternative credit sources.

Zeller (1998) investigated the effect of intragroup risk pooling and social cohesion on the repayment rate. The data used by Zeller was obtained from a random sample of 146 groups from six different group lending programs in Madagascar. Zeller's results showed that repayment rate increases with more diversification of the group's joint

asset portfolio. The author further finds that groups with stronger ties show higher repayment rates and groups with internal rules and regulations demonstrate better repayment rates.

Paxton et al. (2000) use data of 140 groups from a group-based lending programme in Burkina Faso. They show that the homogeneity of the group in terms of their ethnicity, occupation and income, reduces its repayment performance. This may indicate that if members are more homogeneous they have lower incentives to screen, monitor and enforce each other and may start to collude against the programme. They also show that social pressure within groups is positively related to repayment performance. Finally, they find that the quality of the group leader in running the group is positively related to repayment performance, which may be seen as evidence for the fact that the group leader plays a prominent role in screening, monitoring and enforcement within the group.

Hermes et al (2005) provide an empirical analysis of the impact of monitoring and social ties within group lending programs on moral hazard behavior of its participants, based on data from 102 groups in Eritrea. They discovered that peer monitoring by and social ties of group leaders do help to reduce moral hazard behavior of group members.

Bhatt and Tang (2002) studied the determinants of loan repayment in microcredit evidence from programs in the United States. Their study showed that women has low repayment rate because some women entrepreneur in the study might have been engaged in high risk and low return activities. Godquin (2004) also examined the

microfinance repayment performance in Bangladesh. His result is female borrowers did not proven to have a significant better repayment performance. The size of loan and the age of the borrower showed the negative impact on the repayment performance.

Cull et al (2006), comparing institutional profitability of 124 institutions in 49 countries, find positive correlations between interest rate yield and sustainability, but at particularly high rates they find default problems begin to occur for individual lending programs, but not for group lending programs. This suggests perhaps that the classic models of information asymmetries are indeed salient for individual liability, but that group liability has helped to mitigate the key factors driving the information asymmetry problems. Advocates of group lending not only argue that in fact it does mitigate information asymmetries, but typically offer an explanation as to how: by taking advantage of the social networks and relationships.

Roslan and Abd Karim (2009) investigated microcredit loan repayment behavior in Malaysia. They discovered that borrowers involved in non-production oriented business activities such as in the service or the support sectors who had training in their particular business and who borrowed higher loans had lower probabilities of defaulting.

Okorie (1986) as cited by Mokhtar et al studied the repayment behavior in one agricultural corporation in Nigeria. The author's found that borrowers who received a loan in kind had higher repayment rates than borrowers who received a cash loan. This was because many borrowers misused the cash, diverting it into personal

consumption instead of investing in making their business productive. Regular visits by the loan officer to the borrowers' business site and higher profits generated by the borrowers also contributed to higher repayments by borrowers.

2.4 Conclusion

Group lending advocates believe that their approach works because members of the group are able to select trustworthy peers, monitor the use of loan proceeds and enforce repayment better than an outside lending organization. Group members are also in a better position to assess whether default is due to strategic reasons or whether it is beyond the borrower's control. Thus, the group can enforce repayment in the case of strategic default, and in the case of genuine default it can offer insurance services. A review of the literature on group lending mechanisms shows that these mechanisms may help in enhancing repayment performance.

As mentioned above, various studies were conducted on the determinants of loan repayment performance in different countries but none of such studies have been conducted in Kenya trying to ascertain the effects of lending models on loan repayments.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This section explains and justifies the research strategy chosen. It includes research design, target population, sample and sampling technique, data collection methods and data analysis techniques are addressed.

3.2 Research Design

Cooper and Schindler (2008) refer to research design as the plan and structure of investigation so conceived as to obtain answers to the research questions. This research adopted the causal research design. According to Mugenda & Mugenda (2003) causal research is used to explore the relationship between variables.

3.3 Population

Mugenda et al (2003) defines a population as an entire group of individuals, events or objects having a common observable characteristic. For the purpose of this study the population was defined as the entire 52 member registered by Association of Microfinance Institutions of which 48 have a presence in Nairobi. All the 48 were surveyed, however only 35 returned the questions of which 4 were incomplete and had missing information thus discarded. A table containing the organizations is included in the appendix II.

3.4 Data Collection Method

Data was collected from both primary and secondary sources. The main primary source was questionnaires administered to the respondents. A structured questionnaire was used to gather data from credit officers and other personnel at the institutions of the microfinance institutions registered by the Association of Microfinance Institutions of Kenya (AMFI).The questionnaire used in the study was designed to

include both structured and unstructured questions. This will ease analysis of data to be collected as well as permitting a greater depth of response (Mugenda & Mugenda, 2003). Secondary sources on the other hand included information and data from the journals, books and internet, AMFI and organizational articles. The data collected covered a period of three years up to 31st June 2013 in respect of loan interest, duration, loan amount, repayment intervals and whether the recipient received training.

3.5 Data Analysis and Reporting

The data obtained from this study secondary, primary, qualitative and quantitative was processed and analyzed in accordance with the research plan. According to Kothari (2004), processing implies editing, coding, classification and tabulation of collected data for easy analysis. Editing assures that data is accurate, consistent, uniformly entered and complete to facilitate coding and tabulation. Coding is necessary for efficient analysis and helps to reduce large quantities of data to a small number this is done by use of symbols and numerical.

Classification reduces raw data into homogeneous groups while tabulation assembles data in logical order which provides basis for various statistical computations. All data was processed using Statistical Package for the Social Sciences (SPSS) 17.0 computer software. Descriptive statistics percentages and inferential statistics will be applied to the data.

3.6 Research model

According to Mugenda & Mugenda (2003) regression analysis is a type of analysis used when a researcher is interested in finding out whether an independent variable predicts a given dependent variable. This research study will use a multiple regression

model. Multiple regression attempts to determine whether a group of variables together predict a given dependent variable (Mugenda et al). The formula is given by:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \varepsilon$$

Where: Y - amount of repaid loan (mean percentage of amount repaid by clients)

X_1 – interest charged per month (%)

X_2 - duration in months of the loan

X_3 - training time (Number of days)

β_0 - β_4 - are the regression coefficients

ε -the error term

The results will be presented to the university and the various MFI's where the information will be used at their discretion.

3.7 Data Validity and Reliability

Prior to using instruments to collect data, they were pilot tested in a MFI not included in this study. According to Saunders et al (2003) the purpose of the pilot test is to refine the instruments so that the respondents will not have a problem in answering the questions and provide for easy recording and analysis of data. This also helps to assess the validity of the instruments and likely reliability of the data that was collected.

CHAPTER FOUR: DATA ANALYSIS AND PRESENTATION OF FINDINGS

4.1 Introduction

This chapter contains descriptive data presentation, explanations of the findings, regression analysis and conclusions based on objectives of the study.

4.2 Data Presentation

4.2.1 Years of Operation

On the number of years that the organizations have been in operation, the results showed 41.9% 10 or more years old, those below 5 years were 29% and between 6 and 10 years were 29% old since they started operating.

4.2.2 Causes of Loan Default

4.2.2.1 The Loan Products

Table 4.1 Description of the loan features and its importance in

Progressive?	yes lower interest rates, larger loans with longer maturities after each successfully repaid loan
monthly interest rates	1.5% to 2 %
Repayment frequency	weekly
Liability	Joint
Collateral	Joint savings (up to 30% of loan)

The purpose of the group loan was to allow the recipient to finance small scale entrepreneurial activities. Other dynamic incentives included the possibility to increase the loan amount and /or maturity after each repaid loan. Most group loans

were composed of individually approved sub-loans with a maturity between 3 and 12 months on the loan cycle with similar maturity. Before applying for a loan, groups had to build up savings in a joint account equivalent to 30 per cent of the requested loan amount. The savings do not only serve as collateral but were also a means of ascertaining whether potential borrowers had sufficient financial discipline.

The results further indicate that the higher the loan size the greater the probability of default as the clients could easily divert part of the proceeds to noneconomic activities. Before applying for a loan, groups had to build up savings in a joint savings account equivalent to 30 per cent of the requested loan amount. The savings not only served as collateral but were also a means of ascertaining whether potential borrowers had sufficient financial discipline. Group leaders were responsible for monitoring and collecting loan repayments and handing them over to the loan officer on a monthly basis.

This study found a significant negative effect of repayment period at the 5% significance level. The findings imply that borrowers who had a loan period of over one year had a greater probability of having a loan repayment problem. Microfinance institutions have a policy on the size of loan to be extended to potential borrowers. The policy is to extend small size loan which finally increases at a gradual rate as the client fulfills their prior loan obligation. All the MFIs have a general policy of extending loans over short term periods up to one year

4.2.2.2 Frequency of Repayment

Frequent repayments provide clients with a commitment device that helps them form a habit of saving (this facilitates loan repayment), and improves their trust in loan

officers and their willingness to stay on track with repayments. The Pearson coefficient of correlation indicates a negative relationship ($p=-0.115$) between the frequency repayment and default. This relationship implies that the variation in default rate is explained by only 11.5 % of repayment frequency and when the frequency increases the default rate decrease.

4.2.3 Screening and Monitoring Mechanisms

4.2.3.1 Client Screening

To mitigate the adverse selection process the individual micro-lending institutions introduce a complementary screening process. The screening process considers several factors that determine the credibility of the borrower and their ability to repay their loan obligations. The key factors considered in the screening process are displayed in Table 4.2 below. 45.2% of the MFIs considered the purpose (business) of the loan very important in their preliminary screening.

Table 4.2 Descriptions of features considered in approving loans

Factor	Important	moderately important	Very important	Extremely important
Ability to pay Interest rate above 1.6% pm			45.20%	54.80%
Business loan	12.90%	41.90%	45.20%	
No collateral	35.50%	41.90%	12.90%	90.30%
Weekly loan repayment ability	16.10%		38.70%	45.20%

4.2.3.2 Credit Use

With respect to the purpose for which loan was taken, It was observed that the majority of the borrowers i.e., 58.1% took the loan for starting entrepreneurial activity

and 35.5 % for other uses while few 6.5% took loans for both business and personal use. Credit use was found to have made critical impact on the repayment default rate having a $p > 0.5$ indicating that if the loan proceeds is used for the intended purpose the default rate decreases.

Table 4.3 Respondent by use of which they took the loan for given purpose.

	Percent
Business	58.1
Non business	35.5
Both business & non business	6.5
Total	100.0

4.2.3.3 Training

One of the components of monitoring identified was training to customers and potential loan beneficiaries. As shown on figure 4.1 below 93.5% of micro finance respondents identified loan education as one of the key feature of loan monitoring.

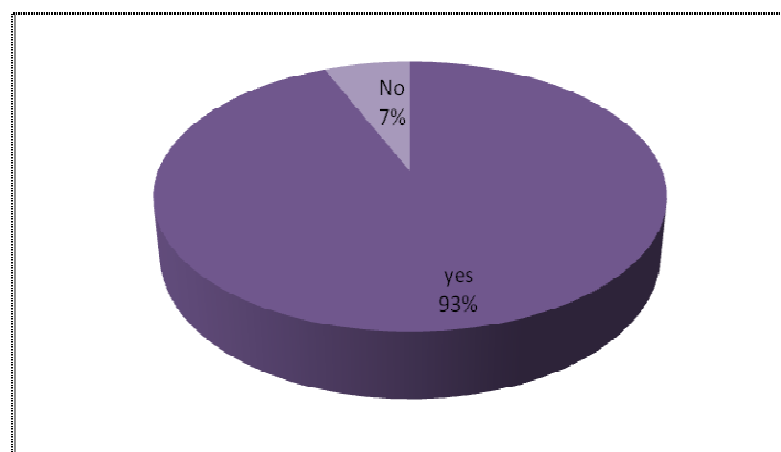


Figure 4.1 Importance of training

The MFIs educate potential beneficiaries on all aspects relating to loans such as funds availability, business undertaking and repayment. On the other hand only 6.5% did not find training an important factor. The Pearson correlation that there is a negative relationship between training and default with a $p = -0.1$

4.2.3.4 Supervision

Sufficiency of supervision on loan utilization is an important factor contributing to a better loan repayment performance. During the survey it was known that people from the MFIs appear on the monthly meetings at given centers. It is during such meetings that supervision is done with main focus on loan repayment. The personnel of the organization also visit the client to ascertain whether the business started with the funds is operational and its profitability. The number of visits to the clients also acted as an incentive to repay the loan. The Pearson correlation ($p = -0.18$) indicated that as the number of visit increase the default rate decreases indicating a negative relationship though not significant.

4.2.3.5 Collateral

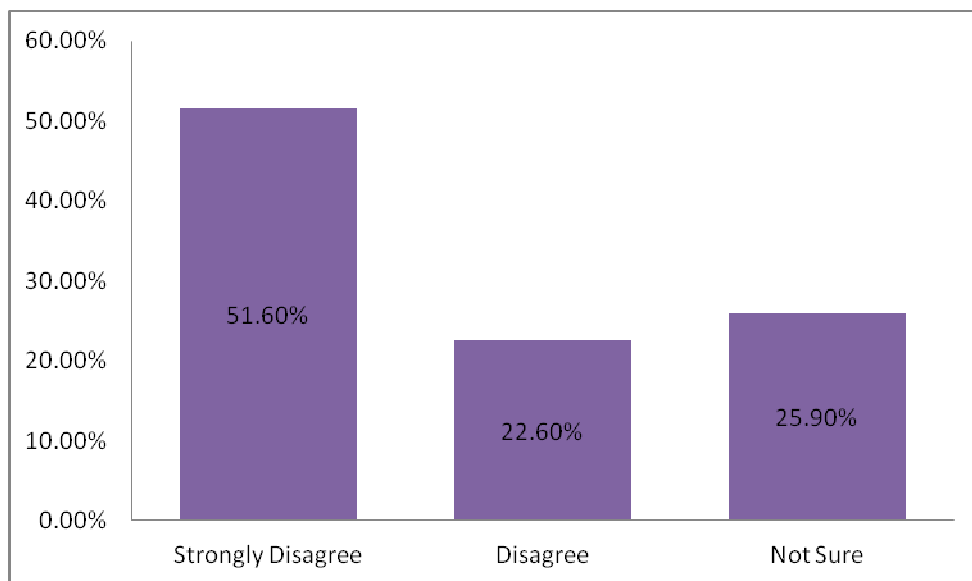


Figure 4.2 Importance of collateral

As indicated on figure 4.2 above 25.9% of micro finance respondents identified tangible collateral as a major loan policy issue while 51.6 % stated that it was not an important factor for being advanced a loan. The other 22.6% indicated that the presence or absence of collateral was not a major requirement for being advanced a loan. The rationale of collateral is to provide security for the loaned funds and give the lender recourse to be used to recover default loans from their recipients.

4.2.4 Enforcement Mechanisms

4.2.4.1 Loan Monitoring and Follow Up Action

All micro finance institutions identified follow up mechanisms as one of the major loan administration activity undertaken as illustrated in figure 4.3 below. They explained that loan personnel are recruited and deployed specifically to visit loan beneficiaries and monitor progress of projects funded and ensure repayment are on course.

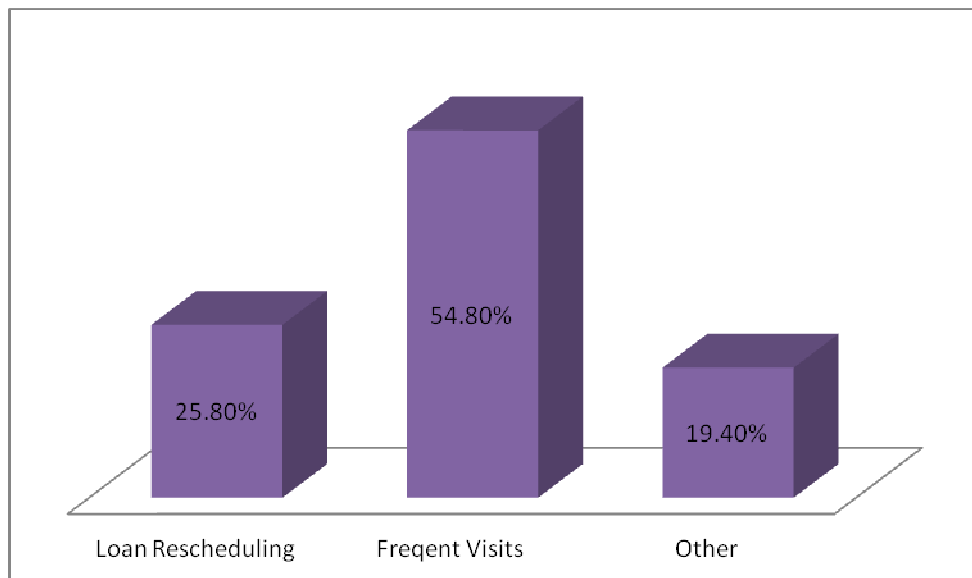


Figure 4.3 Enforcement mechanisms

They have the powers to ensure loan recovery and provide reports to management. These activities occur before or when a default occurs. 25.8% of MFIs use loan rescheduling where the terms of the loan are reviewed for new ones while 19.4% use other enforcement mechanisms such as foreclosure to ensure repayments. Frequent visiting of the client which was rated at 54.8% also led to increased repayments. The organizations carry out frequent monitoring and in case of default take swift measures to ensure recovery.

4.2.4.2 Progressive Lending

The study showed that the practice of repeat loans with higher amount of credit is followed by 84% of the MFIs in their group lending thereby enticing prompt repayment. This implies that the average loan size of the group and therefore per individuals within the group increases over the loan cycles. 6% of the respondents disagreed that their organization practiced progressive lending and 10% were not sure whether the organization had the policy.

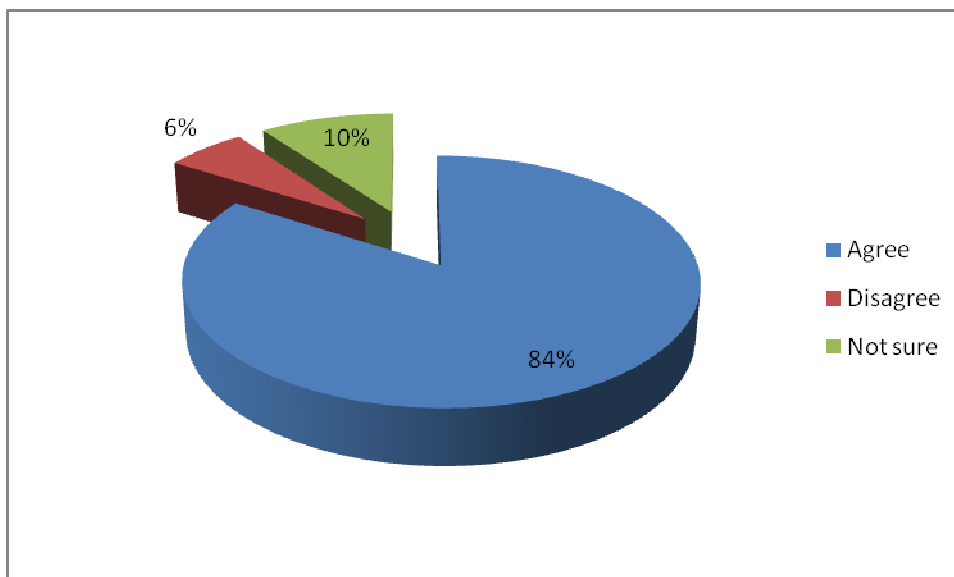


Figure 4.4 Progressive lending

4.3 Regression

Regression analysis is used to predict statistical significance between dependent variable and the independent variables. It measures the effect of relationship of the independent variable to dependent variable. Multiple regression analysis was used to examine the influence of default rate on loan repayment.

Table 4.4 Regression Model

Model		Beta	Std. Error	T	Sig.	R	Adjusted r squared	F	P
	(Constant)	3991.629	874.797	4.563	0	0.894	0.776	34.504	0.000
	Interest rate	-184.522	38.907	-4.743	0				
	Loan duration	178.654	51.014	3.502	0.002				
	Training period	11.977	8.498	1.409	0.171				

Source: primary data

Table 4.4 evaluates and interprets the standardized coefficients of correlation (beta). In estimating the contribution of each independent variable in the study, it was established that all independent variables significantly contributed in variance of the default rate at significance level of 0.05. However, the relative importance of each independent variable was different. Also, since the significance values are less than 0.05, the coefficients are significant and therefore the regression equation would be:

$$Y = 3991.629 + -184.522X_1 + 178.654X_2 + 11.977X_3$$

The adjusted r squared show that interest rate, loan duration and training period predict 77.6% of the variance in repayment. However the greatest predictor is interest rate in relation to the magnitude of the beta coefficients (-184.522, t= -4.73, sig.0.000)

the f-ratio (34.504, sig. 0.000) also reveals all the independent variables combined are significant predictors. Table 4.4 shows the calculated value of F is 34.504 which is greater than the table value $F(3, 26) = 4.64$. This is an indication that there is a significant relationship between the dependent and independent variables. The variation was significant at $p < 0.000$ at 95% confidence level. The results of the summary Analysis of Variance (ANOVA) were presented and interpreted in Table 4.5

Table 4.5 Summary ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	4.610E7	3	1.537E7	34.504	.000 ^a
Residual	1.158E7	26	445341.121		
Total	5.768E7	29			

Table 4.5 reports the summary ANOVA and F statistic which reveals the value of F (34.504) being significant at 0.05 confidence level. The value of F is large enough to conclude that the set of independent variables: implementation process (X1), interest rate (X2), loan duration (X3) and training as a whole were contributing to the variance in performance appraisal systems. The p-value associated with this F value is very small (0.0000). These values (F value) are used to indicate whether the independent variables reliably predict the dependent variable. The overall regression results are shown in table 4.5. The probability level 0.000 means that the chances are almost zero that the results of regression model are due to random exogenous events instead of a true relationship.

4.4 Summary and Interpretation of Findings

The MFIs conducted a monthly meeting where the group members were able to share on the current issues they were facing and get advice from the group and loan officer present regarding their current issues. The advice was on issues regarding pricing, marketing and other business improvement strategies. This finding concurred with Karlan and Valdivia, (2006) on Peruvian group lending program for female micro entrepreneurs. They found little or no evidence of changes in key outcomes such as business revenue, profits or employment. Business knowledge improvements are observed, however, and client retention rates increased for the microfinance institution.

In the group every member receives a loan on an individual basis but providing he or she acts as guarantor of the loans granted to the other members of the group. In other terms, the loan agreement specifies that, should certain members of the group default; the others will be the first to honour the debt. The essential role of a guarantor is to be a vector of social pressure and not an alternative source of loan repayment. If, the group debt is ultimately not eradicated, the entire group loses access to future credit. Therefore, by completing the joint guarantee system, there is a dynamic incentive that consists of making the granting of new loans subject to the repayment of previous ones which increases repayment rates.

The structure of the payment schedule was used to encourage clients' discipline. In the MFIs, weekly payment structure without grace period was the most commonly used. This imposes discipline thanks to the regularity and frequency of transactions and meetings. This results are in line with the studies of (Jain and Mansuri, 2003)

which noted that to overcome asymmetric information problems, e.g., moral hazard, frequent and early installments – paid soon after the loan is disbursed – screen safer borrowers, which count on multiple sources of income to reimburse the loan, such as family members, neighbours or moneylenders should be employed. This is also supported by (Armendariz and Morduch, 2000) who observed that frequent transactions and meetings act as an early monitoring system about emerging problems. It also allows lenders to be aware and react promptly before delinquency gets grave.

The frequent contact between the beneficiaries with the organization personnel enabled the problem of information asymmetry to be overcome. Repayment problem is one of the critical issues of MFIs that concerns all stakeholders where the high loan default rate is the primary cause of the failure of MFIs. The agency problem, adverse selection and moral hazard that appear as a result of information asymmetries are the main reason why these happened. This is because the lenders cannot observe the behaviors of their clients either they are honest or dishonest. The lenders can only observe the outcome of their loans when their clients repay or not. This is in line with Yaron (1994) findings who found that to mitigate the repayments problems, a close relationship between lender and borrower can be applied through monitoring, business adviser and regular meetings. Besides that, the lender can introduce a reward system to those that paid on time such as rebate or discount.

The organizations often visited the clients' business premises to assess its viability and progress. This visits and the monthly meetings created a good relationship between the client and the loan officer in an informal setting consequently enabling

the credit personnel to create rapport and create a good relationship between the parties concerned. This concurs with (Roslan Abdul Hakim et al. 2007) study which concluded that close and informal relationships between MFIs and borrowers may help in monitoring and early detection of problems that may arise in non-repayment of loans.

The amount of loan received by the borrowers may also affect borrower's repayment performance where the bigger the total loan received by the borrowers, the higher the probability of the borrowers to default. When the borrowers received more loans, there is a tendency that the excess loan may be diverted to other unproductive; non-business uses such as for personal use, children's school fees and pay other debt. If loans are not particularly devoted to the particular productive activities use for which they have been granted, the expected benefits may not be fully realized and the likelihood of delinquency may rise. In addition the greater the size of the loans advanced the more the requirement for supervision as recipients had a greater incentive to divert its use. This results are in line with the findings of (Oladebo and Oladebo, 2008) study in Nigeria where they identified several factors which influence loan repayment to include improper or inadequate loan supervision, poor assessment of borrowers' creditworthiness and factors outside the borrower's control like natural hazards.

Progressive lending was found to be a tool used to screen the borrowers and select the "good" borrowers from the "bad" borrowers. Furthermore, repayment of previous loan is benefited through an incentive of greater loan credit in the current period. Thus, prompt repayment of credit directs progressive lending as a dynamic incentive

for the members in microfinance lending. This (finding concurs with Ghosh & Ray,1999) who found that under the progressive lending the group lending mechanism was able to tests the borrowers with small loans at the start to screen out the worst prospects before expanding the loan scale. Moreover, the findings also coincide with Armendariz and Morduch (2000) who found that the threat to deny future access to credit is an effective punishment for clients who value the lending relationship and have no access to alternative funding.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The purpose of this study was to investigate relationship between assess the impact of joint liability lending models lending models on loan repayments among micro finance institutions in Kenya micro finance institutions. The key finding of this study is that group lending is better able to mitigate loan delinquency than personal lending.

The study also reviewed a lot of literature on the stated objectives and found out that many researchers who wrote on the broad subject of group lending methodology agreed that it is an innovative way that was founded to liberate low income individuals by enabling them to access fund with the available of limited physical assets to be pledged as collateral through the use of the available and verifiable mechanism that the MFIs have put in place through this programme. One such form of microfinance has been the development of the joint liability lending; it has become an increasingly utilized tool for providing credit access to the poor and low income persons in Kenya. The joint liability lending model has accounted for strong repayment rate and continuous access to credit services even without collateral.

The study employed a causal research design targeting MFIs which were involved in the group lending methodology. The data collected from the 48 respondents was then analyzed quantitatively and presented through descriptive tools. The findings of the study seemed to be in agreement with the study objectives the conclusion is that through the various group lending mechanisms, access to finances has been made easier and faster. These mechanisms have also enabled the beneficiaries to learn and

develop gain business and financial knowledge including supervision, administration and enhanced creativity. The mechanism has also been found to provide a platform for sharing business knowledge and information as well as providing social support and entrepreneurial motivation among beneficiaries of the loans.

5.2 Conclusions

In view of data analysis and results presentation, the findings are hereby summarized as per the objectives of the study. This study sought to find out the effect of group lending (joint liability) mechanisms on repayment rates among micro finance institutions in Kenya. This was done in line with three key major mechanisms including: causes of default, monitoring and screening and enforcement mechanisms. The study therefore sought to achieve the following objectives: to establish the causes of default in joint liability lending on repayment, to determine the effects of screening and monitoring on repayment and to find out the effects of enforcement mechanisms on default.

The study confirmed that step/progressive lending as a component of group lending enforcement mechanism had improved the repayment rates among micro financial institutions in Kenya. It had contributed to the stability and enlargement of the loan beneficiary over time, inculcating planning and accountability traits. Micro finance institutions use discipline mechanisms such as joint liability, compulsory savings, weekly repayment schedule, and dynamic incentives to reduce default rates. The compulsory savings improve loan repayment because they test clients' ability and willingness to pay. Clients get used of meeting deadlines and are forced to fulfill their obligation because of the threat to seize funds (savings) of defaulting borrowers.

In addition, the analysis of the data obtained in this study indicates that the procedure of obtaining loans from MFIs is easier than conventional banking. Based on my first hand experience of society back home and from my observation , there is no requirement of collateral to take the loan from MFIs which has made it possible for everyone to join the formal monetary process. It is one of the most propitious reasons to take loan from MFIs unlike the conventional banking where collateral is the first and foremost requirement.

5.3 Recommendations to Policy

This study has provided a better understanding of the combination the factors that affect repayment rates among microfinance institutions in Kenya. The effect of enforcement and monitoring mechanisms and their influence on default risk and repayment was highlighted. Pattern during this research has shown evidence that frequent monitoring on the use of the loan and training on business and financial issues with microloans could decrease default risk and increase repayment rate. The study further offers several policy recommendations including that the threshold for individual lending must include demonstrated ability to pay interest of at least 1.6% per month and loans should not be issued where this condition is not met.

Knowing how groups utilize the intragroup contract and what factors increase the probability of repayment are critical factors for project management and training. Knowing the characteristics of good clients helps with expanding markets. Training of credit groups could include offering suggestions of how to explicitly formulate the intragroup contract. For example, if perfect information exists, then contingency plans for sickness, travel, death, etc. could be designed and agreed upon ex ante, thus developing the group solidarity mechanisms.

Microfinance institutions should also be able to offer ancillary services like extension and training visits that will improve access to MFI loans as well as help them to repay as and when due. This can be achieved by strengthening their monitoring units so as to forestall information asymmetry and setting up outreach centres very close to their clients in order to monitor loan use and recover more of their loans during the loan period.

Economic policymakers need to work for stability in the microenvironment to ensure interest rates charged by microfinance institutions remain not just stable but also affordable. This research has identified high interest rates as a key cause of loan default. As a policy suggestion, the interest rate problem could be solved via developing a graduated scale for charging interest rates; for instance, under group lending, once a group of safe borrowers is able to consistently repay their loan for say one year, the group size could be increased by allowing them to include other safe borrowers. This will in turn reduce the overall group and transaction costs, the older members of the group could then be charged lower interest rates relative to the new members; this would have a double positive effect since it would encourage the new group members to repay their loans so as to benefit from lower interest rates in future and the overall repayment rate would improve.

While group monitoring is essential for effective repayment of loans it is recommended that the individuals should be given some autonomy and trust. This will lead to continued loyalty to the financial institution and increase the group and specifically the individual beneficiaries self initiative.

5.4 Limitations of the Study

One limitation of this study related to the fact that only the respondent can verify the accuracy of the information. The researchers need to rely on self-reported information to verify the statements being shared between the Medium and the respondent. Due to the sensitive nature of some of this transmitted information, respondents may opt to alter or openly disagree with the information shared. For instance respondents were reluctant to releasing information concerning their institutions loan portfolio performance as they considered it sensitive and did not want to commit themselves

In addition another limitation that can have an effect on how the result of this study is presented is the issue where for some of the MFIs the information was not given by the credit personnel on how the lending program works but by some other employee of the institutions without much knowledge of the area concerned. This decreased the probability of getting in-depth information on the matter. The result of this study could therefore be affected by this circumstance that limited my work.

The accuracy of the analysis heavily relied on the data provided by the people involved in microfinance program in Kenya. This is because the data collection was restricted only within the Nairobi and which may fail to represent the actual scenario of the whole country.

5.5 Suggestions for Further Studies

While this work examines only repayment, other areas are closely linked. For instance the degree to which cost and repayment are associated is an important aspect of group lending that is understudied. More studies documenting the cost of group lending

versus individual lending are needed. Through a better understanding of the mechanisms, benefits, and dangers of group lending, more effective programs can be implemented to provide financial services to low income clients.

There is need for further studies to investigate the performance of financial institutions loans from the beneficiaries' side especially those receiving funds from micro finance institutions. The excellent performance of microfinance institution brought about by a well-coordinated mix of appraisal and follow up actions may be at the expense of the borrower. Possible key success factors that could be tested in the future are the provision of training and education services for clients in the program, of savings accounts and of other financial services, such as insurance, housing loans, and pensions

There is a need to investigate the level below or above the poverty line at which group loans become less effective and whether group liability or group lending logistics can be applied at all to small loans provided by traditional banks. Research concerning loan methodologies is thus needed to establish whether the methodology can be generalized to other regions in which MFIs operate.

The current study did not consider the reasons of motivation to join the group lending microfinance program. Another area that has not been investigated is the difficulties that the borrowers face to repay the loan. These areas deserve to be studied by future researchers.

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APPENDICES

APPENDIX 1: QUESTIONNAIRE

SECTION A

1. Respondent financial institution.
 - a) Bank ()
 - b) Deposit taking ()
 - c) Retail ()
2. Position of respondent
 - a) Credit officer ()
 - b) Top level management ()
 - c) Other ()
3. Number of year since the MFI was started/ incorporated in Kenya.
 - a) 5 years and below ()
 - b) 6 – 10 years ()
 - c) Above 10 years ()
4. What percentage of loan is provided under the policy? _____

SECTION B

5. What is the average size of the loan provided per individual _____
6. What percentage of the loan advanced is in default. _____
7. What is the interest rate for the loan advanced? _____
8. What is the repayment frequency for the loan?
Weekly () Monthly ()
9. What is the duration of the loan in months? _____
10. Does the organization provide loans only if material collateral is provided.
Yes () No ()
11. Are the clients required to build up savings before loans are advanced?

- Yes () No ()
12. Is savings mandatory during the duration of the loan? Yes () No ()13.
13. Does the loan officer or personnel visit the client's business to check on whether it is operational? Yes () No ()
14. How many numbers of visits do the personnel make to the clients premises before other enforcement measure undertaken in case of a default? Once () Twice () Thrice ()
15. Does your organization provide training to clients before advancement of loans?
Yes () No ()
16. If your answer is yes in Q15, how long is the training period in days? _____
17. Our institution has a deliberate policy of providing small loans and gradually increases in the amount according to credibility of borrower.
Strongly agree () Disagree () Not sure () Agree () Strongly agree ()
18. What alternative measures were taken on the side of the bank to improve the repayment situation?
- a) loan rescheduling ()
- b) additional loan ()
- c) frequently visiting the client ()
- d) others (specify) _____
19. Did the measures taken bring an improvement in repayment status of the loan?
Yes () No ()
20. How was the loan enforcement mechanism? Effective () Ineffective ()

APPENDIX 2: LIST OF MICROFINANCE INSTITUTIONS

1) K-rep Bank Limited	27) Agakhan Foundation Microcredit Programme
2) Equity Bank	28) ADOK TIMO
3) Co-operative Bank	29) Pamoja Women Development Programme
4) Kenya PostOffice Savings Bank	30) Juhudi Kilimo Co. Ltd
5) Kenya Women Finance Trust-DTM	31) Musoni Kenya Ltd
6) Rafiki Deposit taking Micrifinance Ltd	32) Molyn Credit Ltd
7) Faulu Kenya DTM	33) Renewable Energy Technology Assistance Programme (RETAP)
8) SMEP DTM	34) Rupia Ltd
9) Remu DTM Ltd	35) Taifa Options Microfinance
10) Uwezo DTM Ltd	36) U& I Microfinance Ltd
11) Century DTM Ltd	37) Select Management Services Ltd
12) Sumac Credit DTM Ltd	38) Green Fedha Ltd
13) Blue Limited	39) Youth Initiative Kenya
14) K-rep Development Agency	40) Biashara Factors
15) Eclof Kenya	41) Platinum Credit Limited
16) Kadet	42) Ngao Credit Ltd
17) BIMAS	43) Indo Africa Finance
18) SISDO	44) Springboard Capital
19) Micro Africa Ltd	45) Mini Savings & Loan Ltd
20) Opportunity Kenya	46) KEEF- Kenya Entrepreneurship Empowerment Foundation
21) Yehu Microfinance Trust	47) Women Enterprise Solutions
22) Fusion Capital Ltd	48) Focus Capital Limited
23) Canyon Rural Credit Ltd	49) Samchi Credit Limited
24) One Africa Credit Ltd	50) Fountain Credit Services Ltd
25) Jitegemea Credit Scheme	
26) AAR Credit Services	