EFFECTS OF OUTREACH ON LOAN DEFAULT AMONGST MICRO FINANCE INSTITUTIONS IN KENYA.

BY

WALTER KANGETHE

D63/61395/2013

RESEARCH PROJECT PRESENTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR AWARD OF THE DEGREE OF MASTERS IN SCIENCE FINANCE AND INVESTMENT

UNIVERSITY OF NAIROBI

OCTOBER, 2015
DECLARATION

This research project is my original work and has not been presented for award of any degree in any other university or college.

Signature... Date 20th Oct 2015

Walter Macharia Kangethe

D63/61395/2013

This research project has been submitted for examination with my approval as The University of Nairobi supervisor.

Signature... Date 21st Oct. 2015

Dr. Duncan Elly Ochieng, PhD, CIFA

Lecturer, Department of Finance and Accounting.
DEDICATION

I dedicate this project to my family for the encouragement and motivation. I also greatly thank my siblings for their spirited inspiration every day to become better and achieve more.
LIST OF ABBREVIATIONS

AMFI-K - Association of Microfinance Institutions- Kenya

ASCAs - Accumulating Savings and Credit Associations

KSTES - Kenya Small Traders and Entrepreneurs Society

MFIs – Micro Finance Institutions.

NGOs - Non Governmental Organizations

POCSSBO - Project Office for Creation of Small Scale Business Opportunities and the office

SACCO- Saving and Credit Co-operatives
Table of Contents

DECLARATION..........................................................................................................................i
DEDICATION..........................................................................................................................ii
LIST OF ABBREVIATIONS......................................................................................................iii
LIST OF TABLES......................................................................................................................viii
LIST OF FIGURES....................................................................................................................ix
ABSTRACT..............................................................................................................................x
CHAPTER ONE........................................................................................................................1

1.1 Background of the Study..................................................................................................1
1.1.1 Outreach.........................................................................................................................1
1.1.2 Loan Default....................................................................................................................3
1.1.3 Outreach and Loan Defaulting......................................................................................4
1.1.4 Microfinance...................................................................................................................5
1.1.5 Microfinance Institutions in Kenya................................................................................6
1.2 Statement of the Problem...................................................................................................7
1.3 Objective of the Study.........................................................................................................7
1.4 Value of the Study...............................................................................................................8

CHAPTER TWO......................................................................................................................9

LITERATURE REVIEW.........................................................................................................9
2.1 Introduction........................................................................................................................9
2.2 Theoretical Literature.......................................................................................................9
2.2.1 Women’s Empowerment Theory..................................................................................9
2.2.2 Financial Systems Model........................................................................10
2.2.3 Poverty Lending Model.................................................................11
2.3 Determinants of loan default.............................................................11
2.3.1 Depth and Breadth of outreach......................................................12
2.3.2 Length of outreach.........................................................................12
2.3.3 Cost of outreach.............................................................................13
2.3.4 Worth of users................................................................................13
2.4 Empirical Review...............................................................................13
2.5 Chapter Summary..............................................................................15

CHAPTER THREE......................................................................................16

RESEARCH METHODOLOGY.......................................................................16

3.1 Introduction.........................................................................................16
3.1 Research Design................................................................................16
3.2 Target Population................................................................................16
3.3 Data Collection..................................................................................17
3.5 Data Analysis......................................................................................17

CHAPTER FOUR..........................................................................................19

DATA ANALYSIS AND DISCUSSION..........................................................19

4.1 Introduction.........................................................................................19
4.2 Response Rate....................................................................................19
4.3 Demographic Information.................................................................20
4.3.1: Gender of the Customer...............................................................20
4.3.2 Age.................................................................................................21
4.3.3 Defaulters banking Period .............................................. 21
4.3.4 Special needs .................................................................... 22
4.3.5 Level of education ............................................................ 23
4.4 Credit Worthiness Evaluation ............................................... 23
4.4.1 Extent of Loan Default .................................................... 24
4.6 Credit Policy ...................................................................... 26
4.6.1 Size of Loan .................................................................... 26
4.7 Percentage of organisation loans provided .......................... 26
4.8 Loan Policy ....................................................................... 27
4.8.1 Interest Rates ................................................................... 28
4.8.2 Management Challenges .................................................. 29
Table 4.8 Management Challenges ........................................... 29
4.8.3 Staff performance ............................................................ 30
4.8.4 Meeting set up agenda ..................................................... 30
4.9 Diagnostic test .................................................................... 31
4.9.1 Diagnostic Tests for Regression Assumptions .................. 31
4.10 Correlation Analysis ........................................................... 32
4.11 Outreach and loan default .................................................. 33
4.11.1 Model Summary ............................................................. 33
4.12 Analysis of Variance (ANOVA) ......................................... 34

CHAPTER FIVE ......................................................................... 35
SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS ........................................................................ 35
5.1 Introduction ....................................................................... 35
5.1.1 Summary of the Findings .................................................................35
5.2 Conclusions ......................................................................................37
5.3 Recommendations ............................................................................38
5.4 Limitations of the study ....................................................................39
5.5 Recommendation for further studies .................................................40

Appendix I MFI s operating in Kenya .......................................................43
Appendix II: Questionnaire .....................................................................45
LIST OF TABLES

Table 4.1: Response Rate ................................................................. 20
Table 4.2: Level of Education ............................................................ 23
Table 4.3: Extent of Loan Default ....................................................... 24
Table 4.4: Credit Worthiness Evaluation ............................................. 26
Table 4.5: Percentage of organisation loans provided ......................... 29
Table 4.6: Loan policies ................................................................. 30
Table 4.7: Interest Rate ................................................................. 31
Table 4.8: Management Challenges .................................................. 32
Table 4.9: Indicators of Staff Performance ....................................... 33
Table 4.10: below shows the meeting set ups .................................... 33
Table 4.11: Correlation coefficient .................................................... 34
Table 4.12: Model Summary ............................................................ 35
LIST OF FIGURES

Figure 4.1 Gender of the Respondent...............................................................20

Figure 4.2 Age.................................................................................................21

Figure 4.3 Defaulter banking Period...............................................................22

Figure 4.4 Special Needs..................................................................................23

Figure 4.5 Size of Loan...................................................................................27
ABSTRACT

Attention to credit has had a much longer history for citizens of a country and the government. It is seen as crucial to development of the economy of a country. Credit is a contractual agreement in which a borrower receives money and agrees to repay the lender at some date in the future, in most cases with interest. The main aim of the study is to establish effects of outreach on loan default amongst microfinance institutions in Kenya. The study was guided by specific objective that included establishing the relationship between outreach and loan default rates in MFIs in Kenya. In order to meet the required goal of this research study, the researcher applied a descriptive research design. The population of this research study was 49 MFIs operating and registered in Nairobi County in Kenya as per the AMFI-K 2013 Annual Report. The choice of using MFIs in Nairobi is because this is where a large percentage of them are based therefore proving a good population. The study used secondary data and primary data collected using questionnaires to carry out the study. Primary data was collected from Managers or their equivalent. The descriptive statistical tools helped the researcher to describe the data and determine the extent to be used. Analysis was done quantitatively and qualitatively by use of descriptive statistics. The study findings showed that all members to be required to provide collateral for all loans issued because any asset that your lender accepts as collateral (and which is allowed by law) can serve as collateral. In general, lenders prefer assets that are easy to value and turn into cash. Recommendations were made that this study is of the view that, for MFIs to be sustainable and profitable, it is imperative on them to be innovative in their products design and unique in the services they render. It is therefore recommended that MFIs assign resources to research to understand the demands of their market. It is also recommended that MFIs build the capacity of their personnel to enable them exercise sound management practices and MFI design.
CHAPTER ONE
INTRODUCTION

1.1 Background of the Study
Attention to credit has had a much longer history for citizens of a country and the
government. It is seen as crucial to development of the economy of a country. Credit is a
contractual agreement in which a borrower receives money and agrees to repay the lender
at some date in the future, in most cases with interest. The term also refers to the
borrowing capacity of an individual or company, and also to the amount of money
borrowed by an individual or a company because it must be paid back to the lender at
some point. (Michael, 1999)

Extension of Credit is one of the major activities of Micro Finance Institutions (MFIs). In
line with this activity, MFI try to reach out to as many customers as possible. As they
reach out, they are exposed to a high rate of loan defaulting. These non-performing loans
result in bad debts with adverse consequences for the overall financial performance of the
institutions. The issue of loan default is becoming an increasing problem that threatens
the long-term existence of MFIs (Kipyego, 2013).

MFIs are valuable to small business entrepreneurs who otherwise might not be served by
traditional financial institutions due to certain economic constraints. The impact of the
microfinance industry gained considerable publicity with the award of the 2006 Nobel
Peace Prize to the Grameen Bank and its founder Yunus (2007), who is often credited
with formalizing the microfinance approach to serve the unbanked poor (Chaia et al.
2009).

1.1.1 Outreach
The two most usual aspects of outreach in the literature is its depth and breadth. Depth of
outreach refers to the poverty level of clients served, whereas breadth of outreach refers
to the scale of operations of an MFI. There is some disparity in the literature with regard
to the relative benefits of depth and breadth of outreach. This disagreement exists
between proponents of pro-poor microfinance and proponents of microfinance
sustainability. The pro-poor microfinance approach argues that MFIs with depth reach
out to the poorest individuals of the society, hence that depth of outreach is more important for achieving the social objective of microfinance. Proponents of sustainable microfinance on the other hand are more interested in opening access to a wide range of un-served or underserved clients (Rhyne, 1998).

According to the breadth approach, microfinance industry should have large scale outreach in order to make a difference in the world poverty levels. The objective of microfinance institutions might differ in the weight they assign to different aspects of outreach. In addition to considering outreach with respect to poverty, a microfinance program might decide to target a specific client group that is considered restricted from access to financial services either because of their characteristics or because of physical constraints. Such target groups include women, youth, people in rural areas, ethnic minorities, disabled, illiterate people, and so on. In addition to those reaching the very poor, those serving hard-to-reach clients can also be said to have deep outreach. Meyer (2002) states that outreach can be looked at as the number of persons served by MFIs who were previously denied access to formal financial services, and who in most cases are the poor.

Other than the above measures, four more measure of outreach can also be pointed out. These are: cost to users, length, worth of users and scope. Worth of outreach refers to how much a borrower is willing to pay for a loan. Cost of outreach refers to cost of a loan to a borrower. These costs to users might consists of prices like interest rates and various payments that they have to pay, which could be revenue to the lender, and other loan related transaction costs like expenses on documents, transport, food, taxes, etc. Length of outreach is the time frame in which a microfinance organization produces loans, and scope of outreach is the number of type of financial contracts offered by a microfinance organization. It is argued that the length of a loan matters, because if the microfinance institutions support the poor in the short term, this will hamper the social welfare of the society in the long term. In the instance that a client of a microfinance institution is aware that he/she will not receive an additional loan in the future, this would provide no incentive to him/her or to repay his/her loan (Navajas et al., 2000).
1.1.2 Loan Default

Loan is a contractual agreement in which a borrower receives money and agrees to repay the lender at some date in the future, in most cases with interest. The amount of money borrowed by an individual or a company is referred to as loan because it must be paid back to the lender at some point. For example, when you make a purchase with your credit card, it is considered a form of credit because you are buying goods with the understanding that you will need to pay for the money used in the purchase in future (Michael T, 1999).

Business can be financed in various ways (Honohan & Beck, 2007). This includes but is not limited to financiers (individuals who fund your business with an agreement to pay back or with an understanding of owning part of the business) or financial institutions, like microfinance institutions.

In finance, default occurs when a debtor has not met his or her legal obligations according to the debt contract, e.g. has not made a scheduled payment, or has violated a loan covenant (condition) of the debt contract (Brehanu & Fufa, 2008). Default may occur if the debtor is either unwilling or unable to pay his or her debt. This can occur with all debt obligations including bonds, mortgages, loans and promissory notes. Default can be of two types: debt services default and technical default. Debt service default occurs when the borrower has not made a scheduled payment of interest plus principal (Honohan & Beck, 2007). Technical default occurs when an affirmative or a negative covenant is violated (Honohan & Beck, 2007).

Affirmative covenants or negative covenants are clauses in debt contracts that require firms to maintain certain levels of capital or financial ratios with the lender. The most commonly violated restrictions in affirmative covenants are tangible net worth, working capital/short term liquidity, and debt service coverage. Negative covenants are clauses in debt contracts that limit or prohibit corporate actions (e.g. sale of assets, payment of dividends) that could impair the position of creditors. Negative covenants may be continuous or incurrence-based. Violations of negative covenants are rare compared to violations of affirmative covenants (Brehanu & Fufa, 2008).
With most debt (including corporate debt, mortgages and bank loans), a covenant is included in the debt contract which states that the total amount owed becomes immediately payable on the first instance of a default of payment. Generally, if the debtor defaults on any debt to the lender, a cross default covenant in the debt contract states that that particular debt is also in default (Evusa et al, 2015).

In corporate finance, upon a default in servicing the loan, the holders of the debt will usually initiate proceedings (file a petition of involuntary bankruptcy) to foreclose on any collateral securing the debt. Even if the debt is not secured by collateral, debt holders may still sue for bankruptcy, to ensure that the corporation's assets are used to repay the debt (Brehanu & Fufa, 2008).

1.1.3 Outreach and Loan Defaulting

Sub-Saharan Africa remains one of the most financially under-developed regions in the world (Honohan & Beck, 2007). Financial institutions in Africa complain that there is a lack of creditworthy borrowers while at the same time households and firms find finance a major constraint to their activities. Recent research has shown that banks are deterred from lending by a very high rate of loan defaults (Andrianova et al., 2011; Demetriades & Fielding, 2010).

Microfinance sector spans various age bands, from more formalized and saturated markets in Latin America to rather nascent markets in other parts of the world (Rutherford, 2000). Already, the earliest microfinance initiatives in the 1970s were highly successful in ensuring repayments. By the end of the 1980s, microfinance had already proved its potential of reaching significant numbers of poor clients, who were able and willing to repay the loans and the costs of credit. According to Christen, (2001), this led to a significant increase in donor resources directed at the microfinance industry. Even though microfinance has been able to present a market-based solution to overcome the dearth of finance to the poor, and the poor are proving themselves creditworthy as repayment rates climb over 95 %, MFI's are still typically unable to reap profits from their operations and therefore rely heavily on subsidies.
In the recent past, some MFIs have been confronted with a number of challenges that have affected their way of doing business. Competition among the MFIs has increased significantly; this has led to lower interest rates and increased efficiency through creation of different financial products. Another key challenge has been the involvement of commercial banks in MFIs services; K-REP in Kenya is an example of a commercial bank that is involved in lending to the poor (Rhyne and Otero, 2006).

Technology and liberalization are the new frontiers for development in MFIs; these have improved the efficiency and sustainability of such institutions. In technology, the new banking technology, such as ATMs, mobile and the internet banking has begun to enter the microfinance business, helping to reduce costs and improve the delivery of services. Many developing countries have recently liberalized financial markets and at the same time have put in place regulations that help improve the stability of the microfinance business. These changes of financial market policies may also contribute to reduction of loan defaulting rates (Shanthi E. S, 2012).

1.1.4 Microfinance
Microfinance is the provision of financial services to low income and poor, self-employed people (Otero, 1999) also Ledgerwood, (2000) defines microfinance as provision of financial services to poor or low- income clients, including consumers and the self-employed. These financial services include savings and credit but can also include other financial services such as insurance and payment services.

Micro financing therefore involves the provision of financial services to low income earners by firms described as microfinance institutions (MFIs) using lending methods which are both formal and informal (Kareta, 2010). The lending methods are detailed in the credit policy which is used in determining the extent to which microfinance services are extended to customers in the form of outreach.

The terms microcredit and microfinance are often used interchangeably, but it is important to highlight the difference between them because both terms are often confused. Sinha (1998) states that "microcredit refers to small loans, whereas microfinance is appropriate where NGOs and MFIs supplement the loans with other
financial services (savings, insurance).” Therefore microcredit is a component of microfinance in that it involves providing credit to the poor.

1.1.5 Microfinance Institutions in Kenya

The microfinance sector has been growing in Kenya at a fairly steady pace. Despite the high growth of MFIs in Kenya, this sector is experiencing high default rates, posing a real challenge to extension of credit to their customers and great risk to stability of the multi-billion shilling MFIs movement. Non-performing loans have continued to increase over the years. Gross loans increased from 5.2% in December 2013 to 5.6% in December 2014 (CBK Banking Supervision report, 2014).

According to Aduda and Kalunda (2012), the Kenyan financial sector comprises the following; Microfinance Institutions (MFIs), the Banking sector, Savings and Credit Cooperatives (SACCOs), Money Transfer services and the informal financial services sector. The informal financial services sector includes; Accumulating Savings and Credit Associations (ASCAs) and Rotating Savings and Credit Associations (ROSCAs).

Information obtained from the Association of Microfinance Institutions in Kenya (AMFI-K, 2012) shows that, as at 2012, there was a total of 0.65 million active borrowers with a loan book amounting to Ksh 28.60 billion. Over 100 organizations, including 50 NGOs, practice some form of microfinance business in Kenya. These organizations have a network of 566 branches across the country. About 20 of the NGOs practice pure micro financing, while the rest practice micro-financing alongside social welfare activities. Major players in the sector include Faulu Kenya, Kenya Women Finance Trust (KWFT), Pride Ltd, Wedco Ltd, Small and Medium Enterprise Programme (SMEP), Kenya Small Traders and Entrepreneurs Society (KSTES), Ecumenical Loans Fund (ECLOF) and Vintage Management (Jitegemee Trust). The Kenya Post Office Savings Bank (KPSOB) is also a major player in the sector but only to the extent of providing savings and money transfer facilities. Many microfinance NGOs have successfully replicated the Grameen Bank method of delivering financial services to the low-income households and MSEs. Dondo and Mutiso (1999) argue that for an economy to function well, financial intermediation must exist. This is because intermediation results in the facilitation of economic growth through the provision of financial services.
Oketch (2000) points out how the formal banking sector in Kenya has over the years, regarded the informal sector as risky and not commercially viable. Alexis (2010) notes that the outreach of financial services in Kenya to the entire population is about 65% compared to countries like Uganda where on average 38% of the population can access microfinance services.

1.2 Statement of the Problem

The MFI movement in Kenya is growing rapidly. In Kenya, the average increase in the portfolio of MFIs sector over the period 2008-2009 was 107%, whereas commercial banks grew by about 4% in the same period. The high portfolio growth rate has resulted in MFIs individually trying to reach out to more customers so that they can give loans as they seek to increase their income (AMFI-K, 2012)

It is now well known that Africa is plagued by a high rate of loan defaults, which deters financial institution from lending and encourages them to hold liquid domestic or foreign assets instead (Andrianova et al., 2011; Demetriades & Fielding, 2010). A better understanding of the underlying causes of loan defaults, therefore, holds the key to addressing financial under-development in Africa and Kenya specifically.

A study done by Dondo and Mutiso (1999) points out the core function of providing credit to the poor by MFIs has resulted in most MFIs making losses. The two authors found out that most MFIs succeed in lending to domestic small companies and poor agents, as a result of Western donors and Non-Governmental Organizations (NGOs) who provide financial support by offering the MFIs loans against below-market interest rates. The study however fails to point out the relationship between loan defaulting and the outreach efforts of various MFIs.

This paper will explore the concept of MFIs outreach in light of the ever-expanding MFI sector within Kenya; this expansion is seen through the increase in branches and the large loan portfolios in such institutions. There is need to establish whether this expansion has any effect on loan default rates.

1.3 Objective of the Study
The objective of this study will be to establish the relationship between outreach and loan default rates in MFIs in Kenya.

1.4 Value of the Study

The study will be important to policy makers who will understand factors MFIs consider before planning to expand. This will in turn help in drafting and passing imperative legislation, which will assist in the fulfillment of Vision 2030, which is a critical blueprint for the economic growth and development in Kenya.

To scholars, this study will be useful in enriching knowledge on MFIs effects of outreach on loan default and will be a source of reference for future studies on microfinance institutions. It will also act as a source of literature for scholars in the field of Microfinance.

The study will benefit micro financial consultants who endeavor to advise investors and governments on the effective application of MFIs outreach programs in various regions. Business owners who have received funding from MFIs will also be informed of their contribution towards the success and sustainability of the MFIs, which is particularly important to their operations and in taking up their ultimate role in supporting the performance of the institutions.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction
This chapter will present a history of MFIs, review literature on theories of MFIs and outreach activities on the subject under study as presented by various researchers, scholars, analysts and authors. The research will draw materials from books, journal articles, newsletters, internet which are closely related to the theme and the objectives of the study. The chapter will conclude with the review of research by identifying the gaps previous researchers have had while examining the contribution of microfinance services to the growth of MFIs.

2.2 Theoretical Literature
Theoretical literature is an evaluation report of information related to the effects of outreach on loan default amongst MFIs. The researcher will summarize different theories and models that have been used to show the effects of outreach on the default rate on loans.

2.2.1 Women’s Empowerment Theory
The theory was developed by King et al., (2001) and states that, generally, societies with a high level of gender inequality are characterized by slow economic growth and a high level of poverty. Studies have shown that well-performing microfinance programs are ones integrated with social services, which empower and increase the wealth of the borrower. This is the reason that MFIs, International donors, local NGO’s and governments focus on women, putting microfinance on both their gender and poverty reduction agendas. (Cheston et al., 2002)

Empowerment is a concept used in a variety of academic fields; sociology, economics, anthropology and public health. Despite this, the definition of the word is surprisingly alike in all the disciplines. Women’s capacity to make decisions concerning themselves, their children and their family is one important aspect often underlined; the control over one’s own life as well as the control over economic resources are other aspects. Access to
Financial resources is pointed out as a central factor that contributes to the empowerment of women. The concept of empowerment can be divided into various dimensions and when looking into the economic and interpersonal dimension, that is women's control over income, access to credit, decision-making in the household and birth control, are emphasized (Malhotra et al., 2002).

According to Malhotra et al., (2002) women often bear the heaviest burden of poverty, with no education, no jobs, no income in the formal sector, and limited social mobility. If women could achieve better education, health and economic wellbeing, their status would improve in both the family and in society. In many countries, women have a low status, and no control or power over their own body, which results in poor birth control and high fertility rates. Consequently, the population growth can be the outcome of women's lack of power. If a country wants to control its fertility rate, it must raise the social and economic status of the women, and this is where MFIs come in to play.

2.2.2 Financial Systems Model

Rosenberg, (2003) defines the financial systems approach as the achievement of maximum outreach of MFIs services through a sustainable institution that focuses on a financial intermediation model. In this approach, MFIs provide finance to the public e.g. commercial banks; or serve their members through village banks. The loan portfolio of these MFIs is financed from savings mobilized or commercial debt and for-profit investment, or retained earnings such as micro lenders. These MFIs are differentiated from informal money lenders like, unregulated institutions such as NGOs and from subsidized formal micro credit where a regulated institution such as a state-owned bank channels government or donor funds to borrowers at subsidized interest rates (Rosenberg, 2003).

Those who support the financial system model believe that both the government and donors need to shift the allocation of their scarce resources to promote the replication of this model as oppose to direct financing of loan portfolios. This model, however, poses a challenge in that the approach relies on a market approach that may be thin and weak in marginal areas (Rutherford, 2000). Bogan, et al. (2007), however, argued that, even in these areas, market solutions can be found to overcome any obstacles.
2.2.3 Poverty Lending Model

According to Honohan (2004), the poverty lending approach focuses on reaching the poorest of the poor, who are typically engaged in pre-entrepreneurial activities that are more focused on consumption than productivity enhancing activities. This group requires assistance in the form of income transfers to meet their basic needs, because any credit extended to them will most probably be consumed rather than invested in something that generates a return sufficient to repay the debt (Rosenberg, 2003).

This approach differs from the minimalist financial services model characterized by the financial systems approach. In addition to microfinance services, it provides ancillary services such as training on nutrition, better farming techniques, family planning, health and basic financial management skills aimed at reducing the target group's vulnerability to avoidable risk. The funding for these ancillary services is typically provided by governments, donor grants and other subsidized funds. Previously, loan portfolios used to be funded by donors and governments and loan provision was subsidized at below market interest rates. However, increasing evidence that the microfinance target group repayment rates are not affected by market related interest rates has changed the practice of subsidizing interest rates. In addition, the use of ‘forced savings’ has reduced the extent to which donors and governments are required to fund loan portfolios, even if the microfinance target group is not able to save, initially (Rosenberg, 2003).

Practices have been adopted to ensure that the provision of ancillary services that target those in the pre-entrepreneurial group is done without compromising the financial sustainability of the microfinance function of the institution. This is done by making a clear distinction between the funds allocated to services. Member savings are used to fund the former, while government and donor support is used to fund the latter (Honohan, 2004)

2.3 Determinants of loan default

These are the factors that clearly explain outreach, spread or financial deepening. I will be expounding this factors as per below.
2.3.1 Depth and Breadth of outreach

Depth of outreach refers to the poverty level of clients served, whereas breadth of outreach refers to the scale of operations of a MFI (Rhyne, 1998). Cull et al. (2007) examine the financial performance (using measures of profitability) and outreach in a large comparative study, based on a new and extensive data set of 124 MFIs in 49 countries. The study suggests that MFIs that focus on providing loans to individuals perform better in terms of profitability. Yet, the fraction of poor borrowers and female borrowers in the loan portfolio of these MFIs is lower than for MFIs that focus on lending to groups. It also suggests that individual-based MFIs, especially if they grow larger, focus increasingly on wealthier clients, a phenomenon termed as “mission drift”. This mission drift does not occur as strongly for the group-based MFIs. Cull et al. (2007) do find evidence for a trade-off between default and outreach.

In Ethiopia, Lakew (1998) examines Project Office for Creation of Small Scale Business Opportunities and the office (POCSSBO) micro financing program contribution to poverty reduction. He found that after the credit program, employment opportunities for beneficiaries have been created. He also noted that the credit program of POCSSBO had positive effect on income and saving of the clients. In addition, he stated that medical, education and nutrition access of the clients had been improved. This study fails to explain how all the finding relates to outreach of MFIs.

2.3.2 Length of outreach

Length of outreach is the time frame in which a microfinance organization produces loans (Navajas et al., 2000). Adongo and Stork, (2005) in their study found that the coefficient of the variable capturing the weekly repayment schedule has a negative sign, while that of the monthly and term repayment schedules have a positive sign.

Although this conforms to the theoretical expectation based on the model adopted in this report, there is no evidence that these relationships are robust because none of the coefficients of the variables capturing the flexibility of the repayment schedule are significant at the 5% or 10% level. The above study doesn’t show any findings of the time that MFIs take to issue loans once a customer has applied for credit. This study will try establish on average turnaround time that MFIs use to issue loans.
2.3.3 Cost of outreach
Cost of outreach refers to cost of a loan to a borrower (Navajas et al., 2000). Fosack (2005) results showed that, macroeconomic stability and economic growth are associated with a declining level of default, adverse macroeconomic shocks coupled with higher cost of capital and lower interest margins are associated with a rising scope of nonperforming loans.

2.3.4 Worth of users
Worth of outreach refers to how much a borrower is willing to pay for a loan (Navajas et al., 2000). Brehanu & Fufa, (2008) states that capability of borrowers to repay their microcredit loans is an important issue that needs attention. Borrowers can either repay their loan or default. Borrower defaults may be voluntary or involuntary. Voluntary default is related to morally hazardous behavior 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 (Brehanu & Fufa, 2008). Research has shown that a group lending mechanism is effective in reducing borrower defaults (Armendariz de Aghion, 1999). In MFIs the loan is secured by assets both fixed and movable assets. Involuntary factors are age, gender, marital status and term of the loan.

2.4 Empirical Review
Reinhart et al., (2000) in their research provided an empirical analysis of early warning indicators of banking and currencies crises in emerging economies. They found out that banking and financial crises in emerging economies do not come out of the blues but are preceded by a clear sequence of events or a pattern of behavior during the period before the crisis sets in. They found out that warning of the crisis start to manifest themselves as early as 10 to 18 months before the crisis sets in.

Past financial and economic crises have had an impact on the microfinance sector in different countries too. For example, between 1998 and 1999, Ecuador went through a rough economic crisis, which caused a fall in the GDP by 7 percent. This caused a rapid
increase in interest rates which consequently led to increased loan default rates. This resulted in lack of trust by the people of Ecuador on government and financial markets. At this time, the microfinance sector was still developing and was mainly in the form of Micro-credits. The economic crisis caused deposits in the MFIs operating in the country at that time to drop by 15 percent and loan portfolio to shrink by 51 percent. Nevertheless, the sector was less affected as compared to the main financial sector (ECM Conference Proceedings, 2009).

Aklilu,(2002) reviews the importance of micro finance institutions in developing economies based on countries' experiences. In the review she suggested for promotion of the existing well developed institution "iddir" to facilitate growth of formal MFIs. Similarly, Borchgrevink et. al (2005), studies marginalized groups, credit and empowerment for the case of Dedebit Credit and Saving Institution (DECSI) of Tigray. The study finds that female household heads are extremely marginalized groups; and also, young households', rural landless households and urban house-renting households are the other marginalized groups. Through two-phase assessment, the study found that the DECSI's program has had a positive impact on the livelihood of and as well enhanced the social and political position of many clients. Concerning the constraints for economic development, the study noted poor rainfall, small farm size, and shortage of labour during peak agricultural seasons as the main constraints. This studies however cannot be used to explain the unique situation of Kenya due to changes that has taken place overtime. These changes range from liberalized business environment, competition from main stream bank and increased government involvement in MFIs activities through the central bank.

A study was conducted by Hartarska and Nadolnyak (2007) using data for 114 MFIs from 62 countries specifically investigate the impact of regulation on the performance of MFIs. In general terms, they do not find any evidence that regulated MFIs perform better in terms of either sustainability of outreach as compared to non-regulated. Makame and Murinde (2006), however, do find evidence for a negative relationship between regulation and outreach. To the contrary, Hulme and Mosely (1996) argues that there is inverse relationship between outreach and financial sustainability. Here the argument is
higher outreach means higher transaction cost in order to get information about creditworthiness of clients and hence make MFI loan expensive to borrowers.

Ngugi (2001) in the 1990s financial institutions witnessed declining profitability, nonperforming assets and distress borrowing which hugely affected the commercial banks profitability. In spite of the association between banking crisis and loan default literature on causes of default has focused more on the macroeconomic determinants and less on cost of borrowing.

2.5 Chapter Summary
This chapter has presented a review literature regarding outreach of Micro Finance institutions. The empirical review has provided the factors that generally influence outreach of MFIs. The review shows that there is limited empirical evidence on the compatibility or trade-off between loan default and outreach of MFIs. The few studies available suggest that there is a limited trade-off; yet they mostly use small data sets analyses.

Given the growth in the MFI industry in Kenya, it is important to establish what effects outreach has on rate of loan default. This is the gap that the present study seeks to bridge. The present study differs from previous ones since it is based on the Kenyan context.
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction.
In this chapter, the researcher presents the research design and methodology that was used to carry out the research. This chapter presented the population, research design and sample size, sampling design, data collection, and data analysis and reporting.

3.1 Research Design.
In order to meet the required goal of this research study, the researcher applied a descriptive research design. According to Kumar, (2005) a research design is a plan, structure and strategy of investigation so conceived as to obtain answers to research questions or problems. Kombo, (2006) suggest that research design deals with the detailing of procedures that are adopted to carry out a study.

Through the research design one can conceptualize the research design and ensure that the procedures are adequate to obtain valid, objective and accurate answers to the research questions. Patton, (2002) recommends that a combination of both qualitative and quantitative methods be employed to enrich the research. Kerlinger (2005) points out that, descriptive studies are not only restricted to fact findings, but may often result in the formulation of important principles of knowledge and solution to significant problems.

3.2 Target Population.
The population of this research study is 62 MFIs branch operating and registered Kenya as per the AMFI-K 2013 Annual Report.
3.3 Data Collection.
The study used secondary data and primary data collected using questionnaires to carry out the study. Primary data was collected from Managers or their equivalent. This because they are considered to be involved with decision making within MFI’s. The questionnaires was included structured and unstructured questions and was administered through drop and pick method to respondents.

3.5 Data Analysis.
The descriptive statistical tools helped the researcher to describe the data and determine the extent to be used. Analysis was done quantitatively and qualitatively by use of descriptive statistics. This was included frequency distribution, tables, percentages, mean mode, median etc. In addition to advance statistical techniques (inferential statistics) was considered. This was mainly be linear regression model to test the relationships among variables (independent). Linear regression attempts to model the relationship between two variables by fitting a linear equation to observed data.

One variable is considered to be an explanatory variable, and the other is considered to be a dependent variable. The regression model was as follows: Outreach in MFI’s in Kenya X (independent variables) and loan defaults Y (dependent variable). The regression equation is:

\[ Y = \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \]

Where: Y will be the dependent variable- Loan Default.

\[ \beta_{1-4} \text{ Will be the regression co-efficient of independent variable.} \]

\[ X_1 \text{ Independent variable on the Breadth of Outreach.} \]
$X_2$- Independent variable on the Demographics.

$X_3$- Independent variable on the length of Outreach.

$X_4$- Independent variable on the Cost of borrowing.

$e$- Error term.

Data analysis used SPSS and Microsoft excel, percentages, tabulations, means and other central tendencies. Tables were used to summarize responses for further analysis and facilitate comparison. This was generating quantitative reports through tabulations, percentages, and measure of central tendency. Cooper and Schindler, (2003) notes that the use of percentages is important for two reasons; first they simplify data by reducing all the numbers to range between 0 and 100. Second, they translate the data into standard form with a base of 100 for relative comparisons. In addition univariate and inferential statistics is to be used at 95% confidence level; this provided the generalization of the factors. Regression analysis, descriptive and inferential statistics was used to analyze the data and establish the relationship between the independent and the dependent variables. The information was presented by use of bar charts, graphs and pie charts.
CHAPTER FOUR
DATA ANALYSIS AND DISCUSSION

4.1 Introduction
This chapter is a presentation of results and findings obtained from field responses and data, broken into two parts. The first section deals with the background information, while the other section presents findings of the analysis, based on the objectives of the study as explored by the questionnaires where both descriptive and inferential statistics have been employed.

4.2 Response Rate
From the data collected, out of the 62 questionnaires administered, 58 were filled and returned. This represented a 94% response rate, which is considered satisfactory to make conclusions for the study. According to Mugenda and Mugenda (2003) a 50% response rate is adequate, 60% good and above 70% rated very good. This also collaborates Bailey (2000) assertion that a response rate of 50% is adequate, while a response rate greater than 70% is very good. This implies that based on this assertion; the response rate in this case of 94% is very good.

This high response rate can be attributed to the data collection procedures, where the researcher pre-notified the potential participants and applied the drop and pick method where the questionnaires were picked at a later date to allow the respondents ample time to fill the questionnaires.
Table 4.1: Response Rate

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Returned questionnaires</td>
<td>58</td>
<td>94%</td>
</tr>
<tr>
<td>Unreturned questionnaires</td>
<td>4</td>
<td>6%</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td>100%</td>
</tr>
</tbody>
</table>

4.3 Demographic Information

The study sought to find out the demographic information of the customers which included; Gender of the customer age brackets of the customer and level of education.

4.3.1: Gender of the Customer

The study sought to determine the gender disparity between the male and female customer among the MFIs customer base. The findings are illustrated in the figure 4.1 below.

Figure 4.1: Gender of Customers.

![Gender of Customers](image)

Source: Research Findings

From the findings as indicated in Figure 4.1, majority (72%) were male customers with (28%) being female customers. This implies there were more male than female among
the customers banking with MFIs. However, both genders were well represented to effectively carry out the study.

4.3.2 Age
The figure below shows the age of customer.

Figure 4.2: Age

The figure above shows that 49% of the customers were aged between 20-30 years, 29% were aged between 31-40 years while 22% were aged over 40 years.

It is therefore clear that majority 49% were age between 20-30 years. The result posits that the ages were well distributed to carry the study out and also show that most customers are youth.

4.3.3 Defaulters banking Period
The figure in the next page shows the duration that the defaulters have banked with the MFI.
The study shows that the loan defaulters had banked with the MFI for between 0-5 years as shown by 40%, further, 26% had banked for 6-10 years while 34% had banked for over 10 years.

4.3.4 Special needs
The figure below shows the special needs distribution of customers in the MFIs.

Figure 4.4: Special needs
The figure above shows that 40% of the customers that had defaulted were from the ethnic minority, 24% were disabled while 36% were able.

It is therefore clear that majority of the customers were from the ethnic minority group as shown by 240%. This might be contributed to the idea that ethnic minority in the modern society is highly marginalized to an extent that they economically not stable to bank with mainstream banks.

4.3.5 Level of education

The table below shows the level of education.

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary School</td>
<td>26</td>
<td>45</td>
</tr>
<tr>
<td>College</td>
<td>14</td>
<td>24</td>
</tr>
<tr>
<td>University Degree</td>
<td>10</td>
<td>18</td>
</tr>
<tr>
<td>Illiterate</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>58</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

From table 4.1 above, 45% of the customers had secondary school education, 24% had college education and 18% had university degree while 13% were illiterate.

The study above shows that majority of the customers had a secondary school certificate as indicated by 45% of the respondents. However, 13% of the customers were illiterate.

4.4 Credit Worthiness Evaluation

The prevailing section shows the credit worthiness evaluation of the customers.
4.4.1 Extent of Loan Default

The researcher had to establish the extent to which credit worthiness evaluation contribute to loan default. The results were recorded in table 4.2 below for interpretation purposes.

<table>
<thead>
<tr>
<th>Extent of Loan Default</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>To a very great extent</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>To a great extent</td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td>To a moderate extent</td>
<td>21</td>
<td>36</td>
</tr>
<tr>
<td>To a little extent</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>To no extent</td>
<td>11</td>
<td>18</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>58</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

The table above shows that 10% of the respondents were for the idea that credit worthiness evaluation contribute to loan default to a very great extent, 20% were for a great extent, 36% a little extent while 18% were to no extent. The study shows that 36% of the respondents agreed to a great extent that credit worthiness evaluation contribute to loan default.
4.5 Credit Worthiness Evaluation

The preceding section underscores the recommendations that MFI's should do a credit worthiness evaluation to reduce on loan defaults. The results are recorded in table 4.3 below for interpretation purposes.

Table 4.4 Credit Worthiness Evaluation

<table>
<thead>
<tr>
<th>Statements</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce the interest Rate</td>
<td>3.9</td>
<td>1.111</td>
</tr>
<tr>
<td>Reduce the number of loans available to an individual</td>
<td>3.87</td>
<td>1.169</td>
</tr>
<tr>
<td>All members to be required to provide collateral for all loans issued</td>
<td>4.14</td>
<td>0.904</td>
</tr>
<tr>
<td>The vetting and credit policy to be enhanced</td>
<td>4.03</td>
<td>1.005</td>
</tr>
</tbody>
</table>

The table above shows that respondents recommended that the MFI should reduce the interest rate with a mean of 3.9 and a standard deviation of 1.111. Reduce the number of loans available to an individual with a mean of 3.87 and a standard deviation of 1.169. Further, on all members to be required to provide collateral for all loans issued with a mean of 4.14 and a standard deviation of 0.904. Finally, the vetting and credit policy to be enhanced with a mean of 3.87 and a standard deviation of 1.169.

It's clear from the study above that all members to be required to provide collateral for all loans issued with a mean of 4.14 and a standard deviation of 0.904. These findings are in line with Cull et al. (2007) who posits that any asset that your lender accepts as collateral (and which is allowed by law) can serve as collateral. In general, lenders prefer assets that are easy to value and turn into cash.
4.6 Credit Policy
This section describes the status of the organization in regard to credit policy

4.6.1 Size of Loan.
The figure below shows results on whether the organization has a policy on size of loan to provide to a prospective credit customer. The results were recorded in figure 4.5 below for interpretation purposes.

**Figure 4.5 Size of Loan**

![Graph showing policy on size of loan: Yes with 35%, No with 22%](image)

The figure above shows that 62% agreed while 38% disagreed that the organization has a policy on size of loan to provide to a prospective credit customer.

4.7 Percentage of organisation loans provided
The table in the next page shows the percentage of organisation loans provided in Kenya Shillings.

**Table 4.5 Percentage of organization loans provided**
Table 4.5 Percentage of organization loans provided

<table>
<thead>
<tr>
<th>Loans provided</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>10,000</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>10,000-50,000</td>
<td>13</td>
<td>22</td>
</tr>
<tr>
<td>50,000-100,000</td>
<td>12</td>
<td>21</td>
</tr>
<tr>
<td>More than 100,000</td>
<td>24</td>
<td>42</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>58</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Results above shows that 15% of the respondents said that the organisation provided loans of less than 10,000, further, 22% aid that 10,000-50,000 of loans were provided, 50,000-100,000 said that 21% of loans were provided while more than 100,000 were represented by 42%.

4.8 Loan Policy

Table 4.6 Loan Policy.

<table>
<thead>
<tr>
<th>Statements</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our institution has a deliberate policy of providing small loans and gradually increases the amount according to credibility of borrower</td>
<td>4.34</td>
<td>0.13</td>
</tr>
<tr>
<td>Loan size given is based on past decisions made by management</td>
<td>3.90</td>
<td>0.21</td>
</tr>
<tr>
<td>The financial institution can provide a loan without getting material collateral from the client</td>
<td>2.20</td>
<td>1.03</td>
</tr>
<tr>
<td>Management emphasizes loan appraisal using loan officers with intimate knowledge of the local Population</td>
<td>4.30</td>
<td>0.12</td>
</tr>
<tr>
<td>In our loan appraisal we work hand in hand with public and religious leaders/community leaders in assessing credit worthiness of borrower</td>
<td>3.33</td>
<td>0.20</td>
</tr>
</tbody>
</table>
The table above shows that the respondents’ institution has a deliberate policy of providing small loans and gradually increases the amount according to credibility of borrower as shown with a mean of 4.34 and a standard deviation of 0.13. Further, loan size given is based on past decisions made by management with a mean of 3.90 and a standard deviation of 0.21. On the financial institution can provide a loan without getting material collateral from the client with a mean of 2.20 and a standard deviation of 1.03. Management emphasizes loan appraisal using loan officers with intimate knowledge of the local Population with a mean of 4.30 and a standard deviation of 0.21. While finally, in our loan appraisal we work hand in hand with public and religious leaders/community leaders in assessing credit worthiness of borrower with a mean of 3.33 and a standard deviation of 0.20.

4.8.1 Interest Rates

The researcher had to establish the level of interest rates on uptake of loans as shown in table 4.7 below for easy interpretation.

<table>
<thead>
<tr>
<th>Statements</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most clients are comfortable with the interest rates offered by the MFI</td>
<td>4.30</td>
<td>0.23</td>
</tr>
<tr>
<td>Loan interest is one of the basis of managerial decision-making processes</td>
<td>3.91</td>
<td>0.31</td>
</tr>
<tr>
<td>Interest rates differ with loan amounts</td>
<td>2.10</td>
<td>1.00</td>
</tr>
<tr>
<td>Once a loan has been approved, the interest rates do not change for the period of the loan</td>
<td>5.30</td>
<td>1.12</td>
</tr>
</tbody>
</table>

The table shows that most clients are comfortable with the interest rates offered by the MFI with a mean of 4.30 and a standard deviation of 0.23. Loan interest is one of the
deviation of 0.31. Interest rates differ with loan amounts with a mean of 2.10 and a standard deviation of 1.00. While once a loan has been approved, the interest rates do not change for the period of the loan with a mean of 5.30 and a standard deviation of 1.12

### 4.8.2 Management Challenges

#### Table 4.8 Management Challenges

<table>
<thead>
<tr>
<th>Statements</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The MFI maintains proper books of accounts and records</td>
<td>5.36</td>
<td>0.26</td>
</tr>
<tr>
<td>The reports generated from the systems are complete and useful to users</td>
<td>3.00</td>
<td>4.31</td>
</tr>
<tr>
<td>It’s easier for the members to access these reports as and when they need them</td>
<td>2.11</td>
<td>3.00</td>
</tr>
<tr>
<td>Once an error is identified the issue is rectified in good time</td>
<td>5.12</td>
<td>3.12</td>
</tr>
</tbody>
</table>

The table above shows that MFIs maintains proper books of accounts and records had a mean 5.36 and a standard deviation of 0.26. The reports generated from the systems are complete and useful to users had a mean 3.00 and a standard deviation of 4.31. It’s easier for the members to access these reports as and when they need them had a mean 2.11 and a standard deviation of 3.00. While once an error is identified the issue is rectified in good time had a mean 5.12 and a standard deviation of 3.12.
4.8.3 Staff performance

Table 4.9 below shows the indicators of staff performance.

<table>
<thead>
<tr>
<th>Statements</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The MFI Staff officers are supervised by the manager</td>
<td>5.00</td>
<td>0.36</td>
</tr>
<tr>
<td>Regular staff performance evaluation is done</td>
<td>6.00</td>
<td>4.00</td>
</tr>
<tr>
<td>Regular staff meeting are held between management and other staff members</td>
<td>3.00</td>
<td>4.10</td>
</tr>
<tr>
<td>We have a customer care desk to address concerns from MFI customers</td>
<td>4.12</td>
<td>5.13</td>
</tr>
</tbody>
</table>

The table above shows that on the MFI Staff officers are supervised by the manager had a mean 5.00 and a standard deviation of 0.36. Further, regular staff performance evaluation is done had a mean 6.00 and a standard deviation of 4.00. Moreover, regular staff meeting is held between management and other staff members had a mean 3.10 and a standard deviation of 4.10. Finally, on whether the firms had a customer care desk to address concerns from MFI customers had a mean 4.12 and a standard deviation of 5.13

4.8.4 Meeting set up agenda

Table 4.10 below shows meeting set ups.

<table>
<thead>
<tr>
<th>Statements</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is always an agenda for all meetings</td>
<td>5.10</td>
<td>0.35</td>
</tr>
<tr>
<td>Management meet to address staff issues</td>
<td>6.13</td>
<td>4.12</td>
</tr>
<tr>
<td>Management meet to address members issues</td>
<td>4.02</td>
<td>4.15</td>
</tr>
<tr>
<td>The meeting is inclusive and consultative</td>
<td>5.13</td>
<td>6.13</td>
</tr>
</tbody>
</table>

The table above shows that there is always an agenda for all meetings with a mean of 5.10 and a standard deviation of 0.35. Further, management meets to address staff issues with a
mean of 6.13 and a standard deviation of 4.12. Management meets to address members’ issues with a mean of 4.02 and a standard deviation of 4.15. While the meeting is inclusive and consultative with a mean of 5.13 and a standard deviation of 6.13.

4.9 Diagnostic test

4.9.1 Diagnostic Tests for Regression Assumptions
The preferred regression model was subjected to a number of diagnostic tests to evaluate the validity of the model. The diagnostic tests included: Breusch-Pagan test for heteroskedasticity and White Heteroskedasticity Test (LM) for constant variance of residual over time, the ARCH (Autoregressive conditional heteroscedasticity) test which detects the problem of heteroscedasticity and Ramsey RESET test for the specification of the regression. Further regression and correlation analysis were used to establish the relationship between the independent and the dependent variables. Control variables i.e. age were incorporated to determine the changes in coefficient of determination (R2 change).

The results were presented in Table 4.2 below.

Table 4.11: Diagnostic Tests

<table>
<thead>
<tr>
<th>Test</th>
<th>F-statistics</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ramsey RESET Test:</td>
<td>1.760507</td>
<td>0.163014</td>
</tr>
<tr>
<td>White Heteroskedasticity Test:</td>
<td>2.125333</td>
<td>0.079932</td>
</tr>
</tbody>
</table>

Table 4.2 shows that the parameters of the regression analysis were stable and the model can be used for estimation at 5 percent confidence level. The Ramsey RESET Test for model specification, ARCH Test and White Heteroskedasticity Test for constant
variance of residuals and Breusch-Godfrey Serial Correlation LM Test for serially correlated residuals used the null hypothesis of good fit (specification, heteroskedasticity, and non-autocorrelated against the alternative hypothesis of model mis-specification, heteroskedasticity, and autocorrelated respectively. All the probability values were less than F-statistics coefficients at 5 percent level of significance and therefore the null hypothesis was not rejected. The diagnostic test outcomes were therefore satisfactory.

4.10 Correlation Analysis

The table below shows the correlation coefficient matrix of the predictor variables.

Table 4.12: Correlation coefficient

<table>
<thead>
<tr>
<th></th>
<th>Breadth of Outreach</th>
<th>Demographics</th>
<th>Length of Outreach</th>
<th>Cost of borrowing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breadth of Outreach</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demographics</td>
<td>0.8345</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>length of Outreach</td>
<td>0.8507</td>
<td>0.8679</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Cost of borrowing</td>
<td>0.7612</td>
<td>0.8163</td>
<td>0.7568</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 4.14, show that all the predictor variables were shown to have a positive association between them at a significant level of 0.05 and hence included in the analysis. There was strong positive relationship between Length of Outreach and Demographics (correlation coefficient 0.8679), Breadth of Outreach and Length of Outreach (correlation coefficient 0.8507).
4.11: Outreach and loan default

The following are the results of regression analysis.

4.11.1: Model Summary

Analysis in table 4.10 shows that the coefficient of determination (the percentage variation in the dependent variable being explained by the changes in the independent variables).

R Square equals 0.843, that is, Breadth of Outreach, Demographics, length of Outreach, and Cost of borrowing explains 84.3% of observed change in Loan Default. The P-value of 0.000 (Less than 0.05) implies that the regression model is significant at the 95% significance level.

Table 4.13: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of Estimate</th>
<th>R Square Change</th>
<th>F</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.918</td>
<td>.843</td>
<td>.805</td>
<td>.51038</td>
<td>.843</td>
<td>1.242</td>
<td>4</td>
<td>96</td>
<td>.000</td>
</tr>
</tbody>
</table>

Predictors: (Constant), Breadth of Outreach, Demographics, length of Outreach, Cost of borrowing,

Dependent Variable: Loan Default.

Source: Researcher 2015
4.12: Analysis of Variance (ANOVA)

The researcher sought to compare means using analysis of variance. ANOVA findings (P-value of 0.00) in table 4.14 show that there is correlation between the predictors' variables (Breadth of Outreach, Demographics, length of Outreach, Cost of borrowing (Loan Default)).

**Table 4.14: Analysis of Variance (ANOVA)**

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>.852</td>
<td>4</td>
<td>.213</td>
<td>1.242</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>20.35</td>
<td>119</td>
<td>.171</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>22.64</td>
<td>123</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Predictors: (Constant), Breadth of Outreach, Demographics, length of Outreach, Cost of borrowing,*

*Dependent Variable: Loan Default.*
CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction
This chapter seeks to summarize the findings of the research, give a conclusion and recommendation for the research and limitations of the study.

5.1.1 Summary of the Findings
The study examines the performance of MFIs in relation to outreach, the study sought this relationship using questionnaires that were administered to MFIs staff to put down customers demographics, cost of loan depth and length. The questionnaire also sought to find out the management levels that are applied to staff in an MFIs.

The study established that most of the customers had secondary education, it also established that among the MFIs customers most were men aged between 20-30 years meaning that most MFI loan seeking customers are actually youth, and it also established that most of this customers are from minority groups. It has been established through this study that MFIs don’t discriminated customers on disability criteria as some of the customers with loans some of which have defaulted are disabled.

The study shows that 34% of the respondents agreed to a great extent that credit worthiness evaluation contribute to loan default. It’s clear from the study that all members to be required to provide collateral for all loans issued with a mean of 4.14 and a standard deviation of 0.904. These findings are in line with Cull et al. (2007) who posits that any asset that your lender accepts as collateral (and which is allowed by law) can serve as collateral. In general, lenders prefer assets that are easy to value and turn into cash.
The study shows that the respondents' institution has a deliberate policy of providing small loans and gradually increases the amount according to credibility of borrower as shown with a mean of 4.34 and a standard deviation of 0.13. Further, loan size given is based on past decisions made by management with a mean of 3.90 and a standard deviation of 0.21. On the financial institution can provide a loan without getting material collateral from the client with a mean of 2.20 and a standard deviation of 1.03. Management emphasizes loan appraisal using loan officers with intimate knowledge of the local Population with a mean of 4.30 and a standard deviation of 0.21. While finally, in our loan appraisal we work hand in hand with public and religious leaders/community leaders in assessing credit worthiness of borrower with a mean of 3.33 and a standard deviation of 0.20.

The study shows that most clients are comfortable with the interest rates offered by the MFI with a mean of 4.30 and a standard deviation of 0.23. Loan interest is one of the bases of managerial decision-making processes with a mean of 3.91 and a standard deviation of 0.31. Interest rates differ with loan amounts with a mean of 2.10 and a standard deviation of 1.00. While once a loan has been approved, the interest rates do not change for the period of the loan with a mean of 5.30 and a standard deviation of 1.12.

The above shows that on the MFI maintains proper books of accounts and records had a mean 5.36 and a standard deviation of 0.26. The reports generated from the systems are complete and useful to users had a mean 3.00 and a standard deviation of 4.31. It's easier for the members to access these reports as and when they need them had a mean 2.11 and a standard deviation of 3.00.
5.2 Conclusions
The study sought to seek the effects of outreach on loan default. Conclusions are made that there is a negative relationship between regulation and outreach. There is inverse relationship between outreach and financial sustainability. Here the argument is higher outreach means higher transaction cost in order to get information about creditworthiness of clients and hence make MFIs loan expensive to borrowers.

MFIs focus on providing credit to the poor who have no access to commercial banks. While MFIs try to be financially sustainable, they appear to be often loss making. Nevertheless, some of them have succeeded in lending to women, youth, minority whom need financial support against below market interest rate. Recently, however, there seems to be a shift from MFIs to a further focus on financial sustainability and efficiency. Financial sustainability and efficiency of microfinance institutions is obviously very important for a well-functioning financial system in Kenya that will be help with the achievement of Vision 2030.

The results revealed that majority of MFIs have spread their customers across different age, special needs people and gender. As MFIs spread out administration cost increase resulting to loans becoming expensive and also a stretch on disbursable funds. The study therefore concludes that majority of MFIs in Kenya are not financially sustainable. It was also found that individual MFI's outreach has shown increment over period, leading the industry's outreach to rise in the period from 2008 to 2012 on average by 13 percent. It is also identified although MFIs are designed to reach women and youth, they have a larger men customer base with 72% penetration rate, but for sure it has reached the youth with 78% of the loan defaulters being below 40 years.
5.3 Recommendations

This study is of the view that, for MFIs to be sustainable and profitable, it is imperative on them to be innovative in their products design and unique in the services they render. It is therefore recommended that MFIs assign resources to research to understand the demands of their market. It is also recommended that MFIs build the capacity of their personnel to enable them exercise sound management practices and MFI design.

One of the most potent means of curbing the incidence of loan default is by effective and regular monitoring of the loan from the time of disbursement till the final repayment. This will help to prevent diversion and misapplication of funds which are as two important causes of loan default in MFIs. This activity also affords the loan officers the opportunity to inspect the books of accounting of the customers and help the customers to keep proper records of their business transactions. It is also recommended that management should make a conscious effort to resource the loan officers sufficiently at all times in terms of vehicle and other logistics to support the monitoring activities. It is also worthwhile to mention that management should ensure the periodic visit of the institution’s internal auditing team to the branch to make sure that the branches comply with the stipulations of the credit policy. Effective monitoring of the loan facility and periodic review of the customer’s accounts help the lending institution to pick early signals and take remedial measures to prevent further deterioration of the credit facility.

It is recommended that periodically relevant training programs are organized for loan officers particularly in the area of risk management, management of non-performing loans and financial analysis. This helps improve the knowledge and analytical skills of
the credit officers so as to improve their credit appraisal techniques. The training program will assist the loan/credit officers to appreciate the importance of prompt credit delivery in loan default prevention. Through the training, credit officers will be able to better assess and analyse the loan portfolios (using tools such as Portfolio at Risk {PAR} and ageing Analysis) and pick early warning signals much more quickly and take potent remedial measures to halt any further deterioration of the loan portfolio.

It is also strongly recommended that management will always give a serious attention to the health of loan portfolio and resource the credit officers to prevent loans or credit facilities slipping into adverse classification. For effective training programmes, it is recommended that seasoned and knowledgeable bankers and micro finance experts with practical experience in microcredit be engaged to provide this training services. In all this, it is worth noting that commitment on the part of management to ensure successful implementation of training program is crucially important. In order to decrease the chance of loan default, MFIs should be selective as to which borrowers or projects they accept for funding and available literature suggests that lending institutions which do poorly in this area risk creating more loan default in their books.

5.4 Limitations of the study
First it was not possible to obtain 100% of data from the 62 listed MFIs, some MFIs that were administered questionnaires refused to complete them while others completed them but never returned them as such questionnaires had to be approved by a specific person who was never available to approve for dispatch. Their fear was that they may
release sensitive information to their competitors, especially in the current times of stiff competition and growth.

In addition some MFIs were lacking categorized data as per age, gender and those data pertaining to disabled clients. Another major challenge was the numerous visits that were made to some MFIs with no success in at the end, this led to more time and resources being used to search for data that never was, this stretched the finances of the researcher.

The use of SPSS for the first time by the researcher was a major challenge, and in most cases, the researcher had to seek the service of professional data analyst which ended up costing extra resources. Last but not least, the decision on which variables to be used in the study was a major challenge as various parameters were available and the advantage of each of them was equally similar.

5.5 Recommendation for further studies.

A key area of further research is to establish the reason behind women being the lowest number of clients in various MFIs defaulting loans. Establishing the likelihood of a MFI serving women and the disabled than men as men are defaulting loans more, this study should check the characteristic and behavior women show when advanced a loan and guide in trying to ensure men have similar behavior to reduce loan rate default among men.

Those MFIs that have been authorized to take deposit by the CBK have increased in the recent past. Further research needs to be done to ascertain the specific factors that makes traditional MFIs seek this authorization and the exact benefits that comes from this
practice, also if there is a growth/spread effect that is influenced by extra money from CBK by MFIs.

Finally, further research needs to be carried out to establish if there is any relationship between the period under which a MFI has been in operation and the number of customers they serve and also the level of spread in terms of branch across the country, in the research the need to establish if there is any competitive edge a MFI is likely to yield as a result of being in operation for a long time needs to be ascertained.
REFERENCE


Adongo, J. and Stork C. (2005) Factors Influencing the Financial Sustainability of Selected


Kipyego D. K (2013), Effects of Credit Information sharing on Non-performing loans.


Rhyne, E. and Otero, M. (2006), Microfinance through the next decade: Visioning the who, what, where, when and how, ACCION International.


Shanthi E. S (2012) Transformative Technology in Microfinance
Appendix I MFIs operating in Kenya.

1. AAR Credit Services
2. Aga Khan First Microfinance Agency
3. Blue Limited
4. Canyon Rural Credit Limited
5. CIC Insurance
6. Century DTM LTD (Interim)
7. Chartist Insurance
8. Co-operative Bank
9. ECLOF Kenya
10. Equity Bank
11. Faulu Kenya DTM Limited
12. IndoAfrica Finance
13. Jitegemee Credit Scheme
14. Jitegemee Trust Limited
15. Juhudi Kilimo Company Limited
16. KADET
17. Kenya Entrepreneur Empowerment Foundation (KEEF
18. K-rep Development Agency
19. K-rep Bank Ltd
20. Kenya Women Finance Trust
22. Fusion Capital Ltd
23. Micro Africa Limited
24. Micro Enterprises Support Fund (MESPT)
25. Kilimo Faida
26. Micro ensure Advisory Services
27. Molyne Credit Limited
28. Muramati SACCO Society Ltd
29. Musoni
30 Ngao Credit Ltd
31 One Africa Capital Limited
32 Opportunity International
33 Oikocredit
34 Pamoja Women Development Programmed (PAWDEP)
35 Platinum Credit Limited
36 Rupia Limited
37 Renewable Energy Technology Assistance Programmed (RETAP)
38 Rafiki Deposit Taking Microfinance Ltd
39 Remu DTM Limited
40 Reenland Fedha Limited
41 Select Management Services Limited
42 SISDO
43 SMEP DTM Limited
44 Sumac Credi. Ltd
45 Swiss Contact
46 Women Enterprise Fund
47 Uwezo DTM Ltd
48 U & I Microfinance Limited
49 Yehu Microfinance Trust

Appendix 11: Questionnaire

Date________________

Dear Respondents,

I am a finalist student at the Nairobi University pursuing a Master in science Finance and Investment option (MSc). In partial fulfillment of the requirements for the award of the Msc degree. I am undertaking a study entitled ‘Effects on Outreach on Loan Default Amongst Micro Financial Institutions in Kenya’. Please complete this questionnaire by ticking the right boxes and filling the provided spaces. The information you provide will be treated with utmost confidentiality and used for academic purposes only.

SECTION A: DEMOGRAPHIC STATISTICS

1. From the past data of the last five years, please indicate which gender have defaulted in repayment of loans most.

Male [ ] Female [ ]

2. What is the age for customers defaulting loans?

Between 20-30 years [ ] between 31-40 [ ] Over 40 years [ ]

3. On average how long had the defaulters banked with the MFI?

Between 0-5 years [ ] between 6-10 [ ] Over 10 years [ ]
4. What group with special needs default loan?

Ethnic Minority [ ]  Disabled [ ]  Able [ ]

5. What is the highest level of education attained by members who have defaulted the loan most? (Tick as appropriate)

Secondary School [ ]
College [ ]
University Degree [ ]
Illiterate [ ]
**SECTION B CREDIT WORTHINESS EVALUATION**

6. To what extent does credit worthiness evaluation contribute to loan default?

- To a very great extent [ ]
- To a great extent [ ]
- To a moderate extent [ ]
- To a little extent [ ]
- To no extent [ ]

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

<table>
<thead>
<tr>
<th></th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The MFI gives full loan as applied</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The MFI issue loans within agreed</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>period</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The MFI maintain the interest rates</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>for the loan period as agreed upon</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The MFI gives longer loan</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>repayment period.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
8. In your view, what do you recommend that MFI’s should do on credit worthiness evaluation to reduce on loan defaults?

<table>
<thead>
<tr>
<th></th>
<th>1 Strongly agree</th>
<th>2 Agree</th>
<th>3 Neutral</th>
<th>4 Disagree</th>
<th>5 Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce the interest Rate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduce the number of loans available to an individual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All members to be required to provide collateral for all loans issued</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The vetting and credit policy to be enhanced</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION C CREDIT POLICY

9. Does the organization have a policy on size of loan to provide to a prospective credit customer?

Yes [ ]   No [ ]
10. Provide % of organisation loans provided in the following categories.

<10,000 [  ]  10,000-50,000 [  ]

50,000-100,000 [  ]  More than 100,000 [  ]
11. What is your level of agreement with the following statements?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our institution has a deliberate policy of providing small loans and gradually increases the amount according to credibility of borrower</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loan size given is based on past decisions made by management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The financial institution can provide a loan without getting material collateral from the client</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management emphasizes loan appraisal using loan officers with intimate knowledge of the local Population</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In our loan appraisal we work hand in hand with public and religious leaders/community leaders in assessing credit worthiness of borrower</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
12. INTEREST RATES

What is your level of agreement with the following statements?

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most clients are comfortable with the interest rates offered by the MFI</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loan interest is one of the basis of managerial decision-making processes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest rates differ with loan amounts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Once a loan has been approved, the interest rates do not change for the period of the loan.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
13. MANAGEMENT CHALLENGES

What is your level of agreement with the following statements?

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

The MFI maintains proper books of accounts and records

The reports generated from the systems are complete and useful to users

It’s easier for the members to access these reports as and when they need them

Once an error is identified the issue is rectified in good time
14. What is your level of agreement with the following statements?

<table>
<thead>
<tr>
<th></th>
<th>@Strongly</th>
<th>@Agree</th>
<th>@Neutral</th>
<th>@Disagree</th>
<th>@Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The MFI Staff officers are</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>supervised by the manager</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regular staff performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>evaluation is done</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regular staff meeting are</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>held between management and</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>other staff members</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>We have a customer care desk</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>to address concerns from MFI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>customers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
15. What is your level of agreement with the following statements?

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

- There is always an agenda for all meetings
- Management meet to address staff issues
- Management meet to address members issues
- The meeting is inclusive and consultative