



**ASSESSMENT OF FACTORS AFFECTING LOAN REPAYMENT
PERFORMANCE OF BORROWERS**

**AN EMPIRICAL STUDY ON SELECTED MICROFINANCE
INSTITUTIONS IN OROMIA REGION**

BY

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January, 2017

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**A THESIS SUBMITTED TO ADDIS ABABA UNIVERSITY COLLEGE OF
BUSINESS AND ECONOMICS DEPARTMENT OF ACCOUNTING AND FINANCE
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR DEGREE OF
MASTERS OF SCIENCE IN ACCOUNTING AND FINANCE.**

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Declaration

I, the undersigned, declare that this thesis is my own work and has never been presented in any other university. I have carried out the research work independently with the support of research advisor. All sources of materials used for this thesis have been duly acknowledged.

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Statement of Certification

As members of the Examining Board of the Final M.Sc. Open Defense, we certify that we have read and evaluated the thesis prepared by Abreham Garomsa entitled **Assessment of factors affecting loan repayment performance of borrowers: An empirical study on selected Microfinance Institutions in Oromia Region** and recommend that it be accepted as fulfilling the thesis requirement for the degree of Master of Science in Accounting and Finance.

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Name of Internal Examiner	Signature	Date

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Name of External Examiner	Signature	Date

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Acronyms

AEMFI	Associations of Ethiopian Microfinance Institutes
AdCSI	Addis Credit and Saving Institution
BG MFI	Busa Gonofaa Microfinance Institutions
CDF	Cumulative Distribution Function
FeMSEDA	Federal Micro and Small Scale Enterprise Development Agency
GPL	General Purpose Loan
IBL	Individual Business Loan
MF	Microfinance
MFI	Microfinance Institutions
MSE	Micro and Small Scale Enterprises
MSEDA	Micro and Small Scale Enterprise Development Agency
NBE	National Bank of Ethiopia
NGO	Non-Government Organizations
OCSSCO	Oromia Credit & Saving Share Company
TVET	Technical and Vocational Education Training
SFPI	Specialized Financial and Promotional Institution
SNNPR	Southern Nations and Nationalities People Region
VIF	Variation Inflation Factors
WoMSEDA	Woreda level Micro and Small Scale Enterprise Development Agency
WEDP	Women Entrepreneur Development Program

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Abstract

Microfinance institutions in Ethiopia are playing an important role in poverty reduction strategies initiated by the government of Ethiopia. These institutions have a mission of creating and facilitating credit and other financial schemes to enhance self-employment opportunities and poverty reduction. To address the main objectives of the study, four Microfinances were selected for the study purpose. The study was aimed at identifying and analyzing the potential factors that affects repayment performance of micro and small scale enterprises and individual entrepreneur borrowers using the structured questionnaires, semi-structured interviews and focus group discussions. Accordingly, in order to achieve this objective 319 sample borrowers were selected from the total of 2910 borrowers served by those selected MFIs. The descriptive statistics analysis and probit regression model was employed to estimate the model and analyze the results of findings. The result shows that ten variables including constant: sex, income from other sources, monitoring utilizations of other members in a group, credit timeliness, repayment time suitability, repayment trend on monthly basis and training adequacy are found significant and positively influence loan repayment performance of borrower. While loan utilization for the intended purpose, repayment trend on irregular basis and visit & follow-up on irregular basis was found negatively influence the repayment performance of borrowers. The extensive involvement and interference of third parties on the decisions of loan approval processing to lending institute were found as a contribution for high defaulting. Thus, it is recommended that the lending institutes needs to focus on monitoring loan utilization systems of borrowers and technical support needs of the target borrowers through delivering better awareness creation to organize the more viable borrowers, close supervision and follow-ups and strengthening their internal and external weaknesses though better integration with key partner stakeholders.

Key words: Microfinance, loan repayment, loan utilization, integration, stakeholders

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CHAPTER ONE

Introduction

Ethiopia is one the developing countries that were announced as the most poorest and low leveled income groups of the world over the last few decades. During these periods, the economy of the country was undermined because of different factors which can be mentioned as internal as well as external factors. An increasing rate of poverty, famine and high rate of unemployment were the major factors that have great contribution for the economical undermining at large. Poverty and unemployment was a great problem in Ethiopia that needs the government attention to eradicate through microfinance services delivery to the non-served or underserved poor peoples (Wolday, 2002).

Besides, in recovering from this devastation and shocking situation of poverty, the Government of Ethiopia took initiatives to reform the economy by redesigning various strategies. In implementing the recovery steps, initiating the credit scheme through microfinance institutions was one of the strategies that the government of Ethiopia embraced in 1990th. As Birhanu (1999 was cited in Abafita, 2003), the sole recovery in the economy were not found to be the satisfactory point in poverty reduction strategies rather creating a self-employment opportunities through the expansion of private sector activities was the pillar to attain the goal.

Moreover, microfinance service was the basic strategies to way out from the economic backwardness and poverty pressure at large. According to Prof. Mohammed Yunus and Grameen Banks phrases, an improvement in the economy and social welfare could partly be realized through delivering micro-credits to the poor people (Microfinance and Micro-credit, 2016). Accordingly, the establishment of sustainable and profitable microfinance institutions through realization of better repayment performance to serve large number of poor is the prime component of the strategies to be attained by Ethiopian MFIs.

In this chapter, the overall background of the study, the statement of the problem, the significance of the study, scope of the study, the objective of the study, the hypothesis and

limitations of the study were discussed in details. Furthermore, the views of various authors indicated in this paper were assessed and discussed based on the relevance of their opinion on the subject matters rather than stated in chronological order of the year of publications.

1.1. Background of the study

Microfinance is an important strategy to alleviate poverty in developing countries (Fikirte, 2011). As Prof. Muhammed Yunus and Grameen Bank phrased, Micro-credit is a means by which large people can find the ways in which they can break poverty. Grameen Bank was a source of ideas and models for many institutions in the field of micro-credit that have sprung up around the world (Microfinance and Micro-credit, 2016).

The microfinance services are considered as an intervention instruments that Government and Non-government sectors are using to enable low-income groups of the community to improve their lives through increasing income, increase their productivity levels, enhance the ability of providing quality inputs to the market, reducing poverty and ensuring food security (Alemayehu, 2008). Bayeh (2012) similarly stated that microfinance institutions are considered as a tool for poverty alleviation through improving access to finance and financial services.

The difficulties of access to credit facilities might be resolved through: 1) identifying proper ways to insure that a large number of the poor borrowers can access the loan, 2) developing the best mechanisms to screen out the bad borrowers from the viable borrowers and 3) determining how to give an incentive to borrowers who cannot provide collateral to repay the loans on time (Hulme & Mosley, 1996). Abafita (2003) argued that an innovative target designing and adequate screening mechanism is a major task of those lending institutes to select the target poor clients who can sustainably and efficiently utilize the loan for the intended purpose only.

Microfinance Institutions in Ethiopia

Although an intensive and well educated youths were existed in the economy of the country, lack of financial services to the needy target poor peoples through conventional commercial banks were found as a bottleneck for the poor or low-income group peoples to finance their

projects. Moreover, the collateral requirements and information asymmetries made by those commercial banks to the large number of poor people on the world have lacked access to formal banking services at all (Litenah, 2009).

Abafita (2003) were discussed in his study that a limited access to institutionalized financial service for the poor peoples in Ethiopia enforces the needy society to borrow from iddir¹, iqub², friends and relatives and other informal lenders to finance their business. As a result, an initiation to establish the formal financial sources was in place to serve those poor peoples by discouraging the exorbitant effects of those lenders.

The main objectives of the MFIs as development organizations were to serve the financial needs of the non-served and underserved poor peoples but who have the ability to work hard and change his/her life style due to the presence of these financial services. The major objectives to meet are as follows: Creating job opportunities, reducing poverty, empowering women, encouraging small and petty trades (Bayeh, 2012 and Tolosa, 2014)

In developing countries, like Ethiopia, Microfinance Institutions (MFIs) have been emerged as a financial institutions with an intention of providing small sized financial service to the poor who were in need of financial services but lack of access to formal commercial banks. The microfinance institutions services consists provision of micro loans, micro savings, micro insurance service, money transfer, leasing and other relevant schemes to the target poor peoples who have been excluded by the conventional commercial banks due to lack of collateral requirements and high transaction costs (Tolosa, 2014).

Microfinance institutions in Ethiopia have been evolved since the late 1990s as an economic development tool intended to benefit low income poor peoples (Bayeh, 2012). As Mengistu, 2007 were cited by Abafita, 2003, the credit program by microfinances have been evolved to empower poor households at urban areas of the country in the form of urban credit financing schemes which had actually commenced its operation since 1994. During its commencement this credit scheme was undertaken by some NGOs, Government departments and some

¹ Iddir referred as an informal social institutions organized with a group of peoples

² Iqub refers to informal financial institution organized with group of peoples

donors in inconsistent manner. To resolve this problem the government of Ethiopia took initiatives to develop regulatory frameworks that govern the operational activities of similar industries (Abafita, 2003). As a result Proclamation No.40/1996 has been enacted to govern the operational activities of microfinance industries.

Moreover, those microfinance institutions have been established since 1994/95 through government licensing under the supervision of National Bank of Ethiopia (NBE) with proclamation #40/1996 (Zerai & Rani, 2012 as cited in Tolosa, 2014). Since its establishment the numbers of MFIs were sixteen. Although the microfinance industry were started their financial services most lately, the industry has shown the remarkable growth in terms of clients outreaches and provision of diversified financial products for the needy societies at large (Wolday, 2000). The number has been extensively increased at an increasing rate to 35 Microfinance institutions (NBE, 2016).

The microfinance institutions which are operating in Ethiopia are governed and supervised through National Bank of Ethiopia. They were established legally under proclamations and provide their financial services to farmers and entrepreneurs who are supposed to be engage in micro and small scale businesses at urban and rural areas of the country (Abreham, 2011).

As a result, a rapid growth in Microfinance industry plays an indispensable role in addressing the millennium developmental goals of the Government through delivering massive financial service schemes to empower women, youths and other community groups. In achieving such developmental goals of the country, the governments of Ethiopia have designed some strategies on initiating job opportunities creation as core pillar to enhance youth's developmental programmes and other community groups by organizing those individuals in the form of Micro and Small Enterprises at urban and semi-urban areas of the country. It arranges the required initial capitals through micro credit services which undertaken by those microfinance institutions to eradicate the level of unemployment and enhancing economic welfares of those community groups. The Government sector named as woreda level Micro and Small Enterprise Development Agencies had took an initiatives to organize the target MSE members and facilitate financial services particularly through microfinance institutions (FeMSEDA, 2016).

Although microfinance institutions have a mission of alleviating and or reducing poverty by improving the livelihood of the low-income groups of the community through credit delivery, like other lending commercial banks they may face an obstacle in collecting the outstanding loan amounts with its interest charges for the time period elapsed according to the contractual agreements made between the lending institutions and the borrowers on the specific dates.

In provision of this credits service to those who are in need of the financial services, MFIs develops the credit provision policies which set the loan size, interest rates and repayment schedules to be complied by those borrowers. As a result, a rapidly growing in supply of micro-loans, the increasing competition in the micro-markets, the increasing over-indebtedness among micro entrepreneurs and the current financial crises increases the credit risks (i.e. the risk of failure of microfinance borrowers). Thus, it is a crucial issue for the microfinance institutions to assess the problems of loan recovery to improve the financial sustainability and profitability of their respective institutions by maintaining a strong credit risk management systems (Abdulfettah, 2013).

The probability of being creditworthy of the borrowers can be characterized by the willingness and ability of the borrowers and the lending characteristics of the institutes. These factors might have significant impacts on the repayment performance of the respective borrowers. In another word, the repayment behavior of borrowers can be determined by their attitudes or willingness and ability to repay the loan, which might be expressed as a choice between the two alternatives: either to repay or commit defaults. Moreover, the existence of other internal and external factors that can influence the repayment attitudes of borrowers can significantly affects the repayment recovery rate of lending institutes at large.

On the other hand, in reaching-out with the financial services to the large number of poor peoples in the areas through delivering these financial services to enhance their livelihood and improving their lifestyles, an increasing number of defaulters probably could have a significant impact on the institution's social as well as economic objectives by retaining a large amount of outstanding loans. This could results in difficulties to the lending institution's capacity towards poverty eradication strategy as well as realizing their financial sustainability due to the gradual diminishing loan repayment performances of borrowers.

Hence, the observed situations required the researcher to conduct an extra miles survey on identifying the major possible factors that can affect the repayment performance of borrowers as the study area to resolve the problem of delinquencies faced by the lending institutions. The study were applied on four sample MFIs assuming that the findings are the representatives of the whole MFIs at large. The reason and methodologies employed for selecting those four MFIs have been discussed in chapter three of the paper.

Those factors that have been identified as an influential to explain repayment performances were analyzed and discussed using the descriptive analysis and PROBIT regression model. The marginal effects of those significant variables in influencing the repayment status of borrowers have been also discussed in the subsequent chapters of the paper.

1.2. Statement of the problem

In alleviating poverty and underemployments, microfinance institutions plays an indispensable role through provision of credit and saving services to the poor peoples who lack financial services (Fikirte, 2011). Effective repayment performances of microfinance institutions are a requirement for being serving the large poor needy borrowers in a sustainable manner rather than subsidizing through government or donor supports.

Although the provision of financial services to the underserved or non-served poor peoples is the primary objectives of microfinances, an increasing rate of defaulters with large amount of outstanding loan is still the challenges of most microfinance institutions that are operating in Ethiopia. According to the operational reports of some lending microfinance institutions, although slight improvements in repayment recovery rate from year to year were obtained, still there is a gap which required researchers to identify the major factors that undermines repayment performance. Although various studies were revealed their results as socio-economic features (age, sex, martial statuses, education level) have been identified as factors that can influence loan repayment performances, still identifying individual borrower socio-economic characteristics and adopting effective lending mechanisms by the lending institutes is the major limitations that most microfinance managements lacks during their operations. Moreover, assessment of the ability and willingness of the borrowers towards repayment of

the loan could be the other shortcomings that need researcher attention to enhance repayment performance of borrowers.

Abafita (2003) argued that efficient characteristics of the lending institutes and other concerned bodies while screening the target borrowers, effective attitudes of borrowers towards credit service and socio-economic factor of the borrowers are among the factors that can influence the repayment performances. Besides, although further study on level of the significance of lending institutes staffs commitment were not conducted, it is believed that the commitment of the lending institution staffs in providing the post training supplementary and technical supports through close supervision and effective monitoring of repayment status of borrowers may possibly enhance repayment performances of MFIs.

Moreover, no further studies were conducted by the researchers to evaluate the importance of borrower's attitudes towards peer monitoring activities to influence group member's repayment performances. In addition to this, evaluating the effectiveness of supervision and monitoring time intervals by the MF practitioners to improve the gaps is another important issue to be assessed by the researcher so that MFIs can improve their lending strategies to attempt better repayment recovery rate.

Therefore, identifying the socio-economic, borrowers' attitude and institutional factors that influences repayment performance is an essential issue of microfinances in provision sustainable financial services. Moreover, identifying some of the possible paradoxes inclined by the third parties towards safeguarding those institutes from suffering credit risks, provision of technical supports by the concerned bodies to borrowers businesses, political-legal support to enhance legislative actions on the defaulters may determines the repayment performances of microfinance institutions.

1.3. Objective of the study

The general objective of the study is to identify and analyze the major factors that can influence loan repayment performance of MFIs borrowers in Oromia Region. The specific objectives of the study were to:

- I. Identify the socio-economic factors that can influence loan repayment performance of MFIs borrowers in Oromia Region. The socio economic factors such as: gender, age and income of the borrowers.
- II. Identify and analyze lending characteristics that can significantly influence the repayment performance of MFIs borrowers in Oromia Region. .
- III. Identify other internal and external factors (provision of technical and legal supports, staff commitments and any unforeseen challenges faced by borrowers) that can influence the loan recovery rates of MFIs.
- IV. Recommend appropriate measures to minimize the default rate based on the identified factors.

1.4. Research questions

In order to achieve the main objectives of the study three research questions were developed.

- i. What socio-economic factors can significantly influence repayment performance of borrowers in the study area?
- ii. What loan related factors do have a significant impact on loan repayment performance of borrowers in the study area?
- iii. What other internal and external paradoxes do have significant impact on loan recovery rate of lending institutes?

1.5. Hypothesis

In light of these study objectives, the researcher has hypothesized the following factors to evaluate their effects on the loan recovery performances of borrowers.

H₁: The socio-economic factors (age, Gender & Income) of the borrowers can significantly influence loan repayment performances borrowers.

H₂: Loan related factors (Loan size, peers monitoring, loan utilizations, credit timeliness, repayment time suitability, repayment trend on monthly basis, repayment trend on irregular basis, conducting supervision on monthly basis, irregular supervision, training, business experience, technology and keeping book of records) can significantly influence the loan repayment performance of borrowers.

H₃: Availability of adequate legal and technical supports to Microfinances services can significantly influence the loan recovery rate of MFIs.

1.6. Significance of the study

As it was discussed earlier in the background of the study, MFIs provide financial services which are intended to fulfill the financial gaps of the poor that have not considered by other commercial banks to access credits on their demand. Those micro finances which are operating specifically in Oromia region have engaged in delivering credit services and other financial schemes to the ultimate low income groups of the community. The existence of secured loan repayment rate is the key success for the financial institutions to provide the service in a profitable and sustainable manner. This requires the lending institutes to work on enhancing an efficient loan repayment performance of the borrowers.

Although some empirical studies have been conducted on the credit delivery schemes of MFIs in Ethiopia, further detailed empirical investigations in identifying the major factors that can influence loan repayment performances of borrowers in the microfinance institutes were found to be essential. Probably, it delivers a clear understanding on the findings to the lending institute's management in order to make sound decision and corrective measures where it is necessary. Moreover, the investigation will be more helpful for the MFIs

corporate governors, stakeholders and other microfinance institutes to revise their strategies towards the findings in order to fix the default problems considerably.

1.7. Scope of the study

The study was conducted on microfinance institutions that are operating in Oromia National Regional States. These microfinances provide financial service to individuals, groups, enterprises, and other part of the societies to fulfill their financial needs in realizing their economic and financial welfare. As it was discussed earlier, regardless of other factors that can affect the sustainability (financial, economic and viability of borrowers) of those MFIs, the study has been limited only to focus on the assessment of the viability (creditworthiness) of micro and small scale enterprises and individual business loan borrowers. The study covers the assessment of socio-economic and institutional factors that can affects loan repayment performances of borrowers and other internal and external factors which contribute for high default problems over the last 4 subsequent operational years of the institutions.

1.8. Limitation of the study

The study was conducted on four sample MFIs that have large operational outreaches in terms of number of client's outreaches among the 13 registered microfinance institutions under the supervision of National Bank of Ethiopia which are operating in Oromia Region. The number of MFIs selected for the study purpose was minimized due to the limited timeframe to reveal the study results which is considered as a limitation of the study to represent the populations at large. In addition, it was majorly relied on primary data collected from sample borrowers and relevant partners including lending institute's staffs through interviews and structured questionnaires. Lack of sufficient time and financial constraints were also another limitation of the study. However, although the scope of the study was limited to four MFIs that are operating in Oromia Region, it was believed that the responses and data collected from those selected MFIs sample borrowers, lending institutes staffs and relevant partners can represents the images of the overall microfinance Institutions operating in Ethiopia at large.

1.9. Organization of the study

The major sections of this thesis paper have been organized as follows. The first chapter consists of the introduction parts. The second chapter consists of review of the theoretical and empirical related literatures on the evolution of MFI, importance of MFIs and related factors that can influence repayment performance of borrowers at global and country wide level. The third chapter describes the methodology of the study. In chapter four the data were collected and descriptive results of the findings were discussed. In chapter five the economic regression results of the findings have been analyzed and discussed. Finally, the sixth chapter ends with summary, conclusions and recommendations of the study in general.

CHAPTER TWO

Literature Review

In this chapter, important theoretical concepts on microfinance services and empirical studies on factors that have been identified as determinants of loan repayment performances of borrowers from various authors' points of view were presented.

2.1. Theoretical Literatures

The theoretical aspects of the literatures reviewed were focuses on the concepts of microfinance services from the very beginning to today's operations in the microfinance industries and the importance of these microfinance services in poverty eradication and stabilization of high unemployment rates at global as well as country wide level. Moreover, the concept of repayment performance were also reviewed and presented as follows.

2.1.1. The concept of microfinance services and its importance

The theorist Lysander Spooner was stated that the historical initiation of Micro financing service was traced back in the middle of 1800's. Consequently he wrote the impact of the credit schemes on the target entrepreneurs and farmers while targeting the poor peoples to get out of the poverty. Meanwhile, the modern industry of microfinance service has been initiated since 1970 by Grameen Bank of Bangladeshi and pioneer Mohammed Yunus. Shore bank was the first microfinance and community development bank founded 1974 in Chicago. According to Prof. Mohammed Yunus and Grameen Banks phrases, an improvement in the economy and social welfare could partly realized through delivering micro-credits to the poor people (Microfinance and Micro-credit, 2016).

Hor Kimsay (2011) reported that microfinance institutions were established originally as a non-for-profit making financial schemes that had particularly serves the poor (low-income groups of the society) at rural areas. As it was reported on this module, through time it was believed by some peoples in Cambodia that serving those poor peoples as non-profit making institute has its own impact on the financial sustainability of these MFIs to realize that the services would address a wide range of poor peoples in the country. As a result MFIs in the Cambodia has reviewed their credit scheme and tried to marginalize the services by

commercializing their credit schemes at lower interest rates than commercial banks. The reason for transforming the MFIs service into commercial is to bring the transparency of the financial services, increasing the confidence of donors and investors and to ensure that MFIs are financially sustainable to serve wide range of poor societies which demands financial services.

Moreover, the author stated that the average loan sizes of MFIs were steadily increased from time to time based on the repayment experience of borrowers. However through periods an increase in number of clients served and average loan sizes experiences some defaulted loans over couple of few years that leads the microfinance practitioners to review their implementation mechanisms and needs of new credit assessment methodologies that emphasizes on the micro and small scale Enterprises (MSE). The assessment was focused on the cash flow assessment of borrowers rather than the collateral requirements which may fulfill the needs of MSE's. An increase in the average loan size and change of loan approach to MSEs was the result of the increased capacity of lending larger loan size by MFIs (Hor Kimsay, 2011).

Microfinance institutions in developing countries have a great contribution in reducing poverty. It has been proved that microfinance service can be viewed as a developmental strategy implementer that intended to empower poor women entrepreneurs, to initiate their businesses and providing them awareness on how to manage their assets and its related risks (Abdulfettah, 2013). Furthermore, the availability of these micro-credits schemes and other financial schemes increases the number of enabled young poor groups which have been organized in the form of micro & small scale enterprises. This in turn will creates a great employment opportunities for the poor young societies which have been lacked with financial sources at national level (Abdulfattah, 2013).

Alemayehu (2008) argued that microfinances are considered as a chance for the poor peoples to promote self-employment through credit and saving service delivery. Microfinances have been established to support the low income groups of societies by enabling them finance their startup businesses and expansion of their low scaled income generating activities. Moreover, people living in poverty, like in Ethiopia, need a wide range of financial services for consumption smoothing, running their business and building assets. But due to collateral

requirement problems, poor people in most cases have no credit access from formal financial institutes (Fikirte, 2011).

The banking requirements of high collateral valued assets or material guarantee and intrinsic banking procedures are among the most difficulty cases that the poor cannot deal with. On the other hand, the volume of loan demanded by small farmers/poor is not appealing to the bank being there is an assumption that transactions are costly for small amount (Alemayehu, 2008). Furthermore, some theoretical frameworks also noted that unlike those microfinance institutions, either government owned or private owned commercial banks are not willing to serve the poor/low-income group peoples by providing small financial services due to the fact that their requirements of collaterals. (Yunus, 1994)

In contrast, all microfinance institutions are intended to provide financial services in the absence of any collateral values unlike the formal commercial banks by delivering various microfinance schemes such as; micro credits, saving mobilization and provision of insurance schemes to the poor. The major objectives of these microfinance services are to strengthening the economic bases of the low-income generating activities of the poor peoples who are living in the rural and urban areas of the country (Fikirte, 2011).

2.1.2. Loan Repayment Performance of borrowers

According to various researchers, microfinance institutions loan repayment performances can be influenced by a number of factors identified as borrower's characteristics and lender's lending characteristics. The lending approaches of microfinances can be classified as group-based approach and individual-based approach. A common characteristic of group lending approach is that the group obtains the loan under joint liability, where each member in a group is responsible for repayment of loans of his or her peers. Screening of the viable loan applicants, monitoring the individual borrower's efforts and enforcing repayment of their peers' loan among the members are listed as the major characteristics of group-based lending approaches (Zeller, 1996 as cited in Abafita, 2003)

Group lending approaches creates better information on borrower's efforts in settling the loan obligations and have better monitoring advantages among the members than that of

individual borrowers. Members can get important information like reputation, indebtedness and asset ownership of the loan applicants at a lower cost. They can also easily monitor individual efforts made towards ensuring repayment. Moreover, group members appeared to be in a better position to assess the reason for default and inform to the lending institutes for the shocking experience exercised by the members which seems beyond their control (Zeller, 1996 as cited in Abafita, 2003).

Individuals are supposed to select those whom they trust to form a group with; that is they are more interested to form group with those whom can make regular repayments and have a good concern about the possible loss they face in case of non-repayments (Abafita, 2003). In most of the cases, in group-lending approaches the functions of screening, monitoring and enforcement of repayments are mainly endorsed to the group members than the lending institutes (Abafita, 2003). Furthermore, in addition to the above benefits from group-based lending approach, commitment of the borrower to feel indebtedness to the obligation they entered into is an exemplified character of borrowers for on-time loan repayment performances (Florence & Daniel, 2014).

On the other hand, individual based lending approach is the other approach that loan contract obligation is endorsed only to the single individual borrower. According to Reikne (1996 cited in Abafita, 2003), individual based lending approach may have better repayment performance than that of the group lending approach. This is due to the possible existence of fragmented geographical locations and high market share competitions among the group members which in turn affects mutual indebtedness's.

Besides, borrowers' characteristic that is the ability to repay the loan on- time can be determined by: 1) the willingness of borrower to repay the loan, 2) capacity (how much debt a borrower can handle) and 3) the cumulative capital (Assets) owned by the borrower. Before delivering credit service, identifying and analyzing the characteristics of the borrowers is an important issues to be considered by the credit managers to judge whether the borrowers exerts the lowest efforts to honor the credit obligations (Florence & Daniel, 2014).

Repayment performance of borrowers can be affected due to various factors. An economic theory suggests that a flexible repayment schedule set by the lending institutes can benefits

borrowers and potentially enhances their capacity of repaying their debts. On the contrary, MFIs practitioners believed that high repayment recovery rate can be realized through maintaining the regular repayment time schedules (Abdulfettah Bouri, 2013, Armendariz and Morduch, 2000 and Morduch, 1999)

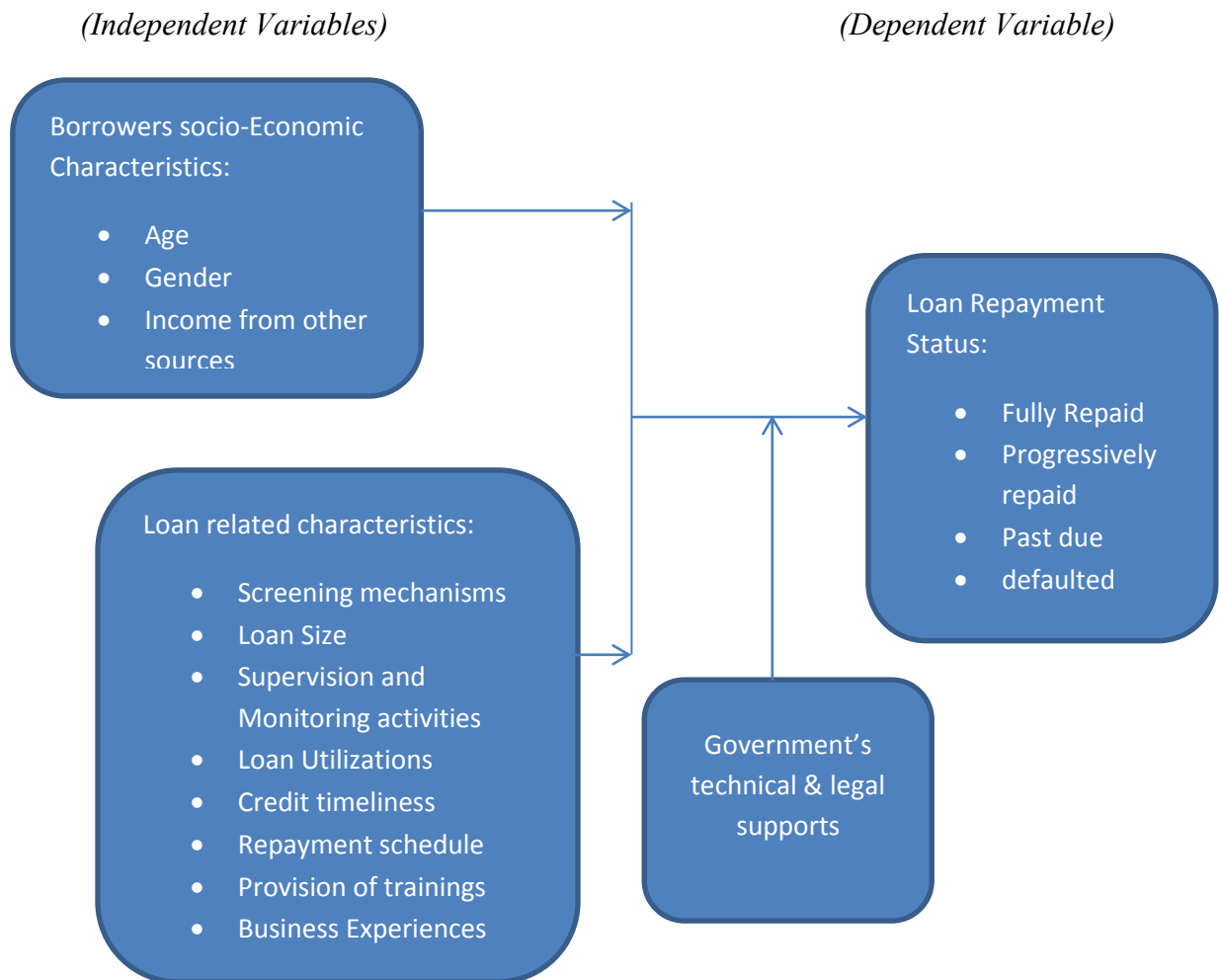
According to Bayang (2009 cited in Florence & Daniel, 2014), lack of sufficient monitoring and reporting to ensure whether funds are utilized for the intended purposes are another possible factors that determines repayment coverage. Furthermore, the repayment rate improved as borrowers get closer to the loan limit, which is the maximum available loan. In other words, motivation for reaching the maximum loan level is positively associated to the repayment performance (Seyedmehrddad, Andrea, Giorgio, Paolo & Emanuele, 2016).

Majority of the literatures on repayment performance of the borrowers have been focused on the group-based lending or joint liability lending category of the credit schemes. Most of them have revealed that a group-based loan is more effective in minimizing the default rate than that of the individual based loan (Ghatak, 1999 & 2000). As Greenbaum andThakor (1995) and Coyels (2000) had been cited by Mohd Sherif (2012), borrower's inability and unwillingness to repay the loan amount is considered as causes for high default rates.

Conceptualizations

The conceptual model for the study is to identifying and analyzing factors that can influence the loan repayment performance of MFIs in Oromia region. In the literatures reviewed, various empirical studies were focused on the probable factors that can determine repayment performances. To carry on the empirical studies to investigate the probability of variables that can affect repayment performance of borrowers, the study mainly focused on identifying and analyzing borrowers socio-economic characteristics and lenders' lending characteristics.

Figure_1: Conceptual Framework



(Source: Adopted by Florence & Daniel (2014), modified by researcher)

2.2. Empirical Literatures

Microfinance institutions plays an indispensable role in the developing countries especially in Ethiopia by providing financial services (credit, saving mobilization and insurance services) for the poor societies to substantiate their livelihoods although borrowers' repayment performance rate is stringent and demolished over the period of time.

The empirical studies on factors that can influence the loan repayment performance of borrowers from various researchers' point of views were assessed and presented in the following sub- sections. Those researchers have been conducted their studies to identify what socio-economic and loan related factors can influence repayment performance of borrowers. Moreover, the individual borrower's characteristics and lending institutes lending characteristics at global and country levels were reviewed and presented as follows.

2.2.1. Empirical studies in other countries

Norhaziah Nawai & Mohd Noor Bin Mohd Shariff (2012) had studied factors affecting repayment performance of microfinance programs in Malaysia. According to the researchers, gender, formal religious education, distance to the lender office, business formality, total sales per month, total loan received, monitoring loan utilization and disbursement lags have significant effects on loan repayment performances. In addition, the researchers have revealed also that loan diversions to unintended projects and weak pressure by the lending institutes to repay the loan on regular basis have negative impact on repayment performances. The researchers had employed multinomial logistic regression model to estimate the equation of loan repayment and analyze the results.

Wongnaa and Awuyno (2013) have discussed factors that are affecting loan repayment performances among Yam farmers in Sene District, Ghana and revealed that the expansion of knowledge through education, business experience of the borrower, age, a diversified source of income and close supervision to borrowers businesses are positively influence the repayment performance of the borrowers while gender and marriage status have a negative impact on repayment performance of borrowers. The researchers employed descriptive statistics and probit regression model to estimate the equation and analyze the results.

Mohd Noor Bin, Mohd Shariff (2013) was conducted further study on the determinants of repayment performance of microfinance programs in Malaysia in the case of individual lending approach. He revealed that gender, business experience, education level, distance or accessibility of market place, total loan size and transaction costs have positive coefficient to repayment performances; while age, religion, total income, business sector, business status, year of establishment, business area, total sales, loan type, repayment schedule, repayment period and loan monitoring have negative coefficient between the delinquent borrowers and good borrowers. The researcher had employed a descriptive analysis and multinomial logit model to estimate the equations and analyze the results.

Njoku and Odii (1991) also studied on the determinants of loan repayment under the special emergency loan schemes (SEALS) in Nigeria that late release of loans, cumbersome of loan applications and disbursement procedures and political consideration to loan approval have a negative coefficient to loan repayment performance. In addition to this loan diversion to non-agricultural business, low enterprise returns due to poor adoption of agricultural technologies, loan size, year of farming experience, year of formal education, household size, loan period, farm size have significant effects for loan defaults.

Hunte (1996) argued that default problem destroys lending capacity of financial institutions as the flow of repayment declines over periods. This implies that it seems transforming lenders into welfare agencies, instead of a viable financial institution. The researcher stated in the study that creditworthy borrowers may be adversely penalized whenever there is inefficient screening mechanisms are employed by the lending institutes. Loan default may also deny new applicants access to credit as the bank's cash-flow management problems augment in direct proportion to the increasing default problem.

Hooman M. (2009) had also conducted the study on factors affecting loan repayment performance of farmers in Khorasan-Razavi the Province of Iran. The researcher has been revealed that interest rate has the most significant effects on repayment performances while farming experience and loan application cost is the next important factor that can influence repayment performance of farmer borrowers. The researcher has been used the logit model to estimate the equations and analyze the results of findings.

2.2.2. Empirical studies in Ethiopia

In Ethiopia, loan repayment can be enhanced through having another source of income, adequate educational background and borrowers own experience on the business world (Abreham, 2002). Several researchers have conducted their studies in Ethiopia to determine what borrower's behavioral attitudes, ability and willingness to repay their obligations have been identified as factors that can influence borrower loan repayment performances.

Fikirte (2011) had conducted her studies on determinants of loan repayment performance of borrowers in AdCSI MFI. The researcher revealed that age, family size, business types, sex, dependence ratio and business experience were found to be significant to influence repayment performance. Sex and constant variable have positive relation to the probability of being defaulters while age, business experience, family size, business type and dependence ratio have negative relationship to the probability of being defaulters. The researcher has been employed a descriptive analysis method and binary logit model to estimate the equation and analyze the results. As the age of the borrower increase the probability of being defaulters becomes decreases. In another words the probability of being defaulter is higher when borrowers are youngsters.

Similarly Abafita (2003) revealed also that borrowers with relatively younger aged are more likely to commit default than that of the aged borrowers. In another words, borrowers with aged groups are more likely to be creditworthy than youngsters assuming that they are matured enough to sense responsible and settle their obligations on time. On the other hand, Fikirte (2011) also stated that female borrowers have worse repayment status than that of male borrowers.

Loan utilization supervision, suitable repayment schedule, availability of other sources of income, educational background of the borrower and value of livestock were found to be positively influence borrowers loan repayment performances, while an increase in number of supported dependents, Sex and an intentional diversion of loans from its loan agreements would negatively affects the repayment performance of borrowers (Abafita, 2003). Similar to Fikirte's findings female borrowers are less likely to be creditworthy than that of male borrowers. The significance level of those independent variables and its probability values in

explaining the dependent variable were estimated and discussed using tobit regression model, while the probit regression model were employed to check and fix the hetroscedasticity problems between the independent variable using the robust model to minimize the level of the standard errors.

Abreham (2002) also discussed that loan diversion, featured by factors such as increased loan size, longer grace period and credit experience of borrower are found to be significant to influence repayment performance of borrowers. In line with this income from other sources, having business experience on related economic activities and education are found to be positively influence the repayment performance of borrowers while sex and repayment period is negatively associated with loan repayment performances.

Moreover, the types of business activities that the borrowers engage in were found to be as a factor that can influence the repayment performance of borrowers. The researcher reported also that the size of the required collateral value determines the loan rationing mechanism. That is the more the collateral values the borrower pledged, the favor they will be rationed larger sized loan by the lending institutes. To arrive at these results the researcher has employed a tobit model to estimate the significance of those explaining variable to Loan repayment performances, loan diversion and credit rationing mechanisms equations (Abreham, 2002).

Firafis (2015) has also been revealed that perception of borrowers towards repayment periods, other source of income, availability of trainings, business experience, and family size have been found as factors that can influence repayment performance of borrowers and all are significant at 1, 5 and 10%. He has employed a logistic regression model to estimate the significance of each explaining variables.

Tolosa (2014) have been conducted his study on performance of loan repayment determinants in Ethiopian microfinances. The researcher revealed that an increasing age of borrowers can significantly influence repayment performance of borrowers. The elder borrowers have better repayment performance than that of youngsters (as argued by Abafita, 2003 and Fikirte, 2011 respectively). Hence age, education, time laps between loan application and disbursement, loan size, loan diversion, repayment period, number of

dependents, availability of training and supervision and advisory service to borrowers were found significant to influence repayment performance of borrowers at 1 and 5% significance levels. The researcher employed binary logistic regression to estimate the model.

In general, all the above studies have basically focused on investigation of the determinants of loan repayment performance of borrowers. However, conducting further assessment on major factors that can affect repayment performance of borrowers of MFIs may provide an additional picture of the gap for the microfinance practitioners to improve their lending strategies.

CHAPTER THREE

Research Methodology

The researcher have been employed various methodologies which enables the research activities to be attained its results through different techniques specified in this chapter. Those methodologies were discussed and presented as follows.

3.1. Methodology of the study

As it was discussed in the previous sections, in Ethiopia 35 Microfinance Institutions were emerged in to the microfinance industry and provides their financial services to the poor peoples who lacks financial services due to inaccessibility of banking service and collateral requirements. These institutions provide their financial services in all nine national regional states of the country (namely Amhara, Tigray, Oromia, SNNP, Afar, Hareri, Somalia, Gambella & Benishangul Gumuz) and two city administrations (namely Addis Ababa & Dire Dawa city admirations).

Among these microfinance institutions, the study was mainly focuses on microfinance institutions that are either partially or fully operating in Oromia regions. The main reasons for selecting the MFIs that are operating in Oromia region was due to the fact that large numbers of microfinances are mainly operating in this particular area as compared to other regions. Thirteen MFIs (which consists of 1 (8%) Government owned MFI and 12(92%) Non-government and private owned MFIs) are providing their financial services in Oromia National Regional State as of December, 2015 (AEMFI, 2015).

In the study the researcher have been employed a multistage random sampling techniques in order to arrive at sample target respondents used for the study purpose. Hence, four Microfinance institutions were selected from the total 13 MFIs that are operating in Oromia region to conduct the study. The four microfinances were selected based on the operational size and number of clients served by each selected microfinance institutions. Sample borrowers were selected from the total micro and small enterprise borrowers and individual

business loan borrowers that are served with selected branches of those respective microfinance institutions.

The following table presents the lists MFIs which are fully or partially operating their microfinance services in Oromia Region.

Table -1: Lists of MFIs that are operating either fully or partially in Oromia Region

Ser. No.	Name of MFIs
1	Aggar
2	AVFS
3	Busa Gonofa
4	Eshet
5	Gasha
6	Harbu
7	Meklit
8	OCSSCO
9	PEACE
10	SFPI
11	Shashemene
12	Wasasa
13	VisionFund

Source: AEMFI, Annual Report, December 2015

As it was discussed earlier, the MFIs selected for this study were selected due to their significance in terms of clients outreach and loan amount disbursed in Oromia regional states as compared to some other microfinance institutions. As a result, Busa Gonofa Microfinance, Wasasa Microfinance, Oromia Credit and saving Share Company and VisionFund microfinance institutions were selected as sample microfinance that was used for the study purposes. The ratio and percentage sampling methods were also employed to determine the

number of sample borrowers to be selected from those selected MFIs. Finally, simple random sampling techniques were employed to select the target sample borrowers which have been used for the study purposes from all micro and small scale enterprises and individual business loan borrowers.

The study have been applied a mixed research methodology to collect relevant research data (both quantitative and qualitative data) using tools developed like but not limited to survey questionnaire and Semi-structured interviews. Furthermore, during the survey sessions typical observations to some selected borrowers business territories were also conducted to identify the difficulties and challenges of sample borrowers while running their businesses. This mixed methodology is considered as the best methods to answer the research questions in an efficient and effective manner. The study has mainly used the primary data collected from both lending institute staffs and sample borrowers.

3.2. Area of the study

Although the locations in Oromia regional state are segmented with different topologies, the study mainly relied on few woredas of the region specifically near to Addis Ababa, Ethiopia. Accordingly, the study was conducted on some sample respective branches of the four selected microfinance institutes which are operating in Oromia region. Conventionally, the sample branches to be used for the study purpose were selected from the nearby to Addis Ababa, Ethiopia branches of those selected MFIs due to the shortage of timeframes to explore the default problems of the those microfinance institutes in the region. The locations of those selected branches are Burayu, Bishoftu, Dukem, Sebeta, and Nekemte. Four of these branches are located in a radius of 30 to 40 Km to the West, East and South-West of Addis Ababa respectively while the rest one is located 328 Km far from Addis Ababa, Ethiopia to the Western Region of the country. In line with this, it was believed that conducting the study from the diversified location in the Oromia region were ends with good results of findings to deliver the ultimate conclusion and recommendations for the lending institutes managements, policy makers, and interested stakeholders who uses the information for making proper decisions.

3.3. *Research design and type*

The study had applied a mixed research methodologies to analyze and interpret the findings. The descriptive analyses approach were employed to explain the overall primary data collected from the respondents using the structured survey questionnaires. The research also used a quantitative and qualitative research method approaches to analyze the findings based on the statistical data collected from the respective sources through the questionnaires, semi-structured interviews and focus group discussions. The qualitative data method were employed to collect the primary data from the sample respondents in relation to the socio-economic characteristics of borrowers and loan related factors and other external and internal factors that influences the repayment performance of borrowers. Whereas, the quantitative data approaches were employed to gather the relevant information from various sources such as the lending institutes, partner organizations and National Bank of Ethiopia.

In order to proceed with the research activities, the researcher defined the loan repayment status (y_i) of each individual sample borrowers of (i^{th}) observation as a dependent variable. The loan repayment is the dichotomous variable valued with either 0 or 1; meaning the loan repayment status (y) of the i^{th} borrower have the probability of being valued as either 0 or 1; such that (value 1, if the respondent is creditworthy borrower (fully or progressively repaid) the loan otherwise 0, if the borrower is defaulter.) In order to estimate the model for dependent variable with limited range of values, applying the ordinary least square (OLS) may result in biased and inconsistent parameters (Fikirte, 2011). The Common models for estimating such parameters include probit (standard normal), logit (logistic) and tobit (extreme value) (Maddala, 2005).

The probit model limits the probability value of dependent variables between 0 and 1. The probit model was chosen to be used for the study purpose because it is simple to estimate the probability of each explaining variables to influence the dependent variable using the cumulative distribution function (CDF). Moreover, it is more helpful to determine the marginal effects of coefficients on the dependent variables.

$$y_i^* = \beta X_i + \varepsilon_i$$

$$y_i = \begin{cases} 1 & \text{if } y_i^* > 0 \\ 0 & \text{if } y_i^* \leq 0 \end{cases} \dots\dots\dots (1)$$

Where y_i^* is the threshold value for y_i and is assumed to be normally distributed.

Moreover, as Abafita, 2003, stated in his study Maddala, 1983 has employed the model for utility index to estimate the repayment decision of borrowers. The utility index expresses the decisions of borrowers to repay the loan either fully or partially due to some independent factors which related with the repayment performances.

$$U_i = \beta X_i + \varepsilon_i \dots\dots\dots (2)$$

The unobservable utility index (precisely a utility derived from repaying) to the decision of repaying loan in full, assuming that:

LRP_i=1, if $U_i > 0$ (borrower repaid loan in full); or

LRP_i=0, if $U_i \leq 0$ (borrower did fail to repay loan in full),

Where, LRP_i is loan repayment status of the i^{th} borrower.

Assuming U_i are normally distributed with a zero mean and variance δ^2 , the probability that $U_i > 0$ can be computed as:

$$P_i = \text{Prob}(U_i > 0) = F(U_i) = F(\beta'X_i) \dots\dots\dots (3)$$

Where; F is the CDF (Cumulative distribution function). Moreover, as (Maddala, 1983 were cited by Fikirte, 2011), the normal and logistic CDFs are very close in the mid-range, but the logistic function has slightly fatter tails than the normal function.

$$y_i^* = \beta + \beta X_i + \varepsilon_i \dots\dots\dots(4)$$

Hence, the probability of cumulative distribution function of the repayment performance of borrowers is explained as follows:

$$LRPy_i^* = f(AGE, GENDER, INCOMB, AVLSIZ, MONTRO, UTLIZED, CRDTIML, RPTSUIT, RPMNTHL, RPIRRG, VSTMNTH, VSTIRRG, TRADQU, BUSEXP, TECHN, BOOKK, \varepsilon) \dots\dots\dots (5)$$

Definition of the variables:

Dummy variables have been designed for some factors as follows:

$LRPy_i$	The value of repayment status of the i^{th} borrowers (i.e either 1 if creditworthy borrower otherwise 0, if defaulter)
β	The parameters of the coefficient of the explanatory variables which measures significance
X_i	The value of the explaining variables that determines the probability of repayment of i^{th} borrower
ε_i	The level of disturbance (Error terms)
Age (AGE):	Age of the sample borrowers in year (0= if young, other wise 1 if adult)
Gender (GENDER):	Gender categories of the sample respondents. (0 = if female, otherwise 1 if Male)
Income (INCOMB):	Income generated from other sources per month
Supportive supervision (UTLZSUP):	Number of visits that the lending institution officers conducted per month and the level of special supports other than trainings delivered by the lending staffs and other supporting bodies on the field to each members of borrowers.

- UTLIZED: Used the proceeds received as loan either fully or partially for the intended purpose only (0, if diverted otherwise, 1).
- Loan Size (AVLSZ): The loan amounts disbursed to the respective borrowers based on their work plan.
- Members monitors each other (MONT0): Measures how members of an Enterprise or group-based borrowers are more likely monitor one another about the effective and efficient utilization of the credit to the intended purposes (1, if members monitor each other, otherwise 0)
- Suitability of repayment schedule (SUIRPM): The suitability of repayment schedules to the borrowers (Weekly, Monthly after grace period, quarterly, once a year) (1, if suitable, otherwise, 0)
- Trainings (TRADQU): Provision of adequate trainings by the lending institutes; Post training follow-up and technical supports by the lending institutes and other concerned bodies (1, if adequate, otherwise, 0)
- Technology (TECHN): Measures Borrower's advancement in manipulating technologies if it is applicable to the business while running their businesses (1, if applied otherwise 0)
- Business type (BUSTYP): refers to the effects of business types that the sample borrowers have been engaged in.
- Timeliness of loan (CRDTIML): The appropriateness of loan release by the lending institutes on time (1, if credit has been received on time, otherwise, 0).

Generally, we can categorize these explanatory variables as Socio-Economic factors, Loan related factors and other internal and external factors that can influence the loan repayment performances of the MFIs.

3.4. Sampling Techniques

The study adopts multi-stage sampling techniques to arrive at target sample borrowers. As it was discussed in the previous section, the sample MFIs have been selected from the total 13 microfinance institutions which are fully and partially operating in Oromia National Regional States.

As it was indicated in table-2 below, four microfinance institutes (Busa Gonofa, OCSCO, Wasasa & VisionFund) were selected for the study purpose from all 13 MFIs which are operating in Oromia region based on the proportional level of their significance in terms of number of client outreaches and amount of loans disbursed by each institutes.

Table -2: Microfinance Institutes that are fully or partially operates in Oromia Region

S/No.	MFIs	Clients Outreach	Outstanding Loan	Proportional clients outreaches	
1	Aggar	10,878	165,717,214	0.84	
2	AVFS	12,343	17,800,022	0.95	
3	Busa Gonofa	67,787	161,153,151	5.24	*
4	Eshet	15,406	53,534,199	1.19	
5	Gasha	5,544	17,697,629	0.43	
6	Harbu	27,565	52,438,497	2.13	
7	Meklit	10,619	65,525,908	0.82	
8	Ocssco	908,828	3,389,019,957	70.27	*
9	PEACE	22,210	93,498,440	1.72	
10	SFPI	41,914	170,208,069	3.24	
11	Shashemene	2,015	24,358,928	0.16	
12	Wasasa	77,392	354,140,759	5.98	*
13	VisionFund	90,922	426,424,460	7.03	*
	Total	1,293,423	4,991,517,233	100%	

Source: AEMFI, Annual Report, December 2015

**Sample MFIs selected for the study*

Table-3 below presents the proportional percentages of each selected sample microfinance institutions clients outreaches to the total clients outreaches of the four MFIs. Accordingly, Busa Gonofa MFI covers 6 percent of the total client outreaches, OCSSCO took the majority proportions which is 79 percent of the total outreaches, Wasasa MFI covers 7 percent of the total client outreaches and Visionfund had a proportional clients outreach percentages of 8 percent of the total clients served by all the four MFIs. The details presented as follows.

Table – 3: Microfinance Institutes selected for this study based on the number of clients outreach

Sample MFI	Clients Outreach	Outstanding Loan	Percentage of Clients outreach
Busa Gonofaa	67,787	161,153,151	6%
OCSSCO	908,828	3,389,019,957	79%
Wasasa	77,392	17,697,629	7%
VisionFund	90,922	52,438,497	8%
	1,144,929	284,823,476	100

Source: Computed from AEMFI, Annual Report, December 2015

The table-4a below presents the maximum clients outreached which have been served per credit officers of the sample microfinance institutes. Accordingly, OCSSCO relatively serves much more clients per single loan officer as compared to other three MFIs. On the other hand, VisionFund MFI is relatively served less clients outreach per credit officers.

Table -4a: Lists of active clients served by sample MFI per credit officers

Sample MFI	# active Clients Outreach	# of credit officers	Average # of borrowers per credit officers
Busa Gonofaa	67,787	133	510
OCSSCO	908,828	1,221	744
Wasasa	77,392	137	565
VisionFund	90,922	269	338

Source: Computed from AEMFI, Annual Report, December 2015

Sample borrowers were determined systematically using the proportion method to determine the proper sample size which may represents the overall population.

$$n = Z^2 pq / E^2$$

Where,

n: proposed sample respondents

Z^2 Level of confidence interval at 95%; i.e. $\simeq 1.96$

p: Estimated proportion of sample defaulters

q: Estimated proportion of sample non-defaulters

E^2 Standard Error

$$n = ((1.96^2) (0.50 * 0.50) / (0.05^2))$$

$$\simeq \mathbf{246}$$

$$\text{Approximate Sample Design Error: } 1.5 * 246 = 369$$

$$\text{Estimated non-respondent rate: } 8\% * 369 = 29$$

$$\text{Adjusted sample size (n) = } \mathbf{\underline{398}}$$

As it is shown in the table-4b below, the full number of samples to be selected from each selected MFI has been allocated as; 6% from BG MFI, 79% from OCSSCO, 7% from

Wasasa Microfinance and the remaining 8% from VisionFund Microfinance institutes that operates in Oromia region. The allocated sample sizes to each respective MFI (BG MFI, OCSSCO, Wasasa MFI & VisionFund MFI) considers both defaulters and creditworthy borrowers equally for the study purpose.

Table -4b: Allocation of Sample Size among the selected MFIs

Sample MFI	Clients Outreach	Outstanding Loan	Percentage of Outreach	Total Sample Size	Sample Proportion
Busa Gonofaa	67,787	161,153,151	6%	398	24
OCSSCO	908,828	53,534,199	79%	398	314
Wasasa	77,392	17,697,629	7%	398	28
VisionFund	90,922	52,438,497	8%	398	32
	1,144,929	284,823,476	100		398

Source: Computed from AEMFI, Annual Report, December 2015

As it was stated in the previous section, the study mainly focuses on the individual entrepreneurs and micro and small scale enterprises that have been served by those selected MFIs. These borrowers were selected due to the significance of the loan sizes disbursed to each MSE & Individual Business loan borrowers as compared to other group-based borrowers. Furthermore, it is believed that number of researchers were conduct their studies on rural and urban group-based borrowers of MFIs to assess the repayment performance of borrowers while other borrower groups of MFIs are involved in different micro-credit services of MFIs.

Most of the financial and operational reports of MFIs indicate that they are facing great challenges due to an increasing number of defaulters from year to year which probably undermines the respective institutions financial sustainability. Hence the paper intends to assess the major factors that contribute for loan defaulters by considering MSE and Individual entrepreneur borrowers as a major study area. As a result the sample respondents were selected randomly from those borrower groups.

Table-5 below shows number of active MSE and individual business loan borrowers served by selected branches of the four MFIs at some particular areas of the study (Burayu, Sebeta,

Dukem, Bishoftu & Nekemte) during the year ended 2014/15. The respective branches outreaches are as follows:

Table- 5 Number of active MSE and Individual Business Loan borrowers

Sample Microfinance Institutions	Selected branches	# of client outreaches (MSE, IBL borrowers,..)	Loan Disbursed	Sample Size
BG MFI	Bishoftu	2,187	26,686,000	24
OCSSCO	Burayu,Sebeta,Bishoftu & Nekemte	327	21,612,624	314
Wasasa	Dukem	105	7,254,000	28
Vision Fund	Sebeta	291	3,159,966	32
	Total			398

Source: Computed from annual Operational Reports of MFIs, 2014-15

According to FeMSEDA Reports (2015, cited by NBE annual report, 2014-2015), in Ethiopia 271,579 micro and small scale enterprises were organized and served through MFIs with credit and other microfinance schemes to fill the gaps of their financial needs in realizing an improvements in their economic and social welfare. Oromia Region shared a lion proportion, i.e. 51.9% (140,858) MSE borrowers with an outstanding loan amount of Birr 5.84 Million from the total MSEs served through the MFIs in Ethiopia (NBE, 2016).

In light of this, OCSSCO have served larger number of MSE as compared to others. As it is shown in the above table, the proportional sampling methods have been used to arrive at the sample sizes to be allocated to each selected MFIs. Accordingly, 24 samples was selected from BG MFI, 314 samples was selected from OCSSCO, 28 sample borrowers have been alos selected from Wasasa Microfinance and the remaining 32 samples was selected from VisionFund microfinance.

Generally, the study had been intensified and conducted over 398 sample borrowers who have been served by those selected MFIs based on the proportional sample quotas allocated in the table above. Simple random sampling techniques were employed to arrive at the sample respondents. The reason for using the random sampling method is that the number of

target borrowers for the study i.e. MSEs and Individual business loan borrowers are relatively smaller as compared to other rural & Urban group-based borrowers. As a result to arrive at sample representative respondents from the target borrowers“ random sampling method was more appropriate than other methods.

3.5. *Data Sources*

The research has been conducted using both primary data and secondary data sources to retrieve the findings and analyze the problems at hand. The primary data were collected using the structured questionnaires to be responded by both selected sample borrowers (Defaulters and creditworthy borrowers) and lending institute staffs (Branch managers, Credit officers, Accountants, Management of the lending institutes, and other relevant staffs). Furthermore, semi-structured interviews were also conducted with some sample borrowers while on site visits to borrowers“ business territories. Further interviews were also held with National Bank of Ethiopia’s Microfinance directorate department staffs on the subject matter. Moreover, the researcher also had a chance to visit the borrowers businesses to identify the problem they have faced while running their businesses after engaging into the credit schemes. The Secondary data used for this research was found from borrowers master register books, the year-end audited financial statements and operational reports of the respective MFIs availed by NBE, AEMFI and lending institutes.

3.6. *Data collection tools*

As it was discussed on the above section, the study had employed some research tools to collect the relevant data which helps for the better conclusion on the results of the findings. Among the tools:

1. Interviewing the respondents (sample Borrowers: defaulter and non- defaulters)
2. The Structured Questionnaires were developed to be responded by both borrowers and lending institutes staffs which supported by an open ended interviews with the focal personnel (Clients, Managers, officers, Operation & Finance unit staffs and other stakeholders). Since the study areas to be assessed were fallen in oromia region where majority of the local people uses „Afan oromo“ as a working language, the

questioners were also redesigned in local language “Afan Oromo” to help the respondents understand each queries and get reliable data. Pre-test to those questionnaires were also implemented on four respondents to test how well they could understand each question and avoid ambiguity and biasness while responding to each question. Hence an appropriate modifications and corrections have been made where it is necessary.

3. Focus group discussion methods were also employed in identifying further unforeseen factors that may contributes for borrowers under performances.
4. All relevant secondary data (client’s information and MFIs clients’ outreaches) from both lending institutions and other sources were also gathered and used for analysis.

3.7. Data analysis techniques

The qualitative data have been collected from the primary sources using the tools described in the above section of the paper. The descriptive analysis approach were employed to analyze the primary sample data collected from each sample borrowers, lending institutes officers and other pertinent sectors. This method was also used to explain the observed reflection of borrowers after the credit service during conducting the onsite field visits to the borrower’s business territories. Those data which have been collected from the target samples were statistically tested using the t-test, Multicollinearity test & chi-square tests

The probability values and the significance level of each explanatory variable to influence the dependent variable were explained and analyzed. Moreover, the econometric regressions between the dependent and independent variables had been estimated and analyzed using the models specified for this purpose on the pervious section to show the results of the findings for the management of the lending institution, stakeholders and policy makers to take corrective measures toward the findings based on the conclusion and recommendations delivered by the researcher at the end of the paper.

The binomial probit regression models were employed to determine the significance of the independent variables in explaining the loan repayment performance of borrowers.

Furthermore, the marginal effects of the coefficient of each explanatory variable were also analyzed and discussed accordingly.

Description of the independent variables and their expected hypothesized signs

A. Socio-Economic factors and borrowers characteristics

1. **Age:** Some researchers have taken the ages of the borrowers as a variable that can influence the repayment performance of borrowers. As it was stated in the previous section, in group-based lending approaches, Abafita, 2003 have revealed that the more youngsters the age of the borrowers the less the repayment recovery rates achieved by the lending institutes; that means the more the aged group borrowers can take the responsibility of being liable and creditworthy than that of the youngsters. Similarly, the more the older and aged the borrower groups are the more likely they are creditworthy borrowers that have better repayment performances while the young borrowers are more likely to be defaulter borrowers (Fikirte, 2011). Both authors have been conducted the research on the group-based lending approaches whereas this study might answer for some other borrower types like MSE and individual Entrepreneurs borrowers too. Based on the above studies the study cannot pre-determine the signs of the variable to influence the repayment performances.

2. **Gender:** This research considers the gender characteristics of the borrowing groups as an explaining factor to evaluate how the gender is probably determine the repayment status of the borrowers. As (Teferi 2000 and Berhanu, 1999 cited by Abafita, 2003), it was argued that female borrowers are more creditworthy than that of male borrowers. The assumption was females took great obligations and sense of responsibilities while managing their households. This study also intends to see the magnitude of these gender characteristics in the cases of MSE borrowers and Individual business loan borrowers. The expected signs of this gender characteristic groups to the dependent variable could not still pre-determined.

3. **Income from other sources:** Borrowers with some diversified income sources can make repayment performances more successful. Income from other sources can be listed as follows but not limited to Salary/Wages, equipment rental services (such as house rent, and

others). An increase in other source of income earned by borrowers might have the possibility that loan could probably repaid by respective borrowers on time. Thus, this variable might have an expected value with positive signs to explain the probability of being non-defaulter.

B. Loan related factors considered for the study

4. **Monitoring others loan utilization:** This refers to the probability of each member in a borrowing group attempt monitoring the loan utilization statuses of others. As the monitoring for the utilization of the credit for the intended purpose increases, the probability of loan defaulting by group members can be minimized. Thus, positive coefficient sign is expected.

5. **Average loan size:** This refers to the average loan size that the lending institutes approved to the borrowers business appraisals. As it was revealed by some researchers, this factor can negatively or positively influence the repayment performance of borrowers. The assumption is that the more the sufficient loan amount disbursed to the requesters the more they can finance the proposed business and the more they can succeed the business profitably. On the other hand, the less approved loan size below the proposed business plan to the borrower, the higher the possible difficulties they can face while running the business due to insufficiency of funds available by the lending institutes. On the contrary, the excess loan size approval to the ambitious loan amount requested by borrowers may have imposed the burdensome liabilities on the shoulder of the borrowers. To mitigate these problems, efficient and effective utilization of the loan funds could be very essential for the borrowers while running their business. Accordingly, the sign of the coefficient cannot pre-determine by the researcher.

6. **Timeliness of loan released:** This refers to the time laps that taken from the borrowers screening process to the credit delivery time by the lending institutes. From the fact that some borrowers businesses have seasonal basis nature, the longer time passes by the lending institutes to process the credit can significantly influence the successfulness of that

particular business and hence affects the repayment performance of that particular borrower. The assumption is that the more the fastest the credit service are the more the borrower can utilize the loan for the intended business plan timely and the more the credit would be settled on time profitably. Positive sign is expected for this variable.

7. **Repayment period suitability:** Most of the MFIs in Ethiopia set the maturity date of the loan for an annum i.e. they deliver credit for one year. Some MFIs like OCSSCO and Wasasa do have a credit terms for more than a year (2-3 years) based on the nature of business types. The flexible grace period for some months after the loan disbursement enables the borrowers to have sufficient working capital so that they can run their businesses profitably. Accordingly, the expected sign for this variable is positive.

8. **Repayment on Monthly Basis:** Refers to the frequency of borrowers repayment intervals on monthly basis. Most microfinance institutions usually set the regular repayment schedules to be effected on monthly basis. The more frequent the repayment trends experienced by the borrowers, the better repayment performances to be attained by the microfinance institutions. Accordingly, positive sign is expected to influence the repayment performance of borrowers.

9. **Repayment on irregular Basis:** Refers to the frequency of borrowers repayment trends on irregular time intervals. Although microfinance institutions set the regular repayment schedules to be effected on monthly basis, some borrowers' arbitrary repays the loan on irregular basis which leads for pass dues. The more time lags in repayment trends experienced by the borrowers, the less probability of better repayment performances to be attained by the microfinance institutions. Accordingly, negative sign is expected to influence the repayment performance of borrowers.

10. **Loan utilization:** Refers to how the borrowers of the lending institutes utilized the loan amounts for the pre-intended business plan based on the loan agreement they are binding to. Some borrowers utilize the loan for some unintended projects that is termed as project diversion. As it is described in the definition of the terms, there are possible causes for the borrowers to use the proceeds received for some other activities. Loan diversion for some

activities that can generate better profits could positively influence the repayment performance of borrowers. On the other hand the utilization of credit for some other activities that cannot generate returns may negatively influence the repayment performance of borrowers. Accordingly, the expected sign for this variable cannot be pre-determined.

11. **Training:** Capacity building activities through delivering workshops and short term trainings by well-organized and trained personnel to borrowers could enhance their well understanding about the credit services and maintain their skills and knowledge on the business environment. Borrowers who are equipped with relevant trainings and skill developments can effectively manage and monitor the day to day operations of their business. Training has an indispensable contribution to the borrower's business success. Therefore, delivering an adequate and sufficient training to all borrowers in a consistent manner may increase the repayment performance of borrowers. Accordingly, positive sign is expected for this variable.

12. **Business Experience:** Borrowers with better knowledge and experiences on the relevant businesses can profitably run their businesses. As the time of crises happening to the specific business segment, borrowers with previous business exposures and experiences may recover their business and will succeed consequently. On contrast, borrower with no or less experience on the market and know how on business activities might face high probability of challenges to run profitably. The good experienced the borrowers are the more they can succeed their business and repay the loan timely. On the other hand, the less they are experienced the highest the probability of being defaulters they are. Hence the variable expected to have positive coefficient to influence the probability of being creditworthy borrower.

13. **Technology:** Today businesses equipped with advanced technology do have high probability of success. Enterprises and individual entrepreneurs who have employed a modern technology while running their respective businesses could have high possibility of success which in turn enables them to repay the loan timely. On the contrary, borrowers who have not employed the best technology could earn less profit as compared to others.

The variable is expected to have a positive sign to explain the probability of being non-defaulters.

14. Irregular supportive supervision: Refers to the frequency of lending institutes officers' visits to the clients business to monitor the effective utilization of the loan for the intended purpose. The more time gaps between the first visits and the second round visits irregularly or more than the standard visit time which is mostly beyond one month might have a considerable effect on the loan utilization of borrowers which leads for loan diversion to the unintended project purposes. Accordingly, it is expected to have a negative effect to the probability of borrowers being creditworthy.

15. Monthly supervision: Refers to the frequency of lending institutes officers' visits to the clients business to monitor the effective utilization of the loan for the intended purpose. The more frequent the visits and supervision to the client's business territory might help the borrower to utilize the loan for the intended purpose only. Furthermore, the visits to those target borrowers will help in identifying the loops that faces the borrowers either technically or financially in order to minimize the risks suffer from defaults. Accordingly, it is expected to have positive effects to the probability of borrowers being creditworthy.

16. Keeping book of records: This refers to borrower's trends of recording the financial transaction to book of records to monitor and evaluate the profitability and financial position of their respective businesses. The borrowers who manage their expenses and revenues as well as cash flows could probably better monitor their loan repayment status than none. Hence, positive sign is expected.

C. Other external parameter that may influence repayment performance of borrowers

17. Technical and Legal Support: In this study it refers to the availability of consistent government unit's technical and legal support to the MFIs operation. The efficient legal supports enacted by the legislative bodies for the wrong acts of defaulters in enforcing them

to repay the outstanding loans could have positive effects in increasing the loan recovery rate of MFIs. The more supports provided by the concerned bodies to the MFIs credit delivery service might enhance the availability of loanable funds to finance the next needy new borrowers as a result of on time repayment is collected. Similarly, provision of technical supports to borrowers business by the concerned bodies may contribute for betterments of running the business at profit margin. This variable could positively influence the loan repayment performance of borrowers and efficiency of lending institutes.

From the above explanatory variables, some variables are continuous which are measured in terms of years such as age and business experiences. On the other hand, group size, loan size and income generated from other sources are also other continuous variables that are measured in numeric value. These variables were explained in descriptive statistics in the next chapter. After the estimation of the model, the marginal effects of those continuous explanatory variables were also calculated in order to know the probability effects of those explaining variables on loan utilization and repayment performances.

There are also discrete variables that need the respondents to choose among the available alternatives. To treat those variables the binary model were employed. Borrow from other credit sources has been valued 0, if the borrowers did not take additional credit from other sources (Iddir, Iqub³, friends/relatives or Banks), otherwise 1. Similarly socio-economic factors like gender characteristics of the sample borrowers were also treated as discrete variables valued with 1 if male otherwise 0 if the sample borrower is female.

Additionally, other seventeen discrete and one continuous explanatory variable were identified and similarly valued as 0 and 1. Therefore, the discrete variables used to compute the marginal effects of the explanatory variables on the dependent variables were denoted and listed as follows:

1. Age: is a discrete variable that valued 0, if the respondent is in the category of young (20-29), otherwise 1, if adult (greater than 29)

³ 'Iqub' is informal associations local organized to contribute savings

2. Gender: is a discrete variable that valued 0, if the sample respondent is female, otherwise 1, if male
3. INCOMB: valued 0, if sample borrower do not have other source of income, otherwise 1, if borrowers have another income sources other than income generated from credit scheme
4. MONTRO: valued 0, if borrowers did not monitor the utilization status of other members, other wise 1, if they experienced monitoring.
5. UTLIZED: valued 0 if borrowers didn't utilized the loan for the intended purpose, otherwise 1, if properly utilized.
6. CRDTIML: valued 0, if the borrower didn't receive the requested loan timely, otherwise, 1, if they received on time.
7. RPTSUIT: valued 0, if borrowers assumed repayment time is not suitable, otherwise, 1 if suitable.
8. RPMNTHL: valued 0, if borrowers didn't experience repayment on monthly basis, otherwise, 1 if applicable.
9. RPIRRG: valued 0, if borrowers didn't experience repayment on irregular basis, otherwise, 1 if applicable.
10. VSTMNTH: valued 0, if borrowers didn't experience monthly visits to their business, otherwise, 1 if applicable.
11. VSTIRRG: valued 0, if borrowers didn't experience irregular visits to their business, otherwise, 1 if applicable.
12. TRADQU: valued 0, if borrowers didn't get adequate and sufficient training, otherwise, 1 if applicable.
13. BOOKK: valued 0, if borrowers didn't kept book of records, otherwise, 1 if applicable.
14. UTLZSUP: valued 0, if loan utilization did not supervised, otherwise, 1 if applicable.
15. RPMSUP: valued 0, if loan repayment did not monitored, otherwise, 1 if applicable.
16. LSUFFCNT: valued 0, if loan size did not sufficient, otherwise, 1 if sufficient.
17. BUSEXP: valued 0, if sample borrower do not have relevant business experience, other wise 1, if applicable

CHAPTER FOUR

Descriptive Analysis

The descriptive statistics used to analyze the results of the data collected were used tools such as percentages, mean, frequency distribution and standard deviations. Tables, charts, graphs have been also used to express the descriptive results of the survey. Furthermore, the t-test and chi-square test were also employed to evaluate the variations between the creditworthy and defaulters based on each explanatory variables.

4.1. Questionnaire Response rate

Based on the sample size determination, the researcher distributed 398 questionnaires in order to collect primary data from sample borrowers of the four sample microfinance institutes. Even if maximum effort was exerted to make sure all the distributed questionnaires are returned back, some questionnaires were not submitted due to various reasons like political volatilities arisen during the survey season. From the total 398 questionnaires distributed 319 of them were successfully filled and returned back. That is, 79 of them were not returned back and thus not used in the research. Therefore, the response rate of the questionnaire was 80.15 percent. Accordingly, the research data presentation, analysis, and conclusions were based on these responses.

4.2. Socio-economic characteristics

Age: The cross-tabulation shown in Table-6 indicate that the loan repayment performance of borrowers aged in youngster groups which covers 62 percent of the total young respondents were the credit defaulter while the remaining 38 percent of the total young borrowers were creditworthy borrowers. On the other hand, 56.9 percent of the total adult borrowers were the credit defaulters while 43.1 percent of adult respondents were creditworthy borrowers. Defaulters represent the majority relative to creditworthy in both youngsters and adult grouped sample borrowers.

Table-6: Repayment performance versus ages of the sample respondents

			Age (Binned)		Total
			Youth (19-29)	Adult (30-65)	
LRP		Count	31	153	184
	Defaulter	% within LRP	16.8%	83.2%	100.0%
		% within Age (Binned)	62.0%	56.9%	57.7%
		Count	19	116	135
	Credit worthy	% within LRP	14.1%	85.9%	100.0%
		% within Age (Binned)	38.0%	43.1%	42.3%
Total		Count	50	269	319
		% within LRP	15.7%	84.3%	100.0%
		% within Age (Binned)	100.0%	100.0%	100.0%

Source: Survey result

Gender: Based on the gender assessment, from the total sample respondents, 133 (41.7%) of them were females while the remaining 186 (58.3%) of them were male. Further, it was evident that 57.7 percent of the total respondents were defaulters and thus the remaining 42.2 percent of the respondents were creditworthy, regardless of sex or any other variable. Cross-tabulation of sex with loan repayment performance, which is being creditworthy or defaulter, showed that 56.4 percent of female respondents were defaulter while 58.6 percent of male respondents were defaulters, that means 43.6 percent of female and 41.3 percent of male respondents were creditworthy borrowers. The figure shows that male respondent borrowers relatively have less repayment performance than female. The table-7 below shows these and related figures in the detailed cross tabulation of sex with loan repayment performance (LRP).

Table-7: Repayment performance versus the gender

			GENDER		Total
			Female	Male	
LRP	Defaulter	Count	75	109	184
		% within LRP	40.8%	59.2%	100.0%
		% within SEX	56.4%	58.6%	57.7%
	Credit worthy	Count	58	77	135
		% within LRP	43.0%	57.0%	100.0%
		% within SEX	43.6%	41.4%	42.3%
Total		Count	133	186	319
		% within LRP	41.7%	58.3%	100.0%
		% within SEX	100.0%	100.0%	100.0%

Source: Survey result

Borrowers Income Characteristics:

Table-8: Do you have any other source of income?

	Frequency	Percent	Valid Percent	Cumulative Percent
No	198	62.1	62.1	62.1
Valid Yes	121	37.9	37.9	100.0
Total	319	100.0	100.0	

Source: survey results

Based on the response of the sample respondents, 121 of the sample respondents had income from other sources while 198 of the respondents did not have any other source of income.

Table-9: Borrowers annual income from other sources (in ETB) (Binned)

	Frequency	Percent	Valid Percent	Cumulative Percent
	<5000	20	6.3	16.5
	5001-10000	35	11.0	28.9
	10001-15000	18	5.6	14.9
Valid	15001-20000	17	5.3	14.0
	20001-25000	2	.6	1.7
	>25000	29	9.1	24.0
	Total	121	37.9	100.0
Missing	System	198	62.1	
Total		319	100.0	

Source: survey results

The assessment on the income from other source before credit service shown that from the total 121 valid respondents, 20 respondents, 35 respondents, 18 respondents, 17 respondents have annual earnings less than Birr 20,000 while 2 respondents and 29 respondents had earnings greater than Birr 20,000. This implies that majority 74 % of the valid respondents have an annual income before the loan less than Birr 20,000 while the remaining 26% of the respondents have income greater than Birr 20,000. Income from other sources have significantly influence the repayment performances at 5 % level. This is shown in the table above.

4.3. Loan related characteristics

In this sub-section, the loan related factors that can influence repayment performance of borrowers have been analyzed and presented as follows.

4.3.1. Loan Disbursement and Repayment performances

Credit from other sources: Microfinance institution borrowers might also use other source of finance. From this regard, sample borrower respondents were asked whether they have taken loan from other sources and from which sources do they borrowed so far. Accordingly,

their responses indicates that 5, 8, 36, and 3 of sample respondent borrowers were took other credits from „Idir, Money lenders, friends or relatives and Bank respectively. That is, 267 of the sample respondents did not took any credit from other sources to finance their businesses. The other issues to be considered was cross-tabulating these sources with that of loan repayment performances. Accordingly, from those using „Idir“, 60 percent of them were defaulters while 40 of them were creditworthy; from money lender users 62.5 of them were defaulters while 37.5 of them were not; from those using friends or relatives as other source of credit, 42.2 percent and 27.8 percent of them were defaulters and creditworthy respectively; finally those who were not borrowed from other sources of credit consisted 55 percent defaulters and 45 percent credit worthy respondents. These figures were presented in detail in the table-10 below.

Table-10: Sample respondents response to other source of credit (Cross tabulation)

		Idir	Money lenders	Friends/ relatives	Bank	Non-Borrowers	Total	
LRP	Defaulter	Count % within column	3 60.00%	5 62.50%	26 72.20%	3 100.0%	147 55%	184 57.70%
	Creditworthy	Count % within column	2 40.00%	3 37.50%	10 27.80%	0 0.00%	120 45%	135 42.30%
Total		Count % within column	5 100.0%	8 100.0%	36 100.00%	3 100.0%	267 100.00%	319 100.0%

Source: Survey result

Regarding the repayment performance of sample borrowers who took credit from other sources, it is important to explain their repayment statuses. Accordingly, as shown in the

table-11 below, 52 sample respondents were borrowed from other sources of credit. 18 of them were defaulters to credit from other sources while the remaining 34 respondents were not. From those who defaulted to other sources of credit, 94 of them were similarly defaulted to the recent lending microfinance institutions' loan.

Table-11: Sample respondents repayment status to other credit sources

		Credit from other sources	
		Repaid	Defaulted
Creditworthy	count	14	1
	% within column	41%	6%
Defaulters	count	20	17
	% within column	59%	94%
Total	count	34	18
	% within column	100%	

Source: Survey result

On the other hand, from those who repaid the loan from other sources of credit, 41 percent of them were creditworthy borrowers while the remaining 59 percent of them were sample defaulters who failed to repay the loan from the recent lending microfinance institutions. It is significant to influence repayment performance at 5% level ($\chi^2=4.79$). The statistics also shows that the defaulters of the current lending institute experiences the same situation to the credit from other sources.

Loan Size versus credit rounds

As it was shown in the table-12 below, it is summarized that from borrowers who had taken only first round loans, 70.9 percent of the sample respondent borrowers were defaulters while 29.1 percent of them were creditworthy. From the total sample borrowers who had taken the loan for second round, 33.3 percent of them were defaulters, while the remaining 66.7 percent of them were creditworthy borrowers. Considering the sample borrowers who took

loans for the third round, 58.3 percent of them were defaulters and thus other representing 41.7 percent were creditworthy. Similarly, from those who had taken the loan for the 4th round 16.9 percent of the sample borrower had not repaid the loan, while the remaining 83.1 percent has been settled the loan fully.

Table-12: Sample borrowers credit round versus repayment statuses (Cross tabulation)

		Round 1		Round 2		Round 3		Round 4	
		Defaulter	Credit worthy	Defaulter	Credit worthy	Defaulter	Credit worthy	Defaulter	Credit worthy
less than 20000	Count	39	15	1	2	5	4	8	50
	% within Row	72%	28%	33%	67%	56%	44%	14%	86%
20000-40000	Count	42	18					0	1
	% within Row	70%	30%					0%	100%
40000-60000	Count	19	11	2	1				
	% within Row	63%	37%	67%	33%				
60000-80000	Count	17	7		1	0	1	0	1
	% within Row	71%	29%	0%	100%	0%	100%	0%	100%
80000-100000	Count	21	13	2	4		0		
	% within Row	62%	38%	33%	67%				
100000-120000	Count	4	0	0	1	0		1	0
	% within Row	100%	0%	0%	100%			100%	0%
120000-140000	Count	2	0			0	0		
	% within Row	100%	0%						
140000-160000	Count	3	0		1	0	0	0	1
	% within Row	100%	0%	0%	100%			0%	100%
160000-180000	Count	1	0						
	% within Row	100%	0%						
180000-200000	Count	7	0			1	0	1	1
	% within Row	100%	0%			100%	0%	50%	50%
Above 200,000	Count	6	2			1	0	1	0
	% within Row	75%	25%			100%	0%	100%	0%
Total	Count	161	66	5	10	7	5	11	54
	% within Row	71%	29%	33%	67%	58%	42%	17%	83%

Source: Survey result

From this survey result for the sake of comparisons, we can understand that borrowers who had experienced repeated round for fourth time (83 percent) were more creditworthy borrowers group than the other three rounds creditworthy borrowers, while sample borrowers

who took loan for the first time were more defaulters (71 percent) as compared to the other loan repeated defaulter borrowers as shown in the table. Regarding the loan size, borrowers who had taken loan sized above 200k⁴ were found to be defaulters at all rounds. Similarly sample borrowers who have taken the loan less than 200k for only first round had experienced defaults as compared to other rounds regardless of loan size. The defaulters and creditworthy of each category by amount for each round of payments were different and a detail of it were presented in the above table.

Table-13: Do you think that the amount you received is similar to your intended request?

	Frequency	Percent	Valid Percent	Cumulative Percent
No	107	33.5	33.5	33.5
Valid Yes	212	66.5	66.5	100.0
Total	319	100.0	100.0	

Source: Survey result

Table-14: Repayment time Suitable

	Frequency	Percent	Valid Percent	Cumulative Percent
No	120	37.6	37.6	37.6
Valid Yes	199	62.4	62.4	100.0
Total	319	100.0	100.0	

Source: Survey result

Loan requested have received and Repayment time suitability: As presented in the table-13 above, 33.5 percent of the respondents did not think the amount received was similar to their intended requests, which means the remaining 66.5 percent of respondents of the total respondents responded that the amount received was similar to their requests. Besides this, questions forwarded to assess the suitability of the repayment schedule showed that it was suitable to 62.4 percent of the respondent while not suitable for the remaining 37.6 percent of the respondents as it is shown in table-14. The suitability of repayment time is significant at 1% (Chi2=97.46) to influence repayment performance.

⁴ K- thousands in Ethiopian Birr

Table-15: Sample borrowers repayment intervals and trends (Cross tabulation)

		Repayment Trends					Total
		Weekly	Bi-Weekly	Monthly	Quarterly	Irregularly	
LRP	Count	-	-	33	44	107	184
	% within LRP	0.0%	0.0%	17.9%	23.9%	58.2%	57.7%
	% within column	0.0%	0.0%	24.1%	75.9%	89.9%	
	Count	4	1	104	14	12	135
	% within LRP	0.03%	0.01%	77.0%	10.4%	8.9%	42.3%
	% within column	100.0%	100.0%	75.9%	24.1%	10.1%	
Total	Count	4	1	137	58	119	319
	% within LRP	.01%	0.0%	42.9%	18.2%	37.3%	100.0%
	% within column	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Survey result

Borrower's repayment intervals trend: Table-15 represented above shows that out of the 184 total sample defaulters, 33 of them were repaid the loan on monthly basis, 44 of them have repaid the loan on quarterly basis while the remaining 107 have had a repayment interval trend with irregular (inconsistent) basis. On the other hands, out of the total 135 creditworthy sample borrowers, 4 of them had a repayment trends on weekly basis, 1 with bi-weekly basis, 104 of them have a repayment trend on monthly basis, 14 respondents were have on quarterly basis and 12 creditworthy sample borrowers has a repayment trend with irregular basis. From the discussion above we can say those sample borrowers who have the trend of repayment on quarterly and irregular basis which is 23.9 percent and 58.2 percent had faced the problem of defaults while sample borrowers repayment trend with less than monthly basis performs better repayment comparably. The repayment on monthly basis,

quarterly basis and irregular basis are significant at 1% ($\chi^2=117.27$), ($\chi^2=10.12$) and ($\chi^2=90.28$) respectively.

Table-16: Was the loan issued timely?

	Frequency	Percent	Valid Percent	Cumulative Percent
No	39	12.2	12.2	12.2
Valid Yes	280	87.8	87.8	100.0
Total	319	100.0	100.0	

Source: Survey Results

Credit timeliness: Data was collected to identify whether the loan was issued for the respondent timely or not. In line with this, the response of sample shown in table-16 that, 280 respondents (87.8 percent) of the total sample respondents were reported that the loan was issued on time; while for the remaining 39 respondents (12.2 percent) were not. The factor is significant at p-value =1%, ($\chi^2=21.87$) to influence repayment performances.

Table-17: Defaulted amount descriptive statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Defaulted amount	141	1000.00	700000.00	34,487.23	70,327.73
Valid N (listwise)	141				

Source: survey result

On average, the defaulted amount was 34,487.22 Birr while the minimum and maximum amount defaulted was 1000 and 700000 Birr respectively. This is presented and shown in the table-17 above.

Causes for Defaults

The research tried to assess the reasons for defaulting from the sample defaulters' side, and thus questions were included to get the response of respondents in evaluating the possible causes of defaulting. The following table and explanation presents their responses.

Table-18: Respondents causes for default

Consider Credit as worthless

	Frequency	Percent	Valid Percent	Cumulative Percent
No	170	92	92	92
Valid Yes	14	8	8	100.0
Total	184	100.0	100.0	

Source: survey result

Among the reasons for defaulting, from the total sample defaulters only 14 respondents (8 percent) were perceived credit as less worthy to run their businesses, while the remaining 92 percent of them were not consider this as the cause.

Used loan for consumption

	Frequency	Percent	Valid Percent	Cumulative Percent
No	74	40	40	40
Valid Yes	110	60	60	100.0
Total	184	100.0	100.0	

Source: survey result

Again, for 110 (60 percent) of the defaulted respondents used the loan for consumption while the remaining 74 (40 percent) of the respondents did not used loan for consumption. Meaning that majority 60 percent of the respondent were used the loan for consumption either partially or fully.

Sales on credit were not collected timely

	Frequency	Percent	Valid Percent	Cumulative Percent
No	154	84	84	84
Valid Yes	30	16	16	100.0
Total	184	100.0	100.0	

Source: survey result

Out of 184 defaulters, only 30 respondents which covered 16 percent of the total sample defaulters were engaged in a business that was sold on credit which in turn did not collected on time.

Bankruptcy

	Frequency	Percent	Valid Percent	Cumulative Percent
No	154	84	84	84
Valid Yes	30	16	16	100.0
Total	184	100.0	100.0	

Source: survey result

Out of the total sample defaulters, only 30 respondents which covered 16 percent were reported that they have faced bankruptcy while running their businesses which in turn undermines their repayments.

Loss of Assets

	Frequency	Percent	Valid Percent	Cumulative Percent
No	175	95	95	95
Valid Yes	9	5	5	100.0
Total	184	100.0	100.0	

Source: survey result

Loss of assets due to seasonal natural disaster, spread of disease caused default for only 9 respondents while loss of assets was not the cause for default to the remaining 175 respondents.

Perceived loan as Donation/Government support

	Frequency	Percent	Valid Percent	Cumulative Percent
No	150	82	82	82
Valid Yes	34	18	18	100.0
Total	184	100.0	100.0	

Source: survey result

Some respondents who constitute 34 (18 percent) of the total sample defaulters were reported as perceiving the loan as donation or government support as a cause of default. That is the remaining 150 (89.3 percent) of the respondent did not have such perception as a cause for default.

Costs of Defaulting

The assessment were also continued to identify the possible perceptions of sample borrowers to decide on whether to repay or not the loan in-terms of the associated costs in case the default is committed. Accordingly, the report shows that 17.9 percent of the respondent from the total sample respondents were suffer of claims against their personal wealth, and thus the remaining respondents who constitute 82.1 percent did not perceive such claims against their personal wealth.

Table 19: Respondents perception on costs of default

a. Claims against personal wealth

	Frequency	Percent	Valid Percent	Cumulative Percent
No	262	82.1	82.1	82.1
Valid Yes	57	17.9	17.9	100.0
Total	319	100.0	100.0	

Source: survey results

On the other hand, 26.3 percent of the total respondent reported that claims against their grantor were considered as the costs while the remaining 73.7 percent of them were not.

b. Claims against Guarantor

	Frequency	Percent	Valid Percent	Cumulative Percent
No	235	73.7	73.7	73.7
Valid Yes	84	26.3	26.3	100.0
Total	319	100.0	100.0	

Source: survey results

Social sanction in the form of exclusion, missing relationship with lenders and so on, was considered as possible cost of defaulting. Accordingly, 20.4 percent of the respondents were facing such sanctions while the remaining 79.6 percent of them were not experienced it.

c. Social Sanction (Exclusion, missing relation with Lenders,)

	Frequency	Percent	Valid Percent	Cumulative Percent
No	254	79.6	79.6	79.6
Valid Yes	65	20.4	20.4	100.0
Total	319	100.0	100.0	

Source: survey results

Loss of the next round credit service was also as a possible cost of defaults. Accordingly, it was experienced by 32 percent of the respondents and thus 68 percent of the sample respondents did not experience it.

d. Loss of next round

	Frequency	Percent	Valid Percent	Cumulative Percent
No	217	68.0	68.0	68.0
Valid Yes	102	32.0	32.0	100.0
Total	319	100.0	100.0	

Source: survey results

Therefore, based on the assessment on the sample borrowers' perception on the costs of defaulting, the survey result shown above that borrower's willingness and ability to repay the loan on-time was not to lose the next round credit service as the major possible costs of defaults which supposed to enforce most respondent borrowers to repay on agreed period.

4.3.2. Purpose of the Loan and Utilization

Once the loan was received from the microfinance institutions, the purpose and utilization related issues are more important to be assessed for its relation with the repayment performance of sample borrowers. The first discussion focuses on the purpose for which the loan was borrowed. This is explained with the support of tables as follows.

The business types and the purpose of the loan for which the sample borrowers have taken the credit have been categorized in nine and listed as: purchase of raw materials, Metal and wood work activity, assembling semi-finished materials to finished products, construction type, fattening, dairy, poultry and services. For simplicity purpose the service type includes (Baltina, Cafeteria, Juices, Shops, Boutiques, cereal trade, Bakery, beauty salon, printing & Laundry.)

Table-20 below presents the cross tabulation of loan repayment performance with business engagement of respondents. 36 (11 percent) of the sample respondents were used the borrowed money for purchase of raw materials of which 52.8 percent of them were found being defaulters while the remaining 47.2 percent of them were creditworthy. 31 sample respondents have been involved on metal and wood work business, of which 54.8 percent of them were repaid their loan, while the remaining 45.2 percent of them were defaulters. Respondents who had used the credit money for assembling of semi-final product to final products were 14, of which 64 percent of them were the defaulters while the remaining 36 percent have been settled the loan totally.

Table-20: Sample Respondents Business type (Cross-tabulation)

		Purchase of raw materials /inputs (for production)	Wood & metal work	Assembling semi-final product into final products	Production of construction materials	Services (Baltina, Cafeteria, Juices, Shops, Boutiques, cereal trade, Bakery, beauty salon, printing & Laundry.)	Fattening	Cattle Trade	Poultry	Diary	
LRP	Defaulter	Count	19	14	9	19	64	25	21	4	9
		% within LRP	10%	8%	5%	10%	35%	14%	11%	2%	5%
		% within column	53%	45%	64%	79%	49%	61%	91%	50%	60%
	Credit worthy	Count	17	17	5	5	67	16	2	0	6
		% within LRP	13%	13%	4%	4%	50%	12%	2%	3%	4%
		% within column	47%	55%	36%	21%	51%	39%	9%	50%	40%
Total	Count	36	31	14	24	131	41	23	4	15	
	% within LRP	11%	10%	4%	8%	41%	13%	7%	1%	5%	
	% within column	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Source: Survey results

Similar to the preceding business type, 24 sample borrowers have been engaged on construction material production. 21 and 79 percent of them were creditworthy and defaulters respectively which is significant at 5% level. Service business types were took the majority of the business type on which the borrowers are engaged in. 131 sample respondent were involved on it. Among them 49 percent were credit defaulters while the remaining 51 percent was creditworthy borrowers. Fattening, cattle trade and diary business engagements were found to have higher defaulters compared to those who were creditworthy. Defaulter respondents from fattening, cattle trade and diary were 61 percent, 91.3 percent and 60 percent respectively. Generally, from the survey results borrowers who have involved in service business category have greater default rate over the whole sample defaulters. Borrowers who have been involved on cattle trade was also more defaulters which is significant at 1%.

Loan requested have been received and Sufficient: On the other hand, table-21 shown below, 81 (25.4%) of the respondents reported that the loan requested was not received thus it was not sufficient for the intended purpose, while 110(34.5%) of respondents reported that, the loan requested was received but not sufficient for the intended purpose. On the other hand, 205 (64.3%) of respondents reported that, the loan requested was not received but it was sufficient for the respondents' intended purpose. In line with this, 209(65.5%) of respondents were received sufficient loan which was sufficient for the intended purpose.

Table-21: Respondents response to loan requested have received and sufficient
(Cross- tabulation)

			Loan received sufficient for intended purpose		Total
			No	Yes	
loan requested have been received	No	Count	81	205	286
		% of Total	25.4%	64.3%	89.7%
	Yes	Count	29	4	33
		% of Total	9.1%	1.3%	10.3%
Total	Count		110	209	319
	% of Total		34.5%	65.5%	100.0%

Source: survey results

From this matrix we can understand that majority 65.5% of the sample borrowers have received the loan that can enable them to finance their business sufficiently while only 25.4% of sample borrowers took insufficient loans which assumed to be underfinance their businesses portfolios.

Reasons for loan diversion: Different factors can influence borrower's decision to divert the loan borrowed from the intended purpose. These reasons are discussed based on the response of the sample as follows with the support of tabular data.

Table-22: Respondents response on reasons for loan diversion

a. Insufficient fund received

	Frequency	Percent	Valid Percent	Cumulative Percent
No	286	89.7	89.7	89.7
Valid Yes	33	10.3	10.3	100.0
Total	319	100.0	100.0	

Source: survey results

For 33 respondents, it was receiving insufficient fund that led to project diversion, and thus for 286 respondents this was not a reason for the project diversion.

b. Change in Market demand

	Frequency	Percent	Valid Percent	Cumulative Percent
No	284	89.0	89.0	89.0
Valid Yes	35	11.0	11.0	100.0
Total	319	100.0	100.0	

Source: survey results

Change in market demand was considered as potential reason for diversion of project. This was a reason for only 35 respondents and was not for the remaining 284 respondents.

c. To make better profitable business

	Frequency	Percent	Valid Percent	Cumulative Percent
No	297	93.1	93.1	93.1
Valid Yes	22	6.9	6.9	100.0
Total	319	100.0	100.0	

Source: survey results

Among the total valid sample respondents, 22 respondents have been mentioned that they have been used the loan for another project to make better profits. Although they are important to deal with another alternative of possible causes for loan diversion was

questioned with regard to respondents response on loan agreement matching with the intention, using the excess amount of the proceeds received from the loan for another purpose and using the loan for settlement of another credits, the analysis were skipped this part because few in number of sample respondents were replied.

Generally, we can understand that borrower have the possibility to divert the loan from the intended purpose majorly due to frequent change in market demand while few borrowers diverts the loan to make better profits.

4.3.3. Follow Up, Monitoring and Training provision to borrowers:

Table-23: Response on members“ knows & Monitor each other.

(Cross-tabulations)

			Do you know all (most) of the members in your group?		Total	Do you attempt to monitor the loan utilization of other members in your group?		Total
			No	Yes		No	Yes	
LRP	Defaulter	Count	54	130	184	88	96	184
		% within LRP	29.30%	70.70%	100.00%	47.80%	52.20%	100.00%
LRP	Credit worthy	Count	9	126	135	10	125	135
		% within LRP	6.70%	93.30%	100.00%	7.40%	92.60%	100.00%
Total		Count	63	256	319	98	221	319
		% within LRP	19.70%	80.30%	100.00%	30.70%	69.30%	100.00%

Source: Survey result

Members Knows each other: Table-23 above shows that from the total sample respondents 19.7 percent (63 respondents) did not know all (most) of the members in their group, while 80.3 percent (256 respondents) knows almost all or most of the members in their respective groups. Considering loan repayment performance, 54 and 9 respondents out of 63 respondents of those who did not know all or most of the members were defaulters and

creditworthy respectively. In line with this, 130 and 126 out of 256 respondents of those who did know all or most of the members were defaulters and creditworthy. Whether they did or did not know all or most of the members, most of the respondent in each response category were defaulters. It is significant at 1% (Chi2=28.17).

Members monitor others loan utilization: 88 (47.8 percent) of sample credit defaulters were not experienced monitoring the utilization status of others members while the remaining were conduct monitor to others although both are categorized as defaulters. On the other hands, among the total 135 sample creditworthy borrowers, 10 (7.4 percent) were not bothering to monitor other members loan utilizations while the majority of creditworthy (92.6 percent) conduct monitoring. In both categories of borrowers, majority of the sample borrowers were monitor other member's activities and significant at 1% (Chi2=67.53). The details are presented in table-23 above.

Table-24: Sample borrower's response to action for wrong loan utilization

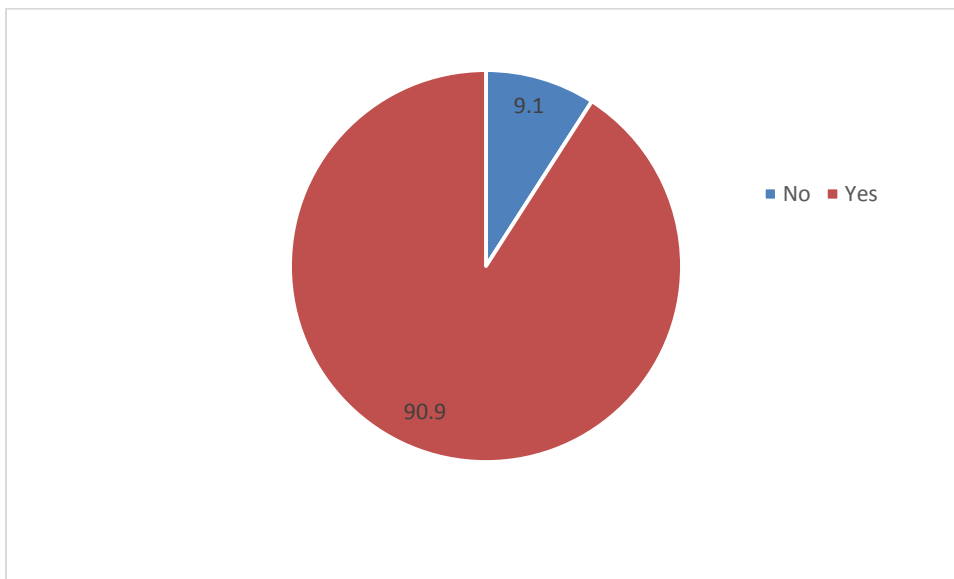
		Inform to lender's officer	Accuse diverters	Put social sanction	Advise Diverters	Other	Total
LRP	Count	48	1	72	54	38	184
	Defaulter						
	% within column	49.00%	33.30%	54.10%	65.90%	71.70%	57.70%
	Count	50	2	61	28	15	135
Credit worthy	% within column	51.00%	66.70%	45.90%	34.10%	28.30%	42.30%
	Count	98	3	133	82	53	319
Total	% within column	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Source: Survey result

Besides, data was also collected from respondents' actions on other members who use the loan wrongly. The respondents' response shown in Table-24 stated that 98, 3, 133 and 82 of them take action of informing the lenders officers, accusing diverters, putting social

sanctions, and advises diverters respectively. The remaining respondents take other actions. On the other perspective, from those informing to lending officers, 51% of them are creditworthy while the remaining 49 percent of them are defaulters; from those putting social sanctions 54.1 percent of them were defaulters while 45.9 percent of them were creditworthy. Those who advise diverters, at large were found to be defaulters (65.9 percent) and limited number of them were creditworthy (34.1 percent). Most of the respondents claim to put social sanctions for wrong utilization exercised by the borrowers, as shown in the table above.

Figure_2: Loan utilization supervised by lending Institute



Source: survey results

As shown in the above pie chart, it was showed that most of the respondents (90.9 percent) were supervised by the lending institute officers. On the other hand, few of the respondents (9.1 percent) replied „No“ and thus implied that their loan utilization was not sufficiently supervised by lending institute officers.

Frequency of Visits: Loan utilization supervision has been conducted to all sample borrowers based on the respondents report. However the assessment on how frequent the visit happening has been discussed as follows. All of the respondents said that there had been

no weekly visits, with 100% of the respondents replying “No” as shown in the table below. Regarding bi-weekly visits questions, it was only 6 respondents which constitute 1.9 percent of the total respondents who has replied that they had been visited bi-weekly and thus the remaining 98.1 percent of the respondents still saying “No” there was no bi-weekly visits conducted.

Weekly Basis

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	319	100.0	100.0	100.0

Source: survey results

Bi-Weekly Basis

	Frequency	Percent	Valid Percent	Cumulative Percent
No	313	98.1	98.1	98.1
Valid Yes	6	1.9	1.9	100.0
Total	319	100.0	100.0	

Source: survey results

The monthly basis visits were experienced by 98 respondents, 71 respondents replied as “yes” they have been visited on quarterly basis, while 144 of sample respondents were visited to their business on irregular basis as it is shown in the tabular presentations indicated here below.

Monthly Basis (*Source: survey results*)

	Frequency	Percent	Valid Percent	Cumulative Percent
No	221	69.3	69.3	69.3
Valid Yes	98	30.7	30.7	100.0
Total	319	100.0	100.0	

Quarterly Basis

	Frequency	Percent	Valid Percent	Cumulative Percent
No	248	77.7	77.7	77.7
Valid Yes	71	22.3	22.3	100.0
Total	319	100.0	100.0	

Source: survey results

Irregular Basis

	Frequency	Percent	Valid Percent	Cumulative Percent
No	175	54.9	54.9	54.9
Valid Yes	144	45.1	45.1	100.0
Total	319	100.0	100.0	

Source: survey results

From the above discussion on the topic of supervision and monitoring visits to the borrowers territory to make sure the utilization of loan for the intended purpose was critically identified as majority (45.1 percent) of sample borrowers were visited and supervised by the lending institutes officers irregularly which may behaves borrowers to use the proceeds received to another purpose. On the other hand less frequency of visit was conducted on bi-weekly bases which may in turn increases the likelihoods of borrower's repayment performances at an increasing rate. Follow-up visits on monthly basis and irregular basis to clients business are significant at 1 % ($\chi^2=88.09$ & $\chi^2=75.09$) respectively.

The respective MFI staffs were also asked to identify the time interval that officers' needs to visits client's business. The response shown that most (51.1 percent) of the officers' conduct visits monthly, and followed by 20 percent of the respondents were reported weekly. Besides, the other responses were bi-weekly and quarterly which constituted 8.9 percent each, and 11.1 percent referring irregular or arbitrary visits by the officers.

Table-25: At what time interval does the officer visit the client's businesses?

	Frequency	Percent	Valid Percent	Cumulative Percent
Weekly	9	20.0	20.0	20.0
Bi-Weekly	4	8.9	8.9	28.9
Monthly	23	51.1	51.1	80.0
Valid Quarterly	4	8.9	8.9	88.9
Irregularly or Arbitrary	5	11.1	11.1	100.0
Total	45	100.0	100.0	

Source: Survey results

The survey results has identified the contradiction on the supervision frequencies that reported by the lending institutes officers and sample borrowers. Although the respondent officers from the lending institutes revealed majorly on monthly basis the high number of sample respondent borrowers have still experienced irregular visitors to their business territories as shown in the above table.

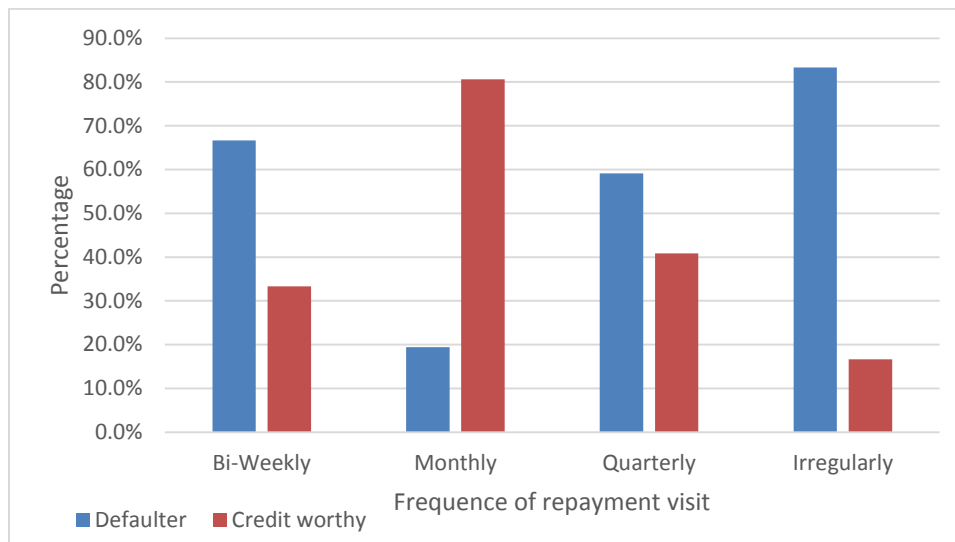
Loan Repayment supervised

	Frequency	Percent	Valid Percent	Cumulative Percent
No	71	22.3	22.3	22.3
Valid Yes	248	77.7	77.7	100.0
Total	319	100.0	100.0	

Source: survey results

Regarding loan repayment supervision, 248 respondents (77.7 percent) of the total respondents replied "yes" as loan repayment had been supervised, while 71 respondents (22.3 percent) of the total respondents replied "No" loan repayment status had not been supervised. Moreover, it significant to influence the repayment performances at 1% ($\chi^2=67.05$).

Figure_3: Sample borrowers loan repayment performance supervision



Source: survey results

i. **Repayment supervision and Monitoring:** As shown in the above figure, except for monthly visits to monitor the repayment, other showed defaulter dominated respondents relative to creditworthy respondents. The highest percentages of defaulters were observed with irregular repayment visit intervals.

ii. **Availability of adequate trainings:** Almost all respondent replied that they had got training. However, the training types provided differs. With this regard, 111 respondents replied that they had got business skill development while the remaining 208 respondents replied no business skill development training was given to them which is significant at 1% ($\chi^2=16.37$)

a. Business skill Development

	Frequency	Percent	Valid Percent	Cumulative Percent
No	208	65.2	65.2	65.2
Valid Yes	111	34.8	34.8	100.0
Total	319	100.0	100.0	

Source: survey results

Based on the response of the samples, 10.7 percent of the total respondents had got marketing training while the remaining 89.3 percent did not get the marketing training which is significant at 5%.

b. Marketing

	Frequency	Percent	Valid Percent	Cumulative Percent
No	285	89.3	89.3	89.3
Valid Yes	34	10.7	10.7	100.0
Total	319	100.0	100.0	

Source: survey results

It was also reported that saving culture training was given to 271 of the total sample respondents while the other 48 respondents did not get the training, as shown by the response of the samples.

c. Saving culture

	Frequency	Percent	Valid Percent	Cumulative Percent
No	48	15.0	15.0	15.0
Valid Yes	271	85.0	85.0	100.0
Total	319	100.0	100.0	

Source: survey results

Training on book keeping techniques were not given to 303 sample respondents, and was given to only 16 respondents, as the response of the samples shows.

d. Book Keeping techniques

	Frequency	Percent	Valid Percent	Cumulative Percent
No	303	95.0	95.0	95.0
Valid Yes	16	5.0	5.0	100.0
Total	319	100.0	100.0	

Source: survey results

On the other hand, 146 and 173 of the total respondents did get and did not get respectively the training on credit management.

e. Credit management

	Frequency	Percent	Valid Percent	Cumulative Percent
No	173	54.2	54.2	54.2
Valid Yes	146	45.8	45.8	100.0
Total	319	100.0	100.0	

Source: survey results

From the tables shown above we have learnt that the training schemes provided by the lending institutes and other sector offices would more relies on awareness creation on saving cultures (46.9%) followed by training on how credits can be managed (25.3%) with remaining coverage 19.2%, 5.9% and 2.8% focuses on Business skill development, marketing and awareness creation on record keeping respectively.

Table-26: Respondents repayment status versus training adequacy and sufficiency (cross tabulation)

			Training Adequate & Sufficient		Total
			No	Yes	
LRP	Defaulter	Count	96	88	184
		% within LRP	52.2%	47.8%	100.0%
		% within column	86.5%	42.3%	57.7%
	Credit worthy	Count	15	120	135
		% within LRP	11.1%	88.9%	100.0%
		% within column	13.5%	57.7%	42.3%
	Total	Count	111	208	319
		% within LRP	34.8%	65.2%	100.0%
		% within column	100.0%	100.0%	100.0%

Source: survey results

As it is indicated in the table-26 above, from the total sample respondents, 208 of them replied that the training provided were adequate and sufficient, while 111 of the respondents opposes this by replying „No“ to the statement training was adequate and sufficient. Among those found the training was not adequate and sufficient, most of them (86.5 percent) were found to be defaulters while only 13.5 percent of them were creditworthy. On the other hand, among those who considered training adequate and sufficient, 42.3 percent of them were defaulters while 57.7 percent of them were creditworthy. It is significant at 1% ($\chi^2=63.35$) to influence repayment performance of borrowers.

Table-27: Does the training taken helps you in running business & credit management?

	Frequency	Percent	Valid Percent	Cumulative Percent
No	47	14.7	14.7	14.7
Valid Yes	272	85.3	85.3	100.0
Total	319	100.0	100.0	

Source: survey results

The 272 respondents which are the majority of the sample respondents have reported that training availed by the lending institutes and others helped them in running their respective business and credit management, while 47 respondents were reported that the training provided by the lending institutes and others were worthless in running our businesses. It is significant at 1% ($\chi^2=41.19$). Accordingly, we have learnt above also that training provided by the lending institutes and other sectors was majorly adequate and more important for borrowers in running the day to day business operations while few have been reported that the inadequacy and insufficient availability of trainings have negative effects on running their business as it was pre-intended.

Furthermore, based on the semi-structured interview responded by some MFIs staffs, like VisionFund MFIs, borrowers screening activity was undertaken by the lending institute officers only, which is based on the credit policy of the institution. The respondents reported also that sufficient training will be delivered to each target borrowers before financing their business. The training session more focuses on how to manage the credit or loan utilization

systems, awareness creation on inducing saving cultures, awareness on the insurance schemes that the institute is going to provide to safeguard their loan and other relevant matters. On the other hand, OCSSCO staffs informed that in government affiliated MFIs like OCSSCO, target MSE borrowers selection and screening and provision of training is not the sole responsibility of lending institutes officers rather staffs from woreda level MSEDAs⁵ is taking part although the level of their involvement have some limitations.

4.4. ***Business related characteristics***

In this sub-section, the overall business related characteristics, challenges, and prospective of sample borrowers have been analyzed and discussed based on the data collected and presented as follows.

A. Input, Production site and Availability of Market

Availability of Sufficient Input

	Frequency	Percent	Valid Percent	Cumulative Percent
No	100	31.3	31.3	31.3
Valid Yes	219	68.7	68.7	100.0
Total	319	100.0	100.0	

Source: survey results

The assessment shows that 219 respondents (68.7 percent) reported that there was sufficient input available in the market to run their business, while 100 (31.3 percent) of respondents have faced the problem with lack of sufficient inputs in running the day today businesses. From the respondents point of views we can learn that majority of the sample respondents have been equipped with sufficient inputs while running their business although the counter parts seems affected by these factors.

⁵ Woreda level MSEDAs is a government unit that organizes micro and small enterprises at woreda level

Have suitable production place

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	45	14.1	25.9	25.9
	Yes	129	40.4	74.1	100.0
	Total	174	54.5	100.0	
Missing	System	145	45.5		
Total		319	100.0		

Source: survey results

Production place was suitable for 129 respondents, who constitute 74.1 percent of the valid sample respondents. Accordingly, 45 of which constitute 25.9 percent of respondents out of the total valid respondents replied that there was no suitable production place available by the concerned bodies which may in turn have negatively affects their businesses. Meaning that the missing data for 145 sample respondents indicated in the table shows that this factor have no relevance to the nature of their business.

Market/Production place suitable for consumers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	127	39.8	43.2	43.2
	Yes	167	52.4	56.8	100.0
	Total	294	92.2	100.0	
Missing	System	25	7.8		
Total		319	100.0		

Source: survey results

Suitability of market location to consumers is considered as a major factor for borrowers to sale the end products to the target consumers on the proper time. Accordingly, the assessment shown above stated that from the total 294 valid respondents, 167 of the respondent have

accessible market location to the consumers while 127 of the respondent reported that the production and market place is not accessible to consumers as required. Meaning that, majority of the sample respondents had an accessible business location to be visited by the consumers.

Adopt technology

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	198	62.1	69.5	69.5
	Yes	87	27.3	30.5	100.0
	Total	285	89.3	100.0	
Missing	System	34	10.7		
Total		319	100.0		

Source: Survey result

On the other hand, adopting technology while running the business was assumed to be a major factor inputs that enables borrowers get successful business which in turn could enhance borrower's repayment performances. Accordingly, only 87 (30.5 percent) of the valid respondents replied as they were adopting new technologies in running their business, while the majority 198 (69.5 percent) of the respondents were not utilize the updated technologies to run their business.

As it was summarized in table-28 below, 111 (50.7 percent) of the sample respondents who have sufficient inputs were credit defaulters while the remaining 108 (49.3 percent) were found to be creditworthy borrowers which is significant at 1% ($\chi^2=14.46$). In a similar speaking, it is shown that 80 (52.09 percent) of the sample respondents had suitable production and market locations where it is applicable, while remaining 47.91 percent of the respondents were among the creditworthy borrowers who have suitable market locations. Furthermore, it is significant at 1% ($\chi^2=13.86$) to influence repayment performances.

Table-28: Borrowers response to Availability of inputs, Production location, Adopting Technology and Feasibility study (Discrete variables)

			Sufficient Input available (Yes)	Suitable prod./market place (yes)	Adopt technology (Yes)	Feasibility Study (Yes)
LRP	Defaulter	Count	111	80	40	66
		% within column	50.7%	52.09%	46.0%	59.5%
	Credit worthy	Count	108	61	47	45
		% within column	49.3%	47.91%	54.0%	40.5%
	Total	Count	219	167	87	111
		% within column	100.0%	100.0%	100.0%	100.0%

Source: Survey result

On the other hand, it was also observed that 46 percent of the sample borrowers who have been adopt advanced technology were defaulters, while the remaining 54 percent of the sample borrowers who have been adopt technology were the creditworthy borrowers. It is also significant at 1% to influence repayment performance of borrowers. Moreover, it was observed that among the total valid sample respondents who have been conducted feasibility study before engaging into the business was also revealed as; 59.5 percent were credit defaulters while the remaining 41.5 percent was the creditworthy borrowers.

Table-29: Borrowers business experience before the credit scheme

	Frequen cy	Percent	Valid Percent	Cumulative Percent
No	154	48.3	48.3	48.3
Valid yes	165	51.7	51.7	100.0
Total	319	100.0	100.0	

Source: Survey result

Year of Experience	Frequency	Percent
≤ 3	61	37.9
$3 < \text{Year} < 5$	50	30.3
>5 years	54	21.8
Total	165	100%

Source: Survey result

B. Business Experiences: Business experience before the credit scheme was assessed in this research and the response of the respondents shown in table-29 above that 165 respondents (51.7 percent) of them replied „yes“ we had relevant business experience before the credit scheme, while the remaining 154 respondents (48.3 percent) of the total respondents replied „no“ we did not have any relevant business experiences before the credit scheme. Among the sample borrowers who had a relevant experience, 37.9 percent of them had experience of less than 3 years while 21.8 of the valid sample respondents had greater than 5 years of business experiences and the rest valid respondents have relevant experience between 3 to 5 years. Borrowers who have relevant business experiences can significantly influence repayment performances at 1%.

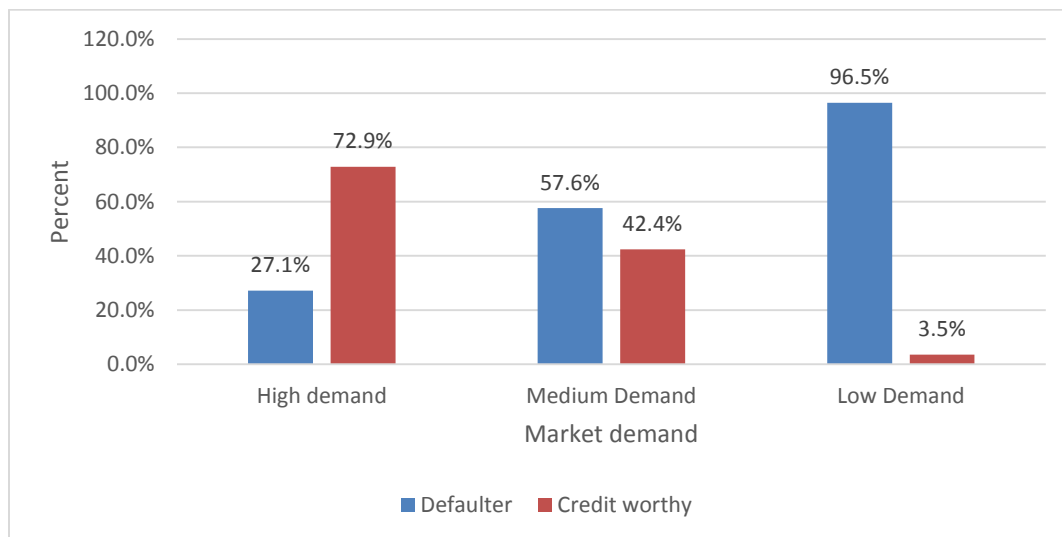
C. Market demand to the products: From the total respondents, 21.9 percent of them measured their product market demand as high, while 59.9 and 17.9 of them measured as medium and low respectively. From those responding as having high market demand, majorities (72.9 percent) of the sample respondents were creditworthy, while those responding having medium and low market demand, the majority were (57.6 and 96.5 percent respectively) found to be defaulters. Having high and low market demand to the end products are significantly influence the repayment performance of borrowers at 1% ($\chi^2=34.46$ & $\chi^2=54.19$) respectively. This is shown in detail in the below table-30. Further comparison can be seen from the figure_4 below.

Table-30: Sample respondents response to their product Market demand (Cross tabulation)

			High demand	Medium Demand	Low Demand
LRP	Defaulter	Count	19	110	55
		% within LRP	10.30%	59.80%	29.90%
		% within column	27.10%	57.60%	96.50%
	Credit worthy	Count	51	81	2
		% within LRP	37.80%	60.00%	1.50%
		% within column	72.90%	42.40%	3.50%
Total	Count		70	191	57
	% within LRP		21.90%	59.90%	17.90%
	% within column		100.00%	100.00%	100.00%

Source: Survey result

Figure_4: Loan repayment performance across different market demand



Source: survey result

The figure shows least percentage of creditworthy borrowers was seen in low demand while the highest was for those who have higher market demand for their products. That is, as market demand decreases, defaulters were increasing, which implies on the other way creditworthy borrowers were increasing as market demand for the product increases.

D. Having book of records: Keeping book of records for monitoring daily transactions enable borrowers to manage their costs against revenues generated from the activities financed through credit services. According to the data collected from the sample respondents shown in the table-31 below, from those who kept book of records for their financial transactions, 40.7 percent of them were defaulters while the others who are slightly higher in percent, 59.3 percent, were creditworthy. But, from those who did not have book of records to handle their financial transactions, majority of them were found as credit defaulters which represents 77.55 percent, while the remaining which represents 22.45 percent was creditworthy. However, regardless of their repayment status majority of the sample borrowers (53.92 percent) experienced with keeping book of record to evaluate the financial position and performances of their respective businesses which is significant at 1% (Chi2=45.65).

Table-31: Sample respondents with having book of records (Cross tabulation)

			Have Book of records		Total
			No	yes	
LRP	Defaulter	Count	114	70	184
		% within LRP	61.96%	38.04%	100.00%
		% within having Book of records	77.55%	40.70%	57.68%
	Credit worthy	Count	33	102	135
		% within LRP	24.44%	75.56%	100.00%
		% within having Book of records	22.45%	59.30%	42.32%
Total		Count	147	172	319
		% within LRP	46.08%	53.92%	100.00%
		% within having Book of records	100.00%	100.00%	100.00%

Source: survey results

Based on the assessments, respondents who had used the book of records for evaluation of profit and loss of their business were 149, which make (46.7 percent) of the total valid respondents. On the other hand, those who did not use to evaluate profit and loss were 170 (53.3 percent). To monitor repayment status, only 45 (14.1 percent) of respondents has kept the book of records, while the remaining 274 respondents were not used it. This is given and clearly explained in the table presented below. Generally speaking from the respondent point of view majority 172 (53.92 percent) of respondent borrowers kept records to evaluate the profitability and repayment status of their businesses, while the remaining 147 (46.08 percent) did not.

Reason for keeping book of records

	Frequency	Percent	Valid Percent	Cumulative Percent
<i>To evaluate Profit & loss</i>				
No	170	53.3	53.3	53.3
Valid yes	149	46.7	46.7	100
Total	319	100	100	
<i>To monitor Repayment status</i>				
No	274	85.9	85.9	85.9
Valid yes	45	14.1	14.1	100
Total	319	100	100	

Source: Survey result

Based on the respondent response the potential reason for not keeping book of records was lack of knowledge, considering it as worthless, and the existence of small transaction can be listed. According to the assessment, reasons for not keeping record showed that 50, 31 and 66 of the respondents mentioned lack of knowledge, considered it as it is worthless and having small transaction as the reasons respectively. Form those who mentioned lack of knowledge as a reason for not keeping record, 64 percent of them were defaulters while 36 percent of them were creditworthy. Those who mentioned considering as worthless as the reason was also dominated by defaulters than creditworthy: 90.3 percent were defaulters and 9.7 percent of them were creditworthy. Furthermore, those who reported because of having

small transaction were also larger to defaulters, 78.8 percent while 21.2 percent of them were creditworthy borrowers. This is shown in the table-32 below with detail explanations.

Table-32: Sample respondent's reasons for not keeping record (Cross tabulation)

			Lack of Knowledge	Considered as worthless	Small Transaction
LRP	Defaulter	Count	32	28	52
		% within LRP	28.6%	25%	46.4%
		% within column	64%	90.3%	78.8%
	Credit worthy	Count	18	3	14
		% within LRP	51.4%	8.6%	4%
		% within column	36%	9.7%	21.2%
Total	Count		50	31	66
	% within LRP		34%	21.1%	44.9%
	% within column		100.0%	100.0%	100.0%

Source: Survey result

4.5. Lending institutes and Government prospects

As it was discussed in the first chapter the government of Ethiopia had took decisive initiatives of poverty and unemployment eradication through facilitating different strategies. Among those strategies, facilitating credit service for micro and small scale enterprises through microfinance institutions is listed (FeMSEDA, 2016). Taking this in to account, micro and small scale enterprises are organized as a group of few in number and screened through the integration of government sectors (WoMSEDA, TVET and lending MFI).

Hence, measuring the level of involvement and active participations on screening the viable borrowers is the intention of the study. Assessment on the lending institutes and prospective government sectors screening mechanisms, adequacy of the provision of legal and technical supports by the concerned bodies to credit services and the effects of defaults on the developmental strategies of the country were conducted. 45 sample respondents from the lending institutes were involved on the assessment and their responses are presented as follows.

A. Screening Mechanisms: As it is shown in the table-33 below, the assessment shows that 31 (68.9 percent) of sample respondents from the sample lending institutes staffs have been confirmed that branch office staffs are actively involved on screening activities of borrowers while 14 (31.1 percent) of them were responded that the staffs have limited involvements on screening the creditworthy borrowers before granting credits to the MSE borrowers.

Table-33: Do you think that your branch credit officers have actively involved in screening the creditworthy borrowers“ before granting credits to the MSE borrowers?

	Frequency	Percent	Valid Percent	Cumulative Percent
No	14	31.1	31.1	31.1
Valid Yes	31	68.9	68.9	100.0
Total	45	100.0	100.0	

Source: Survey result

From those who replied „no“, 9 respondents explained that there is limited involvement of credit officers in screening activities, and even in the credit approvals. As it was reported by those respondents mostly these activities were taken place at Kebele level and woreda level MSEDA“s and the lists are submitted to lending institutes. The researcher has understood that there is a gap of cooperation among the partners in organizing and selecting those target borrowers before granting the loan. Further study on this area might be recommended.

Table-34: Do you think that the organizing and screening activity through the government bodied sector is effective and efficient enough for the lending institutes?

	Frequency	Percent	Valid Percent	Cumulative Percent
No	30	66.7	68.2	68.2
Valid Yes	14	31.1	31.8	100.0
Total	44	97.8	100.0	
Missing System	1	2.2		
Total	45	100.0		

Source: Survey result

Taking in to consideration the involvement of government unit (woreda level MSEDAs) in screening of borrowers, respondents were asked whether it is effective or not. Accordingly, the response showed that 68.2 percent of the total 44 valid respondents reported that it was not effective and efficient enough for lending institutes, while the remaining 31.8 percent respondents considered as if it was effective and efficient.

Furthermore, among those replied as „no“, 27 respondents were also expressed that the screening activities being undertaken majorly through government units is not appropriate so that it is more critical and important to involve the lending institutes officers before promising the loan. Even a respondent reported that the potential involvement of government unit with least involvement of the lending institute’s officers could negatively affect the selection of the best viable borrowers from less productive borrowers. Furthermore the respondents reported that maximizing the level of involvement in screening and selecting activity by government units (WoMSEDA) could possibly leads for committing corruptions (Adverse selection). Hence, in the sample areas where the study was undertaken the researcher observed that more involvement on organizing & screening MSE borrowers activities took place with government units (WoMSEDA) mostly while less emphasis was given to lending institutes to take part of it.

Table-35: Do you think your institutes follow a proper loan rationing mechanisms to all credit needy borrowers?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	14	31.1	31.8	31.8
	Yes	30	66.7	68.2	100.0
	Total	44	97.8	100.0	
Missing	System	1	2.2		
Total		45	100.0		

Source: Survey result

Regarding loan rationing mechanisms of MFI, 31.8 percent of the staff respondents replied that the loan rationing mechanisms for all MSE borrowers were not comply with proper loan rationings, while the remaining 66.7 percent of them replied „yes“, they have proper loan rationing mechanisms. Those respondents saying „no“ explained further, the credit rationing systems of the lending institutes should adhered to comply with the credit history of the borrowers, business experience, business types, and availability of funds and/or lender repayment recovery rate.

B. Legal Supports: As shown in the table-36 below, 86.7 percent of the respondents from lending institutes staffs replied that credit lent were legally supported for any defaults while the other 13.3 percent of them did not think there were no strong legal supports. Regarding the legal supports, based on the open-ended questions some respondents responded „yes“ reported that legal intervention is not a prior requirement as there is peer groups liability among the borrowers. It requires awareness creation rather than accusing or charging at the court. On the contrary, others said that special and fast legal measures should be taken so that the loan can be secured and made available to others that are in need of financial service. This action can be a good lesson for other potential defaulters.

Table-36: Do you think that the credit lent has adequate legal supports for any defaults?

	Frequency	Percent	Valid Percent	Cumulative Percent
No	6	13.3	13.3	13.3
Valid Yes	39	86.7	86.7	100.0
Total	45	100.0	100.0	

Source: Survey result

In order to quantify the respondents' opinion to the adequacy of legal support, further assessment on rating the implementation status was done. Accordingly, 33.3 percent, 15.6 percent and 44.4 percent of the respondents rated as high, low, and medium respectively. Thus it is learned that medium level of legal supports is delivered to MFIs credit service for claiming repayments against the potential defaulters. The details are presented in the table-37 below.

Table-37: If you think that the credit lent is legally supported for any defaults, how do you measure it?

	Frequency	Percent	Valid Percent	Cumulative Percent
Missing	3	6.7	6.7	6.7
High	15	33.3	33.3	40.0
Valid Low	7	15.6	15.6	55.6
Medium	20	44.4	44.4	100.0
Total	45	100.0	100.0	

Source: Survey result

As it is shown in table-38 below, respondents' idea toward government sector involvement impact on the credit rationing inefficiency, majority of them, which represented as 60 percent of the respondents, replied that the involvement of government units (MSEDA) on loan contract agreement has negative impact on delivering an efficient and effective credit services to target MSE borrowers. The other 40 percent of them on the other hand replied it has no effects on effective and efficient loan rationing systems of the lending microfinance institutes.

From the respondents point of view, although the government unit involvement took a major parts in screening the to be micro and small enterprise borrower is incredible, there is a loop on the effective and efficient operation of MFIs in delivering the ultimate financial services which leads to defaults problems. The respondents reply to the question has been presented in tabular form as follows.

Table-38: Do you think that the government sector involvement on loan agreement has an impact on credit rationing inefficiency?

	Frequency	Percent	Valid Percent	Cumulative Percent
No	18	40.0	40.0	40.0
Valid Yes	27	60.0	60.0	100.0
Total	45	100.0	100.0	

Source: Survey result

Respondents' explanation to the open ended questions showed that government involvement in the loan agreement can even increase the loan processing cost of borrowers, and sometimes political volatility at some study area might mislead loan to unqualified borrowers, change the perception of borrowers of the loan towards loan repayment and increase the possibility of corruption during lending process.

On the other hand, lending institutions officer's response showed that 82.2 and 17.8 percent of the respondents responded „yes“ and „no“ to the question „Does the settlement of the defaulted borrower's loan by the city administration (Credit guarantor) have a negative impact on the government projects subsidy?“

Table-39: Does the settlement of the defaulted loan by the city administration (Credit guarantor) have a negative impact on the government projects subsidy?

	Frequency	Percent	Valid Percent	Cumulative Percent
No	8	17.8	17.8	17.8
Valid Yes	37	82.2	82.2	100.0
Total	45	100.0	100.0	

Source: Survey result

Respondent also supplemented using open ended questions that settlement of unforeseen huge default loan from government subsidy may have negative impact on: the government projected costs, the behavior of projected clients, the economic growth of the country, development plan and mission of lending institutes, and moral effects of the society and staffs at large in which the institutes operates. In another words, the settlement of loan from the government custody could mislead the behavior of the existing active borrowers not to repay or unwilling to repay the outstanding loans. On the contrary, as it was discussed earlier other group 8 respondents were responded that group liability can handle the problem with the defaulters and hence the government unit had an obligation only to facilitate it, thus it will not affect the government development programs. To fix this contradiction of views, the researcher recommended further study on the impact of settlement of defaulted loans from the government subsidy on developmental programs.

In addition to the above discussions, although it is not supported by quantitative data to regress the model using the STATA package, in order to check the level of their significance to loan repayment performance of both borrowers and lending institutes, there are some other variable that are considerably have significance to influence loan repayment performance of borrowers. These data have been collected during the survey from relevant sources. During discussion with the target sample borrowers, lending institutes staffs, Micro and Small Enterprise Agency staffs and National Bank of Ethiopia's staffs, plenty of other factors other than that had reported through questioners have been revealed. Those lists of factors have been presented as follows.

I. Government's prospects

In creating employment opportunity through organizing the youths and women entrepreneur groups of the society who have been faced lack of financial resources to make realize their entrepreneurial skill truth, the government of Ethiopia had took an initiatives to take a responsibility of organizing as micro and small scale enterprises and facilitate financial inputs necessary for the implementation of the strategy. This financing strategy takes place through Microfinance institutions that are operating in Ethiopia.

FeMSEDA's (referred as government unit) had took the initiative of coordinating the implementer sectors to deliver financial supports through MFIs and facilitation of local and international market linkages for those borrowers particularly for MSE borrower groups to fix the problem of market gaps. However, there are some rumors from the target borrowers under the study that facing limited market linkage with the suppliers, wholesalers, input providers and end product users in the local market had a negative impact on their business profitability. Moreover, there is a gap from this sector in facilitating the suitable production places at some areas under the study which may in turn undermine their productivity and repayment performances as per the agreed repayment schedule which might be considered as slight contradiction with the missions (FeMSEDA, 2016 and response of MSE borrowers).

Moreover, during the survey the followings were identified as major factors to influence the repayment performances:

Limitations of Government sectors

- i. Lack of exerting consistent technical supports by the concerned government sectors like Agricultural experts to the borrowers agricultural related businesses where it is subject to be applicable.
- ii. Provision of market place where it is inaccessible for the target customers.
- iii. Lack of consistent integration among the relevant sectors (Lending institutes, MSEDAs and TVET) on screening and monitoring activities.

II. MFIs characteristics and prospects

Follow-up and supportive supervision to borrower's business territory

During the interview and focus group discussion period it was reported by some of lending institutes staffs that there is big weaknesses to conduct a regular follow-up to the clients business due to the availability of fewer number of credit officers at branch offices level who can take over the regular supervision activities. On the other hand, the challenges faced due to geographical location inaccessibility of the clients' residence to reach their supervisory services have been considered as another big constraint to attempt the regular follow-up. Furthermore, it was the observation result that there is a limitation by credit officers to exert

their commitment to take over this follow-up activity. Hence all these limitations towards supervisory and follow-up activities have significant impacts on the borrower's repayment performance that probably leads them for defaults.

Moreover, from the respondents point of view the researcher has been categorized and discussed the lists of factors as borrowers, lending institutes and government sectors limitations as follows

Borrowers' limitations

1. Lack of knowledge, business skill and experience.
2. High rate of borrower's migration from place to place makes difficult to visit borrowers business.
3. Risks suffered due to engagement of some borrowers in illegal business types (like contrabands, etc.) will increase the loss of assets which leads for high credit risk.
4. Bad trends to be exercised by the new borrowers in case the city administration (guarantor) pay out the defaulted amounts which may affects their attitudes not to repay the loan on time.
5. Engagement of sample borrowers on homogenous businesses at similar location or town. For instance, designing similar business proposals on fattening or poultry or diary production at similar locations. This seems hectic business portfolios

MFIs limitations

6. Inadequacy of trainer's skills and knowledge to provide sufficient knowledge based training for the target borrowers.
7. Lack of periodic capacity building (updates to staffs) by the lending institutes in general.
8. Lack of credit management; meaning that at some point credit service provided by the lending institute is only to fulfill the gaps of the credit demand (Quota) or increasing the reporting number of client's outreach which is initiated by internal forces as well as externals rather than focusing on the quality service delivery.

Other factors

9. The occurrence of input price rises up from time to time (unstable market condition), fluctuation of market demand to borrower's end products, limitation of market linkage with supplier, consumer, and any other production units.
10. The effects of external challenges to borrowers businesses like natural disaster such as droughts and animal diseases like Elnino and bird flu which had severely affect borrowers businesses.

Similar questions of interviews were raised to NBEs staffs to identify the possible factors that could significantly influence repayment recovery rate of borrowers. Accordingly, it was reported that the following factors do have a substantial impact on loan recovery rate of MFIs in general.

MFIs Limitations

11. There is a demand from the institutions management side that new branches are supposed to be opened at babble areas (regions) where they are not sure of operating the services sustainably. This may undermines MFIs loan recovery rate which leads for high credit risk and under recovery rates.
12. Screening mechanisms weaknesses of some MFIs to identify the more viable clients or borrowers.
13. Ineffective credit appraisals development by some microfinance institutes. In other words, ambitious loan size appraisal approvals to borrowers without conducting effective assessments of borrower's ability.
14. Inexistence of strong and consistent follow-up and monitoring activities by MFIs officers. The beliefs of some MFIs under study was no more monitoring service for loan utilization activities are expected to be undertaken by the lending staffs rather sticking on the repayment status of those borrowers is the only mandatory requirement to be achieved.
15. High staffs turn-over. This may affects the credit history of microfinances where there is a gap to make handover borrowers history by the resigning staffs to the newly assigned one.
16. Ghost loan (fraudulent actions) committed by some unethical staffs" i.e. organizing fictitious number of borrower members and preparing payment sheets for non-

existent persons and signing on the loan disbursement sheet increases the default rates.

17. Weakness of corporate governance of microfinances (i.e. Management and board of directors weaknesses to take corrective actions where less performance were achieved by their respective branches)
18. Lack of setting strong loan provision.

(Source: survey results collected through semi-structured interviews with lending institute staffs, sample borrowers and: NBE, MFI directorate staffs)

CHAPTER FIVE

Econometric Analysis

The econometric analysis of repayment performance of borrowers uses a model where the loan repayment-LRP (y_i) = [1, if the respondent is creditworthy borrower otherwise 0, if the borrower is defaulter] is regressed on possible explanatory variables. The probit regressions model was employed for the estimation and marginal effects of each significant explanatory variable. The STATA package was used to estimate the model and compute the marginal effects, so that direct marginal implication of those explaining variables to influence the dependent variable was discussed accordingly. Multicollinearity test between the independent variables were also conducted using the variation inflation factor (VIF). To handle the heteroscedasticity problem, the robust probit regressions were also conducted and presented as follows.

5.1. Factors affecting repayment performances

It is initially important to assess the overall significance of the model. This has been made by considering chi-square test at the given degree of freedom. As shown in the below probit regression, the chi-square test is showing a statistically significant result at 95 percent confidence level, p-values is less than 5 percent. Therefore, it is evident that the model is good to fit to the data than no model.

On the other hand, it is important to identify the statistical significance of each explanatory variable. As shown in the table below, out of sixteen independent variables regressed in the model, the constant variable and other ten coefficients of the explanatory variables were found to be statistically significant at 95 percent confidence level.

Table-40: Maximum likelihood estimate of a probit model for loan repayment performance

Probit Regression					Number of obs.	319		
					Wald Chi2 (16) =	121.11		
					Prob > Chi2 =	0.0000		
Log psuedolikelihood = -75.23307					Pseudo R2 =	0.6538		
	LRP	Coef.	Robust Std. Err.	Z	p> z	[95% conf. Interval		
1	AGE	0.0465325	0.0239042	1.95	0.052	-0.0003188	0.0933839	
2	GENDER	-0.481536	0.2409358	-2.00	0.046	-0.9537617	-0.0093106	**
3	INCOMB	0.6229444	0.2545055	2.45	0.014	0.1241228	1.121766	**
4	AVLSIZ	-1.27E-06	1.97E-06	-0.64	0.519	-5.13E-06	2.59E-06	
5	MONTRO	1.886531	0.332748	5.67	0.000	1.234357	2.538705	*
6	UTLIZED	-0.598333	0.2806061	-2.13	0.033	-1.148311	-0.0483554	**
7	CRDTIML	0.9975261	0.3251537	3.07	0.002	0.3602366	1.634816	*
8	RPTSUIT	1.283008	0.3102632	4.14	0.000	0.6749035	1.891113	*
9	RPTMNTHL	0.9173058	0.2871186	3.19	0.001	0.3545636	1.480048	*
10	RPIRRG	-1.047014	0.2875843	-3.64	0.000	-1.610669	-0.4833589	*
11	VSTMNTH	0.5792137	0.2995815	1.93	0.053	-0.0079552	1.166383	
12	VSTIRRG	-0.680136	0.2710021	-2.51	0.012	-1.21129	-0.1489815	**
13	TRADQU	0.8011287	0.267557	2.99	0.003	0.2767266	1.325531	*
14	BUSEXP	-0.068354	0.2290698	-0.30	0.765	-0.5173224	0.3806146	
15	TECHN	0.2098048	0.2667934	0.79	0.432	-0.3131007	0.7327103	
16	BOOKK	0.2821492	0.2369228	1.19	0.234	-0.182211	0.7465095	
	Cons.	-5.425588	1.018258	-5.33	0.000	-7.421336	-3.429839	*

Source: survey data *, ** the variables are significant at 1% and 5% respectively

The explanatory variables such as GENDER (Sex of the sample respondent), INCOMB (Income from other sources), MONTRO (Monitor the utilization of other members in the group), UTLIZED (Utilization the loan for the intended purpose), CRDTIML (credit timely released), RPTSUIT (Repayment time is suitable), RPMNTHL (repayment on monthly interval), RPIRRG (repayment on irregular time interval), VSTIRRG (Visit on irregular basis) and TRADQU (Adequate and sufficient training) are found to be statistically significant to influence repayment performance of borrowers.

Variables such as MONTRO, CDTIML, RPTSUIT, RPMNTHL and TRADQU were found to be positively influence the repayment performances at 1% significance level, while

irregular repayment (RPIRRG) and constant have been found as negatively influence the repayment performance of borrowers at 1% significance level. All except repayment time suitability (RPTSUIT) were coincide with the prior expectation while repayment time suitability was determined by sample respondent's feelings. Accordingly, the repayment time scheduled were found to be suitable possibly due to borrowers familiarization to the lending institutes lending characteristics tends to increase their beliefs and attitudes to repay their obligations.

Similarly, INCOMB (Income from other sources) have positively influence repayment performance of borrower at 5% level of significance. These are also agreed with what was priori expected. GENDER and UTLIZED have negative coefficients to influence repayment performance of borrowers at 5% level of significance. The variable UTLIZED (utilized for the intended purpose) is in contrast to what was expected while the expected sign for Sex were not predetermined. The possible reasoning for this negative coefficient to GENDER could be female borrowers have better repayment performance than male being they are more likely to feel responsible and more obliged to manage their households. Abafita (2003) reports also argued that female borrowers are more creditworthy than the counter male borrowers. The (UTLIZED) Utilization with negative coefficient to the loan repayment status could be due to the fact that although the borrower utilizes the loan for the intended purpose, there is a possibility that the repayment performance of the borrowers can be undermined. For instance borrowers who have been utilized the loan for intended purpose but have shortage of market linkage, insufficient inputs can less performs with its repayment.

On the other hand, the above table also shows that AGE (Age of the sample respondents), AVLSIZ (Loan size), VSTMNTH (Supervision or visit on monthly basis), BUSEXP (Business Experience), TECHN (Adopting technology) and BOOKK (Keeping book of records) were found to be statistically insignificant variables to explain the loan repayment performances.

The other important thing is post estimation test for multicollinearity among the variables identified as an explanatory. Multicollinearity problem is identified when the independent variables have a linear combination to each other. A common rule to use can be either VIF

(Variance Inflation Factor) or tolerance. The STATA collinearity test results are shown below in the table.

Table-41: Multicollinearity test to independent variables

(Obs = 319)

Collinearity Diagnostics				
Variable	VIF	SQRT VIF	Tolerance	R- Squared
AGE	1.06	1.03	0.9416	0.0584
GENDER	1.14	1.07	0.8794	0.1206
INCOMB	1.14	1.07	0.8808	0.1192
AVLSIZ	1.22	1.11	0.8171	0.1829
MONTRO	1.31	1.14	0.7652	0.2348
UTLIZED	1.35	1.16	0.7409	0.2591
CRDTIML	1.13	1.06	0.8873	0.1127
RPTSUIT	1.42	1.19	0.7046	0.2954
RPMNTHL	2.10	1.45	0.4764	0.5236
RPIRRG	1.95	1.40	0.5134	0.4866
VSTMNTH	1.78	1.33	0.5615	0.4385
VSTIRRG	1.75	1.32	0.5708	0.4292
TRADQU	1.27	1.13	0.7878	0.2122
BUSEXP	1.16	1.08	0.8616	0.1384
TECHN	1.19	1.09	0.8404	0.1596
BOOKKP	1.47	1.21	0.6788	0.3212
Mean VIF	1.40			

As a rule of thumb, VIF greater than 10 or tolerance less than 0.1 are considered as an indicators of multicollinearity or collinearity in short. As shown in the above table, the independent variables in the model have all less than 10 VIF or 0.1 tolerances. Thus, there is no possible serious threat of multicollinearity problem to the model.

The above discussion presents a probit regression and thus the coefficients explain that the increase in these statistically significant variables will also increase the predicted probability of the dependent variable, loan repayment performance of the borrower. In line with this, it is important to compute the marginal effects, which are presented below.

Table-42: The maximum likelihoods marginal effects of probit regression to Loan repayment performance

Marginal effects after probit
 $y = \text{Pr}(\text{LRP}) (\text{predict})$
 $= .21020649$

variable	dy/dx	Std. Err.	z	P> z	[	95% C.I.	]	X
AGE	.0134185	.00706	1.90	0.057	-.000424	.027261		34.4389
GENDER*	-.1427197	.07016	-2.03	0.042	-.280238	-.005201		.583072
INCOMB*	.1888827	.07846	2.41	0.016	.035112	.342653		.37931
AVLSIZ	-3.66e-07	.00000	-0.64	0.519	-1.5e-06	7.5e-07		60818.7
MONTR0*	.3932305	.05157	7.63	0.000	.292163	.494298		.69279
UTLIZED*	-.1866253	.09267	-2.01	0.044	-.368254	-.004997		.69279
CRDTIML*	.2007118	.05186	3.87	0.000	.099071	.302353		.877743
RPTSUIT*	.3191931	.05954	5.36	0.000	.202491	.435895		.623824
RPMNTHL*	.2737007	.08857	3.09	0.002	.100104	.447297		.429467
RPIRRG*	-.2671733	.05986	-4.46	0.000	-.384501	-.149845		.373041
VSTMNTH*	.1803027	.10234	1.76	0.078	-.020273	.380878		.30721
VSTIRRG*	-.189766	.07299	-2.60	0.009	-.33282	-.046712		.451411
TRADQU*	.2070395	.0614	3.37	0.001	.086694	.327385		.652038
BUSEXP*	-.0197284	.06617	-0.30	0.766	-.14942	.109964		.517241
TECHN*	.0627501	.08348	0.75	0.452	-.100859	.226359		.272727
BOOKKP*	.0805471	.06825	1.18	0.238	-.053228	.214322		.539185

(*) dy/dx is for discrete change of dummy variable from 0 to 1

The marginal effect computation for statistically significant coefficients shows the change in probability of being non-defaulter for a unit change in the discrete explanatory variables. Hence, for a change from 0 to 1 in GENDER (from female to male borrowers), the probability of being creditworthy decreases by 0.1427197 at 5% significance level, other things held constant. The probability effects of this variable did not predetermined in the hypothesis. Female borrowers are more creditworthy than the male borrowers. Further assessment and efforts on selecting the more viable male borrower should be the considerable issues to be taken into account by the lending institutes. This argued with the reports revealed by Abafita (2003).

For the change from 0 to 1 in INCOMB (Income from other sources), the probability of being creditworthy increases by 0.1888827 at 5% significance level, other things held constant. This argues with what was expected in the hypothesis, and similarly coincide with that of

Abreham (2002) and Abafita's (2003) reports. Income from any other diversified sources is expected to increase the probability of being non-defaulters.

For the change from 0 to 1 in MONTRO (Monitor the utilization of other members in the group), the probability of being creditworthy increases by 0.4305229 at 1% significance level, other thing held constant. This variable coincides with what was expected in the hypothesis to influence the repayment performance of borrowers not to be the defaulters.

For the change from 0 to 1 in UTLIZED (Utilized the loan for the intended purpose), the probability of being creditworthy decreases by 0.1866253 at 5% significance level, being other things held constant. Again this found to be having different coefficient sign from what was expected in the hypothesis. The (UTLIZED) Utilization with negative coefficient to the loan repayment status could be due to the fact that although the borrower does utilize the loan for the intended purpose, there is a possibility that the repayment performance of the borrowers can be undermined. For instance borrowers who have been utilized the loan for intended purpose but have shortage of market linkage, availability insufficient inputs can lead them for less performance of repayments.

Regarding credit timeliness, for the change from 0 to 1 in CRDTIML (credit timely released), the probability of being creditworthy increases by 0.2007118 at 1% significance level, being other things held constant. This have also similar coefficient sign with what was expected in the hypothesis; Meaning that as the requested loan is released by the MFIs to the borrower on time, there is a possibility that borrowers become successfully finance their business so that they are less likely to become defaulters. Similarly, for the change from 0 to 1 in RPTSUIT (Repayment time suitability), the probability of being creditworthy increases by 0.3191931 at 1% significance level being other things held constant. The expected effects of this variable were not pre-determined since the sample respondent could have possible different feelings.

The other important thing to be regressed was repayment interval trends of sample borrowers. Accordingly, the result shows that for the change from 0 to 1 in RPMNTHL (repayment on monthly interval), the probability of being creditworthy increases by 0.2737007 at 1% significance level, other things held constant. This is also agreed with what was expected to influence the dependent variable in the hypothesis. Meaning borrowers who

have repayment trends on a monthly basis could have high repayment performances as compared to other repayment trends as shown in descriptive analysis. On the other hand, for the change from 0 to 1 in RPIRRG (repayment trend on irregular time interval), the probability of being creditworthy decreases by 0.2671733 at 1% significance level, being other things held constant. Hence again this variable have similar coefficient with what was hypothesized. Meaning borrowers with high trends in repayment intervals on irregular basis or beyond a month could possibly fail to repay the loan on time (become defaulters).

Regarding frequency of officer visit to client's business territory, further effects of visit on monthly and irregularly basis were evaluated. Accordingly, for the change from 0 to 1 in VSTIRRG (visiting on irregular time intervals), the probability of being creditworthy decreases by 0.189766 at 5% significance level, being other things held constant. This variable also has similar significance level with what was expected to influence the repayment performances, negatively.

The study also reveals that for the change from 0 to 1 in TRADQU (Adequate and sufficient training), the probability of being creditworthy increases by 0.2070395 at 1% significance level, being other factors held constant. Meaning that borrowers who have got sufficient and adequate training on business management, saving cultures, credit management and others have high possibility of being creditworthy borrowers than others who did not. However, it was discussed in the descriptive analysis that the training provided by the lending institutes and other partners was inconsistent in nature which needs to be improved by the training providers.

Table-43: Comparison of the likelihoods of independent variables that influence repayment performances

Authors	Significant Variables	Negative sign	Positive sign	Methodologies Employed	
				Sampling techniques	Regression model
Fikirte, 2011	Age, Sex, business experience, family size, business type and dependence ratio and constant	Business experience, family size, business type and dependence ratio	Age, Sex and constant	SRS	Logit
Abafita, 2003	Age, Sex, OSC, SRP, LSZ, INC, INCA, LSTK, NDP, BK, LDR, SPV, TIM	OSC, Loan size, Number of dependents, Loan diversion and sex	Age, Education level, Saving Culture, suitable repayment time, Income from other source, Livestock & Supervision	SRS	Logit
Abreham, 2002	Age, Education, Income from other source , Number of dependents, Loan diversion and Sex	Age, repayment period, Loan diversion and sex	Education level, Relevant business experience, Income from other source	Stratified	Tobit
Firafis, 2015	Borrowers perceptions, other source of income, training, business exp., family size,		Family size, borrowers perception towards repayment, Availability of training	Sytematic Random sampling	Logit
Abreham, 2016	Gender, Income from other source, Monitoring other members, Loan utilization, Credit release on time, Suitability of repayment time, Repayment on monthly basis, repayment on irregular basis, Visit on irregular basis and Adequacy of training	Gender , Utilization of the loan for the intended purpose, Repayment on irregular basis and Visit on irregular basis	Income from other source, Monitoring other group members for loan utilization, Credit release on time, Repayment time suitability, Repayment on monthly basis, and Adequacy of training	SRS	Probit

CHAPTER SIX

Summary, Conclusion and Recommendation

The chapter summarizes the overall findings and conclusions of the study with drawing the possible recommendations to be addressed by the concerned bodies. Accordingly the summary report will be presented below and followed with the conclusion and recommendations for policy makers, lending institutes management and other stakeholders' decision makings

6.1. Summary

In developing countries like Ethiopia poverty is the major problem of the societies at large. Peoples in Ethiopia are living in rural and urban areas of the country. Majority of those peoples were affected with lack of financial capitals to improve their livelihoods especially of the target poor peoples. They were inaccessible with financial services that are available through formal commercial banks. To mitigate these gaps, microfinance industries has been emerged in to the economy to serve those peoples who are in financial needs. However, during the last couple years of operations those microfinances that are operating in Ethiopia have been facing a severe decline in repayment recovery rates according to the NBE's annual reports 2014- 2015.

In light of this, the study was intended to extend its investigation on factors that are possibly affects loan repayment performance of microfinance institutes borrowers that are operating in Oromia regional states. Accordingly, sample MFIs were selected based on high clients outreaches and thus Oromia Credit & Saving Share Company (OCSSCO), Busa Gonofaa MFI, Wasasa MFI and VisionFund microfinances were included as the study area. A total of 319 sample respondents were selected from respective microfinance institutes. The samples were allocated to those MFIs based on their respective clients' outreaches proportional percentages.

In order to identify those relevant factors such as socio-economic and institutional loan related factors, primary data were collected from sample respondents. The descriptive and econometric regression analysis was employed to predict the effects of those independent variables to the loan repayment performances using the probit model. Most of the variables that are related to those factors were analyzed with the statistical descriptive method while due to endogenous problem of some variables only 16 variables were included in econometric regression model.

The study revealed that the proportion of female and male defaulters was found as male borrowers are relatively higher defaulters than that of female borrowers and significant at 5% which argued by Abafita (2003). Borrower's ages with the age category of 30 and above had less likely to be defaulters than that of youngsters (less than 29) which is significant at 10%. It argued with Fikirte (2011) and Abafita (2003) study results. On the other hand, monitoring the loan utilization of other members within the group was observed as slightly higher monitoring actions were implemented by the defaulter to other member in their respective groups and significant at 1%. While higher portion of the creditworthy borrowers conduct the monitoring activities.

The selected sample borrowers have majorly took social sanction measures on members who experienced diversion or wrongly misuses the loan amount otherwise informed the issues to the credit officers of the lending institutes. Majority of the defaulters had took an additional credits from friends and relative, of which majority of them has settled these credits. Sample borrowers who had experienced different round loan service were assessed. Accordingly, on average sample borrowers who had only served for the first round were attempt high default rates while borrowers who experienced for the fourth time was less likely to be defaulters.

From the survey result again it was found that majority of sample borrowers were received an equivalent amount of loan requested. The repayment time set by the lending institutes was more suitable for majority of the sample borrowers. Majority of the defaulting borrowers were experiencing repaying the loan on irregular basis, while the higher portions of the creditworthy client were experiencing repayment on monthly basis.

The majority of sample borrowers were deployed on service provision businesses. Among those it was revealed that the slightly higher number were defaulters. However from those business type categorized in the study, high defaulters were reported as those who engaged on fattening, cattle trade and poultry production services. The timeliness of credit delivery was one of the study areas to be assessed. Accordingly, almost higher numbers of the samples were financed on time. Majority of the sample respondents were found defaulters of the loan. In line with this the mean value of the defaulted amount were discussed in the descriptive section of the paper. From the borrower's point of views, majority of the sample defaulters were undermined the repayment due to utilizing the loan for personal household consumption, comparatively while fewer had reported defaults due to unforeseen natural disaster and diseases.

Losses of next round credit service were considered as the highest costs of defaults by majority of the sample respondents. The highest portion of the sample respondents had received the requested loan fund that is sufficient enough to finance their respective projects. Based on the decision of diverting the loan from the intended project to another by the defaulters, the major reasoning for diverting the loan was found as the unstable market demand change to borrower's end product over time.

On the other hand, regardless of the frequency of supervision and follow-ups, almost all sample respondents were visited to their business territory by the lending staffs. Majority of them were supervised on irregular basis which is negatively influence the probability of being creditworthy at 5% significance level, while few had got on weekly time intervals. Almost from the lending policies of those microfinances, the supervision time interval is usually expected at least once in a month.

Provision of appropriate and sufficient training on relevant issues on the subject matter of financial service is very crucial for the success of microfinance activities. Accordingly, regardless of its training natures almost all sample borrowers had got the training provided by the institutions as well as sector training providers which is significant at 1%. For instance, majority of them had training on saving mobilization while least number had got training on how to keep book of records. In light of these, higher number of the creditworthy borrowers had got adequate training, while on the contrary higher proportion of the defaulters was not

trained very well. Majority numbers of the respondent have no other source of income before engaging in to the credit schemes. While some others who have a diversified source of income have higher probability of being creditworthy at 5 % significance level.

Higher numbers of borrowers were faced the problem of unsuitable market place although higher numbers of sample borrowers have an accessible and sufficient input to run their businesses. Among the sample borrowers the slightly higher number of borrowers had relevant business experiences. The proportional higher numbers of sample defaulters were experienced medium range of market demand to their end products. Moreover, among the sample respondents only few numbers has not saved their money at the bank. The highest proportion of the defaulted sample borrowers were not kept book of records while, the greatest portion of the sample creditworthy borrowers do. The possible reasoning was due to running fewer transactions by their businesses and lack of knowledge.

On the other hand, although the financial service of microfinances is delivered to the target borrowers through its credit policies starting from organizing and screening of the viable clients to loan approvals, there are some challenges that faces them internally (like staffs commitment, high staff turnover, etc.) as well as externally (like; high level of third parties involvement on loan processing and approvals) which had a great contributions for low repayment performances by the lending microfinance institutes. Moreover, settlement of the defaulted loan by loan guarantor (City administration) through court process misleads other viable borrower's behaviors not to repay the loan as loan agreement. On the contrary, according to the sample staff responses it was experienced that medium leveled legal support was exerted by the concerned legislative bodies might enhance risks suffered from defaults.

6.2. *Conclusions and Recommendations*

Although the results of the overall study revealed and discussed in the previous sections of the paper was equally important, the findings were summarized but not limited to the following conclusions and recommendations.

Male borrowers in a given enterprise were found to be more defaulters than females although they have relatively higher utilization rate of the loan for the intended purpose as compared

to that of females. Thus, the institutions should more rely their focuses on male borrowers to identify the more viable clients. Although the age of the borrowers was not significant to influence repayment performance, the study implied that borrowers with higher age (adult group) slightly had better repayment performance than youngsters. So, the institution should exert its effort on identifying the problem of youngsters rather than excluding them from the service.

Having income from other diversified sources is more helpful for borrowers to repay their loan on time. The good trend of monitoring the loan utilization status of other members in a group by the borrowers encourages members in a group to settle the loan timely. Although there is good utilization trends by the sample borrowers to the intended purpose, there are high number of borrowers who fail to repay the loan on time. The possible reason could be due to the observed least close follow-up by MFIs and limited technical support by the concerned bodies to the clients business contributes for delay. Thus, the institutions and concerned bodies should exert their effort to fill the gaps. Provision of the loan funds by the lending institutes on time has positive effects on the probability of borrowers to being non-defaulters.

Although there are some sample borrower who feels disappointed with shortage of sufficient grace period, majority of the sample borrowers were convinced with the available repayment time schedule set by those lending institute had good impact on the repayment performance. However, the study recommends lending institutes“ to incorporate those disappointed, where there is a possibility for grace time improvements. Borrowers who has an experience of repayment on irregular basis (possibly due to shortage of cashes or unwillingness behaviors) were fail to repay the loan as promised. Hence the institution needs to work on awareness creation on cash management and enforcing the repayment through close monitoring and supervisions.

Borrower’s prospects

In additions to the above descriptive and regression analysis results the followings have also a considerable impact on repayment performance of borrowers.

Borrowers lack of business skills and experience, migration from place to place, engagement on some risky and illegal business types, involvement on non-diversified business portfolios, negative attitude towards credit service (considering as donation or government's or other NGOs grant supports) and adverse selection of not to repay the loan are among the major factors undermines the repayment performances. Moreover, settlement of the defaulted loan amount either partially or fully by the loan guarantor (City Administration) does have a negative consequence on the behavior of other new and existing borrowers to fall in a similar default problem.

Lending Institutes Prospects

Lending institutions lack of internal control to loan disbursement, limited number of credit officers, commitment of the lending institutes staffs to supervisory activities on a regular basis, lack of training skills of credit officers and other partner staffs on providing relevant trainings types and financial service delivery on quantity based approach with less consideration to quality experienced by some MFIs due to internal as well as external forces have also a considerable significant effects for less repayment performance of borrowers. Quick and close follow-up to clients business after the missing repayment time, maintaining a strong solidarity among the group members of borrowers are listed among the solutions to minimize the default rates of MFIs (Fikirte, 2011).

Government prospects

Among the loops that have been observed during the survey, there are also some other factors that corresponds to the government involvement and supports to the lending institutes and borrowers' needs. Limited facilitation of market linkage with suppliers, venders and end users of products, provision of inaccessible and unsuitable production places, limited legal and technical supports to the borrowers business and lending institutes financial services, lack of infrastructures (suitable production and market place, sufficient inputs, roads) have reported as significant challenges to the success of borrowers business. Moreover, as it was discussed in the previous section, the respondents from the lending institutes have reported that although the goal of sector government are realizing and enhancing better economic development in poverty reduction programs, this missions have been probably mislead by

some borrowers, lending institute staffs and corresponding sector staffs due to information gaps on credit service delivery (information asymmetry) which contributes for high default rates.

The weakness in integration between the lending institutes and other partners on organizing and screening the viable MSE borrowers would have also a considerable effect on the repayment performance of MFIs. Organizing and selecting borrowers with less emphasis to the viability leads for high default rate (adverse selection). Regarding moral hazard effects, credit service with less emphasis given to close supervision and monitoring service by both lending institutes and peer groups might leads borrowers fail to repay the loans.

More points of recommendations and focuses to the lending institutes, policy makers and stakeholders

- i. From the study point of view, male borrowers are high defaulter than females. Thus, the lending institutes should pay attentions on maintaining effective screening mechanisms to identify the more viable male borrowers from those of bad borrowers.
- ii. As the study revealed, conducting supportive supervision on irregular (arbitrary) bases had negative impact on the probability of serving creditworthy borrowers. This implies that maintaining consistent and regular supportive supervision to the borrowers business territory at least once in a month is highly preferable although other factors like staff turnover and insufficient number of credit officers problem exists in a given MFIs.
- iii. Based on the challenges identified and explained from the borrowers' perspective, lending institute perspectives and government perspectives microfinances and other stakeholders should design the proper integration strategies to overcome the problems.
- iv. Enhancing the commitments of credit officer through different incentives like provision of short-term trainings and other incentives will probably minimizes the density of defaulters due to their efforts.
- v. Microfinances are recommended to match the number of credit officers with in reachable size of borrowers to provide effective supervisory service.

- vi. In implementing the developmental strategies through enhancing self-employment opportunities initiated by the government of Ethiopia, the weakness in integration between the implementing partners should be improved.
- vii. It is also recommended that enforcing repayment through awareness creation and social acts (sanctions) among the borrowers' members is more incredible than taking as the solution of settlement of the defaulted loan through the guarantor (City Administration) due to the fact that credit settlement with loan guarantor affects the credit history of the institutions.
- viii. There is a need of improvements in legal supports to the financial services provided by the lending institute in safeguarding the credit from suffering default risks.

Finally, the study highly recommend interested researchers to extend further investigation on the impact of settlement of defaulted amount from government subsidy on other developmental project costs.

REFERENCES

- Abafita, J. (2003), „Microfinance and loan repayment performance: A Case Study of the Oromia Credit and Savings Share Company (OCSSCO) in Kuyu”, MSc thesis, Addis Ababa University, Addis Ababa.*
- Abulfettah (2013), “Credit Risk Management in Micro-Finance: the conceptual framework.”*
- Abreham Gebeyehu (2002), „Loan repayment and its Determinants in Small-Scale Enterprises Financing in Ethiopia: Case of private borrowers Around Zeway Area”, M. Sc. Thesis, AAU.*
- Abreham (2011), Microfinance Business Proclamation, Proclamation No. 626/2009. Federal Negarit Gazeta published on 12th May 2009, Ethiopia.*
- AEMFI (2015), Annual Reports, December 2015. Available from Association of Ethiopian Microfinance Institution (AEMFI) E-Book [14 September 2016].*
- Alemayehu Y. (2008), The performance of Microfinance Institutions in Ethiopia; Case of six MFIs, Ethiopia*
- Armendariz de Aghion, B., & Murdoch, J. (2000), Microfinance beyond group lending. Economics of Transition, 8(2), 401-420.*
- Bayeh (2012); Financial sustainability of Microfinance Institutions (MFIs) in Ethiopia; Vol. 4 Dire Dawa, Ethiopia.*
- Berhanu Lakew (1999), “Micro Enterprise credit and poverty alleviation in Ethiopia. The case of the project office for the creation of small-scale Business opportunities (POCSSBO) in Addis Ababa”, M.Sc. Thesis AAU.*
- Berhanu A. (2005), „Determinants of formal source of credit loan repayment performance of smallholder farmers: the case of north western Ethiopia, North Gondar”, M.Sc. Thesis, Alemaya Univeristy, Ethiopia.*
- C.A.Wongnaa & D. Awunyo-Vitor (2013), Factors affecting loan repayment performance among Yam farmers in Sene district, Ghana; Kwame Nkrumah University of Science and Technology.*
- Coyle, B. (2000), Framework for Credit Risk Management. CIB Publishing, UK.*
- CSA (2008), “The 2007 Population and Housing Census of Ethiopia: Statistical Report for Oromiya Region”, Central Statistical Agency (CSA), Ethiopia.*

- FeMSEDA (2016), Mission and Objectives of MSE development. Available from: <https://www.facebook.com/femseda/> . [11 November 2016].*
- Fikirte K. (2011), „Determinants of loan repayment performance”, a case study on Addis Credit and Saving Institution, Addis Ababa, Ethiopia*
- Firafis H. (2015), „Determinants of loan repayment performance: Case Study of Harari Microfinance Institutions), Ambo, Ethiopia.*
- Florence & Daniel (2014), Factors influencing loan repayment in Micro-finance Institutions in Kenya, Volume 16, Kenya.*
- Ghatak, M., & Guinnane, T.W. (1999), The economics of lending with joint liability: theory and practice. Journal of Development Economics, 60, 195- 228.*
- Ghatak, M. (1999), Group lending, local information and peer selection. Journal of Development Economics, 60, 27-50.*
- Ghatak, M. (2000), Screening by the company you keep: joint liability lending and the peer selection effect. The Economic Journal, 110, 601-631.*
- Greenbaum, S.I., & Thakor, A.V. (1995), Contemporary financial intermediation. Forth Worth, Texas: Dryden Press.*
- Hunte C. K. (1996), “Controlling Loan Default and improving the lending Technology in Credit institutions”, Savings and Development, Vol., No.1.*
- Hulme, D. and Mosley, P. (1996), Finance against poverty, Routledge London.*
- Hooman Mansoori (2009), “Factors affecting loan repayment performance of farmers in Khorasan-Razavi province of Iran; University of Humburg, 2009, Iran.*
- Hor Kimsay (2011), “The Evolution of Microfinance”. Available from The economics-today, 2011.[12 October 2016].*
- Itana Ayana (1994), “Credit policy, financial institutions and private investment in Ethiopia”,Proceedings of the Third Annual conference on the Ethiopian Economy.*
- Litenah Ejigu (2009), Performance analysis of sample microfinance institutions in Ethiopia, University of Business School, India.*
- Maddala, G. S. (2005), Introduction to Econometrics. 3rd Edition, John Wiley & Sons Ltd, The Atrium, Southern Gate, England, 318-323.*

- Maddala GS (1983), *Limited dependent and qualitative variables in econometrics*: Cambridge University Press.
- Medhin M. (2015), „Determinants of loan repayment performance of loan repayment performance of Rural women based saving and credit cooperatives” members”, the case of Dire Dawa Administration, Dire Dawa, Ethiopia.
- Mengistu Bediye (1997), “Determinants of Micro enterprises loan Repayment and Efficacy of screening mechanism in Urban Ethiopia: The case of Bahir Dar and Awas Towns”, MSc. Thesis, Department of Economics, A.A.U.
- Microfinance and Micro-credit (2016), *History of Microfinance*. Available from: <https://www.microfinanceinfo.com/history-of-microfinance/>. [23 June 2016].
- Mohd Noor Bin Mohd Shariff (2013), *Determinants of repayment performance in microfinance programs in Malaysia*, Volume 11, 2013.
- NBE (2016), *National Bank of Ethiopia (NBE) Annual Report 2014-2015*. Available from: <http://www.nbe.gov.et/publications/annualreport.html>. [23 June 2016].
- NBE (2016), *Lists of Ethiopian Microfinance Institutions*. Available from: <http://www.nbe.gov.et/financial/microfinanceinstitutes.html>. [23 June 2016].
- Njoku J.E and Odii M.A.C.A (1991), “Determinants of Loan Repayment Under the Special Emergency Loan Scheme in Nigeria”: A Case Study of Imo State, *African Review, of Money, Finance and Banking*, No.1.
- Norhaziah Nawai, Mohd Noor Mohd Shariff (2012), “Factors affecting repayment performance in microfinance programs in Malaysia.
- Retta Guddisa (2000), “Women and Micro Finance: The Case of Women Fuel Wood Carriers in Addis Ababa”, M.Sc. Thesis, AAU.
- (Seyedmehrdad, Andrea, Giorgio, Paolo & Emanuele, 2016), *Determinants of loan repayment performance among borrowers of microfinance institutions*, Vol.1, Evidence from India.
- Teferi Zewdu (2000), “Micro Finance and the Poor: The Case of Dedebit Credit and Saving Institution (DESCI) in Tigray”, M.Sc. Thesis, AAU.
- Tolosa Negese (2014), *Performance of Loan Repayment Determinants in Ethiopian Microfinance*.

Wolday A. (2000), „Review of Microfinance Industry in Ethiopia: Regulatory framework and performance,” Association of Ethiopian Microfinance Institution (AEMFI), Addis Ababa, Ethiopia.

Wolday A. (2002), The Role of finance and Business Development Services (BDS) in Micro and Small Enterprise (MSE) Development in Ethiopia.(AEMFI), Addis Ababa, Ethiopia.

Yunus, M. (1994a), Credit is a Human Right, Dhaka, Grameen Bank.

Zellar, Manfred (1996), “Determinants of Repayment Performance in Credit Groups: The role of Program Design, Intra-group Risk Pooling, and Social Cohesion.

Annex I

A. The Survey Questionnaire

KEBELE/PA _____

ENNUMERATOR _____ DATE _____

I. Personal Details

- 1.1. Name of Borrower _____ Age _____
1.2. Sex _____ 0. Female 1. Male
1.3. Marital Status _____ 1. Single 2. Married 3. divorced 4. Widowed

II. Information on group formation

- 2.1. How many members does the group in which you belong have? ____
2.2. Do you know all (most) of the members in your group? ____ 1. Yes 0. No
2.3. Do you feel responsible (liable) to other members of your group? ____ 1. Yes 0. No
2.4. Did you have the feeling that you might be sued in case of failure to repay the loan? ____
1. Yes 0. No
2.5. Do you attempt to know or monitor the loan utilization of the other members of your group?
____ 1. Yes 0. No
2.6. If yes, what action do you take in case you observe wrong utilization of the loan, say usage of
loan for non-intended purpose? ____
1) Inform to your lenders officers 2) accuse the diverter
3) Put social sanction 4) Other (specify) _____

III. Loan and Repayment

- 3.1. Did you have any source of credit other than OCSSCO, BG MFI, Wasasa MFI or VisionFund
MFI? ____ 1. Yes 0. No
3.2. If yes, what is your source? __ 1) Iddir 2) Money lenders 3) Friends/relatives 4) Banks 5)
Other
3.3. How many times and how much money did you receive from these sources during the past 12
months?

Source	Year	Amount of Loan

- 3.4. Have you finished repayment of loan from these sources? ____ 1. Yes 2. No
- 3.5. How much money did you received as loan from OCSSCO , BG MFI, Wasasa MFI or VisionFund MFI credit scheme?

Round 1	Round 2	Round 3	Round 4	Round 5	Round 6

- 3.6. Do you think that the amount you received is similar to your intended request? ____ 1. Yes
0. No

If no, what is your feeling? _____

- 3.7. Is the repayment period set by OCSSCO, BG MFI, Wasasa MFI or VisionFund MFI suitable in your opinion? ____ 1. Yes 0. No

- 3.8. If no, recommend a suitable repayment period: _____

- 3.9. Was the loan issued timely? ____ 1. Yes 0. No

- 3.10. If no, what was the impact of the delay? _____

- 3.11. What is the status of recent loan? ____

1. Fully repaid 2. Delinquent 3. Repayment in arrears/Defaulted

- 3.12. If defaulted, what is the balance remaining/outstanding? ____

- 3.13. What was the cause for the loan to be in arrears?

1. A beliefs/attitudes that loan based business activities were worthless to generate profit

2. Used some of the loan to finance household living expense

3. Sold on credit but receivables did not get paid back on time

4. Bankruptcy of the business

5. Loss of assets acquired by the loan

5. Perceived the loan as if it is a donation, a grant by the Government bodies

6. Other (specify) _____

- 3.14. Do you perceive the cost of default to be high? ____ 1. Yes 0. No

- 3.15. If yes, which of the following is the most important in forcing you to repay the loan in time?

1. Claim against personal wealth
2. Claim against guarantors
3. Social sanctions (e.g. loss of social status)
4. Fear of losing next round loan in future
- 5) Other (specify)_____

IV. Loan purpose and Utilization

- 4.1. What was the purpose for which the loan was taken?_____
- a. Purchase of raw materials for further processing
 - b. Woodworks and Metal works
 - c. Assembling of semi-finished products into final products
 - d. Construction and Engineering activities
 - e. Small and petty trades (Shops, Baltina, and others, if any)
 - f. Other; (specify)_____
- 4.2. Was the amount of loan you took enough for the purpose intended? ____ 1. Yes 0. No
- 4.3. If no, what was the amount you requested? Birr _____
- 4.4. Did you spend the entire loan on purposes specified in the loan agreement? ____ 1. Yes 0. No
- 4.5. If no, state those non-intended purposes and the amount spent on them

<u>Purpose</u>	<u>Amount spent (Birr)</u>
1 _____	_____
2 _____	_____
3 _____	_____
4 _____	_____

- 4.6. What was/were the reason(s) for spending part/entire loan on non intended purposes? _____
1. The loan amount was not enough for the intended purpose
 2. The loan agreement did not coincide with my initial intention
 3. The proceeds received from the loan is exceeder than my actual costs

4. The change in Market demand 5. To settle another Credits
6. To make a better profitable business 7. Other (specify)_____

V. Supervision, Advisory Visits and Training

- 5.1. Have you ever been supervised for loan utilization by OCSSCO, BG MFI, Wasasa MFI or VisionFund MFI staffs? _____ 1. Yes 0. No
- 5.2. Have you ever been supervised for loan repayment? ____ 1. Yes 0. No
- 5.3. If yes to either on. No. 5.1 or 5.2, how many times were you supervised? ____
- 5.4. If yes to either 5.1 or 5.2, was it adequate enough in your opinion? _____ 1. Yes 0. No
- 5.5. Do you consider supervision as being important for loan repayment? ____ 1. Yes 0. No
- 5.6. Did you get any training before receiving loan? _____ 1. Yes 0. No
- 5.7. If yes, what kind of trainings did you take? _____
1. Business (Entrepreneurial, Innovative skill development) 2. Marketing
3. Saving culture 4. Book keeping 5. Other (specify)
- 5.8. Do you think the training you took is adequate and sufficient enough? _____ 1. Yes
0.No
- 5.9. Do you think that the training you took has helped you to enhance your knowledge about credits, mechanisms of asset management's and increasing your income? ____ 1. Yes 0. No
- 5.10. If no, what do you expect to be improved? _____

VI. Income Level

- 6.1. What was your annual income from activities financed by the loan during the last 12 months?
1. Below Birr 5,000 2. Between Birr 5,001-10,000 3. Between Birr 10,001- 15,000
4. Between Birr 15,001-20,000 5. Between Birr 20,001-25,000 6. Above Birr 25,000
- 6.2. Currently, do you have any other/new sources of income? ____ 1. Yes 0. No
- 6.3. If yes, what are those other sources and your annual income from them?

Source

Annual Income

VII. Production Location, Market Place and Technology Adoption

7.1. Do you think that you have sufficient inputs around your business? ____ 1. Yes 0. No

7.2. If no, what measures do you take? _____

7.3. Does your business have a suitable production place? ____ 1. Yes 0. No

7.4. If no, what are its impacts while running your business, profitably? _____

7.5. Do you think that your production or market place is accessible for consumers? __1. Yes 0. No

7.6. Do your business adopt an advanced technology while running the business ____1. Yes 0. No

7.7. If yes, what type of technology do you use? _____

VIII. Business Experience and Market Situation

8.1. Do you have any similar business experience before engaging in this credit scheme? _1. Yes 0. No

8.2. If your answer is yes, for how long did you involve in?

a) Below 3years b) 3-5years C) Above 5years

8.3. What are the major end products and/or services did you produced or rendered using the loan you borrowed?

1. _____

2. _____

3. _____

8.4. How was the market demand status of your product? ____

1. High 2. Average 3. Low

8.4. If it is low, have you ever been assessed the feasibility of your business before starting operations? ____ 1. Yes 0. No

8.5. What was the trend of the profitability of your business after engagement in the credit program during the past few years? ____ 1. Increased 2. Decreased 3. No change

8.6. If increased, what was the reason to your business of being profitable?

1. Having sufficient loan fund 2. Availability of sufficient market
3. Selling at reasonable price 4. Quality advantage 5. Other (Specify) ____

IX. Other Information

9.1. Do you have any book of records? _____ 1. Yes 0. No

9.2. If yes, for what purpose?

- 1) To evaluate profit and loss and financial positions of the business
- 2) For monitoring loan repayment status 3) Other (specify) _____

9.3. If no, explain the reason(s) of not keeping records?

1. Lack of knowledge 2. Assumed as if it is not necessary
2. The transaction seems too small to keep a record 3. Other (specify) _____

X. Lending Institutes and Government Prospects

10.1. Do you think your branch credit officers are actively involved in screening the creditworthy borrowers before granting credits to the MSE borrowers? _____ 1. Yes 0. No

10.2. If no, what is the reason for not involving? Give your opinion _____

10.3. Do you think that the screening activity through the government bodied sectors is effective and efficient enough for the lending institutes? _____ 1. Yes 0. No

10.4. If no, what do you recommend? _____

10.5. Do you think your institutes follow a proper loan rationing mechanisms to all credit needy borrowers? _____ 1. Yes 0. No

10.6. If No, what philosophy does it uses? _____

10.7. In what time interval does the officer visit the client's businesses? _____

1. Weekly 3. Monthly
2. Bi-weekly 4. Quarterly 5. Other (Specify)

10.8. Do you think that the credit lent to borrowers have an adequate legal supports to protect MFIs from default risks? _____ 1. Yes 0. No

10.9. If your answer for Q.12.8 yes, how do you measure it? _____
A) High B) Low C) Neutral

10.10. If your answer for Q.12.8 is no, what do you suggest? _____

- 10.11. Do you think that the government sector involvement on loan agreement has an impact on credit rationing inefficiency? _____ 1. Yes 0. No
- 10.12. Does the delinquency of repayment by borrowers have a negative impact on the government projects subsidy?
_____ 1. Yes 0. No

Annex - II

B. Interview questions:

Sample Borrowers

1. What factors other than those indicated in the questionnaires had seriously undermines your repayment performances?

Sample MFIs staffs:

2. What factors other than those indicated in the questionnaires had seriously undermines the lending institutes repayment recovery rates?

NBEs views on MFIs repayment performance:

3. In your opinion, what factors does affect the repayment performance of microfinance institutions in Ethiopia?