St. Mary’s University
School of Graduate Studies

Assessment of Credit Risk Management In Micro Finance Institutions
(In the case of Addis credit and saving institutions)

BY
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A Thesis submitted to the School of Graduate Studies, Saint Mary’s University in partial fulfillment of the Requirements for the degree of Master of Business Administration in Accounting and Finance

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DECLARATION

First, I declare that this Thesis is my work and that all sources of materials used for this thesis have been fully acknowledged. This thesis has been submitted in partial fulfillment of the requirement for the Degree of Master of Business Administration in accounting and finance (MBA ACCOUNTING AND FINANCE)

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The Thesis entitled, “ASSESSMENT OF CREDIT RISK MANAGEMENT IN MICROFINANCE INSTITUTION” THE CASES OF ADCSI MFI was conducted by Yebabie Yoseph under the supervision of Arega Seyom (PHD) and this title has been approved by the concerned bodies of Saint Mary university for the partial fulfillment of the requirements for the degree of Masters Business Administration in Accounting and Finance.

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<td>MFI</td>
<td>MICRO FINANCE INSTITUTION</td>
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<td>ADCSI</td>
<td>ADDIS CREDIT AND SAVING INSTITUTION</td>
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<td>NBE</td>
<td>NATIONAL BANK OF ETHIOPIA</td>
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<td>AMFI</td>
<td>ASSOCIATION OF MICRO FINANCE INSTITUTION</td>
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Abstract

Credit risk management is one of the most important activities in any company and cannot be overlooked by any economic enterprise engaged in credit irrespective of its business nature. Sound credit risk management is a prerequisite for a financial institutions stability and continuing profitability, while deteriorating credit quality is the most frequent cause of poor financial performance and condition. As with any financial institution, the biggest risk in microfinance is lending money and not getting it back. The study sought to an assessment of credit risk management in Microfinance Institutions in the case of Addis credit and saving institutions. The study adopted a descriptive survey design. The population of study consisted of 126 service delivery posts in Addis credit and saving share company that are members of AMFI. Primary data was collected using questionnaires where all the issues on the questionnaire were addressed. Descriptive statistics were used to analyze data. Furthermore, descriptions were made based on the results of the tables. The study found that client appraisal; credit risk control and collection policy had effect on credit risk management of MFIs in Addis credit and saving institution. The study established that there was strong relationship between credit risk management of MFIs and client appraisal, credit risk control and collection policy. The study established that client appraisal, credit risk control and collection policy significantly influence on credit risk management of MFIs in Ethiopia. Collection policy was found to have a higher effect on credit risk management and that a stringent policy is more effective in debt recovery than a lenient policy. The study recommends that MFIs should enhance their collection policy by adapting a more stringent policy to a lenient policy for effective debt recovery.
Chapter One: Introduction

1.1 Background of the study

The adequate management of credit risk in financial institutions is critical for the survival and growth of financial institutions. In the case of rural banks, the issue of credit risk is of greater concern because of the higher levels of perceived risk resulting from some of the characteristics of clients and business conditions that they find themselves. Credit risk management is a structured approach to managing uncertainties through risk assessment, development of strategies to manage it and mitigation of risk using managerial resources. The strategies include transferring to another party, avoiding the risk, reducing the negative effects of the risk, and accepting some or all of the consequences of a particular risk.

Hull (2007) explains that one of the basic formation of every organization, most importantly a banker is to understand the portfolio of risk it faced currently and the risk it plans to take in future. Oldfield and Santomero (1997) posited that risks facing all financial institutions can be segmented into three separate types from a management perspective. These are (i) risk that can be eliminated or avoided by simple business practices (ii) risk that can be transferred to other participants and (iii) risk that must be actively managed at the firm level.

In the review of Sinkey (2002), modern risk management in the banking industry can be highlighted by five verbs and these are; identify, measure, price, monitor and control. This process of risk management is very much important to the rural banking industry since most of their clients are susceptible to co-variant risk, market risk and credit risk.

Managing financial institutions has never been easy, but in recent years it has become even more difficult because of greater uncertainty in the economic environment. Credit management is one of the most important activities in any company and cannot be overlooked by any economic enterprise engaged in credit irrespective of its business nature. If the microfinance institutions (MFIs) do not manage their credit risks well, they are likely to fail to meet their social and financial objectives. When poorly managed risks begin to result in financial losses, donors, investors, lenders, borrowers and savers tend to lose confidence in the organization and funds begin to dry up. When funds dry up,
microfinance institutions (MFIs) are not able to meet their social objective of providing services to the poor and quickly go out of business.

As with any financial institution, the biggest risk in microfinance is default risk. Credit risk is a particular concern for MFIs because most micro lending is unsecured (i.e., traditional collateral is not often used to secure microloans) Churchill and Coster 2001. The MFIs’ clients are those who cannot get credit from banks and such other financial institutions due to the lack of the ability to provide guarantee or security against the money borrowed.

Many banks do not extend credit to these kinds of people due to the high default risk for repayment of interest and in some cases the principal amount itself. Therefore, these institutions required to design sound credit management that entails the identification of existing and potential risks inherent in lending activities.

Profitability is a suitable mechanism for achieving long term viability and sustainability of the microfinance industry. At the micro level, profitability is a precondition to a competitive microfinance industry and the cheapest source of capital, without which no firm would draw external capital. MFIs profits are also an important source of equity, if profits are reinvested this may promote financial stability. By minimizing the probability of financial crisis, remarkable profits are vital in reassuring MFIs’ stakeholders, including investors, borrowers, suppliers and regulators. At the macro level, a profitable microfinance industry is better placed to overcome negative shocks and contribute meaningfully to the stability of the overall financial system (Muriu, 2011)

Currently, Ethiopian microfinance institutions are playing crucial roles in improving the life of poor societies and economic development of the country as a whole. The National bank of Ethiopia (NBE) inaugurated the micro finance institutions. Addis Credit and Saving Share Company is one of the publicly owned MFI in Ethiopia. Addis Credit and saving institution has been established in accordance to proclamation No. 40/88 in order to give full support to micro and small scale business operators in Addis Ababa & Oromia region surrounding Addis Ababa. Currently the institution has 10 branch offices, 126 service delivery posts in and around Addis Ababa city administration. Despite the broad service of the MFI, considering the time and cost needed to collect data, this study is delimited to five branch offices. Data will be collected in the following five branches, Addis ketema, arada,gulele, kolfie and lideta branches which are
located in Addis Ababa city administration. Data relevant to credit risk management and its impact on the performance of the institution will be collected

1.2. Statement of the Problem

Credit risk management challenges are implicit in financial institutions (including micro finance institutions) activities because credit risk events are typically uncertain (Laurentis 2009). Therefore, as Nancy (2001) noted an effective credit risk management process is required to help institution’s top leadership establish rules to prevent operating losses due to human error, employee carelessness, technological malfunction or fraud. To illustrate, a micro finance's management may put into place internal controls and procedures as well as periodic internal audit reviews to ensure that employees comply with rules when performing duties in credit risk management. A credit risk management policy also may cover financial risks of financial institutions.

Al-Tamimi and Al-Mazrooei (2007) also noted that financial institutions including micro finance institutions are a business mostly associated with credit risk because of their high exposure to uncertainty. They also noted that credit risk management is one of MFI liabilities of the operations and procedures being followed. In today’s dynamic environment, all micro finance institutions are exposed to potential credit risks. Due to such exposure to credit risks, efficient credit risk management is required.

Chua et al. (2000) also found that managing credit risk is one of the basic tasks to be done in micro financial institutions, once it has been identified and known. As a result, effective and sound credit risk management is a foundation for the safe and sound operation of a micro finance institution to improve their performance. In connection with this issue, different empirical studies are conducted internationally.

The following are some of them. The studies by Michael (2006) and Samuel (2006) tries to touch the issue of credit risk management in some micro finance institutions in Ethiopia but they did not assess exhaustively the performance of micro finance institutions in credit risk management. For example the study by Samuel (2006) only focuses on one micro finance institution.
Laurentis and Mattei (2009) in their study of Lessons’ recovery risk management capability shows that the development of modern reliable systems of risk management like credit scoring can enhance even more those management capabilities.

In Ethiopia, the studies by Wolday (2001), Befkadu (2007), Zigju (2008), and Michael (2006) focus on progress of microfinance institutions in terms of number of clients, loan amount and number of branches the institutions have throughout the country.

Fernando (undated) conducted research study on managing microfinance risks; some observations and suggestions stated that risk management has become more important now and its importance will continue to grow in the future.

Factors such as the increasing competition in markets and the integration of new technology into the industry further reinforce the importance of microfinance risk management. The growing interest of MFIs further reinforces the importance of risk management in MFIs. However, it is disturbing to note that systematic risk management is still not as widespread as it should be.

The empirical studies that have been reviewed in the preceding section focused on the different microfinance institutions issues that affect the performance and in effect profitability of microfinance institutions. In addition, most prior studies regarding credit risk management tried to examine the possible methods to manage credit risk including the use of credit score rating, and the impact of borrower’s financial positions on credit risk management and the impact of relation of borrower and lender on credit risk management. However, it is possible to concluded that although there have been a number of studies on credit risk management and related issues both in developed and developing countries, Ethiopia in particular, the association between Credit Risk management and profitability has not been examined in this manner before. For instance, Andinet (2011) studied Institutional Viability and Performance in Ethiopia. Sara (2014) investigated the determinants of quality of MFIs loan portfolio. Gebrehiwot (2002) studied, Microfinance Institutions in Ethiopia: Issues of Portfolio Risk, Institutional Arrangements and Governance, in Microfinance Theory, Policy and Experience. Wolday (2000) investigated, Networking Microfinance Activities in Ethiopia: Challenges and Prospects, Association of Ethiopian Microfinance Institutions. Hence, it is
difficult to believe that these studies exhaustively examined the credit risk management practice of micro finance institutions especially in our country Ethiopia.

As a result, this study is designed to fill the aforementioned gaps (particularly in Addis credit and saving institution share company) having the main objective of Credit Risk management and Profitability. Therefore, the purpose of this study is to assess credit risk management in Addis micro finance Share Company.

From the above point of view there is a specific problem as indicated as follows

1. What characters of credit risks that are most commonly faced by in Addis micro finance Share Company?
2. What techniques are used by Addis Credit & Savings Share Co. to manage the credit risk it’s facing?

1.3. Objective of the Study

1.3.1 General Objective

The principal aim of this study is to assess the credit risk management on the institution and to determine the character of credit risk for the purpose of to find out the ways to manage that credit risk, with particular reference to borrowers in the selected 5 Addis credit and saving share company branches offices.

1.3.2 Specific Objectives

1. To identify the effect of credit risk on Addis Credit & Savings Share Company.
2. To determine the characteristics of credit risk that imply the negative impact on the the institution.
3. To identify the challenge that faced by the Addis Credit & Savings institution in credit risk management.
4. To find out the ways to manage credit risk on the institution.
5. To assess the relationship between the theories, concepts and models of credit risk management and what goes on practically.
1.4. Scope and Limitation of the study

1.4.1 Delimitation (Scope) of the Study

Micro finance institutions have different branches. However, because of time, place, and cost constraint, the study is concerned on Addis credit and saving institution share company. In addition to this, the study focuses on their selected five branch office like Addis ketema, Arada, Gulele, Lideta and Kolfie branches.

1.4.2 Limitation of the study

The institution and the supervisory body were not willing to disclose information to the researcher due to fear of break of Promise of Privacy (Duty of confidentiality). This constraint was dealt with by relying on the published reports and responses of the participants’ of the study. A due attention was given to assuring the respondents on matters of confidentiality. Though the intention of the researcher was to employ regression analysis model by using the data from the National Bank of Ethiopia, the researcher was not able to obtain these data from the institution because of unjustifiable reason of confidentiality given to him by the National Bank of Ethiopia. Therefore, the researcher was forced to focus and carried out the study based on the responses obtained through questionnaire and interview.

1.5 Significance of the Study

This study was make several contributions to both knowledge building and practice improvement in credit risk management. It is expected that it was aid to policy makers in their effort to revamp the sector. It shall also be of great relevance to the organizations under study as well as other financial institutions. The non-financial business firms, whether manufacturing or service oriented shall also benefit from the research findings. This is because the result of the study shall enable the users especially MFIs to appraise its credit policies and to review its operations critically for more result oriented approach in dealing with its credit facilities.

- It shows an assessment of credit risk management.
- It shows the challenges faced by the financial institution with regard to credit risk management.
- It shows the major tools or techniques used by financial institution to manage...
their credit risk.
- It was used as an input for further studies.
- It is useful for financial institution by providing information in credit Risk management.

1.6 Organization of the Paper

The study outlined and/or organized in five chapters. Chapter one presents introduction, which is the main skeleton of the study. Chapter two contains a review of the related literature including theoretical framework of the study, extensive review of empirical evidence on the subject matter of microfinance institution together with the circumstance of Ethiopia and knowledge gap and conclusion. The research design and methodology are will be presented in Chapter three. Chapter four presents results and discussion with the help of both descriptive statistics and econometrics analysis. Finally, chapter five presents summary, conclusions, recommendation and future research work.
Chapter Two: Literature Review

2.1 The concept of risk management

Risk management introduces the modern theory of planning or decision making under uncertainty that is contingency planning (Schwartz, 2001) managers in the past have always used financial ratios are quantifying risks. In this light, decisions in the future may turn out to have a negative effect on actual result or vice-versa or actual results can prone to be very different from expected results. Risk management is therefore concerned with the identification of potential problems and eliminating or reducing the damage which they may result in if the problem materializes. Risk management is a central part of any organization’s strategic management activities. It is the process whereby organizations methodically address the risks attaching to their activities with the goal of achieving sustained benefits within each activity and across the portfolio of all activities. The focus of good risk management is the identification and treatment of these risks. It increases the probability of success, and reduces both the probability of failure and the uncertainty of achieving the organization’s overall objectives. (Schwartz, 2001)

Cielens (2010) stresses the discipline aspect of risk management. Risk management is a discipline for dealing with the possibility that some future event will cause harm. It provides strategies, techniques, and an approach to recognizing and confronting any threat faced by an organization in fulfilling its mission. Also lingered that risk management information is used along with other corporate information, such as feasibility, to arrive at a risk management decision, transferring risk to another party, lessening the negative effect of risk and avoiding risk altogether are considered risk management strategies. Examples of risk management practices include: purchasing insurance; installing security systems; maintaining cash reserves; and diversification.

Jorion (1995) adapted this concept of risk management. The actual definition of risk management is the process of analyzing the exposure to risk and finding the means of handling this exposure properly. Every company weighs the pros and cons before starting out; this is done to avoid any future calamities that may lead to losses and insolvencies.
Jorion (1995) also drew the curtail line by defining risk management as “the process by which managers satisfy these needs by identifying key risks, obtaining consistent, operational risk measures, choosing which risks to reduce and which to increase and by what means, and establishing procedures to monitor the resulting risk position” he explained the need to identify risk and finding ways to mitigate the risk.

Management, like risk, can have many meanings, each valid in the appropriate context. For risk management of potential accidental losses, it is best to define management. Stoner (1985) did defined management as a process: the process of planning, leading organizing, directing, and controlling organizational resources to achieve given objectives.

Putting this definition of management together with our earlier definition of risk gives us a precise, quite concise, definition of risk management. Kloman (2005) gave a comprehensive risk management by bringing out the management aspect of risk. He said Risk management is the process of planning, leading organizing, directing, and controlling organizational resources to achieve given objectives when Surprisingly good or bad events are possible. Churchill (2001) explained that risk taken by the microfinance institutions must be calculated and later merged (2005) concept of systemic approach of it. Risk management is the process of taking calculated risks, a systematic approach that identifies and prioritizes the risks and implements strategies to mitigate the risks. This approach includes both the prevention of potential problems and the early detection of actual problems. It is a continuous process that involves staff at all levels of the organization. However, it is observed that most definitions and explanations as well as the concepts by the experts simply got to do with identifying, measuring, monitoring and controlling the exposure of risk as the definition of management goes.

2.2 Common Risks Found in Microfinance Institutions

Financial intermediation involves some risks, with one major challenge facing financial institutions being to identify such risks and to hedge against them. The risks vary in type and intensity for different financial institutions, whether or not they operate in the same business environment. Each microfinance, therefore, has to identify its own unique set of risks and to manage it in its own way if it wishes to continue to sustain its operations.
According to Fernando (2008), risk management, in relation to an MFI is the process of controlling the likelihood and potential severity of an adverse event; it is about systematically identifying, measuring, limiting, and monitoring risks faced by an institution.

Services are relatively small and simple when a new microfinance bank commences Operations. During the setting up of a new microfinance bank, it tends to be very aware of the financial risks that it faces, causing it to make a conscious effort to mitigate them. However, as microfinance bank grows in size and diversifies its loan portfolios, different types of risks, other than the obvious financial ones, tend to begin to manifest themselves. Generally, the following three categories of risks that might face microfinance business have been identified.

- **Liquidity risks**

According to Craig and Dan (2011), liquidity risk arises when a microfinance is unable to meet its cash requirements or payment obligations timely and in a cost-efficient manner. Microfinance have to plan the volume of loans to be approved and disbursed, the withdrawal pattern of their saving clients (where MFI is allowed to mobilize deposits), and other fund requirements for operational purposes, and should be able to match available funds against such requirements.

According to Kolari et al, in order to reduce liquidity risk, each microfinance branch needs to prepare a daily fund plan that guides the matching of cash inflows from loan repayment and saving deposits (that usually take place in the afternoon) with cash outflows (from draw-downs, customer withdrawals and operational expenses) for the branch on a daily basis. Any positive balance or surplus fund should be deposited with a correspondent bank daily, while any anticipated shortfall should be covered by withdrawing cash from the bank early in the day. No overnight cash should be held by the branch, in order to eliminate the risk of fraud or theft. As in the case of the daily fund plan, each branch should also prepare a monthly fund plan that should outline the amount of loans to be granted, the volume of saving withdrawals from customers, and the anticipated operational expenses. The preparation of the plan assists the finance department to anticipate the funding requirements of the various branches, thereby allowing the determination in advance of any potential cash shortfall or surplus facing the branches concerned. The funds should then be moved to a position
where they can address the situation, while any arising idle funds are invested appropriately.

❖ **Credit Risk**

Credit risk is defined as the probability that some of a MFI's assets, especially its loans, will decline in value and possibly become worthless. Because MFIs hold little owners' capital relative to the aggregate value of their assets, only a small percentage of total loans need to go bad to push a bank to the brink of failure. Thus, management of credit risk is very important and central to the health of a MFI and indeed the entire financial system. As MFIs make loans, they need to make provisions for loan losses in their books. The higher this provision becomes, relative to the size of total loans, the riskier a bank becomes. An increase in the value of the provision for loan losses relative to total loans is an indication that the bank's assets are becoming more difficult to collect. Credit risk is the risk of a loss resulting from the debtor's failure to meet its obligations to the MFI in full when due under the terms agreed (R.S. Raghavan 2003).

❖ **Operational risk**

Operational risks arise because of possible system or human errors in service or product delivery. Potentially, unexpected financial losses might occur as a result of a variety of issues, such as inadequate or deficient information systems, operational challenges, incompetent personnel, inadequate skill, deliberate breaches, or fraudulent tendencies. The management of such risks requires that the internal control framework is effective, the information technology (IT) used is adequate, the integrity of the employees is guaranteed, and the operating processes are streamlined. Given the various sources of operational risk, the most obvious is the interaction of loans and clients involving financial transactions. In the case of normal traditional banks, the staff undertaking credit assessment is usually well trained, with multiple levels of crosschecking put in place. Unfortunately, in the case of MFIs, there are usually numerous short-term loans of small amounts, making elaborate crosschecking not cost-effective. As a result, the possibility of both error of assessment and deliberate fraud is relatively high (Mersland and Strom 2007)
2.3 Credit Approval and Implementation

The individual steps in the credit approval process and their implementation have a considerable impact on the risks associated with credit approval. The quality of credit approval processes depends on two factors, i.e. a transparent and comprehensive presentation of the risks when granting the loan on the one hand, and an adequate assessment of these risks on the other. Furthermore, the level of efficiency of the credit approval processes is an important rating element. Due to the considerable differences in the nature of various borrowers and the assets to be financed as well as the large number of products and their complexity, there cannot be a uniform process to assess credit risks. The quality of the credit approval process from a risk perspective is determined by the best possible identification and evaluation of the credit risk resulting from a possible exposure.

According to Oesterreichische National bank Credit Approval Process and Credit Risk Management (2000), the credit risk can be distributed among four risk components.

a. Probability of Default (PD)

b. Loss Given Default (LGD)

c. Exposure at Default (EAD)

d. Maturity (M)

The most important components in credit approval processes are PD, LGD, and EAD. While maturity (M) is required to calculate the required capital, it plays a minor role in exposure review. The significance of PD, LGD, and EAD is described below.

a) Probability of Default (PD)

Reviewing a borrower’s probability of default is basically done by evaluating the borrower’s current and future ability to fulfill its interest and principal repayment obligations. This evaluation has to take into account various characteristics of the borrower (natural or legal person), which should lead to a differentiation of the credit approval...
processes in accordance with the borrowers served by the bank. (NBE, Credit Approval Process 2000)

Furthermore, it has to be taken into account that for certain finance transactions interest and principal repayments should be financed exclusively from the cash flow of the object to be financed without the possibility for recourse to further assets of the borrower. In this case, the credit review must address the viability of the underlying business model, which means that the source of the cash flows required to meet interest and principal repayment obligations has to be included in the review. (NBE, Credit Approval Process 2000)

b) **Loss Given Default (LGD)**

The loss given default is affected by the collateralized portion as well as the cost of selling the collateral. Therefore, the calculated value and type of collateral also have to be taken into account in designing the credit approval processes. (NBE, Credit Approval Process 2000)

c) **Exposure at Default (EAD)**

In the vast majority of the cases described here, the exposure at default corresponds to the amount owed to the institution. Thus, besides the type of claim; the amount of the claim is another important element in the credit approval process. (NBE, Credit Approval Process 2000)

### 2.4 Credit Risk Exposure

The credit risk exposure (CR) is measured by the sum of the level of loans past due 30 days or more and still accruing interest namely Portfolio at Risk (PAR-30). In robustness tests it is included further measures of credit risk by estimating various econometric specifications for three additional different explanatory variables; the write-off ratio (WOR) which is the value of loans written off during the year as uncollectible, as a percentage of average gross loan portfolio over the year. An additional measure of credit risk is the Risk Coverage Ratio (RC) which is measured as the Adjusted Impairment Loss Allowance/PAR>30 Days and finally Loan Loss Reserve Ratio (LLR). This is measured as the ratio of loan loss reserves to gross loans or simply put as Loan loss reserve/Value of loans outstanding. It is an indicator of how much of the gross loan portfolio has been provided for but not charged off. (Amoah-Binfah et. al., 2005)
2.4.1 Loan product design

MFIs can mitigate a significant portion of default risk by designing loan products that meet client needs. Loan product features include the loan size, interest rate and fees, repayment schedule, collateral requirements and any other special terms. Loan products should be designed to address the specific purpose for which the loan is intended. (Amoah-Binfoh et. al., 2005)

2.4.2 Credit Committees

Establishing a committee of persons to make decisions regarding loans is an essential control in reducing credit (and fraud) risk. If an individual has the power to decide who will receive loans, which loans will be written off or rescheduled, and the conditions of the loans, this power can easily be abused and covered up (Amoah-Binfoh et. al... 2005). While loan officers can serve on the credit committee, at least one other individual with greater authority should also be involved. The credit committee has the responsibility not only for approving loans, but also for monitoring their progress and, should borrowers have repayment problems, getting involved in delinquency management (Amoah-Binfoh et. al., 2005).

2.5 Definition of Credit Management

There are many definitions given for credit management by different scholars. Among these some are here cited as follows: Credit management is implementing and maintaining a set of policies and procedures to minimize the amount of capital tied up in debtors and to minimize the exposure of the business to bad debts(http://www.smallbusiness.wa.gov.au/assets/SmallBusiness-Briefs/small-business-brief-credit-management.pdf).

Credit Management, from a debtor’s point of view, is managing finances especially debts so as not to have a tail of creditors lurking behind your back. Credit management is responsibility that both the debtor and the creditor should seriously take (http://www.selfgrowth.com/articles/Tabije3.html). When it functions efficiently, credit management serves as an excellent instrument for the business to remain financially stable.
2.6 Process of Credit Management

The process of credit management begins with accurately assessing the credit-worthiness of the customer base and his/her business viability. This is particularly important if the company chooses to extend some type of credit line or revolving credit to certain customers. Hence, proper credit management is setting specific criteria that a customer must meet before receiving the proposed credit arrangement. As part of the evaluation process, credit management also calls for determining the total credit line that will be extended to a given customer. Several factors are used as part of the credit management process to evaluate and qualify a customer for the receipt of some form of commercial credit. This includes gathering data on the potential customer’s current financial condition, including the current credit track record that discloses the character of a customer in meeting obligations as well as collateral value. The current ratio between income and outstanding financial obligations will also be taken into consideration. http://www.wisegeek.com/what-is-creditmanagement.htm).

Competent credit management seeks to not only protect the bank or any financial institution involved from possible losses, but also protect the customer from creating more debt obligations that cannot be settled in a timely manner. When the process of credit management functions efficiently, everyone involved benefits from the effort. The financial institution such as banks has a reasonable amount of assurance that loans granted to a client will be paid back within terms, or that regular minimum payments will be received on credit account balances. Customers have the opportunity to build a strong relationship with the creditor and thus create a solid credit reference (http://www.wisegeek.com/what-is-creditmanagement.htm).

2.7 Credit Risk management Indicators

Risk and liquidity are other words for the quality of portfolio. According to Ayayi, Ayi Gavriel et. al., (2010) there are several risk management methods are used by MFI”s, such as sequential loans, credit scoring etc. E.g. when a borrower stops making payments on a loan, on MFI has two options. First, it can keep the loan on its books and try to collect the outstanding payments, thereby keeping the loan registered in the portfolio. Delinquent loans are tracked in the portfolio -at-risk ratios, depending on how long they have been in non-payment status. The
other option for the MFI is to decide that it cannot collect the loan and write the loan off its books. In this case the loan registers in the write off ratio, thereby reducing the loan portfolio by the remaining balance of the loan. Due to the critics on the issue of repayment, these variables are considered less valid, since many MFIs are suspected of misreporting this issue. Yet the hypothesis on the quality of portfolio is that good quality, i.e. low portfolio at risk and low write off ratio, means high profitability since the MFIs get high repayment (Ayayi, Ayi Gavriel et. al., 2010).

Portfolio quality is a crucial area of performance analysis, since the largest source of risk for any financial institution resides in its loan portfolio (Wolday et. al. 2014) The loan portfolio is, by far, the largest asset and, in addition, the quality of that asset and therefore, the risk it poses for the institution can be quite difficult to measure. For microfinance institutions, whose loans are typically not backed by bankable collateral, the quality of the portfolio is absolutely crucial (Wolday et. al 2014).

Loan portfolio is the most important asset of an MFI. Portfolio quality reflects the risk of loan delinquency and determines future revenues and an institution’s ability to increase outreach and serve potential and existing clients. Many MFIs have learned how to maintain loan portfolios of very high quality. In fact, leading MFIs are typically better at maintaining a higher portfolio quality than commercial banks in many countries (Wolday et. al., 2014).

2.7.1 Portfolio at Risk (PAR)

According to the Wolday et. al., (2014), the most widely used indicator of portfolio quality in the microfinance industry is Portfolio at Risk (PAR), which measures the portion of the loan portfolio “contaminated” by arrears as a percentage of the total portfolio. Although various other measures are used, PAR has emerged as the principal indicator. It is easily understandable, does not undertake risk, and is comparable across MFIs. A microenterprise loan is considered to be at risk if a payment on it is more than 30 days late from the due date. This rule could be much stricter due to lack of bankable collateral in microfinance (Wolday et. al 2014).
Apart from this, PAR is also a sound measure of Credit Risk management which also provides information about portfolio quality of a firm. It tries to measure the amount of loan outstanding that an MFI stands to lose in case an overdue client does not pay a single installment from the day of calculation of PAR. PAR is the proportion of loan with overdue clients to the total loan outstanding of the organization. Portfolio at risk > 30 days, which has replaced the repayment rate, is the leading measure of loan portfolio quality, following the lead of traditional commercial banks. This relatively new and valuable measure of loan portfolio quality compares the remaining outstanding balance of loans with at least one installment overdue for a specific period, here 30 days, to the total loan portfolio. In microfinance, 30 days is a common breakpoint (Wolday et al., 2014). PAR is calculated as: \[
\text{PAR} = \frac{\text{Outstanding balance on arrears over 30 days} + \text{Total gross outstanding Refinanced (restructured) portfolio}}{\text{Total outstanding gross portfolio}}
\]

### 2.7.2 Write-Off ratios (WOR)

In addition to PAR, Wolday et al (2014) has also included Write-Off ratio (WOR). According to Stauffenberg & Ramirez (2003), WOR is a significant indicator of portfolio quality. This indicator simply represents the loans that the institution has removed from its books because of a substantial doubt that they will be recovered. The writing off of a loan is an accounting transaction to prevent assets from being unrealistically inflated by loans that may not be recovered. The writing off of a loan affects the gross loan portfolio and loan loss reserves equally. So unless provision reserves are inadequate, the transaction will not affect total assets, net loan portfolio, expenses or net income. Write-offs have no bearing whatsoever on collection efforts or on the client’s obligation to repay.

Some institutions will take aggressive write-offs to attempt to sanitize their portfolios. They will then show a low portfolio at risk, and only the write-off ratio will allow an analyst to detect that this improvement is more apparent than real (Stauffenberg & Ramirez, 2003). Other MFIs, particularly NGOs resist writing off their seriously delinquent loans because, they argue, collection efforts continue.

Write-off policies vary widely among MFIs. For example, (Stauffenberg & Ramirez, 2003) writes off loans if they have been delinquent for 90 days. The write-off ratio is therefore better understood in the context of the portfolio at risk of an institution. In fact, its main purpose is to
serve as a control indicator that will allow better understanding of portfolio at risk. Write Off is the final thing the MFIs do to remove the persistently overdue accounts from the books of accounts of MFIs. In the write off the outstanding balance of the overdue accounts are reduced by making book adjustment drawing the balance from the Loan Loss Reserve. Thus after the write off, equal amount (equivalent to the overdue loan amount getting written off) is reduced both from asset side and liability side of the balance sheet (Wolday et al., 2014).

Writing-off of loan is an accounting transaction to prevent assets from being unrealistically overstated with loans that may not be recovered. Write-Off ratio is calculated as follows: \[ \text{WOR} = \frac{\text{Write-Off amount for a given period}}{\text{Average gross portfolio}} \] (Wolday et al., 2014).

### 2.7.3 Loan Loss Provision Ratio (LLPR)

LLPR, This measure gives an indication of the expense incurred by the institution to anticipate future loan losses (Stauffenberg & Ramirez, 2003). One should expect this expense to increase in step with overall portfolio growth. For formalized MFIs, local banking and tax laws will prescribe the minimum rate at which they must make provisions to allow for loan losses. NGOs on the other hand can follow a wide variety of practices, including making no provisions at all (this is rare), provisioning a certain percentage of new loans, or relating provisions to the quality of the portfolio. Loan Loss Provision Ratio or LLPR is a percentage (%) that reflects accumulated provision expenses (minus write-offs) and gives an indication of the management's expectation of future loan losses. It is a rough indicator of the overall quality of the portfolio, and it represents the loan loss reserve amounts maintained by an MFI to offset the default risk in its total (outstanding) loan portfolio. LLPR can be calculated using the following formula; LLPR = Principal Amount Written Off During Period Average Outstanding Loan Portfolio. Ramesh S. Arunachalam (2006).

### 2.8 Credit Risk management

Credit risk management in financial institutions has become crucial for the survival and growth of these institutions (Afriyie & Akotey, 2012, p. 3). It is a structured approach of uncertainty management through risk assessment, development of strategies to manage it and mitigation of risk using managerial resources. The strategies of credit risk management
involves transferring risk to other parties, avoiding risks, reducing the negative influence of risk and accepting some or all of the consequences of a particular risk (Afriyie & Akotey, 2012, p. 3). According to Van Gestel and Baesens, credit risk is managed in various ways. The most important method starts with appropriate selection of the counterparts and products (Gestel & Baesens, 2008, p. 43). And good risk assessment model and qualified credit officers are key requirements for selection strategy (Gestel & Baesens, 2008, p.43).

For counterparts with higher default risk, banks may need more collateral to reduce risk. And the pricing of product should be in line with the estimated risk. Secondly, limitation rule of credit risk management restricts the exposure of bank to a given counterpart (Gestel & Baesens, 2008, p.43). It avoids the situation that one loss or Limited number of losses endangers the bank’s solvency (Gestel & Baesens, 2008, p.43).

Bank’s determinants on how much credit a counterpart with a given risk profile can take need to be limited. Thirdly, the allocation process of banks provides a good diversification of the risks across different borrowers of different types, industry, and geographies (Gestel & Baesens, 2008, p.43). As a result, diversification strategy spreads the credit risk thus avoids a concentration on credit risk problems. These techniques are translated in the daily organization by written procedures and policies which determine how counterparts are selected, risk profile loans are granted and above which level an expert evaluation is required (Gestel & Baesens, 2008, p.43).

In summary, a strong credit risk management avoids significant drawbacks like credit concentrations, lack of credit discipline, aggressive underwriting to high-risk counterparts and products at inadequate prices (Gestel & Baesens, 2008, p.44). And an effective credit risk management is verified by internal risk control and audit which monitor credit discipline, loan policies, approval policies, facility risk exposure and portfolio level risk. (Van Gestel & Baesens, 2008, p. 44).

2.9 Credit Analysis

Credit analysis is the primary method in reducing the credit risk on a loan request. This includes determining the financial strength of the borrowers, estimating the probability of default and reducing the risk of non repayment to an acceptable level. In general, credit evaluations are
based on the loan officer’s subjective assessment (or judgmental assessment technique). Once a customer requests a loan, bank officers analyze all available information to determine whether the loan meets the bank’s risk-return objectives. Credit analysis is essentially default risk analysis, in which a loan officer attempts to evaluate a borrower’s ability and willingness to repay. Similarly Compton (1985) identified three distinct areas of commercial risk analysis related to the following questions:

1. What risks are inherent in the operations of the business?
2. What have managers done or failed to do in mitigating those risks?
3. How can a lender structure and control its own risks in supplying funds?

The first question forces the credit analyst to generate a list of factors that indicate what could harm a borrower’s ability to repay. The second recognizes that repayment is largely a function of decisions made by a borrower. Is management aware of the important risks, and has it responded? As Tomothy (1995:665) quoted, the last question forces the analyst to specify how risks can be controlled so the bank can structure to an acceptable loan agreement. A MFI’s credit analysts often use the five C’s of credit to focus their analysis on the key Dimensions of an applicant’s credit worthiness identified five C’s of credit. Lawrence (1997:776-777)

They include: Character, Capacity, Capital, Collateral, and Conditions.

1. **Character**: The applicant’s record of meeting past obligations, financial, contractual, and moral. Past payment history as well as any pending or resolved legal judgments against the applicant would be used to evaluate its character.

2. **Capacity**: The applicant’s ability to repay the requested credit. Financial statement analysis, with particular emphasis on liquidity and debt ratios, is typically used to assess the applicant’s capacity.

3. **Capital**: The financial strength of the applicant as reflected by its ownership position. Analysis of the applicant’s debt relative to equity and its profitability ratios are frequently used to assess its capital.

4. **Collateral**: The amount of assets the applicant has available for use in securing the credit. The larger the amount of available assets, the greater the chance that a firm will
recover its funds if the applicant defaults. A review of the applicant’s balance sheet, asset value appraisals, and any legal claims filed against the applicant’s assets can be used to evaluate its collateral.

5. **Conditions**: The current economic and business climate as well as any unique circumstances affecting either party to the credit transaction. For example, if the firm has excess inventory of the items the applicant wishes to purchase on credit, the firm may be willing to sell on more favorable terms or to less creditworthy applicants. Analysis of the general economic and business conditions, as well as special circumstances that may affect the applicant or firm is performed to assess conditions.

**2.10 Default Problems**

Non-payment of loans has several undesirable consequences. It gradually destabilizes the credit system. Costs of loan administration of overdue loans are high. And defaults push up lending costs without any corresponding increase in loan turnover. Defaults reduce the resource base for further lending, weaken staff morale, and affect the borrower’s confidence. After a comprehensive survey of defaults in Sri Lanka, identified six factors which contributed to defaults: Sanderatne, (1978)

- a. Variability in incomes caused by fortuitous, seasonal, or unforeseen factors;
- b. Defects and inadequacies in the organization disbursing credit;
- c. Attitudinal conditions not conducive to repayment;
- d. Misallocation of borrowed funds;
- e. Miscellaneous reasons such as illness, death, etc.

According to Pandmanabhan (1986: 26-31), causes of delinquencies and defaults are classified as relating to three levels: borrower level, financing institution level, and economy level.

**a) Causes at borrower level:**

- Borrowers who deliberately divert loans to non-essential consumption find it difficult to meet repayment commitments on time.
Investments fail to generate sufficient incomes due to improper technical advice; absence of supporting services, inadequate marketing, etc. investments also fail due to unforeseen causes like floods, drought, etc. in both cases repayment would be affected.

When borrowers have liabilities towards informal lenders, they get precedence over institutional lenders.

Contingencies at borrower household like death, sickness, etc, affect repayment performance. Formal institutions which do not extend consumption and emergency loans are liable to have higher default rates.

b) **Causes at financing institution level:**

Defective procedures for loan appraisal in the financing institutions could lead to the financing of bad projects and consequent defaults.

Quality of loan officers, their ability and knowledge in the field, and their capacity to judge borrowers as also the incentive packages available to them affect repayment performance.

Fixing of inappropriate repayment schedules and lack of flexibility often result in defaults. Similarly, when the procedure for repayment is cumbersome borrowers tend to delay repayments.

Defaults have a spread effect particularly in the marginal cases. When lenders show reluctance to enforce sanctions against conspicuous defaulters, defaults tend to increase through a process of imitation.

c) **Causes at economy level:**

When overall government policies, particularly those relating to pricing of inputs and outputs, marketing, etc., discriminate against the specific sector.

Faulty monetary and fiscal policies of governments could result in high inflationary conditions. Borrowers tend to delay repayments in such a situation to take advantage of the fall in value of currency.
Interest rate policies of government have a vital role in the promotion of repayments. When the real rate is excessively low, borrowing and consumption will be much more profitable than saving and repayment.

Excessive government intervention in the day-to-day administration of financial institutions could result in bad loans.

Calamities like droughts, floods, market glut, etc could result non performing loans.

2.11 Credit Collection Techniques

Effective credit collection techniques are one of the necessities for financial institutions in any economic climate. Knowing how to encourage customers to pay their outstanding debts to financial institutions like banks on time can increase the cash flow of MFI. Therefore a number of collection techniques are employed. Under normal circumstances loan clients are expected to pay in cash or deposit or keep their installment repayment as per the agreement made. As the loan account becomes past due or overdue the collection effort becomes more personal and strict. The basic techniques are:

- **Telephone Calls:** If the loan client passes the due date, a telephone call may be made to the customer to request immediate repayment and update his or her account.

- **Personal visits:** If the telephone call made is not resulted positive response vesting his business and discussing the issue with the customer can be a very effective collection procedure.

- **Letters:** If the efforts made so far is unsuccessful and not resulted positive response a polite letter is to be served reminding the customer of its obligation followed by warning letters for the action to be taken in future and its consequence. Collection letters are the first step in the collection process for past due and overdue loan accounts.

- **Using Collection Agencies:** Firms can turn uncollectible accounts over to a collection agency or an attorney for collection. The fees for this service are typically quite high; the firm may receive less than fifty percent on accounts collected in this way.
Legal Action: legal action is the most stringent step in the collection process. It is an alternative to the use of a collection agency not only is direct legal action expensive, but is may force the debtor in to bankruptcy, thereby reducing the possibility of future business without guarantying the ultimate receipt of overdue amount.

2.12 Strategies to Minimize Defaults

Because of the vulnerability of the microcredit sub-sector, lending institutions continue to adopt different techniques to improve repayment frequency and grant more credit access to borrowers who pay their credits on time (Christoph 2002). The Kenya, Women Finance Trust believes that small credits are expensive to administer and that the institution can survive only by charging competitive interest rates, lending to women, and keeping defaults to a bare minimum. Women are targeted as clients by this trust because they have been found to have a high propensity to repay (Ibid). According to Mann (1993), some lenders prefer known clients to avoid default. People on a loan committee will give preference to an applicant with whom they have dealt previously. Hence; lending institutions will give money based on previous banking experience with the client. The same study also showed that institutions lend to profitable businesses that have cash flow available to pay back the credit.

Another strategy for dealing with default is lending to groups. The collective coming together of individuals is useful in a number of ways, including peer pressure that obliges the members to work within agreed norms. Although studies indicate that such schemes work well if groups are homogeneous and jointly liable for defaults, the practice of denying credit to all group members in case of default is the most effective and least costly way to enforce joint liability (Huppi and Feder 1990).

2.13 Empirical literature

As Nagarajan (2001) in his study of risk management for microfinance institutions in Mozambique found that risk management is a dynamic process that could ideally be developed during normal times and tested at the wake of risk. It requires careful planning and commitment on part of all stakeholders. It is encouraging to note that it is possible to minimize risks related losses through diligent management of portfolio and cash-flow, by
building robust institutional infrastructure with skilled human resources and inculcating client discipline, through effective coordination of stakeholders.

Achou and Tengu (2008) also conducted research on bank performance and credit risk management found that there is a significant relationship between financial institutions performance (in terms of profitability) and credit risk management (in terms of loan performance). Better credit risk management results in better performance. Thus, it is of crucial importance that financial institutions practice prudent credit risk management and safeguarding the assets of the institutions and protect the investors’ interests. This is also true for microfinance institutions. Method used by the researchers is mixed research method. Matu (2008) carried out a study on sustainability and profitability of microfinance institutions and noted that efficiency and effectiveness were the main challenges facing Kenya on service delivery.

Soke Fun Ho and Yusoff (2009), in their study on credit risk management strategies of selected financial institutions in Malaysia the majority of financial institutions and banks losses stem from outright default due to inability of customers to meet obligations in relation to lending, trading, settlement and other financial transactions. Credit risk emanates from a bank’s dealing with individuals, corporate, financial institutions or sovereign entities. A bad portfolio may attract liquidity as well as credit risk.

The aim of credit risk management is to maximize a banks risk-adjusted rate of return by maintaining credit risk exposure within acceptable boundary The efficient management of credit risk is a vital part of the overall risk management system and is crucial to each banks bottom line and eventually the survival of all banking establishments. It is therefore important that credit decisions are made by sound analyses of risks involved to avoid harms to banks profitability. They held effective management of credit risk is an essential component of a comprehensive technique to risk management and critical to the long-term success of all banking institutions.

Sindani (2012) in her study Credit risk controls adopted by microfinance institutions have an effect on loan performance, credit insurance, signing of covenants with customers,
diversification of loans, credit rating of customers, reports on financial conditions, refrain from further borrowing had an effect on loan performance. Collection policies adopted by microfinance institution had an effect on loan performance, stringent policy had a great impact on loan performance, and the lenient policy had an effect but was not as great as that of stringent policy.
Chapter Three: Research Methodology

This chapter describes in detail, how the study has been carried out, what activities to be done, research design, Subjects or data sources, sample size, sample method, the instruments for data collection, and the analysis particular procedures.

3.1. Research Design

Based on the statements of the problem and the purpose of the research, it is decided that the descriptive study is the most suitable for this topic. The research approach employed in this study is quantitative and qualitative approaches that would much for the research to address the objectives. Even though the research starts with the description about credit risk management of Addis microfinance institution, and the ultimate goal is to test an assessment of credit risk management and how it exists in microfinance institution.

3.2. Type and source of data

Generally, the study has used to Primary data through questions . The primary data was obtained through both open and close ended questionnaire and interview questions distributed to respondents that involve Branch Managers and operation managers working on loan processing and also Loan Officers .

3.3 Method of Data Collection

Primary data have been gathered through both questionnaire and interview. The questionnaire includes both close-ended and open-ended questions, and distributed to sample respondents involving branch managers, operation managers and credit officers working on loan processing were targeted for the data collection where all the issues on the questionnaire were properly addressed.

The closed ended questions were used to test the rating of various attributes and this helped in reducing the number of related responses in order to obtain more varied responses.

The open-ended questions provided additional information that may not have been captured in the close-ended questions.
Semi structured interview refers to the use of already prepared questions during the study. Interview schedule has been held based on the pre defined schedule. Before proceeding to any interview session, interviewees have been made to get additional information on the purpose of the session as well as confidentiality matters. The interview sessions were held with 5 branch managers of Addisketama, Arada, Gulele, Kolfie and Lideta branches and the analysis of the interview was made based on the information obtained from these branch managers.

3.4. Sample size and sampling procedure

Currently in Addis credit and saving institution Share Company Branches are operating in 10 different districts of operation. From the totals service delivery posts out of that the researcher selected five branches based on credit default, size and status of the share company namely Arada, Addis ketema, Gulele, Kolfie, and Lideta branches were considered using purposive sampling technique. Purposive sampling targets a particular group of people. From those selected branch office the total respondents are considered 90 (ninety) number of loan officers and 5 (five) number of operation managers and the rest 5 (five) numbers are branch managers.

When the desired population for the study is rare or very difficult to locate and recruit for a study, purposive sampling may be the only option. In this research context, considering the time constraints, the cost allocated for the research and availability of data, key informant staffs of the branch who are directly engaged in operation of the study concerned have been selected purposively.

The following table shows the sample taken by the researcher under Branch by Managers, operation managers and loan officers.
Table 3.1 Sample determination for the study

<table>
<thead>
<tr>
<th>List of sample branch</th>
<th>Branch Mangers</th>
<th>Operation managers</th>
<th>Loan officers</th>
<th>Sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addis ketema</td>
<td>1</td>
<td>1</td>
<td>18</td>
<td>20</td>
</tr>
<tr>
<td>Lideta</td>
<td>1</td>
<td>1</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td>Gulele</td>
<td>1</td>
<td>1</td>
<td>21</td>
<td>23</td>
</tr>
<tr>
<td>Arada</td>
<td>1</td>
<td>1</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td>Kolfie</td>
<td>1</td>
<td>1</td>
<td>21</td>
<td>23</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5</strong></td>
<td><strong>5</strong></td>
<td><strong>90</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>


3.5 Data analysis

The primary data that have been collected through questionnaire were edited, coddled, tabulated and finally analyzed using the Statistical Package for the Social Sciences (SPSS) software. Descriptive statistics were used to analyze data like table and percentages. Furthermore, descriptions were made based on the results of the tables.
CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter discusses the interpretation and presentation of the findings obtained from the field survey on the effect of credit risk management on the Microfinance Institutions in the case of addis credit and saving institution. Descriptive and inferential statistics were used to discuss the findings of the study. The study targeted a population size of 100 respondents from which 91 filled in and returned the questionnaires making a response rate of 90.9%. This response rate was satisfactory to make conclusions for the study.

4.2 Data Analysis

4.2.1 General Information

**Table 4.1** Gender Male ( ) Female ( )

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>80</td>
<td>87.9%</td>
</tr>
<tr>
<td>Female</td>
<td>11</td>
<td>12.1%</td>
</tr>
<tr>
<td>Total</td>
<td>91</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: SPSS Output from Survey Data, 2016

The study sought to determine the gender which the MFIs had been in existence in the organization, from the findings 87.9% of the respondents indicated males and the remaininig are 12.1% of the respondents are females.

**Table 4.2** Educational level

<table>
<thead>
<tr>
<th>Educational level</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diploma</td>
<td>53</td>
<td>58.3%</td>
</tr>
<tr>
<td>Degree</td>
<td>38</td>
<td>41.7%</td>
</tr>
<tr>
<td>MA and above</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>91</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: SPSS Output from Survey Data, 2016
With respect to the educational qualification of sample respondents, the result revealed that 58.3% of the respondents were having College Diploma. On the other hand, 41.7% of the respondents were degree holders this indicates that most of the MFIs had been in educational levels are diploma holders.

Table 4.3: The respondents experience in the MFI

<table>
<thead>
<tr>
<th>Period of time</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 5 years</td>
<td>55</td>
<td>60.4%</td>
</tr>
<tr>
<td>Between 5 to 10 years</td>
<td>22</td>
<td>24.1%</td>
</tr>
<tr>
<td>Between 10 to 15 years</td>
<td>10</td>
<td>11.2%</td>
</tr>
<tr>
<td>15 years and above</td>
<td>4</td>
<td>4.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>91</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: SPSS Output from Survey Data, 2016

The study sought to establish the length of time which the MFIs employer had been in existence in the organization, from the findings 60.4% of the respondents indicated 5 to 10 years 24.1% of the respondents indicated 10 to 15 years 11.2% of the respondents indicated less than 5 years whereas 4.3% of the respondents indicated for more than 15 years this implies that most of the MFI employers had been in existence for less than 5 years.

Table 4.4 Adoption of Credit risk Management Practices

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>82</td>
<td>90.1%</td>
</tr>
<tr>
<td>No</td>
<td>9</td>
<td>9.9%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>91</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: SPSS Output from Survey Data, 2016

The study sought to determine the organizations that had adopted Credit risk Management practices. From the findings 90.1% of the respondents indicated that their organizations had adopted Credit risk Management practices, whereas 9.9% indicated that their organizations had not, this implies that a significant number of organizations had adopted the use of Credit Management practices is a factor of credit risk management.
Table 4.5: Number of loan clients per loan officer ratio of the respective branch

<table>
<thead>
<tr>
<th>Number of clients</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 500 clients</td>
<td>6</td>
<td>6.5%</td>
</tr>
<tr>
<td>Between 500 to 1000 Client</td>
<td>63</td>
<td>69.5%</td>
</tr>
<tr>
<td>Between 1000 to 2000 clients</td>
<td>20</td>
<td>21.9%</td>
</tr>
<tr>
<td>above 2000 clients</td>
<td>2</td>
<td>2.1%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>91</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: SPSS Output from Survey Data, 2016

The study sought to determine the number of clients the organization had, from the findings 6.5% of the respondents indicated that their organization had less than 500 clients 69.5% of the respondents indicated that their organization had Between 500 to 1000 Clients 21.9% of the respondents indicated that their organization had between 1000 to 2000 clients whereas 21.9% of the respondents indicated that their organization above 2000 clients this implies that one of the reason for default loan is size of the client so majority of the organizations featured in this study had Between 500 to 1000 clients.

4.2.2 Client Appraisal

Table 4.6: Extent to which addis MFI use client appraisal in Credit risk Management

<table>
<thead>
<tr>
<th>Number of clients</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very great extent</td>
<td>17</td>
<td>18.6%</td>
</tr>
<tr>
<td>Great extent</td>
<td>32</td>
<td>35.1%</td>
</tr>
<tr>
<td>Moderate extent</td>
<td>42</td>
<td>46.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>91</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: SPSS Output from Survey Data, 2016

The study sought to determine the extent to which MFIs used client appraisal in Credit risk Management, from the findings 18.6% of the respondents indicated to a great extent, 35.1% of the respondents indicated to a very great extent whereas 46.3% of the respondents indicated to a moderate extent, this implies that most MFIs used client appraisal in Credit risk Management to a great extent.
Table 4.7: Level of agreement on client appraisal in MFI

<table>
<thead>
<tr>
<th>Items</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Client appraisal is a viable strategy for credit risk management.</td>
<td>39.5</td>
<td>58.5</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>2. The MFI has competent personnel for carrying out client appraisal.</td>
<td>38.4</td>
<td>40.4</td>
<td>0</td>
<td>12.7</td>
<td>8.5</td>
</tr>
<tr>
<td>3. Client appraisal considers the character of the customers seeking credit facilities.</td>
<td>45.05</td>
<td>51.6</td>
<td>0</td>
<td>3.35</td>
<td>0</td>
</tr>
<tr>
<td>4. Aspects of collateral are considered while appraising clients.</td>
<td>36.26</td>
<td>49.45</td>
<td>0</td>
<td>7.69</td>
<td>6.6</td>
</tr>
<tr>
<td>5. Failure to assess customers capacity to repay results in loan defaults</td>
<td>43.6</td>
<td>56.4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: SPSS Output from Survey Data, 2016

As can be seen from table 4.7 item 1 to 5 respondents were asked to indicate their level of agreement \disagreement on the importance of the practice listed as (strongly agree (5) , Agree(4),Neutral(3), Disagree (2) and Strongly Disagree (1). accordingly overall then great majority of the respondents agreed on the importance of the items listed as far as clear appraisal is concerned . specifically speaking respondans showed their agreements on failure to assess customer repayment capacity result in default . likewise item 1, shows that 98% of the respondents agreed on the fact that clinet apprsial as acredit risk mangment strategy .still item 2, shows that 78% of the respondents agreed on the importance of competent personel as akey to cary out clients appraisal .

Item 3,also shows that 96% great majority  respons agreement on charcter assessment of Clients as akey for consideration .

Item 4,shows that 85% of the respondents agreement on considering physical collateral while client appraisal as akey for MFIs.

Overall ,the respondents agreed up on the key importance of considering the five Cs  i.e capacity , character ,collateral ,condistion and competence of personel while client appraisal .
4.2.3 Credit Risk Controls

Table 4.8: Extent to which addis MFI use credit risk control in Credit Management

<table>
<thead>
<tr>
<th>Number of clients</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very great extent</td>
<td>11</td>
<td>12.2%</td>
</tr>
<tr>
<td>Great extent</td>
<td>56</td>
<td>61.5%</td>
</tr>
<tr>
<td>Moderate extent</td>
<td>24</td>
<td>26.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>91</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: SPSS Output from Survey Data, 2016

The study sought to determine the extent to which addis MFI used credit risk control in Credit Management, from the findings 12.2% of the respondents indicated to a very great extent, 61.5% of the respondents indicated to a great extent where as 26.3% of the respondents indicated to a moderate extent, this implies that addis MFI used credit risk control in Credit Management to a great extent.

Table 4.9: Level of agreement on credit risk control in addis MFI

<table>
<thead>
<tr>
<th>Items</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Imposing loan size limits is a viable strategy in credit risk management</td>
<td>41.7</td>
<td>53.8</td>
<td>1.3</td>
<td>3.2</td>
<td>0</td>
</tr>
<tr>
<td>2. The use of credit checks on regular basis enhances credit risk management.</td>
<td>39.5</td>
<td>56.04</td>
<td>2.19</td>
<td>2.27</td>
<td>0</td>
</tr>
<tr>
<td>3. Flexible repayment periods improve loan repayment.</td>
<td>46.1</td>
<td>48.3</td>
<td>2.19</td>
<td>3.36</td>
<td>0</td>
</tr>
<tr>
<td>4. Penalty for late payment enhances customers commitment to loan repayment</td>
<td>45.25</td>
<td>53.86</td>
<td>0.89</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5. The use of customer credit application forms improves monitoring and credit management as well</td>
<td>47.25</td>
<td>51.64</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6. Credit committees involvement in making decisions regarding loans are essential in reducing default/credit risk</td>
<td>53.84</td>
<td>46.16</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7. Interest rates charged affect performance of loans in the MFI</td>
<td>51.64</td>
<td>47.25</td>
<td>1.1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

34
As can be seen from table 4.9 item 1 to 5 respondents were asked to indicate their level of agreement \disagreement on the importance of the practice listed as strongly agree (5) , Agree(4),Neutral(3), Disagree (2) and Strongly Disagree (1). Accordingly overall then great majority of the respondents agreed on the importance of the items listed as far as credit risk control is concerned . specifically speaking respondans showed their agreements on the metod to use credit risk control in Credit risk Management. likewise Item 1, shows that 95 % of the respondents agreed on the fact that Imposing loan size limits is a viable strategy in credit risk management . still Item 2, shows that 95 % of the respondents agreed on the importance of credit checks on regular basis enhances credit risk management as akey to carry out credit risk control .

Item 3, also shows that 94 % of the respondents agreed on Flexible repayment periods improve loan repayment as akey for consideration in credit risk control .

Finally Item 4, Penalty for late payment . Item 5 , customer credit application forms. Item 6 Credit committees involvement in making decisions . and Item 7 Interest rates charged on performance of loans shows that the respondents greatly Agreed on considering credit risk control as akey for MFIs.

Generally the overall respondents agreed up on the key importance of considering Credit risk Management is risk control metod.

4.2.4 Collection Policy

Table 4.10: Extent to which MFI use collection policy in Credit risk Management

<table>
<thead>
<tr>
<th>Number of clients</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very great extent</td>
<td>31</td>
<td>34%</td>
</tr>
<tr>
<td>Great extent</td>
<td>56</td>
<td>62%</td>
</tr>
<tr>
<td>Moderate extent</td>
<td>4</td>
<td>4%</td>
</tr>
<tr>
<td>Total</td>
<td>91</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: SPSS Output from Survey Data, 2016

The study sought to determine the extent to which MFI use collection policy in Credit risk Management, from the findings 62 % of the respondents indicated to a great extent, 34.0%
of the respondents indicated to a very great extent whereas 4% of the respondents indicated to a moderate extent, this implies that MFI use collection policy in Credit risk Management to a great extent.

**Table 4.11**: Level of agreement on collection policy of MFI

<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>1. Available collection policies have assisted towards effective credit risk management.</td>
<td>42.85</td>
<td>57.14</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2. Formulation of collection policies have been a challenge in credit risk management.</td>
<td>50.54</td>
<td>43.95</td>
<td>2.19</td>
<td>3.31</td>
<td>0</td>
</tr>
<tr>
<td>3. Enforcement of guarantee policies provides chances for loan recovery in case of loan defaults</td>
<td>56.05</td>
<td>43.95</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4. Staff incentives are effective in improving recovery of delinquent loans.</td>
<td>46.15</td>
<td>51.64</td>
<td>0</td>
<td>2.21</td>
<td>0</td>
</tr>
<tr>
<td>5. Regular reviews have been done on collection policies to improve state of credit risk magt.</td>
<td>46.15</td>
<td>53.84</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6. A stringent policy is more effective in debt recovery than a lenient policy</td>
<td>50.54</td>
<td>48.35</td>
<td>0</td>
<td>1.1</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: SPSS Output from Survey Data, 2016

The study sought to establish the level at which respondents agreed or disagreed on the importance of of the practice listed as strongly agree (5), Agree(4), Neutral(3), Disagree (2) and Strongly Disagree (1). with the above items relating to collection policy of MFI. From the findings majority of the respondents strongly agreed that Available collection policies, Enforcement of guarantee policies, Regular reviews on collection policies and using A stringent policy than a lenient policy have assisted MFIs collection policy towards effective credit risk management.

Additionnally Item 2 also shows that 94% of the respondents agreed on Formulation of collection policies have been a challenge in credit risk management repayment as collection policies for the institution and also Item 4 also shows that 97% of the respondents agreed on
Staff incentives are effective in improving recovery of delinquent loans; this also a key indicator on collection policy of MFI. Generally speaking, from the respondants finding agreed that well organized collection policy is a key factor for managing credit risk.

**Results of Interview Questions**

The following section summarized and presented the result of interview sessions with 5 Branch managers of Addis ketema, Arada, gulele, kolfie and lideta branches. Since the responses of the participants of the interview session was more or less alike, the researcher has preferred to summarize and present the result of the session in one set.

1. **Model or technique to manage credit risk**

   Responding to this question, the interviewees have come up with various factors that affect loan repayment. Among the factors raised are: Give training to the staff, Designed or implemented clear policy, Use different measurement technique like PAR, Arrears rate and write off policy etc.

2. **Reason of NPLs ratio were increasing**

   Responding to this question, the respondents said that there are different reasons happened in the case micro finance of NPL were increasing poor screening of borrowers, weak appraisal of loans, lack of immediate follow up, corruption at field staff level such as taking bribe for loans or frauds that can result in delinquencies and demotivated employees.

3. **Do you think the current credit procedures; reviewing and approval culture is helping the MFI to achieve its objectives?**

   When answering to this question, the respondents said yes, it has not a doubt that poor analysis of the borrowers’ project feasibility contributes its effect to the loan repayment. Because the borrowers invested the loan on this project, so that if this project is not profitable the borrowers will fail his business and the loan repayment of the MFIs. So to achieve the goal of MFIs the primary message is procedures like recruitment/selection/ of the customers and approval of the business.
4 Reasons for violating covenants of loan by customers

Responding to this question the respondents said in the case of group loan problems are happened between the members of the group regarding to duties and responsibilities in their work place, unexpected happening is occurred in the business from internally or externally.

5 Some comment or suggestions regarding the credit risk management system of the MFI.

Regarding to this question the respondents said, that Establishing an Appropriate Credit Risk management The board of directors should have responsibility for approving periodically (at least annually), Operating under a Sound Credit Granting Process the institution must operate within sound and well-defined credit granting criteria, Maintaining an Appropriate Credit Administration, Measurement and Monitoring Process.
CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATION

5.1 Summary

The study revealed that Addis MFI use client appraisal in Credit Management to a great extent. Further it established that client appraisal is a viable strategy for credit. Aspects of collateral are considered while appraising clients, failure to assess customer’s capacity to repay results in loan defaults, client appraisal considers the character of the customers seeking credit facilities and that Addis MFI have competent personnel for carrying out client appraisal.

The study established that Addis MFI use credit risk control in Credit Management to a great extent. The study further established that interest rates charged affects performance of loans in the Addis MFI, Credit committees involvement in making decisions regarding loans are essential in reducing default/credit risk, the use of credit checks on regular basis enhances credit management, Penalty for late payment enhances customers commitment to loan repayment, the use of customer credit application forms improves monitoring and credit management, flexible repayment periods improve loan repayment and finally that the use of credit checks on regular basis enhances credit management.

The study revealed that Addis MFI use collection policy in Credit risk Management to a great extent. Formulation of collection policies have been a challenge in credit management, enforcement of guarantee policies provides chances for loan recovery in case of loan defaults, Staff incentives are effective in improving recovery of delinquent loans, a stringent policy is more effective in debt recovery than a lenient policy, regular reviews have been done on collection policies to improve state of credit management, and finally that available collection policies have assisted towards effective credit management.

Regarding the major factors which contributes for the increase in the level of NPLs in the microfinance institutions, respondents strongly claimed that absence of proper group formation, employees lack of motivation and commitment, poor screening of borrowers, weak appraisal of loans, lack of immediate follow up, corruption at field staff level such as taking bribe for loans or frauds result in delinquencies.
The Challenges of Addis MFI to reduce credit risks are proper client screening, designed clear policy and also strong follow up of customers especially after loan disbursed and also follow some ways to check up the level of credit risk like PAR, arrears rate, loan loss provision.

**5.2 Conclusion**

From the findings, the study found that client appraisal, credit risk control and collection policy had effect on credit management of Addis MFI. The study established that there was a strong relationship between credit risk management of Addis MFI and client appraisal, credit risk control and collection policy.

The study revealed that a unit increase in client appraisal would lead to increase in credit risk management of Addis MFI; this is an indication that there was positive association between client appraisal and credit risk management of Addis MFI.

An increase in credit risk control would lead to increase in credit risk management of Addis MFI, which shows that there was a positive relationship between credit risk management of Addis MFI and credit risk control and a unit increase in collection policy would lead to increase in credit risk management; this is an indication that there was a positive relationship between credit risk management of Addis MFI and collection policy.

Client appraisal, credit risk control and collection policy significantly influence credit risk management of Addis MFI.

**5.3 Recommendation**

The study recommends that Addis MFI should enhance their collection policy by adapting a more stringent policy to a lenient policy for effective debt recovery.

- The research aimed to fill a gap in the previous studies of testing an assessment of credit risk management of Addis Microfinance institutions. And the result of the study provides managers further understanding by how the measures of profitability are affected by the measures of credit risk management. All of these contribute valuable information for MFI managers, financial analysts, investors and supervisors when they make relevant decisions.
• The study also recommends that there is need for Addis MFI to enhance their client appraisal techniques so as to improve their financial performance. Through client appraisal techniques, the Addis MFI will be able to know credit worth clients and thus reduce their non-performing loans.

• There is also need for Addis MFI to enhance their credit risk control this will help in decreasing default levels as well as their non-performing loans. This will help in improving their financial performance.

• Increase the number of employee in the operation department where there is a need for credit risk management so that the case will be minimized and that will give opportunity for every credit officer to do the job efficiently.

• Improve the collateral registration process and obtain cash equivalent collateral for each loan made to the customers.

• Developing and maintaining credit approval authority structure and granting approval authority to qualified and experienced individuals.

5.4 Future Research

The study sought to assess credit risk management of microfinance institution in the case of ADCSI. Further research should also be done on the relationship between credit risk management and non performing loans on Microfinance Institutions in Ethiopia and on the reasons for loan default in microfinance organizations from the clients’ perspective.
References

- Afriyie & Akotey, 2012, p. 3 credit risk management in financial institution
- Ayayi, A.G. (2011). Credit risk assessment in the microfinance industry: An application to a selected group of Vietnamese microfinance institutions and an extension to East Asian and Pacific microfinance institutions. Economics of Transition Volume 20(1) 2012,


• Laurent Cleck (2004), Credit risk management and financial stability


• Sanderatne Nimal (1978) Analytical approach to loan defaults by small farmers, savings and development. 2, 4

- Stauffenberg & Ramirez Determinants of microfinance institutions loan portfolios quality: empirical evidence
- Turnbull approach”, Balance Sheet, Vol. 9(3). “Effective risk management in financial institutions:
- Watson, Jeff (2001). How to Determine a Sample Size: University Park, PA: Penn
- Van Gestel & Baesens, 2008, p. 44). Credit Risk in MFIs
SAINT MARY University

School of graduate studies

Department of MBA IN Accounting & Finance

YEBABIE YOSEPH

Date:_______________

I am graduate student in SMU carrying out a research under the topic “Credit Risk Management and its impact on performance of microfinance institution” as a case of Addis credit and saving institution share company.

Therefore, your precise and clear answers to these questionnaire & interviews will ended be critical for the success of this study.

All Information provided would be kept entirely confidential and the interviewee can’t be identified and will remain anonymous. This research is undertaken as part of fulfillment for the program

Thank you for taking some minutes of your precious time.

Part A: General Information

1. Gender Male ( ) Female ( )

2. Educational level diploma ( ) degree ( ) MA and above ( )

3. For how long the respondents experience in the MFI?

   Less than 5 years [ ] Between 5 to 10 years[ ]

   Between 10 to 15 years [ ] above 15 years [ ]

4. Has your organization adopted Credit risk Management practices

   Yes [ ] No [ ]
5. How many clients per loan officer ratio does your organization have?

- Less than 500 clients [ ]
- between 500 to 1000 Client [ ]
- Between 1000 to 2000 clients [ ]
- above 2000 client [ ]

**Part B: Credit Risk Management Practices**

**CLIENT APPRAISAL**

4. To what extent does the MFI use client appraisal in Credit Management?

- Very great extent [ ]
- Great extent [ ]
- Moderate extent [ ]
- Low extent [ ]
- Not at all [ ]

5. What is your level of agreement on the following statements relating to client appraisal in MFI
<table>
<thead>
<tr>
<th>Item</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client appraisal is a viable strategy for credit management.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The MFI has competent personnel for carrying out client</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Client appraisal considers the character of the customers seeking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>credit facilities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aspects of collateral are considered while appraising clients.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Failure to assess customers capacity to repay results in loan defaults</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CREDIT RISK CONTROL**

6. To what extent does the MFI use credit risk control in Credit Management?

- Very great extent [ ]
- Great extent [ ]
- Moderate extent [ ]
- Low extent [ ]
- Not at all [ ]
7. What is your level of agreement on the following statements relating to credit risk control in MFI?

<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>Imposing loan size limits is a viable strategy in credit management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The use of credit checks on regular basis enhances credit management.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flexible repayment periods improve loan repayment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Penalty for late payment enhances customers commitment to loan repayment</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>The use of customer credit application forms improves monitoring and credit management as well</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credit committees involvement in making decisions regarding loans are essential in reducing default/credit risk</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest rates charged affect performance of loans in the MFI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**COLLECTION POLICY**

8. To what extent does the MFI use collection policy in Credit Management?

   Very great extent [ ]                       Great extent [ ]
   Moderate extent [ ]                          Low extent [ ]
   Not at all [ ]
9. What is your level of agreement on the following statements relating to collection policy of MFI?

<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>Available collection policies have assisted towards effective credit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>management.</td>
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<td>Formulation of collection policies have been a challenge in credit</td>
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<td>Enforcement of guarantee policies provides chances for loan recovery in</td>
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<td>case of loan defaults</td>
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<td>Staff incentives are effective in improving recovery of delinquent loans.</td>
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<td>Regular reviews have been done on collection policies to improve state of</td>
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<td>credit management.</td>
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<td>A stringent policy is more effective in debt recovery than a lenient policy</td>
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Thank you
For interview

1. Do you have any model or technique through which you manage your credit risk?

2. If the trend of NPLS ratio was increasing, what might be the reason(s)?

3. Do you think the current credit procedures; reviewing and approval culture is helping the MFI to achieve its objectives?

4. In your opinion what are the main reasons for violating covenants of loan by customers?

5. Give your comment or suggestions regarding the credit risk management system of the MFI.