



ST. MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES

**FACTORS INFLUENCING LOAN REPAYMENT PERFORMANCE
OF MICRO AND SMALL SCALE ENTERPRISE BORROWERS:
THE CASE OF ADDIS CREDIT AND SAVING INSTITUTION**

BY
YIDNEKACHEW G/MARIAM

JUNE, 2018
ADDIS ABABA, ETHIOPIA

**FACTORS INFLUENCING LOAN REPAYMENT PERFORMANCE OF MICRO
AND SMALL SCALE ENTERPRISE BORROWERS: THE CASE OF ADDIS
CREDIT AND SAVING INSTITUTION**

BY

YIDNEKACHEW G/MARIAM

**A THESIS SUBMITTED TO ST MARY'S UNIVERSITY, SCHOOL OF
GRADUATE STUDIES, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF MASTER OF SCIENCE IN AGRICULTURAL
ECONOMICS**

June, 2018

ADDIS ABABA, ETHIOPIA

SAINT MERY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES

**FACTORS INFLUENCING LOAN REPAYMENT PERFORMANCE OF
MICRO AND SMALL SCALE ENTERPRISE BORROWERS: THE CASE OF
ADDIS CREDIT AND SAVING INSTITUTION**

BY

YIDNEKACHEW G/MARIAM

APPROVED BY BOARD OF EXAMINERS

_____	_____	_____
Dean, Graduate studies	Signature	Date
_____	_____	_____
Advisor	Signature	Date
_____	_____	_____
External Examiner	Signature	Date
_____	_____	_____
Internal Examiner	Signature	Date

ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to my advisor Wondimagegn Checkol (PhD) for his support. Next i am glad to express my gratitude to staffs of Addis Credit and saving institution for their support to undertake this research. Lastly, i would like to thank my family for their encouragement and support throughout my education life.

DECLARATION

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Wendimagegn Checkol (PhD). All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

Name Yidnekachew G/Mariam

Date of submission June , 2018

Signature

ENDORSEMENT

This thesis has been submitted to Saint Mary's University, school of Graduate studies for examination with my approval as a university advisor.

Wondimagegn Checkol (PhD)

Advisor Signature _____

Saint Mary's University, Addis Ababa June, 2018

Table of Contents

<i>Acronyms</i>	x
<i>List of Tables</i>	xii
<i>List of Figures:</i>	xii
<i>Abstract</i>	xiii
CHAPTER 1	1
1. <i>Introduction</i>	1
1.1. Background of the study	1
1.2. Statement of the problem.....	3
1.3. Objectives of the study.....	6
1.3.1. General objective of the study	6
1.3.2. Specific objectives of the study.....	6
1.4. Research questions	6
1.5. Significance of the study	6
1.6. Scope and Limitation of the study	7
1.7. Organization of the Thesis.....	7
2. Review of Related literature	8
2.1. Financial Institutions in Ethiopia	8
2.2. Microfinance Sector in Ethiopia	9
2.3. Concept and Definition of Loan and Microfinance	11
2.3.1. Loan	11
2.3.2. Microfinance and Microcredit.....	12
2.3.3. Role of Micro financial institution.....	13

2.4.	Loan Methodology	14
2.4.1.	Group Lending	14
2.4.2.	Individual Lending	14
2.4.3.	Group Solidarity	15
2.5.	The Need for loan and finance	15
2.6.	Concept of Loan Default.....	17
2.7.	Theoretical Arguments on Loan Default Problem	18
2.8.	Credit Default Risk.....	19
2.9.	Addis Credit and Saving Institution (ADCSI).....	19
2.9.1.	Loan discharge requirements.....	20
2.10.	Credit default risk in micro finance institution.....	22
2.11.	Controlling credit default risk	24
2.12.	Empirical Study on Loan Repayment Performance	28
2.12.1.	Empirical Studies in Other Countries.....	28
2.12.2.	Studies in Ethiopia	30
2.13.	Conceptual framework of the study	32
3.	<i>RESEARCH METHODOLOGY</i>	33
3.1.	Research design.....	33
3.2.	Source and type of data	33
3.2.1.	Primary data	33
3.2.2.	Secondary Sources	33
3.3.	Targeted population for this study.....	34
3.4.	Sampling technique and methodology	34
3.5.	Sample size determination and sampling procedure	34

3.6.	Method of data collection.....	35
3.7.	Method of data Analysis	36
3.8.	Definition of Variable and hypothesis.....	36
4.	Results and Discussion.....	40
4.1.	Descriptive statistics result.....	40
4.1.1.	<i>Socio-economic characteristics of the respondents</i>	40
4.1.2.	Nature of repayment problems	46
4.1.3.	Descriptive Statistics of Continuous Variables	48
4.2.	Econometric results	50
4.2.1.	<i>Estimation of loan repayment performance</i>	53
4.2.1.1.	Marginal effects of borrower characteristics	54
4.2.1.2.	Marginal effects of loan and lender’s characteristics	56
4.2.1.3.	Marginal effects of business characteristics	56
5.	Conclusion and Recommendation	58
5.1.	Conclusion.....	58
5.2.	Recommendation.....	60
6.	REFERENCES	62
7.	ANNEXES	67
7.1.	Appendix I: Survey instrument	67

Acronyms

ACSI	Amhara Credit and Saving Institutions
ADB	Africa Development Bank
ADCSI	Addis Credit and Saving Institutions
AEMFI	Association of Ethiopian Microfinance Institutions
CRS	Catholic Relief Services
CSA	Central Statistical Agency
DCSI	Dedebit Credit and Saving Institute
EDLB	Education Level of Borrower
ETB	Ethiopian Birr
FDRE	Federal Democratic Republic of Ethiopia
FeMSEDA	Federal Micro and Small Enterprises Development Agency
GDP	Gross Domestic Product
GTP-II	Growth and Transformation Plan-II
IFAD	International Fund for Agricultural Development
IFOA	Income from other activities or sources
ILO	International Labor Organization
LD	Loan Diversion
LDCs	Least Developing Countries
LDU	Limited Dependent Variable
LSPM	Loan supervision and Monitoring
MDG	Millennium Development Goal
MMFI	Meklit Microfinance Institution
MFI	Micro Finance Institutions
MoTI	Ministry of Trade Industry
MSEs	Micro and Small Enterprises
MSMEs	Micro Small and Medium sized Enterprises
NBE	National Bank of Ethiopia
NGOs	Non-Governmental Organizations
OCSSCo	Oromia Credit and Saving Share Company
OLS	Ordinary Least Square
OSCA	Omo Saving and Credit Association
ROSCAS	Rotating and Saving and Credit Association
RUFIP	Rural Financial Intermediation Program
SACCO	Saving and Credit Cooperative
SACCOs	Savings and Credit Cooperative Organizations
SNNPRS	South Nations Nationalities Peoples Regional State

SOB	Sex of Borrower
TLU	Training on Loan Use
TVET	Technical and Vocational Education training
UNDP	United Nations Development Program
USD	United States Dollar
WB	World Bank
WTO	World Trade Organization
WV	World Vision

List of Tables

Table 2.1	21
Table 3.1	37
Table 4.1	40
Table 4.2	42
Table 4.3	44
Table 4.4	46
Table 4.5	48
Table 4.6	50
Table 4.7	54

List of Figures:

Figure 2.1	32
Figure 4.1.	41
Figure 4.2.	42
Figure 4.3.....	43
Figure 4.4.	44
Figure 4.5.	45
Figure 4.6.	45

Abstract

Micro and small scale enterprises (MSEs) have vital contribution to the economic development and creation of wider employment opportunity in developing countries like Ethiopia. However the growth of these enterprises have been impeded by many factors of which financial constraint is a key challenge. Microfinance institutions (MFIs) were, therefore, established to fill the gap in the financial services by providing credit services to these enterprises. However, repayment problem is an obstacle to microfinance institutions (MFIs) that offer microfinance based lending methodologies to provide loan to micro entrepreneurs. And hence these overarching challenge initiated a research with the objective of examining and identifying factors that influence the loan repayment performance of micro and small scale borrowers in one of the biggest micro finance institution in Ethiopia named Addis Credit and saving institution(ADCSI). In order to achieve this objective, primary data were collected from 100 randomly selected clients (50 defaulters and 50 non-defaulters) by using structured interview. Moreover secondary data were obtained from the record of ADCSI. For the data analysis, descriptive statistics including mean, standard deviation, frequency and percentages were used to describe the socio-economic characteristics of the borrowers. Moreover, a binary logistic regression model was used to analyze the socio-economic factors that influence loan repayment.

A total of 13 explanatory variables were included in the regression. The results shows that ten variables were found to be statistically significant to influence loan repayment. Of this education, Sales volume, other source of income, business & credit experience, loan monitoring and supervision and being woman have increased the probability of non-default significantly, Whereas Dependency ratio, loan repayment size and loan size decrease the probability of non-default significantly though the level of significance differs. Therefore, consideration of these factors is vital as it provides information that would enable to undertake effective measures with the aim of improving loan repayment performance. It would also enable lenders and policy makers as to where and how to channel efforts in order to minimize loan defaults.

Key words Micro finance, micro & small scale enterprises, loan repayment, loan default, & Binary logit model

CHAPTER 1

1. Introduction

1.1. Background of the study

It is generally recognized that micro and small enterprises (MSEs) have vital contribution to the economic development and creation of wider employment opportunity in developing countries with large number of unemployed people.(Hamu2017). As Habtamu, et al, (2013)(cited in Abdulahi 2017) noted, MSEs do serve as a means of bringing economic transition by using the skill and the talent of people without requiring high level training, much capital and sophisticated technology. This makes the sector more preferable to business entry, unemployment reduction, income generation, and poverty alleviation.

The Micro and Small enterprises (MSEs) are described as the natural home of entrepreneurship. Most big businesses in Ethiopia have started as SMEs and have grown to their maturity over long period by cumulating capital and business management experiences.(Ethiopian Economic Association (2015 cited by Abdullah 2017). In most developing countries MSEs, by advantages of their size, location, capital investment and capacity to generate greater employment became the main focus area.

According to ILO (2007:16) small and medium enterprises become more important as a proportion of GDP and informality less important as countries become wealthier. In the OECD countries over 95% of enterprises are classified as small and medium enterprises and account for 60–70% of the working population. MSEs, which account for over 90% of enterprises in all countries, are an important source of output and employment. They employ 33% of formal sector workers in low income countries and 62% of such workers in high income countries (ILO, 2009). Micro and small enterprises (MSEs) contribute about 18% of the Gross Domestic Product (GDP), employ millions of adult Kenyans and also consume and pay for public funded services through licenses and taxes (Kenyan Institute of Economic Affairs (2012:3).

The sector has potential to provide the ideal environment for enabling entrepreneurs to optimally exercise their talents and to attain their personal and professional goals (MoTI, 1997:).

As indicated in GTP II (2015:29) of the federal democratic republic of Ethiopia(EFDRE) the implementation of the micro and small scale enterprises development strategies has to be consolidated in order to unleash the potential of the sector in revitalizing local economic development, nurturing entrepreneurship and addressing unemployment and poverty over the coming planning periods. With regard to increasing the economic benefit of youth, 7.43 million youth will be engaged in small and micro enterprises and 1.35 million youths will be organized and benefit from social cooperative associations.

In Ethiopia, despite the enormous importance of the MSE sector to the national economy about job creation and the alleviation of object poverty, many of the MSEs are unable to realize their full potential due to the existence of different factors that inhibit their growth and performance. One of the leading factors contributing to the unimpressive growth and performance of the enterprises is limited access to finance (Wolday, 2004).

Microfinance institutions (MFIs) were, therefore, established to fill the gap in the financial services sector by providing fund to those who have been excluded from accessing financial services from formal financial institutions and also contribute to reduce negative impacts of local money lenders in the area where they operate (Miche“al, 2006).

Wolday (2005) revealed that the sustainability of microfinance institutions that reach a large number of rural and urban poor who are not served by the conventional financial institutions, such as the commercial banks, have been a prime component of the new development strategy of developing countries like Ethiopia.

Yeagocha et al. (2012) argued that sustainability of MFIs is greatly influenced by the loan repayment performance of their clients. High repayment rates enable MFIs to recover interest income and minimize loan losses which enhance profits. In turn, these profits boost the capital base which enables MFIs to raise their outreach and ease their dependence on donors. However, repayment problem (or credit default risk) become the main obstacle for the microfinance institution to continue providing microfinance services (Nawai and Sheriff, 2013).

Default on borrowed funds could arise from unfavorable circumstances that may affect the ability of the borrower to repay as pointed out by Stiglitz and Weiss (1981). Credit default risk includes both the loss of income resulting from the MFIs failure to collect an anticipated interest earning as well as the loss of principal resulting from loan default (NBE, 2010). Loan defaults play crucial role in MFIs expenses, cash flow, revenue and profitability. Poor repayment of credit reduces lenders net return there by decreasing the ability of the institution to generate resources internally for institutional growth (Yeagocha et al., 2012).

Although the performance of MFIs of Ethiopia has been remarkable since their establishment, they are experiencing repayment problems as can be observed from their declining repayment Rates,(Getaneh, 2005). Abraham (2002) asserted that credit default risk has been a critical problem faced by many micro finance institutions that offer credit to the micro and small enterprises.

Now the question arises is what are the factors that enhance or influence the loan repayment performance of microfinance clients or borrowers?. The researcher will investigate these factors that influence the repayment performance for Addis credit and saving institutions, for a better understanding of these factors so that they could be managed accordingly to enhance the repayment performance and laying strong ground work in the development of financial industry as well.

1.2. Statement of the problem

An overwhelming majority of the world's poor live in developing and underdeveloped countries. Various approaches have been employed towards reducing poverty. Providing credits through microfinance to the poor is one such means. Gibbons, (1992) argues that the best way to reduce poverty is to let the people do their own thing. It is generally accepted that credit, which is put to productive use, results in good returns. But credit provision is a risky business and involves fraudulent and opportunistic behavior. Fortunately, group based micro financing system that involves peer pressure and joint liability has countered the problems of a conventional bank that provides a collateral backed credit alienating the poor (Mengistu, 1997).

For such MFIs to be successful, they should be sustainable both financially as well as institutionally. On top of sustainability one has to include developmental effects on the target group as core measure of success. For agencies that are involved in the development or in assisting the

development of a micro-credit institution, it is recommended that profitability and sustainability should be the final goals (Rudkius, 1994). Hunte (1996) argued that default problems reduce lending capacity and transform lenders into welfare agencies, instead of a viable financial institution.

Loan default affects bank's cash-flow management and reduces new applicants' access to credit. It is obvious that many rural credit schemes have sustained heavy losses because of poor loan repayment. And, thus, they have been dependent on government subsidy to cover the losses they faced through loan default. MFIs should rather depend on loan repayment to be sustainable, so that they can meet their objectives.

"Whether default is random and influenced by erratic behavior or whether it is influenced by certain factors in a specific situation, therefore, needs an empirical investigation so that the findings can be used by micro financing institutions to manipulate their credit programs for the better" (Khandker et al. 1995).

Ethiopian government has indicated in the Growth and Transformation Plan (GTP) that creating access to finance for micro and small enterprises as one basic way out from the vicious circle of poverty (GTP, 2011).

The sustainability and continuity of the financial institutions to increase the volume of credit to stimulate the poverty reduction goal depends on the repayment performance. High repayment performance enables the institutions to lower the interest rates and processing costs and consequently increase supply of loans. Besides, high repayment rates reduce the subsidy-dependence of the credit institutions to assist them attains a better sustainability level. Repayment performance, thus, serves as a positive indicator for increasing the volume of credit availability to various sectors of the economy and attaining a high loan collection rate is a necessary condition for MFI to become self-sustainable in the long run (Wolday, 2005).

The financial institutions, however, continue to decline credit to micro and small enterprises. This decline is partly due to poor loan repayment performance from these sectors and thus, repayment problem is an unsolved issue faced by the majority of financial institutions including microfinance institutions. Moreover, the failure of a large number of microfinance institutions in many developing countries was due, among other things experienced, to their inability to ensure

good repayment rates among their borrowers (Abafita, 2003).

The microfinance institutions operate currently in Ethiopia exhibit a number of strengths in their operation. However, Loan repayment has been a serious problem of the Ethiopian microfinance industry. Several incidences of loan repayment problems in microfinance industry have been observed during the last decade and MFIs default rate increased over the stated period and averaged over 27 percent (Samuel, 2011). Additionally, a study made on microfinance repayment problem in micro and small enterprises in Addis Ababa by Miche'al (2006), indicated that repayment rate has decreased considerably and averaged around 69 percent of the total loans due per year.

Similarly, Addis Credit and Saving Institution which is striving to meet the financial need of less privileged entrepreneurs with limited capital base, primarily composed of operators of small and micro enterprises and hut industries, is recently suffering from considerable amount of loan default /delinquency rate. Based on preliminary data collected, on average for the year ended 2017, credit default rate was estimated to reach around 5.5 percent. (ADCSI 2017)

According to Hunte (1996), loan default problems destroy lending capacity as the flow of repayment declines, transforming lenders into welfare agencies, instead of a viable financial institution. It incorrectly penalizes creditworthy borrowers whenever the screening mechanism is not efficient. Credit default may also deny new applicants access to credit as the microfinance institution's cash flow management problems increase in direct proportion to the increasing default problem. Besides, loan losses which arise as a result of loan default problems often have been the largest cost borne by the institutions and the principal cause of insolvency and illiquidity (Nawai & Shariff, 2013).

Given the above indicated repayment problems in MFIs along with the gap in the literature in the best of researcher knowledge with regard to credit default problem of MSEs financed by MFIs, it necessitates the need for empirical investigation on factors behind default problem so that the lending unit in MFIs would make appropriate precautions in its lending decision. Therefore, this study attempted to make inquiry on determinants of repayment performances of Micro and Small scale enterprise Borrowers in Addis Credit and Saving Institution.

1.3. Objectives of the study

1.3.1. General objective of the study

The main objective of the study is to identify the major determinants of loan repayment performance of micro and small enterprises (MSEs) borrowers of Addis Credit and Saving Institution, Addis Ababa.

1.3.2. Specific objectives of the study

- a) Explain borrower's characteristics and business characteristics that determine the loan repayment performance of the borrowers in the institution.
- b) To assess the factors affecting loan repayment performance of micro and small scale enterprises.
- C) To assess the determinant factors which affect loan repayment performance of micro and small scale enterprises

1.4. Research questions

Borrowers' peculiar characteristics, failure of lending agencies in loan supervisor and monitoring, among others are hypothesized to be central issues behind the explanation of poor loan repayment of microfinance clients. The main reason behind the variation in performance between loan defaulters and non-defaulters needs to be properly assessed.

This study will answer the following basic questions:

- 1) What are the causes of loan default for micro finance borrowers?
- 2) What are the factors that enhance loan repayment performance of MFI clients?
- 3) What are the major problems and challenges faced by the borrowers and lenders in the repayment process in MFIs?

1.5. Significance of the study

Financial service provision program will be successful if the loan disbursed is healthy and repaid on time, so that the repaid cash will be utilized for other borrowers. And circulation of the loan will be

effected in a manner that assures the development of the financial industry of the country. The loan repayment performance is influenced by several natural, institutional and socioeconomic factors. The result of this study will help to design successful financial programs that improve the loan repayment performance of the borrowers. Moreover, the study may assist in guiding financial institutions or loan facilitating organizations to set appropriate criteria and standard procedures of loan disbursement.

The study has a policy implication for policy makers, governmental financial institutions, and non-governmental financial institutions. It would enable borrowers to acquire knowledge how to minimize loan defaults and help the lenders to design successful loan programs. Apart from these, the results of the study may serve as a starting point to conduct further studies in the area.

1.6. Scope and Limitation of the study

The research paper attempted to identify factors for loan repayment performance for micro and small scale borrowers found only on the city of Addis Ababa, Arada Branches of urban loan package borrowers of ADCSI.

Currently, ADCSI has 10 sub-city branches and 116 service delivery posts (woredas) in Addis Ababa. The researcher focused two-service delivery centers due to time limitations.

As expected in most interview based data collection, the quality of data collected to some extent is affected by the willingness and ability of respondents and some provisions should be made while taking the results of the study for practical application.

This specific study cannot warrant for generalization and extrapolates to others contextual setting given the diversified livelihoods of the borrowers and different capacity level of the institutions. However it can give insights to other areas of similar socio economic and institutional contexts.

1.7. Organization of the Thesis

This research involves five chapters. Chapter one contains background of the study, statement of the problem, objectives of the study, Research questions, significance of the study, scope and limitation of the study. Chapter two deals with literature review. Chapter three deals with research methodology, Chapter four deals with analysis results and discussion chapter five Conclusion and recommendations.

CHAPTER TWO

2. Review of Related literature

2.1. Financial Institutions in Ethiopia

Modern banking in Ethiopia began in 1905 with the Bank of Abyssinia, a private company controlled by the Bank of Egypt. In 1931 it was liquidated and replaced by the Bank of Ethiopia which was functional until the Italian invasion of 1936. During the Italian occupation, Bank of Italy was formed. In 1943, the State Bank of Ethiopia was established, with two departments performing separate functions. In 1963, these functions were separated and the National Bank of Ethiopia (the central and issuing bank) and the Commercial Bank of Ethiopia were formed.

In the period to 1974, several other financial institutions emerged including the state owned:

- The Agricultural and Industrial Development Bank (established largely to finance state owned enterprises);
- The Savings and Mortgage Corporation of Ethiopia; and
- The Imperial Savings and Home Ownership Public Association (which provided savings and loan services) Major private commercial institutions, many of which were foreign owned, included: The Addis Ababa Bank, The Banco di Napoli and The Banco di Roma.

The Marxist government in 1975 brought several changes to the banking system and nationalized private banks and insurance companies. The 3 commercial banks were merged under the Addis Ababa Bank, and the National Bank of Ethiopia was given the mandate to oversight all financial institutions. The Ethiopian Insurance Corporation incorporated all the nationalized insurance companies and the new Housing and Savings Bank provided loans for new home construction and home improvements. (Bekezela Ncube,2011)

2.2. Microfinance Sector in Ethiopia

The formal microfinance industry began in Ethiopia in 1994/1995. The governments Microfinance Institution Proclamation designed to encourage Microfinance Institutions (MFIs) that are responsible to extend credit to both the rural and urban poor of the country. In this process the licensing and supervision of MFIs was the duty of the government office. By 2005, there were 23 MFIs with almost one million clients. Since the government prohibits foreign nations from providing banking services in Ethiopia, MFIs in the country were established as share companies with capital owned by Ethiopian or organizations registered under the laws of Ethiopia. This has led to lack of transparency in the sector since much of the initial capital comes from foreign donors who enlist “nominal” shareholders to act as fronts. Gobezie (2005) noted, these shareholders are precluded from selling or transferring their shares and "voluntarily forsake" their claim on dividends, if any, declared by the MFI. Such shareholders do not have a real stake in the organization and would be unlikely to give support at a time of financial crisis.

Currently, different formal microfinance institutions are delivering financial service in rural and urban sectors of the country. To mention, Oromia Credit and Saving Share Company (OCSSCo) operating in Oromia Region, Amhara Credit and Saving Institute (ACSI) in Amhara regional state, Dedebit Credit and Saving Institute (DCSI) in Tigray regional state, Omo Saving and Credit Association operates in SNNPRS, and others like Addis Credit and saving institution which deliver credit service mostly to urban dwellers in towns.

Microfinance in Ethiopia is in its infant stage. Based on data of 2010, the industry's outstanding loan was 1.7 percent of the GDP and its share to loan and advances of banks, MFIs was 1.6 percent. Client savings in MFIs had reached 3.6 percent of gross national savings. At the end of June 2007, twenty-seven microfinance institutions who has obtained license from National Bank of Ethiopia were operating in the country. Most of the MFIs operate both in the rural and urban areas mainly centering their head office in Addis Ababa. Dedebit Credit and Saving Institution (DCSI) and Amhara Credit and Saving Institutions (ACSI) took more than 65% of the clients served in the market. Similarly, the outstanding loan of these institutions took also the lion share (62 percent) in the market.

The Ethiopian microfinance sector is relatively young but has grown rapidly over the last years, despite a slowdown in 2009/10. Informal microfinance and NGO credit programs have existed for many years. In 1996 the government introduced a legal framework intended to professionalize the industry and encouraged its sustainability through Proclamation 40/1996. Although this proclamation had some limitations at inception, improvement has been made to it, such as the liberalization of interest rates on loans, the softening of loan caps (first capped at 5,000 ETB), and the diversification of loan products, more complete reporting requirements and a penalty policy.

The proclamation allows deposit mobilization. In 2009, a new proclamation was enacted (626/2009). This proclamation introduced a number of rules to strengthen the microfinance sector. Since 2009, MFIs have to align their financial year to the government fiscal year (July 1st to June 30th) and receive approval from National Bank of Ethiopia (NBE) before hiring their external auditors. The external auditors are required to have sufficient qualifications, no conflict of interests with the audited MFI and have to send their management letters to NBE. The directives have introduced a more conservative provisioning policy; higher capital and liquidity and profitability requirements; qualification criteria for BOD members and CEOs; new rules for licensing and stricter supervision and as well as additional reporting requirements (e.g. on credit concentration). MFIs that cannot meet capital and profitability criteria will be limited in their maximum loan size. On the other hand, the proclamation introduced the possibility for MFIs to be relicensed as banks.

The top six MFIs including ADCSI as shown in Table 1 below mentioned are all affiliated to regional governments. ADCSI is affiliated with Addis Ababa city administration and the industry is heavily concentrated in the four largest MFIs which are among the largest ones in Africa (ACSI, OCSSCO, DECSI & ADCSI). The remaining MFIs, with some exceptions, are linked to indigenous or international NGOs. Savings and Credit Cooperative Organizations (SACCOs) also play a large role in the provision of financial services. There are approximately 6,000 SACCOs operating in rural and urban areas. The urban employee-based cooperatives have a longer history and operational track record.

In general, MFIs serve both urban and rural areas. The government and NGO support to MFI have increased the outreach, however some MFIs (mostly government-supported) have begun to offer products other than credit and savings, including remittance, pension and leasing products.

Government-supported MFIs also offer agricultural input supply loans using government credit lines, which have been criticized by international donor and NGO partners as they distorted the market. Savings mobilization, although allowed under current regulation, has slowed development. Demand savings to loans stood at 27.4% (or 42.5% including cash collateral) as of June 2016.(Seid (2017)

Despite the rapid growth and large scale dominance of the industry, there is still a huge gap between supply and demand. Informal ways are still primarily means to access finance. With 2.4 Million Borrowers, MFIs cover about 22% of the potential microcredit market and rural areas still remain underserved. The lack of the financial market liberalization has limited the growth of private MFIs. The entrance of Ethiopia in the World Trade Organization (WTO) was expected to solve this problem but the situation has not yet changed. Seid(2017)

Bilateral and multilateral donor agencies as well as international NGOs are active in the Ethiopian microfinance sector, offering funding and technical assistance. Donors are the World Bank, the EU, IFAD, ADB, UNDP and SIDA; and international NGOs include CARE, Catholic Relief Services, Save the Children, Terrafrica and World Vision. In addition, the sector has been strongly supported by the Rural Financial Intermediation Program (RUFIP), financed by World Bank, IFAD, and ADB through the Development Bank of Ethiopia. The program included a package of roughly 95 Million USD broken down in various components of capacity building, grants, equity and credit funds for a period of 7 years until 2010. The industry benefits from a dynamic national network organization, the Association of Ethiopian Microfinance Institutions (AEMFI), which serves as an important channel for policy dialogue and a driver of industry transparency. (Said 2017)

2.3. Concept and Definition of Loan and Microfinance

2.3.1.Loan

Loan is an arrangement in which a lender gives money or property to a borrower and the borrower agrees to return the property or repay the money, usually along with interest, at some future point(s) in time. (<http://www.investorwords.com>)

“Loans are only good if there are no problems. When there are serious problems the loan becomes a burden; in fact, you may have to sell an assets to make repayment.” - Anonymous

A **loan** is a type of debt. Like all debt instruments, a loan entails the redistribution of financial assets over time, between the lender and the borrower. In a loan, the borrower initially receives or borrows an amount of money, called the principal, from the lender, and is obligated to pay back or repay an equal amount of money to the lender at a later time. Typically, the money is paid back in regular installments, or partial repayments; in an annuity, each installment is the same amount. (<http://www.investorwords.com>)

The loan is generally provided at a cost, referred as interest on the debt, which provides an incentive for the lender to engage in the loan. In a legal loan, each of these obligations and restrictions is enforced by contract, which can also place the borrower under additional restrictions known as loan covenants.

What Is Microfinance?

Microfinance, according to Otero (1999) is “the provision of financial services to low-income poor and very poor self-employed people”. According to Ledger wood (1999) these financial services generally include savings and credit but can also include other financial services such as insurance and payment services. Schreiner and Colombet (2001) define microfinance as “the attempt to improve access to small deposits and small loans for poor households neglected by banks.” Therefore, microfinance involves the provision of financial services such as savings, loans and insurance to poor people living in both urban and rural settings who are unable to obtain such services from the formal financial sector.

2.3.2. Microfinance and Microcredit

In the literature, the terms microcredit and microfinance are often used interchangeably, but it is important to highlight the difference between them because both terms are often confused. Sinha (1998) stated “microcredit refers to small loans, whereas microfinance is appropriate where NGOs and MFIs supplement the loans with other financial services (savings, insurance, etc)”. Therefore, microcredit is a component of microfinance and involves providing credit to the poor, but microfinance involves additional non-credit financial services such as savings, insurance, pensions and payment services (Okiocredit, 2005).

2.3.3. Role of Micro financial institution

Schreiner and Colombet (2001, p.339) define microfinance as “the attempt to improve access to small deposits and small loans for poor households neglected by banks.” Therefore, microfinance involves the provision of financial services such as savings, loans and insurance to poor people living in both urban and rural settings who are unable to obtain such services from the formal financial sector.

One of the key roles microfinance has to play in development is in bringing access to financial services to the poor, to those who are neglected by the formal banking sector like micro and small enterprises. Micro and small enterprises financed by MFIs can help to establish new marketing links and increase the income of traders, and this can lead to reduce migration due to increased employment opportunities and increased income (Wrenn, 2005, Absanto & Aikaruwa , 2013).

Meklit Microfinance Institution (2005) asserts that the poor are generally excluded from the financial services sector of the economy so MFIs have emerged to address this market failure. By addressing this gap in the market in a financially sustainable manner, an MFI can become part of the formal financial system of a country and so can access capital markets to fund their lending portfolios, allowing them to dramatically increase the number of poor people they can reach.

Microfinance services intervention in developing countries have been considered as one of the policy instruments of government and non-government organizations (NGOs) to enable rural and urban poor increase output and productivity, induce technology adoption, improve input supply, increase income, reduce poverty and attain food security (Wolday, 2000).

In 2005, Wolday further reveals that the sustainability of microfinance institutions that reach a large number of rural and urban poor who are not served by the conventional financial institutions, such as the commercial banks, have been a prime component of the development strategy of most developing countries.

According to Jonathan and Beartize (2005), Microfinance institutions operate under a twin mission system: commercial mission (the financial system approach) and social mission (the poverty lending approach). Their commercial mission basically refers to financial viability of the institution delivering the service. These institutions are thus required to provide the service on the basis of cost recovery and even making profits. They also state that the social mission involves serving the poor who are marginalized by the formal banking system and working for alleviation of poverty and income inequality. Those poor borrowers and micro and small enterprises are credit worthy and capable of repaying their dues. The poverty lending approach on the other hand, stresses the importance of microfinance to help the poorest of the poor through targeted programs (Jonathan & Beartize, 2005).

2.4. Loan Methodology

2.4.1. Group Lending

Group lending is an approach of lending small amount of money to a large number of borrowers who cannot offer collateral. Group members are jointly accountable for the repayment of each other loans through peer pressure. The entire group members will be disqualified and will not be eligible for further loans, even if one member of the group becomes a defaulter. The size of the group can vary, but most group have between three to eight members, the group self-selects its members before acquiring a loan (Abdullahi, 2008).

2.4.2. Individual Lending

Individual lending is a methodology in which institution provide credit to individual borrower. In this approach traditional or nontraditional collateral or loan co-signer is requested.

Traditional collateral includes household and business assets while conventional collateral includes the approach used by commercial banks to screen borrower's proposal, business plan and others (Abdullahi, 2008).

2.4.3. Group Solidarity

According to Abdullahi, 2008 group solidarity is an approach, unconventional policy, in which loan is provided to individual through group. A lender does not request group members to meet collateral requirements. The base of this methodology is the mutual trust among the group members and loan is provided just using five persons guarantee, where individual borrower is responsible for the repayment of the loan.

2.5. The Need for loan and finance

Loan is the key means to have access to input in many development programs. This is true particularly for both rural and urban development because so long as sufficient loan is not delivered to the development programs of weak part of the society, the goal of development may not be achieved (Amare, 2005). Finance is central to establish and operate productive activity. Sufficient finance is a prerequisite to proper organization of production, acquiring of investment assets and/or raw materials and development of marketing outlets etc. Loan is a device for facilitating transfer of purchasing power from one individual or organization to another. As indicated by Oyatoya (1983) loan provides the basis for increased production efficiency through specialization of functions and, thus, brings a more productive union the skilled labor force with small financial resources and those who have substantial resources together but lack entrepreneurial ability.

In the current environment characterized by a reduced availability of credit and tighter lending standards, the financing needs of MSEs deserve particular attention. In this regard it is important to recall that MSEs in general are more dependent on their personal savings and relatives than larger firms, which have the expertise, experience, and resources to tap the financial markets.

Obviously, a decision to start a business or expand an already existing firm involves an implicit decision of how to raise money. Consequently, financing is at the center of an operation of MSE. For instance, it is indicated that the inability to raise finance is one of the greatest challenges facing the MSEs and is the critical factor in the establishment and growth of such businesses

(Sargent and Young cited in Gashahun,2004:13).

Similarly, it is pointed out that MSEs need finance to invest in new equipment and machinery, reach out to new markets and products and cope with temporary cash flow shortages as well as to innovate and expand (Fafchamps cited in Gebrehiwot and Wolday, 2003:3).

Lack of sufficient capital, particularly at the start of their operations, was also identified as the major problem for about 35% of the small scale manufacturing industries (Gebrehiwot and Wolday, 2004:54). It is generally assumed by policymakers in developing countries that there is either a high unsatisfied demand or a significant potential demand for finance by MSEs' borrowers. It is also assumed that where this does not already exist, it can be created.

In view of these impediments to the demand-following" effect, a need is often perceived for intervention in the intermediation process, specifically for the redirection of credit. Intervention entails governments setting up institutions where the private sector is deemed incapable of doing so, pegging deposit and lending rates at levels perceived to be fair to borrowers and savers but not necessarily coinciding with free market levels, rationing credit to different rates under criteria that underlie mainly government priorities (Ibid, 1993).

The potential demand of the poor for micro credit, on the other hand, is enormous. However, there is very limited supply of financial services to the poor. From the supply side, the major sources of finance for micro and small enterprises can fall under five categories (Wolday, 2000):

- A. Formal banks
- B. Microfinance institutions
- C. Cooperatives
- D. NGOs and Government projects, and Semi – formal and informal sectors

In 2002, Abraham, states that the micro and small business enterprises are usually excluded from credit facilities because of many reasons. These include insufficient collateral to support their loans, unable to save, lacking verifiable credit history, high transaction costs, unstable income and high monitoring costs. Microfinance institutions (MFIs) were, therefore, established to fill the gap in the financial services sector by providing fund to those who have been excluded from accessing financial services from formal financial institutions and also contribute to reduce negative impacts

of local money lenders in the area where they operate (Micheál, 2006).

Jonathan and Beartize (2005) claim that Microcredit service offered by microfinance institutions generally is important to the growth and development of micro - enterprises. However, many credit programs previously viewed the Micro and Small Enterprises (MSEs) as potential defaulters and placed credit programs beyond their reach. Even though wide experience today shows that MSEs are not bad credit risks and that their repayment rates can be exemplary, the MSEs operators still are considered to be a high - risk credit population, expensive to serve, and unable to pay the full cost of credit; they are believed to require government subsidization of credit.

Thus, MFIs operate in a niche market as they address the needs of those clients who are considered „high-risk“ by bigger banks. High-risk groups or individuals are characterized as those with very few assets, requiring very small loans, high degree of close follow-up, business appraisal and evaluation, as well as those engaged in activities whose income is fluctuating such as small-holder farmers or petty traders (Nugussie & Mitiiku, 2013).

A credit market differs from standard markets (for goods and services) in two important respects. First standard markets, which are the focus of classical competitive theory, involve a number of agents who are buying and selling a homogeneous commodity. Second in standard markets, the delivery of a commodity by a seller and payment for the commodity by a buyer occur simultaneously. In contrast, credit received today by an individual or firm in exchange for a promise of repayment in the future. But one person's promise is not as good as another.

2.6. Concept of Loan Default

A loan default occurs when a borrower fail to make a payment on time after an agreement has been reached between the lender and the borrower. It also occurs when the borrower does not comply with any other agreement made on the promissory note. Loan default is essentially of two basic types. The first and the most common type occur when the debtor defaults on a payment of interest or principal. This might be because the debtor is either unable or unwilling to repay the debt. The second type of default occurs when the debtor violates any of the agreements made on the promissory note either purposely or unintentionally. (<http://www.investorwords.com>)

2.7. Theoretical Arguments on Loan Default Problem

Loan may be either formal or informal ones. When we think of small businesses in LDCs, the major source of finance so far is informal sector. The probability of default of small scale enterprises loan from informal sources is low because informal financial markets are much closer to their clients and potential clients, and through gossip and daily contact they are much more aware of their activities than a formal banker, thus they know the risks they are exposed to. On the other hand, small-scale credit scheme from formal financial markets has experienced a high rate of default in many developing countries. Non-defaulters are those who repaid the loan in due date and the defaulters are those who did not repay the loan within the due date. The proper recovery of loan is not only a prerequisite for rapid expansion of microfinance service but also a question of life or death for any credit agency. In Ethiopia, the administrative measures applied to enforce repayment are harsh and did not take into account borrower's circumstances. The system does not accommodate the interests of borrowers who are willing to incur additional interest by delaying crop and other asset sales in hopes that price will be better off later in the year. Defaults in Ethiopia may rise from three major factors. The first is the inability of borrowers to repay the loan as a result of crop and other investment failure for various reasons. Secondly, due to unwillingness of the borrowers to repay because the loan has sometimes viewed as a grant or as a political patronage. The third factors could be institution and policy problems. The systems of credit delivery and collection mechanisms of the institutions have contributed to poor loan repayment (Zemen, 2005).

Loan default is a tragedy because failing to implement appropriate lending strategies and credible policies often results in the demise of credit institutions. Default problems destroy lending capacity as the flow of repayment declines, transforming lenders into welfare, in head of viable institutions. Loan defaults deny new applicants access to credit. *In the context of third world lending programs, the cost of defaulting include not only the loss of future credit but also public embarrassment and the loss of social standing (Belay, 1998).* It is advised that one should pay back a borrowed loan in the shortest time possible as this will avoid him or her paying a lot of unnecessary money in the form of interest. One would borrow money in order to make money. There could be thousands of reasons people borrow money. For consumption, farming activities, cushioning the jolt of temporary shocks, asset buildings like buying a car, a home, to

take a vacation, etc.

2.8. Credit Default Risk

National Bank of Ethiopia (NBE, 2010) identified, strategic risk, credit risk, liquidity risk, interest rate risk and operational risk as major categories of asset and liability management risk that a microfinance institution needs to pay due attention. Of all these risks, credit risk is by far the most critical of risk categories for MFIs that concerns all stakeholders where the high loan default rate is the primary cause of the failure of MFIs.

Credit default risk, according to NBE (2010), is the financial exposure resulting from a Micro finance institution's dependence on another party (counterparty) to perform an obligation as agreed. It is the risk to earnings or capital due to borrowers late and non-repayment of loan obligation. NBE further stated that it is the potential loss resulting from the poor quality of the MFIs assets particularly its credit/loan portfolio. The most obvious manifestations of risk in credit projects are poor portfolio quality that leads to bad debt losses that erode the capital of the lending microfinance institution. The major variable that should determine a MFIs risk classification system are: past and present experience with overdue payments and type of methodology used in delivering loans.

In 1999, Rosenberg defined credit default risk as the risk that a borrower will default on any type of debt by failing to make payments which it is obligated to do. The risk is primarily that of the lender and includes lost principal and interest disruption to cash flows, and increased collections costs. The loss may be complete or partial and can arise in a number of circumstances.

Therefore, credit default risk encompasses both the loss of income resulting from the MFIs inability to collect an anticipated interest earning as well as the loss of principal resulting from loan default.

2.9. Addis Credit and Saving Institution (ADCSI)

Addis Credit and saving (Share Co) is one of the largest MFIs, which is operating in Addis Ababa, the capital city of Ethiopia. It was established in 2000 for the provision of financial services to active poor people in Addis Ababa for both micro business and small business operators.

According to the revised proclamation No. 626/2009, the general objective of ADCSI is to collect deposits and extend credit to rural and urban farmers, as well as micro and small-scale rural and urban entrepreneurs. Its specific objectives are:

- Provision of credit and saving services to as many active poor as possible;
- Enhance the development of micro and small enterprises;
- Give priority to women in the provision of financial services;
- Enhance the culture of saving of the target group and the public at large;
- Create long term self-employment in income generating activities;
- Assure financial and operational self-sufficiency of the institution.

ADCSI has a three level organizational structure, namely: head office, branch office and service delivery post. Regarding the program norms, the average loan size differs according to the type of customer; for micro enterprises it is below Birr5,000 , for small enterprises it is about Birr 5,000 and for medium enterprises it is about Birr 50,000. A client obtains the next higher loan after the successful repayment of the first loan. Loan terms of ADCSI are established at different levels for different activities; maximum loan period of 3 years (36 months) for micro and small enterprise loan and 5 years (60 months) for housing loan. In order to cover its operational costs ADCSI charges 10% interest rate per annum on its loan amount. On the other hand, ADCSI pays 5% interest on the amount saved by its clients. The loan repayment rate of ADCSI was high but it started to decline since 2014/15 (ADCSI, 2018).

2.9.1. Loan discharge requirements

ADCSI provides credit for client only who fulfill the following criteria:, individuals above the age of 18 years, clients should be dedicated to using the loan properly and repaying it on time, be permanent residence of their respective areas, either engaged or ready to engage in micro and small scale business, graduates of technical and vocational training (TVET) and universities organized in the form of cooperatives or business group, projects financed should be feasible and marketable, and have good credit discipline and no mental problems and loan taken from the institution or similar institution should be settled before hand (ADCSI, 2017).

The main purpose client screening mechanisms of the institution are business profitability and experience, interest of doing business, and client's behavior. In order to know the behavior of clients specially for group lending, the firm collects information regarding historical background of borrowers from different stakeholders such as Women association, Youth association, bureau of trade and industry and small scale enterprise agency. In addition, they check the amount of money requested by the client whether it is enough for doing business or not; they have to control under and over finance. ADCSI provides loans based on different modalities. The most ADCSI provide commonly used are group guarantee (joint liability), individually with third – party guarantee, through collateral (a house or vehicle), or clients of the institution based on their savings or business enterprise can be used as a guarantee (ADCSI 2017).

Table 2.1: Performance of ADCSI

Year	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Total Amount of Loan due	385,799,823	523,721,352	818,279,421	1,430,000,000	1,750,000,000	1,936,957,208	1,774,184,028
Total loan repayment	388,565,297	505,391,105	808,460,067	1,385,670,000	1,653,750,000	1,818,987,096	1,654,592,919
Repayment Rate (%)	97%	96.5%	98.8%	96.9%	94.5%	93.9%	93.3%
Default Rate (%)	3%	3.5%	1.2%	3.1%	5.5%	6.1%	6.7%

Sources: Profile of Addis Credit and Saving Institution (ADCSI, 2018)

Addis credit and saving institution provides saving service to all members of the community (clients, non-clients, governmental and non-governmental organizations) regardless of their level of wealth. In the institution there are two types of saving services, namely, voluntary and mandatory saving that borrowers specific. Passbook saving, time deposits, safe box saving and mobile saving (door to door saving mobilization services) are different forms of voluntary saving the include borrowers and

non-borrowers client. On the other hand, mandatory saving is a saving that loan clients are expected to become eligible for the loan services of the institution. It has two forms:

1. **Security saving**—is either to deposit 5 and 10 percent for rural and urban borrowers of their total loan respectively or deducted from their loan.

2. **20/80 Saving Scheme**—clients are required mandatory saving of 20% in order to take loan to the maximum loan size ranges up to Birr 200,000 depending on the activity and business plan of the entrepreneurs. They are also obliged to save Birr 100 per month together with their loan repayment. This type of saving scheme is designed for graduates of technical and vocational education training, and universities who are mostly grouped in the form of cooperatives.

2.10. Credit Default Risk in Micro Finance Institution

Small-scale credit scheme offered to Micro and Small Enterprises (MSEs) by microfinance institutions has experienced a high rate of default in many developing countries. MFIs in these countries hold a truly alarming volume of non-performing loans (Al- Mamun et al., 2011).

Lending to Micro Small and Medium sized Enterprises (MSMEs) (the acronym SMEs and MSMEs have been interchangeably used in this study) is crucial for economic and social development on one hand, it is deemed to be highly riskier as lending decision on SME sector is characterized by higher asymmetry of information particularly in developing economies on the other. Though asymmetric information between borrowers and lenders is a general feature of all credit markets around the globe, it is acute in SME segment as information assisting default prediction are not often adequately, reliably and fairly disclosed by the SMEs. Lending decisions of financial institutions are not hence simply characterized by just the demand of borrowers for credit but it is a matter of comprehensive investigation of potential clients' credit repayment behaviors. The capability of borrowers to repay their microcredit loans is an important issue that needs attention. Borrowers can either repay their loan or choose to default. Borrower defaults may be voluntary or involuntary (Amare and Bekabil, 2008).

The agency problem, adverse selection and moral hazard that appear as a result of information asymmetries are the main reason why the credit default risk happened (Nawai & Shariff, 2010).

In credit market, a borrower who takes out loan usually has better information about the potential returns and risk associated with the investment projects for which the funds are earmarked. The lender, on the other hand, does not have sufficient information concerning the borrower. In the absence of information about exactly who is good and who is bad, lenders face a problem. This is because the lenders cannot observe the behaviors of their clients either they are honest and dishonest. The lenders can only observe the outcome of their loans either the clients repay or not (Holtman, 2001). Consequently, Information asymmetries become the main obstacle for financial institutions to provide loans to clients. In 2002, Lidgerwood claims that most micro and small enterprises tend to represent themselves as high quality borrowers despite the fact that lenders know that some are good and some are bad. Asymmetric information is particularly acute for micro and small enterprises because there is very little publicly available information that can be used to assess credit quality.

As a result, Adverse selection and moral hazard jointly generate a socially inefficient supply of finance (i.e. smaller supplies) that one would obtain in a world without asymmetric information problems where truly credit worthy clients would not be rationed out of the lender portfolio (Absanto & Aikaruwa, 2013).

On the other hand, there are several factors that have been attributed to the high default rates in small-scale credit. On the one hand, there are those who argue that characteristics of micro and small enterprises make the cost of administering credit very high compared to the return on the loans. Micro and small enterprises possess shallow management, often with little experience and training; they are usually undiversified, one product firms, they are sometimes new businesses with little track record, and poor financial recording; they may have a new unproven product; they may be reluctant to raise outside equity capital for reasons of expense, loss of control and increased disclosure requirements. These characteristics of micro and small enterprises provide little incentive for any aggressive loan recovery mechanisms (ILO, 2008).

In 1996, Hunte argues that to understand the determinants of loan repayment performance in micro and small enterprises in all its dimensions, it helps to think in terms of loan beneficiary's assets, the returns to (or productivity of) these assets, and volatility of returns or income. He also states that the returns to these assets and volatility of returns depend on access to markets, market fluctuations and access to assets, which in turn determined by fundamental political and social forces and legal structure that defines and enforces private property rights. Thus, the factors affecting loan repayment performance of micro and small enterprises are the result of systematic risk from external factors such as the economic, political, legal and business environment in which the borrower operates.

Bachanga and Aseyo (2013) and Olomola (2000) identified causes of high credit risk as poor management information system, poor screening of borrowers, weak appraisal of loans, unclear communication about product and methodology, no immediate follow up, mixing other social activities with, poor product, natural disasters, corruption at field staff level such as taking bribe for loans or frauds can result in delinquencies and demotivated employees. Jonathan and Beartize (2005) confirmed that credit default risk is often a result of poorly designed loan product and delivery mechanisms.

Saunders and Cornett (2001), on the other hand, assert that Poor economic conditions and high interest rates contribute to the likelihood of default for many microfinance borrowers. They also reveal that credit default risk is more likely when a borrower has accumulated large losses and other debt burdens.

2.11. Controlling credit default risk

Loss arising from defaults on loans is among the most serious risks to which microfinance institutions are exposed. Because of the vulnerability of the microcredit sub-sector, lending institutions continue to adopt different techniques to improve repayment frequency and grant more credit access to borrowers who pay their credit on time (Rosenberg, 2002). Besides that,

microfinance institutions have to develop lending technologies to help overcome credit market information problems, enhancing the value of the product, while limiting the credit default risk to the institution.

In this regard, perhaps the most celebrated feature of microfinance is the group liability contract, a lending methodology pioneered by the Grameen Bank in Bangladesh. Under this contract, loans without collateral are extended to a group of borrowers whose members are jointly liable for each other's repayment. Since groups form voluntarily and group members are responsible for paying off each other's debts, borrowers have the incentive to screen risky clients, monitor their peers, and enforce repayment. This model is particularly important since micro and small enterprises suffer most from institutional weakness (Carpena et al., 2010). They also assert that MFIs offer credit through group-based lending method to mitigate agency problems, moral hazard and adverse selection and to replace the collateral requirement.

Similarly, in order to overcome the problems associated with the lack of information, the group lending scheme takes an advantage of local information, peer support, and, if needed, peer pressure. The group members may have better information about individuals' efforts and/or abilities than the lender because encourage repayment hence reduce the probability of loan default (Retta 2000). Besides, the joint liability element generates individual incentives to screen (Mitigating adverse selection), monitor each other (mitigating moral hazard) and enforces repayment. Besides that, dynamic incentives are also helps to generate information by starting with small loans and gradually increasing loan size as customers demonstrate reliability (Carpena et al., 2010).

Although studies indicate that such schemes work well if groups are homogeneous and jointly liable for defaults, the practice of denying credit to all groups in case of default is the most effective and least costly way to enforce joint liability (Besley & coate,1995). Thus, it is proved that through group lending, it could mitigate moral hazard, adverse selection and information asymmetry faced by MFIs.

In the view of Saloner (2007), group lending will also minimize loan default. Many microfinance

institutions borrow in groups and choose to lend to groups of borrowers rather than on an individual basis. As opposed to ROSCAs, the microfinance institutions provide the loans so that the borrowers are not limited to the money that they themselves can contribute. The general organization of group lending consists of a group of borrowers who work together, support, and mentor one another to maximize the impact that the loan can have on each individual. Additionally, in many group lending situations, the members of the group are responsible for selecting new members and for the timely repayment by other members, known as joint liability. As a result, group lending tends to lead to superior performance by the borrowers in operating their businesses and better rates of loan repayment.

Nawai and Shariff (2013) and Saunders and Cornett (2001), on the other hand, substantiate the claim that to mitigate the repayments problems, a close relationship between lender and borrower can be applied through business adviser and regular meeting. Besides that, the lender can introduce reward system to those that paid on time such as rebate or discount. Moreover, screening borrowers in order to determine these who are most likely to default; monitoring the loan agreement overtime to maximize the probability the loan will be repaid; and helping the borrower manage financial distress, if it should occur, so that the losses incurred are kept to a minimum are also crucial procedures in overcoming loan default problem (Mishkin & Eakins, 2010).

Credit Default Risk Analysis

Saunders and Cornett (2001), Koch (2007) and Sally (2011) identified key risk factors that enable Microfinance institutions to predict loan repayment performance of borrowers and these have been classified according to the five Cs of credit risk analysis. i. e. Character, Capital, Capacity, Condition and Collateral.

- Character refers to the way a person has handled past debt obligations. Paying heed to character includes determining the borrower's credit history and personal background, honesty, and reliability to pay debts. Most credit managers consider character the most important factor in predicting whether the borrower will make timely payments and ultimately repay his/her loan .
- Capital refers to the borrower's wealth position measured by financial soundness and market

standing. It involves a borrower's current available assets, such as real estate, savings, or investment that could be used to repay debt if income is unavailable.

□ Capacity involves both the borrower's legal standing and management expertise in maintaining operations so the firm or the individuals can repay its obligations. Considering a borrower's capacity also involves determining how much debt he or she can handle comfortably by analyzing income streams and identifying any legal obligations that could interfere with repayment

□ Condition refers to the economic environment or industry specific supply, production and distribution factors influencing firms operations. Repayment sources of cash often vary with the business cycle or consumer demand .

□ Collateral is the lenders secondary source of repayment or severity in case of default. Having an asset that the Microfinance institutions can seize and liquidate when borrower defaults reduces loss, but it does not justify lending proceeds when the credit decision is original.

2.12. Empirical Study on Loan Repayment Performance

Loan repayment performance is affected by a number of socio-economic and institutional factors. While some of the factors positively influence the loan repayment, the other factors are negatively affecting the repayment rate. Regarding to the loan repayment performance of borrowers several studies have been conducted in many countries by different authors. Some of the studies are summarized below.

2.12.1. Empirical Studies in Other Countries

Bhatt and Tang (2002) studied the determinants of loan repayment in microcredit evidence from programs in the United States. Their study showed that women has low repayment rate because some women entrepreneur in the study might have been engaged in high risk and low return activities. Godquin (2004) also examined the microfinance repayment performance in Bangladesh. His result is female borrowers did not prove to have a significant better repayment performance. The size of loan and the age of the borrower showed the negative impact on the repayment performance. On the contrast, Abreham (2002) showed in his study male borrowers are the undermining factors for repayment.

Zeller (1998) analyzed the determinants of repayment performance of credit groups in Madagascar. His finding is groups with higher level of social cohesion have a better repayment rate. Moreover, the programs that provide saving service to their members have a significantly higher repayment rate. Olagunju & Adeyemo (2007) and Oke et.al. (2007) also analyzed the determinants of repayment decision among small holder farmers in southwestern Nigeria. The result showed that the number of visits made by loan officers to the borrowers, higher level of education, and time of loan disbursement would have a better repayment performance. Moreover, borrowers with lower number of household members would meet their repayment obligation better than those with high number of household members. And having access to business related information and providing training to the clients are increasing the loan repayment rate of the borrowers.

Nawai and Shariff,(2010), used literature review to analyses the determinants of repayment performance in microcredit programs and they state that repayment problems become the main

obstacle for the microcredit institutions to continue providing microcredit services. Their study also discloses that determinants of repayment performances in micro credit programs can be divided into four factors namely borrower characteristics, firm characteristics, loan characteristics and lender characteristics.

The determinants of loan repayment under the indigenous financial system in southeast, Nigeria (Eze and Ibekwe,2007). They employed descriptive statistics and multiple regressions to analyze the data. The analyzed data reveals that amount of loan received, age of beneficiaries, household size, educational attainment, and occupation can influence loan repayment. Determinants of loan repayment performance of fishermen, Ghana employed multiple regression analysis in their study. Their results revealed that low level of education, lack of alternative income generating activity, cumbersome loan processing procedures, they are likely to have high loan default. The study identified fishing income, amount borrowed and size of loan invested into fishing as significant predictors of loan repayment (Acquah and Addo, 2011).

Gómez and Santor (2008) used descriptive statistics and a standard probit model to study if the microfinance lending model actually work in Nova Scotia, Canada and they reveal that the ratio of household income to loan payment was higher for group than individual borrowers (16.9 vs. 12.5 percent). Also they noted that borrowers who knew more of their fellow members before forming the peer group were less likely to default. Moreover, they reveal that individuals with greater social ties were less likely to default than others who did not belong to an association, club, or sports team.

The causes of loan default within micro finance institutions in Kenya , the study found out that loan repayment default was as result of non supervision of borrowers by the MFIs (Okibo,2013).

Research by Al-Mamun et al. (2013) investigated the factors affecting loan repayment performance of microfinance borrowers in Malaysia. Results from the logistic model showed that the factors affecting the ability of the borrowers to repay their loans are borrowers' level of education, income from other sources, and business experience, business factors, borrowers' attitude towards their loans, other debt burden, amount of loan received, and household size. The research further revealed that business factors such as business loss and failure are the main reasons why borrowers can not payback their loans on time. Besides, the borrowers' attitude

towards their loan is also the reason why cannot payback their loan on time.

Vasanthi and Raja (2006) used descriptive and logit model and reveal that that lower income is one of the major factors causing loans default for housing borrowers in Australia. Duy (2013) compared the repayment performance of farmers and non-farmers borrowed from formal banks in Vietnam by using a tobit and reveals that loan repayment performance is positively affected by the gender of borrowers.

2.12.2. Studies in Ethiopia

Berhanu (2005) studied on the determinants of loan repayment performance of smallholder farmers in North Gondar, Ethiopia. In order to analyze the factors that affect loan repayment, he employed the tobit model. A total of 17 explanatory variables were considered in the econometric model. Out of these seven variables were found to significantly influence the repayment performance. These were land holding size of the family, agro-ecology of the area, total livestock holding, number of years of experience, number of contacts, sources of credit and income from off-farm activities. The remaining variables (family size, distance between main road and household residence, purpose of borrowing, loan amount and expenditure for social festivals) were found to have insignificant effect on loan repayment performance of smallholder.

Abafita (2003) analyzed the microfinance repayment performance of Oromia Credit and Saving Institution in Kuyu, Ethiopia. According to his finding; sex, loan size and number of dependents are negatively related to loan repayment. On the other hand age was found to be positive, while age squared turned to be negative. Income from activities financed by loan, repayment period suitability and loan supervision are positively and significantly related to loan repayment performance. Moreover, loan diversion is significant and negatively related to loan repayment rate. The negative sign implies that the use of diverted funds for non-income generating purposes.

Retta (2000, cited in Abafit, 2003) employed probit model for loan repayment performance of women fuel wood carriers in Addis Ababa. His finding is frequency of loan supervision, suitability of repayment period and other income sources are found to encourage repayment hence reduce the probability of loan default. While educational level is negatively related to loan repayment.

Assefa (2002) employed a logit model to estimate the effects of hypothesized explanatory

variables on the repayment performance of rural women credit beneficiaries in Dire Dawa, Ethiopia. Out of the twelve variables hypothesized to influence the loan repayment performance, of borrowers, six variables were found to be statistically significant. These are farm size, annual farm revenue, celebration of social ceremonies, loan diversion, group effect and location of borrowers from lending institution.

A recent study by Fikirte (2011), Samuel (2011) and Abdissa (2012) indicated that age, education, income, loan supervision, suitability of repayment period, availability of other credit sources and livestock holding are important and significant factors that enhance the loan repayment performance of borrowers, while loan diversion, celebration of social ceremonies, household size and loan size are found to significantly increase loan default. The study also revealed that being female and business experiences of the borrower were found to be significant in enhancing loan repayment performance of borrowers.

Abreham (2002) did a study on loan repayment and its Determinants in Small-Scale Enterprises Financing in Ethiopia concluded that having other sources of income, education, and work experience in related economic activity before the loan are enhancing while loan diversion, being male borrower, and giving extended loan repayment period are undermining factors of the loan recovery performance of projects.

Addisu (2006) applied descriptive, multivariate regression and logit analysis to assess the micro-finance repayment problems in the informal sector in Addis Ababa (Ethiopia) and finds that the Government owned and NGOs microfinance institutions were found to have high default rate because they perceived risk as a grant and not a liability.

As shown above most of these studies conducted in this topic focus agricultural loans and manufacturing sectors from small to medium size which do not cover micro and small scale enterprises in urban settings. Therefore this research was undertaken to fill the gap of information on factors behind the loan default problem that micro and small enterprises are associated with.

The average default rate in 2013 was 1.2%, but in 2017 it was 6.1% (ADCSI, 2017). This implies that the default rate is increasing over time. If it continues like this, the institution will not be effective for the future. Therefore, it is necessary to identify the socio economic factors of defaulters to make corrective measures in the short ,medium and long-term planning horizons.

2.13. Conceptual framework of the study

The conceptual framework in the figure 2.1 portrays the relationships between the independent and dependent variables. The study conceptualizes that the given independent variables affect loan repayment performance of the micro and small scale enterprise borrowers of the MFI institution under investigation.

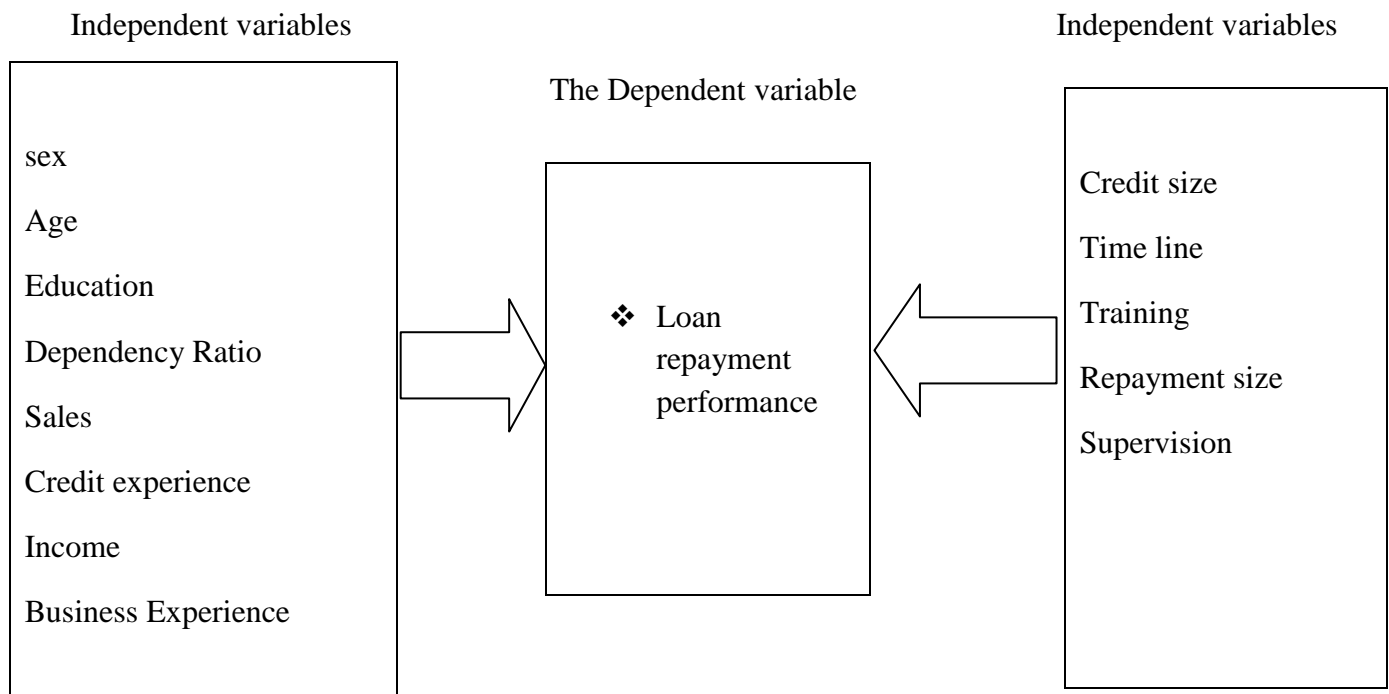


Figure 2.1 conceptual framework of the study

Source own 2018

CHAPTER THREE

3. RESEARCH METHODOLOGY

3.1. Research design

For this study both quantitative and qualitative approach were used. This study used causal research design to describe the socio-economic characteristics of micro and small enterprises borrowers in Addis credit and saving institution in Ethiopia.

Based on economic theory, observations and empirical studies variables which could affect the repayment performance of micro and small scale borrowers have been identified for this study.

The quantitative aspect of the data was focused on description of socioeconomic variables, loan related variables, and business related variables and attempted to assess the relationship between this variables and repayment performances.

Qualitative research approach also used to identify results to be best understanding the research problem.

3.2. Source and type of data

3.2.1. Primary data

The primary data was collected from the sampled borrowers (both defaulters and non-defaulters) through structured interview. Interview was made with key informants such as Loan Officers, Branch Manager and operation managers at head office to know the status of portfolio quality of the outstanding loans in the selected branch and overall institutional level.

3.2.2. Secondary Sources

Secondary data were obtained from the branches' progress report. These materials were collected from the ADCSI head and branch offices and the Ethiopian micro finance institution associations (EAMFI).

3.3.Targeted population for this study

The targeted population of the study includes 10 branches and 116 service delivery centers in Addis credit and saving institution, in Ethiopia. The study focused two service delivery centers ,2073 borrowers out of 11,000 borrowers from Arada branch and 4 employees.(ADCSI 2017)

3.4.Sampling technique and methodology

For this study both random and purposive multi- stage stratified sampling methodology has been employed.

From a total of 10 branches of ADCSI, ,Arada branch was selected purposefully based on the diversified business activities financed by the branch compared to others. By the same reason two service delivery centers were selected from five service delivery centers of the branch.

From selected centers complete list of clients has been undertaken. Borrowers have been stratified based on the loan repayment conditions. Borrowers who paid their loan as per the agreement called non defaulters are in one stratum. Borrowers who did not repay their loan as per the loan agreement were called defaulters in another stratum. Then after equal proportion of households were selected randomly from each stratum.

3.5.Sample size determination and sampling procedure

A sample refers to a set of individuals/companies/ selected from an identified population with the intent of generalizing the findings to the entire population. A sample is drawn as a result of constraints that make it difficult to cover the entire research population (Leedey and Ormord,2005).

Sampling refers to the statistical process of selecting and studying the characteristics of a relatively small number of items from a relatively large population of such items, to draw statistically valid inferences about the characteristics of the entire population.

Prior to the actual data collection emphasis was made on the determination of sample size that is mainly dependent on the purpose of the study, available resource and precision (variance) required, according to Sangeeth(2007).

Sudman(1996) suggests that a minimum of 100 samples are required (as cited in fikrte, 2011).

Therefore for this study 100 households were determined to be adequate size to represent the entire targeted population.

Currently ADCSI has 10 branches and 116 service delivery centers. The Arada branch was selected purposefully for this study. The reason for selection of this branch for this study purpose from other branches of the institution as mentioned above in sampling methodology is because of relatively more diversified micro and small scale enterprise borrowers financed by the branch. From the total of five service delivery centers of Arada, two were selected purposefully by the same reason to select the branch from other branches of the targeted population.

At the outset, the respondents were stratified into two categories, i.e. defaulters and non- defaulters. All borrowers of the branch's that have repaid their loans on due date were classified as non-defaulters while those who did not repay their loan for more than three months after the due date were classified as defaulters.

Equal proportion of credit borrowers was selected randomly from both categories i.e 50 from defaulters 50 from non-defaulters.

3.6. Method of data collection

Qualitative and quantitative nature, field survey method was adopted. At first, a well-structured questionnaire was prepared. Pre-testing of the structured questionnaire was carried out and depending on the results; some adjustments was made on the final version of the questionnaire. The questionnaire consisted of a wide range of questions pertaining to demographic, socio and economic characteristics of the sample respondents which includes age, sex, educational status, sources of loan, access to loan, and loan repayment behavior. The questionnaire includes both closed and open ended questions. Closed ended questions are quicker and easier both for respondents (borrowers, branch employee staffs) and researcher. Adding open ended questions allows respondents to offer an answer that the researcher did not include in the questions.

Data collect by the questionnaire have advantage because there is low cost even when the universe is large and is widely spread geographically. It is free from the bias of the interviewer; answers are in respondents' own words. Respondents have adequate time to give well thought out answers and large samples can be made use of and thus the results can be made more dependable and reliable

(C.R.kothari, 1990 2nd book). All questions were translated into the local language (Amharic). Then Primary data collected by the questionnaire through face to face contact from targeted sample MSE borrowers and operators of ADCSIs to obtain information about the credit repayment problems.

3.7.Method of data Analysis

In this study descriptive and econometric methods were used for data analysis. The statistical analysis was carried out using SPSS windows version 20. The results were presented in descriptive statistics like mean, standard deviation, frequency and percentages. Binary logistic regression model was used to investigate the factors affecting the loan repayment performance of MFI clients. Econometrics models on multivariable analysis were conducted by using Binary logistic regression. Binary logistic Regression is a method used when there are two variable outcomes is expected. In binary logistic regression model, the model expressed as:

The specification of the Logit model is;

$$\text{Log } P/1-P = b\sigma + b_1 X_1 + b_2 X_2 + b_3 X_3 + \dots + b_n X_n + \mu$$

Y = repayment performance of the borrower,

$X_1, X_2, X_3, \dots, X_n$ = Independent variables;

μ = Error term;

$b\sigma$ = Constant term;

Log $P/1-P$ = Repayment performance index, non-defaulter = 1 and defaulter= 2

3.8. Definition of Variable and hypothesis

This section looked the hypothesized household characteristics, socioeconomic and institutional factors affecting loan repayment performance of microfinance clients.

The dependent variable is loan repayment performance

The independent variables that are expected to influence the borrowers' repayment performance were selected based on previous empirical studies, economic theories and observations on the

subject. In addition, efforts have been made to incorporate socio-economic factors, which were expected to be feasible and relevant in the loan repayment system of the branch.

The following dependent and independent variables were identified to discriminate between non-defaulters and defaulters

Table 3.1 Dependent and independent variables of the study

Dependent variable	Independent variables
<ul style="list-style-type: none"> ▪ Loan repayment performance 	<ul style="list-style-type: none"> ▪ Age of the borrower ▪ Education level of borrower ▪ Sex ▪ Dependency Ratio ▪ Number of times borrowed/ Credit Experience ▪ Loan size ▪ Repayment size ▪ Business Experience ▪ Loan supervision and Monitoring ▪ Training on loan use ▪ Income from other activities or sources ▪ Loan diversion ▪ Sales ▪ Timeliness of loan disbursement

Age of the borrower (AGE): is defined as the period from his/her birth to the time of interview and is measured in years. It is hypothesized to influence repayment in the borrowers acquire experience, knowledge of the loan use and accumulate wealth through time which will enable borrowers to effect repayment than younger borrowers.

Education level of borrower (EDLB): -the number of years of school attained by the respondents up to the time of the survey. Educated borrowers are assumed to have more exposure to external environment, to be acquainted with risk management and skills and knowledge through training. Education increases borrowers’ ability to get information, a more educated borrower is expected to use the loan effectively as compared to a less educated one. Therefore, under ceteris paribus assumption educated borrowers will be expected to settle their loan timely than illiterate borrowers or clients.

Sex of Borrower (SOB): There is a belief that among many microfinance specialists female are better payers” than male borrowers, taking in to consideration their being more entrepreneurial that results from assuming more responsibilities in the internal affairs of a household. Moreover,

females in urban area are relatively independent than rural area (Vigano, 1993;D' Espallier, 2009). In addition, mostly females are reliable in related to financial aspects. Thus, they can perform their business independently and repay their loan on time. So, the study expects a positive sign for this variable.

Dependency Ratio (FS): - Household size which is measured by number of dependents in the borrower's family is another factor that can have a significant impact on micro and small enterprise loan repayment. It tends to squeeze the return from the business from which credit is paid (Miche'al, 2006). Therefore, it is believed to be negatively related with repayment. Performance. Besides, because large dependency ratio implies more consumption expenditure hence may erode the fund that will be available for loan repayment. In this case, we expect a negative sign for the variable (Abraham, 2006; Samuel, 2011).

Number of times borrowed/ Credit Experience: -It is the number of times the borrowers use of credit from formal sources. Borrower who has experience would develop reputation and might demonstrate credit worthiness and become trustworthy. Moreover, they may develop skills on how to allocate resources and adopt simple business plans. Therefore, experienced borrowers may settle their debt on time and may positively affect the loan repayment performance.

Loan size (LS): - Von Pischke (1991) noted that efficient loan sizes fit borrowers' repayment capacity and stimulate enterprise. If amount of loan released is enough for the purposes intended, it has a positive impact on the borrower's capacity to repay. If on the other hand the amount of loan exceeds what the borrower needs and can handle, it has more of a burden than help, thereby undermining repayment performance. Also positive or negative sign may be expected if the loan is too small. If the loan is too small it may be easy to repay such loans thus enhancing performance (i.e. positive sign). However, too small loan may not bring commitment on borrowers to use the loan productively (Von Pischke, 1991). It may also encourage borrowers to divert the loan to other purposes, increasing credit risk and undermining performance, in which case a negative sign for the Variable is, expected (Vigano, 1993). On the other hand, large loan beyond the management capacity of the borrower particularly to the poorest may have a negative effect on the loan repayment rate. Therefore, the sign is indeterminate a priori.

Business Experience: As experience in the business of the borrower increases, the more knowledgeable he/she would be about the business and the more efficient and profitable it would become in its operation. Further, borrowers who acquired extensive experience in similar

economic activity before the loan knows how to run a profitable business than new ones hence could have better repayment record (Abraham, 2002). Thus, a positive sign is expected

Loan diversion (LD): The impact of this Variable depends on what use the diverted loan is put to. If they used for productive purposes than the intended ones then repayment will be enhanced. If on the other hand the loan is diverted to non-productive uses, it will have a negative impact. Sometimes borrowers will use production loan for consumption smoothing purpose as credit is fungible to use not for intended purpose.

Income from other activities or sources (IFOA): Some borrowers may have other sources of income like income from employment in government or private organizations or other members of the family, pension, etc. Such sources of income are expected to have positive contribution towards loan repayment performance. But if availability of such sources creates carelessness on the part of borrowers in fulfilling their obligation of repayment possibly considering the next loan unnecessary, it may well undermine repayment performance. Hence this variable may assume positive or negative sign.

Loan supervision and Monitoring (LSPM): This is a dummy variable which takes a value of 1 if the borrower was supervised during the survey year and 0 otherwise.

Monitoring by lenders or loan committee enables them to identify borrowers' financial status and to estimate the possible outcome (profit or loss) and may warn the borrower. Based on the recommendations given by supervisors, correction measures may be taken by the lenders and borrowers. However, it is difficult for the lenders to know the status of disbursed loans with loose supervision and monitoring. It is hypothesized that supervision and loan monitoring has a positive effect in loan repayment.

Training on loan use (TLU): This is dummy a variable which takes a value of 1 if the borrower receives training on business related issues and 0 otherwise. Training (conceptual and practical) improves the household's confidence to run their activities based on their business plan. Training enables the borrower to expand and effectively run the existing business or enhance their capacity of engaging in the new businesses. However, untrained borrowers may change his/her original business without considering worthiness of the business and they may divert the loan to unintended purposes. Therefore, training contributes to good credit performance and lack of training on business plan may result in poor repayment performance.

CHAPTER FOUR

4. Results and Discussion

The results of analysis have been conducted to address main and specific objectives of the research; this chapter presents, analyzes and interprets the data gathered from the respondents through survey instruments. From 110 questionnaires distributed for this research, 100 useable questionnaires were returned giving responses rate of 90 %, which was considered satisfactory for subsequent analysis.

To this end, descriptive statistics was used to describe the socio –economic characteristics of respondents; binary logit regression model was applied to analyze the quantitative data collected through questionnaire. Moreover, this chapter presents the marginal effect of each explanatory variable on the discrete dependent variable.

4.1.Descriptive statistics result

Descriptive statistics analysis is made use of tools such as mean, percentage, standard deviation and frequency distribution. In addition, T-test was employed to compare defaulter and non- defaulter group in terms of each explanatory variables.

4.1.1. Socio-economic characteristics of the respondents

Table 4.1: Age of respondents

Variable		Defaulters N=(50)		Non defaulters N=(50)		Total sample N=(100)	
		N	P	N	P	N	P
Age (in years)	25-35	25	50%	14	28%	39	39
	36-46	14	29.5%	19	38 %	33	33
	47-57	8	16%	13	26%	21	21
	Above 58	3	4.5%	4	8 %	7	7

Sources: Survey results, 2018

N =Number of respondents P = Number of respondents" percentage

Table 3 indicate that age of sample respondents ranges from 25 – 66 years. Accordingly, a substantial part of the defaults borrowers 50% ranges from 25-35, the respondents" age range from 36-46 constitutes 33%, the age range from 47-57 comprises of 21% and the remaining 7% of the respondents were composed the age range of above 58. The proportion of non-defaulters" age was highest in range of 36-46 by constituting 38%, and lower in the age range of above 58 representing 8%.

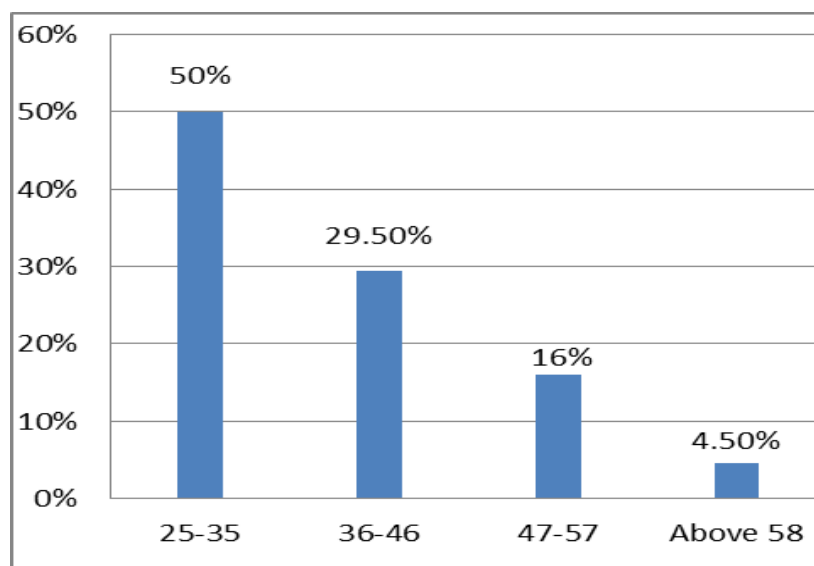


Fig. 4.1: Age range of the defaulters

Source : Survey results

The survey result showed that the borrowers at younger stages become more defaulter than at older age. Because at elder as age of borrowers" increases they develop into matured and accumulate wealth, obtain experience in business management and credit use than youngsters. Then these and related positive variables enables elder borrowers to be better payers than youngsters.

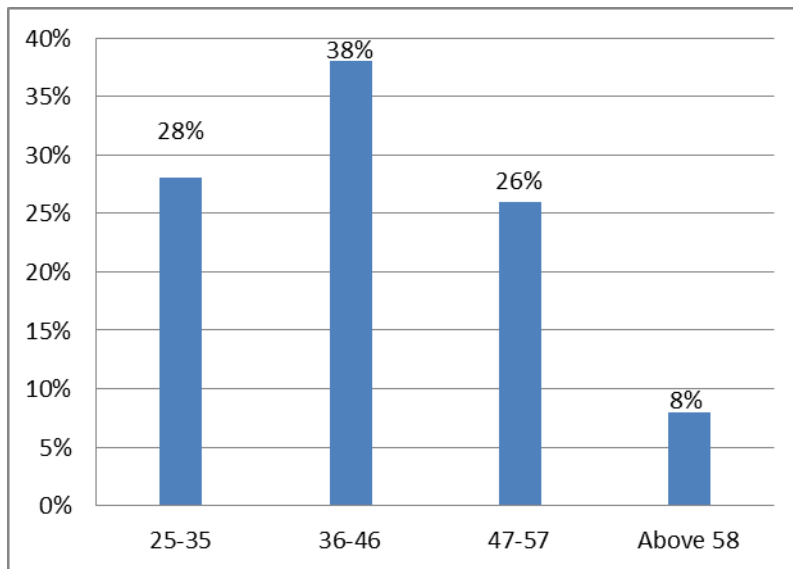


Fig 4.2 Age range of non-defaulters

Table 4.2: Education of respondents

Variable		Defaulters N=(50)		Non defaulters N=(100)		Total sample N=(88)	
		N	P	N	P	N	P
Education level	Illiterate	17	34%	10	20%	27	27
	Grade 1-8	23	46%	15	30%	38	38%
	Grade 9-12	9	18%	20	40%	29	29%
	Above 12	1	2%	5	10%	6	6%

Sources: Survey results, 2018

The survey result explained that 73% of the sample respondents were literate with different

educational level. Table 4 showed that, from the total respondents of defaulters, 34% respondents are illiterate, 46% respondents are primary school (grade 1-8), 18% respondents are high school (9-12), and 2.5% respondents are above grade 12. This indicates how low level of education is negatively affecting loan repayment performance or higher level of education influences loan repayment positively.

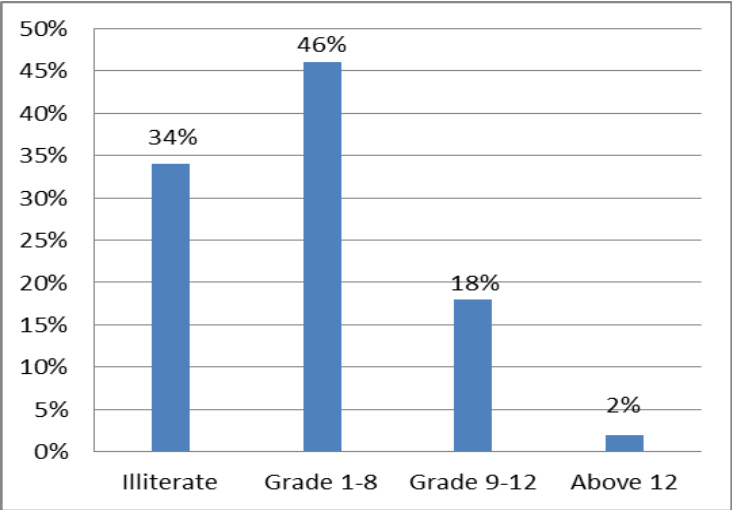


Fig. 4.3: Educational level of defaulters

Sources: Survey results

The educational level of non-defaulters were: 20% respondents illiterates, 30% respondents primary school (Grade1-8), 40% respondents high school(Grade 9- 12), and 10% respondents are above 12.This illustrate as the level of education increases , it enhances the probability of loan repayment by borrowers.

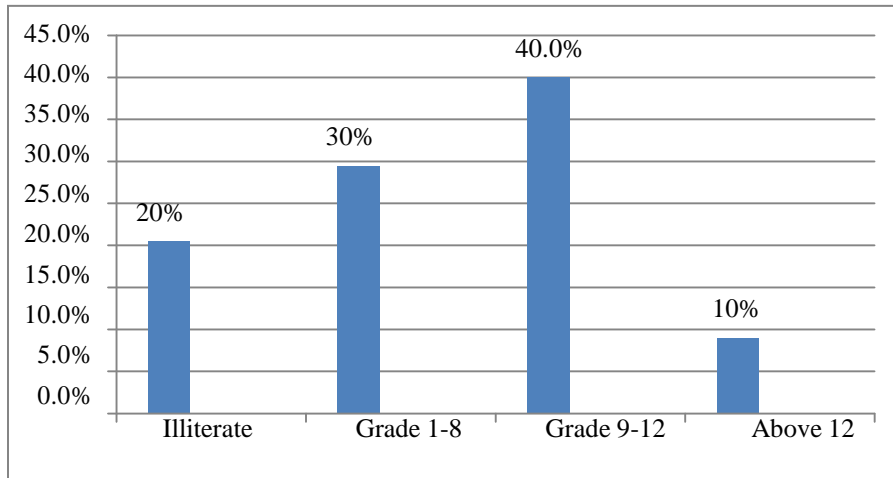


Fig. 4.4: Educational level of non-defaulters
Sources: Survey results

Table 4.3: Marital status of respondents

Variable		Defaulters N=(50)		Non defaulters N=(50)		Total sample N=(100)	
		N	P	N	P	N	P
Marital status	single	11	22%	14	28%	25	25%
	married	24	48%	26	52%	50	50%
	divorced	13	26%	8	16%	21	21%
	widowed	2	4%	2	4%	4	4%

Sources: Survey results, 2018

As indicators to marital status, from the above table 5 total sample respondents 25%, 50%, 21% and 4% were single, married, divorced and widowed, respectively. The marital status of defaulters was single, married, divorced and widowed 22 %, 48%, 26%, and 4%, respectively. Whereas the martial statuses of non-defaulters were married, single, divorced and

widowed of 52%, 28%, 16% and 4%, at the same order.

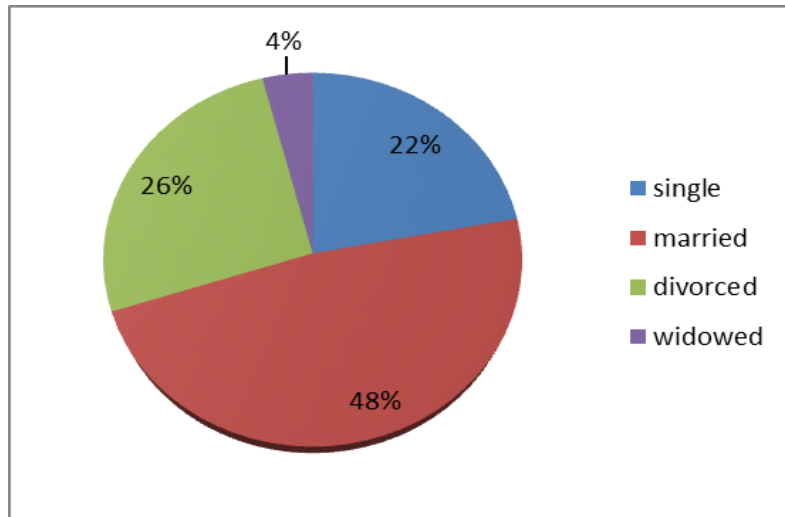


Fig.4.5: Marital status of defaulters
Sources: Survey results

Statistically, it was found that the percentage differences between the two groups were insignificant (Table 5). This indicates that being single, married, divorced, and widowed have the same status either to repay or not to repay.

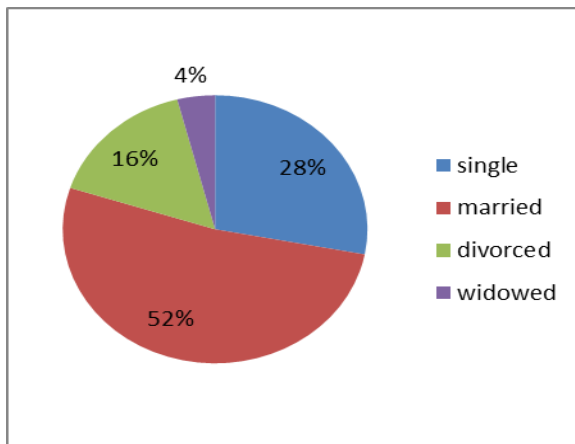


Fig. 4.6. Marital status of non-defaulters
Sources: Survey results

4.1.2. Nature of repayment problems

Loan repayment problems in general and default problems in particular are attributed to three categories as summarized below:

Table 4.4: *Cause of loan repayment problem*

Cause		Respondents
Borrowers related	<input type="checkbox"/> Lack of formal education	35%
	<input type="checkbox"/> Many dependents	51%
	<input type="checkbox"/> Poor business experience	48%
	<input type="checkbox"/> Loan spend to other purpose	69%
Business related	<input type="checkbox"/> High competition/Low sales	35%
	<input type="checkbox"/> Market problem	30%
	<input type="checkbox"/> Working capital shortage	23%
	<input type="checkbox"/> Lack of business supervision	46%
	<input type="checkbox"/> Increase input price	15%
Loan/lender related	<input type="checkbox"/> Inadequacy of loan size	37%
	<input type="checkbox"/> Loan disbursement lag	36%

Source: from survey result, 2018

As shown in the table above borrowers related subset out ways others. Borrowers" related cause such as lack of formal education, existence of many dependents, and lack of adequate business experience and problem of loan spend to other purposes. For the above listed causes the major reason for the borrowers to default, each having a percentage share of loan spend to other purpose 69% and continuation of many dependent 51%.

The increment of dependent in the family and credit spent unplanned purpose are one of the negative impact on the borrowed capital and eventually makes the money unavailable for repayment where by lowering the chance of its being repaid.

Be short of formal education 35% and insufficient business experience 48%, are the major causes of being a defaulter reported by respondents. These variables as significant ones making them not to repay the loan on time.

Comparable assessment of business related causes made lack of business supervision (46%) and market problem (30%) as the major reasons for borrowers to default. Additionally from this business related factors, high competition /low sales/ (35%) and working capital shortage 23% to be among the major reasons making them unable to repay the loan.

With regards to the third category, three loan related causes are listed: loan disbursement lag, smaller loan size and other causes like factors related to the macroeconomic environment. Asked why they default, 37% and 36% of respondents report inadequacy of loan size and loan disbursement lag as the major cause to be a defaulter respectively whereas only 17% of them mentioned other causes such as the harsh economic conditions, stiff competition and general rise in price of inputs negatively affecting their repayment performance. Of other causes, changes in the external economic environment, a rise in price of inputs, for instance, accompanied by decline in selling price, and low demand for their products limits their repayment capacity considerably.

The third category of lending institutions, loan officers were unquestionable in their belief that entertainment of funds to unprofitable uses was an important cause of credit default. Chances of default also increase when credit amounts given are lower than the amounts requested. And lending institutions structure was described as too rigid and thus not responsive to changing client needs. Besides, the length of time it takes for a potential borrower to apply and get the loan has an effect on the use and repayment of the loan. In the selected branches of Addis Credit and Saving Institution program, on average it takes 1.5 months for an applicant to apply and receive a credit. Although the lending institution has computer facilities, those facilities do not contain appropriate software to process borrower's information promptly or to track potential defaulters. Despite the measures, the institutions believed that trends of default are gradually increasing.

Default problems destroy lending capacity as the flow of repayment declines, transforming lenders into welfare agencies, instead of a viable financial institution. Loan default may also deny new applicants access to credit because the micro finance institutions management problems augment in direct proportion to the increasing default problem (Hunte, 1996).

4.1.3. Descriptive Statistics of Continuous Variables

The study in this section largely focused on t-test to know the statistically significant difference between the mean of any of the explanatory variables attributed to a defaulter and a non-defaulter category. Subsections below give a detailed such tests with some explanations for those variables which are found to be statistically significant.

Table 4.5: T-tests of Continuous Variables against borrowers' repayment status.

variable	Default N=50		Non default N=50		Total respondents N=100		T-value
	Mean	St.dev	Mean	St.dev	Mean	St.dev	
AGE	39.09	9.08	35.98	8.18	37.53	8.63	1.5
BUSEXPR	2.55	2.1	4.7	2.43	3.62	2.27	-3.25***
DEPRATIO	0.71	1.02	0.62	1.23	0.66	1.25	2.35***
SALES	1188	1520	2353	2241	1770.5	1880.5	3.32***
CREDEXP	2.77	3.94	3.6	4.45	3.18	4.95	-2.29*
REPSIZE	850	556	1182	620	1016	593	1.80
INCOME	916	734	1458	1014	1187	874	11.10***

Source: Survey result, 2018.

*, **, and *** represent significance at 1%, 5% and 10% levels of significance respectively.

Five of the seven continuous variables show to have a statistically significant relationship with the borrower being either a defaulter or a non-defaulter. There is, for example, a statistically significant deviation between the dependency ratio borrowers falling in to either category, implying family size matters in the repayment performance of the borrowers. The averages of, business experience, monthly sales, credit experience and other income falling in to both categories as well have some significant statistical deviations.

The average age in years and dependency ratio of borrowers was estimated to be around 37 and 0.66 respectively. This is almost the same with the mean age and dependency ratio of the two repayment categories described on table 7. At this level, dependency ratio does not seem to have the expected direct relationship with repayment performance.

Experience in business engagement indicates, as a whole, close to 4 years but with high standard deviation of 2.2 years. Therefore, there is high amount of deviation in business experience among borrowers. The categorical table indicates that those non default borrowers are more experienced with average number of years of 4.7 compared to 2.55 years for default borrowers.

The sales variable shows high amount of deviation, both within the same category in all categories and among the two categories. Sales within the non defaulters category shows an average of birr 2353 and standard variation of birr 2,241. The average sale of default borrowers was 1,118 birr and is below the total average of birr 1,770.5. At this level sales level does seem to have the expected direct relationship with repayment performance.

Default borrowers" category repays total mean on monthly the smallest amount of birr 850 compared to 1,182 for non-default borrowers. This might give an insight about the strength in effect of repayment size as a repayment performance determinant.

The other income variable indicates a total mean of monthly birr 1187 but with a standard deviation of birr 874. The large amount of variation in other source of income is indicated in the categorical description as the average amount of other income for non-default borrowers is 1458 compared to 916 default borrowers.

4.2. Econometric results

In this section, econometric analysis was carried out in order to identify the most important and significant factors that affect the loan repayment performance of borrowers. For this analysis Binary logit using maximum likelihood estimation to estimate the parameters of the equation. As of the descriptive statistics information has indicate that there are many variables that affect the probability of a borrower being either a defaulter or non-defaulter. The section that follows is devoted to the discussion of the econometric analysis of the impact of those variables on the borrowers' decision to reimburse back their loan or not.

Table 4.6: Binary logit estimates of loan repayment performance

Variable	Coefficient (standard error)	Variable	Coefficient(standard error)
SEX	-0.06998(0.0462641)**	SALES	-0.55924(0.0127411)**
AGE	0.5303557(0.0500083)	CREDEXP	-0.088323(.0177951)**
EDU	0.831134(0.0213128)***	REPSIZE	0.0709312(0.0126582)**
CRESIZE	0.34304(0.0834841)**	INCOME	-0.129512(0.0935749)**
DEPRATIO	0.899101(0.0332425)**	SUPER	-0.12022(0.0101121)***
TIMELINE	0.26598(0.0364738)	BUSEXP	-0.24562(0.0133512)*
TRAINING	0.466542(0.0358466)	cons	1.8237

Source survey result 2018

*, **, and *** represent significance at 1%, 5% and 10% levels of significance respectively.

As there are two categories in the alternative, we will have only one equation with the one serving as a base category, in our case being a non-defaulter is labeled as a reference category, and every coefficient interpretation takes this variable as a reference.

$$\log(P(\text{defaulter}=1)/P(\text{non-defaulter}=0)) = \beta_0 + \beta_1 X_i$$

$$\log(P(\text{defaulter}=1)/P(\text{non-defaulter}=0)) = \beta_0 + \beta_1 \text{SEX} + \beta_2 \text{EDUC} + \beta_3 \text{DEPRATIO} + \beta_4 \text{BUSEXPR} + \beta_5 \text{CREDEXPR} + \beta_6 \text{REPSIZ} + \beta_7 \text{INCOME} + \beta_8 \text{SUPERV}$$

$$\text{Log (P (defaulter=1)/P (non- defaulter=0))} = 1.82 - 0.069 \text{SEX} + 0.83 \text{EDUC} + .899 \text{DEPRATIO} - 0.245 \text{BUSEXPR} + -0.559 \text{SALES} - 0.088 \text{CREDEXPRE} + 0.07 \text{REPSIZ} + 0.343 \text{CRESIZE} + - 0.129512 \text{INCOME} - 0.12022 \text{SUPERV}$$

In above table 8, six of the explanatory variables within the defaulters category have negative coefficient while, the remaining seven have positive coefficient. A positive coefficient shows that the variable is associated with a higher probability of being in the defaulters category than that of being in the non-defaulters category. However, the relationship is statistically significant in respect to the education, dependency ratio, credit experience and timeliness of credit release.

On the other hand, a negative coefficient shows that the variable is linked with a lower probability of being in the defaulters" category than that of the non-defaulter category. Judging by statistical significance, having business experience, higher sales volume, credit experience, other income and regular supervisory visits are more likely to be in the non-defaulters" category than the defaulter's category.

For that reason, ten of the independent variables included are found to be significant at different p - value and all of them do coincide with our prior expectations though there are yet some variables believed to affect the dependent variable but not supported by the empirical findings of this study. Age and the adequacy of training on loan use are among those variables.

Sex of the borrower was included as one explanatory variable to capture the gender dimension of the loan repayment performance. It was expected that being a female borrower lower the probability of being a defaulter. However, in fact those women having much burden in domestic responsibilities are empirically found to be more efficient and less extravagant than their male counterparts are. Our econometric result indicates that the log of the odds ratio of a defaulter to a non defaulter is lower by about -.069 (Table 8) for female borrowers as compared to male borrowers, with a significance level of 5% .In other words, female borrowers are less likely to be a defaulter and more likely to be a non-defaulter than male borrowers.

Based on theory and empirical findings referred in this document, borrowers who are literate are expected to pay their debt on time, lowering their probability of being a defaulter. The result also reveals the same effect witnessed by the log of the odds ratio of a defaulter to a non-defaulter for illiterate borrowers being 0.83 which is significant at 5%. In other words, literate borrowers are less likely to be a defaulter and more likely to be a non-defaulter, other things remaining the same. Based on the result as the level of education improved the beneficiary also enhanced the ability to read and write and in the process, improved flexibility in the occupation, which concurrently improved profit and the capacity to repay loans.

When the amount of credit increases, it is expected that the probability of its being repaid declines. The econometric result agrees with the expectation with a coefficient magnitude of 0.343, which is interpreted as a one-unit increment for credit raises the log of the odds ratio of a defaulter to a non-defaulter by about .334, which is significant at 5%.

Because of the number of children and adults not working in a family increases (i.e. dependency ratio increases), there would be an additional burden on the business the loan was taken for where by increasing the probability of the loan not being repaid on time. The result shows a coefficient of magnitude of 0.899 which is interpreted as one unit rise in the dependency ratio increases the odds ratio of defaulter to a non-defaulter by about .899, which is significant at 5%. This indicates that as the number of dependents increases, the borrower will need more money to fulfill their requirements in addition to the obligation of credit repayment.

The other variable also affect are income source. It was expected that households who have additional income as remittance or from any other source will have higher chance of being a non-defaulter as the additional income would help the household deal with other household issues without putting a pressure on the borrowed money. In the econometric result, it is found that the coefficient for this variable is 0.129 which is interpreted as the existence of remittance to the family decreases the log of odds ratio of being a defaulter to a non-defaulter by about -0.129 which is significant at 10%.

Similarly, business experience, monthly sales amount, credit experience and credit supervision

are expected to affect loan repayment performance. The research as well found out that (Table 8) these variables negatively affect the probability of the borrower falling in to a defaulter category. That is, having one more year business experience, for example, lowers the log of the odds ratio of a defaulter to a non-defaulter by 0.245 which is significant at 1%. This was because experience provided the capability with which the entrepreneur managed the ever changing business environment and was a critical decision tool. The same result that of Abraham (2002) supported this hypothesis.

4.2.1. Estimation of loan repayment performance

The coefficients need to be adjusted to be marginal effects in the case of the logit model. In other words, the marginal effect, which gives the partial derivatives indicating the change in the probability of the dependent variable relative to a unit change in one of the independent variables, needs to be computed.

For continuous variables, the marginal effect is the probability change in response to a unit change in the value of the independent variable at the mean value. For dummy variables, the marginal effect is computed as the difference in probabilities of the dependent variable between the group with designated value 1 and the base category. Furthermore, it should be noted that the signs of the beta (β) coefficients are not necessarily the same as that of the marginal effects.

The marginal effects for both defaulters and non-defaulters were obtained and except monthly sales volume, the marginal effect of all explanatory variables do coincide for both categories i.e. any variable negatively affecting the probability of being a defaulter, positively affects the probability of being a non defaulter, and are statistically significant in both cases though the level of significance differs. In other words, the two are found to be two extremely opposing forces and thus much emphasis has been given to the interpretations of the marginal effect on the probability of being a defaulter, assuming similar arguments and conclusions can be drawn for that of the marginal effect on the probability of being a non-defaulter.

Table 4.7: Estimation of marginal effects of loan repayment performance

Variable	Default coefficient (Standard error)	Non Default coefficient (Standard error)
SEX	-0.070706(0.00151)**	-0.0055217(0.00203)*
AGE	0.0586759(0.03952)	-0.0629045 (0.03905)
EDUC	0.09001(0.03803)***	-0.0383275(0.04522)***
CRESIZE	0.04356729(0.00166)	0.0300411(0.0035)
DEPRATIO	0.024833(0.05002)***	-0.0250682(0.04472)**
TIMELINE	0.0249385(0.01663)	0.0196682(0.01661)
TRAINING	-0.037543(0.01663)	-0.003325(0.01661)
SALES	-0.0159955(0.01404)**	0.0193156(0.0132)
REPSIZE	0.0122442(0.17653)**	-0.025477 (0.16186)**
INCOME	-0.012634(0.04846)***	-0.0197997(0.0021)***
BUSEXP	-0.0489345(0.02091)*	0.0304155(0.0789)
CREDEXP	-0.11327(0.09805)**	0.0975546(0.09782)*
SUPRV	-0.0502965(0.0526)***	0.0181312(0.01202)*

Source: Survey result, 2018

*, **, and *** represent significance at 1%, 5% and 10% levels of significance respectively.

4.2.1.1. Marginal effects of borrower characteristics

Sex: There is a belief that among many microfinance specialists female are better credit risk than male borrowers, taking in to consideration their being more entrepreneurial that results from assuming more responsibilities in the internal affairs of a household (Vigano,1993). Moreover, females in urban area are relatively independent than rural are and thus mostly females are reliable to financial aspects. Thus they can perform their business independently and repay their loan on time.. According to the result, there is a negative relationship between a borrower being female and the probability of falling in a defaulter category. The marginal effect value of -0.070706 is thus interpreted as being a female borrower lowers the probability of falling in to a defaulter category by about 7% which is indeed in line with our expectation.

Education: Higher educational levels enable borrowers to comprehend more complex information, keep business records, conduct basic cash flow analysis and generally speaking, make the right business decisions. Hence, borrowers with higher levels of education may have

higher repayment rates. As per the output in Table 9, being a literate borrower as compared to illiterates will have marginally statistical significant, 7% higher chance of falling in to a defaulter category. In other words, literate borrowers do have much higher probability of paying their loan on time as compared to illiterates. More educated owner is expected to use the loan effectively as compared to a less educated one (Amare, 2008).

Household Size/Dependency Ratio: There is a possibility of loans diverted to unintended purposes because of many responsibilities resulting from meeting the needs of many members of the family. Hence, borrowers with large family sizes have lower repayment rates. However, it is not the simple size of the family that puts a pressure on the borrowed loan because of the fact that those family members who are not only dependents but active to assist the business may raise the probability of the loan being repaid where as those family members who are totally dependents (those above the age of 65 and children) lower the probability of the loan being repaid.

However, result of the study dependency ratio was found to be statistically significant with a p value of 10% and a magnitude of 0.024833 (which is interpreted as a one unit increment in the dependency ratio results in a 2.49% marginal increment in the probability of the household head being a defaulter, other things remaining the same. This is so because of the fact that the additional family burden as a result of higher number of dependents above the age of 65 and inactive children, puts a pressure on the borrowed capital whereby decreasing its chance of being repaid within the time frame the institution puts as binding.

Business Experience: As the experience of the borrower in the business increases, the more knowledgeable s/he would be to manage the business and hence the more profitable and efficient it would become in its operation. This is believed to enhance the repayment capacity of the borrower. The result also coincides with our expectation that it has a negative sign, implying a borrower having one more year business experience lowers his/her chance of falling in to a defaulter category by about -0.0489 whereas it increases that of falling in to a non defaulter category by 0.0304

Credit Experience: If the borrower is a replicate borrower he/she may have acquired more experience on the institutions rules and regulations, and hence could efficiently utilize the credit

for the intended purpose. On the other hand, since such borrowers may have the feeling that after borrowing and effectively using the credit for relatively more years they no longer need the loan from the institutions and may be reluctant in using it as per the agreement. As per the econometric result in Table 9, having one more credit experience marginally lowers the probability of the borrower to be a defaulter by about -0.1132% , and marginally increases the probability of the borrower to be a non defaulter by about 0.0975%.

4.2.1.2. Marginal effects of loan and lender's characteristics

Size of Repayment: As the size of loan repayment increases the amount of money periodically required from the borrower also increases. This is believed to change the repayment performance of borrowers and increase their probability of default and delinquency. According to the result, the marginal effect 0.0122 which is significant at 5% for both categories is interpreted as a one unit increment in the repayment size makes the borrower 1.25% more likely to be a defaulter and 3% less likely to be a non defaulter. These coefficient magnitudes are not too small.

Supervisory Visits: Norell (2001) stated the same thing that frequent follow up and supervision by loan officer help the borrower not to end up being defaulter. This studies shows whether flexible or more constant and frequent visit by loan officer always help to reduce defaulters. The econometric binary logit model reveals that those borrowers receiving adequate supervisory visits by loan officers 5% less likely to fall in to a defaulter category and 1.8% more likely to be a non defaulter.

4.2.1.3. Marginal effects of business characteristics

Other sources of income: Some borrowers may have other sources of income like income from employment other than the business the loan is taken for, remittance, pension payments etc. Hence, the existence of these variables may boost the probability of the loan being repaid on time. Our result coincides with the theoretical reasoning that a marginal effect value of -0.012634 means the availability of other sources of income, say 100 additional income from other sources, statistically significantly lowers the marginal probability of the borrower being a defaulter by

about 1.26% which implies that a non-defaulter borrower having 100 more additional income from other business or transfer payments, other things remaining the same, will have a 1.26% lower marginal effect on the probability of the borrower being a defaulter. Thus, a borrower running diversified business other than the business the loan is taken for or having transfer payments from some other sources are more of a non defaulter as compared to those who run only a single business. The same effect, on the other hand, increases the marginal probability of the borrower falling in to a non defaulter category by 0.2%. In same line research, Acquah and Addo (2011) disclose that lack of alternative income generating activity has the probability of high loan default.

Sales: The level of sales may be one factor of loan repayment status of borrowers. Higher monthly sales volume means, the amount of fund available for credit repayment whereby strengthening the repayment performance of the borrower. An increase in income from the business activity financed by the loan is assumed to increase repayment. But sometimes success in the business may mean beneficiary will no more require credit from the same institutions, reducing the incentive to repay. The coefficient interpretation in Table 9 coincides with our expectation in a sense that the coefficient of this variable is negative. The marginal effect, though not necessarily matches in sign with the coefficient, also shows a negative causal effect as depicted in Table 9 with a value of -0.0159, which is interpreted as a non-defaulter borrowers having more (say a 100 birr additional income) sales volume, will have a statistically significant lower, i.e. 1.5% lower, marginal chance of falling in to a defaulter category.

Chapter Five

5. Conclusion and Recommendation

5.1. Conclusion

For poor peoples in rural and urban area, to fulfill their basic need through running profitable income generating activities or businesses and to keep up their contribution to the country's economic development, the need of financial service support from formal financial source is indispensable. The MFIs sector have been reluctant to extend loan to poor, on one hand, they are unable to fulfill the lending institutions requirements and on the other hand, MFIs consider them as they involve high credit risk. For the financial institute to run a profitable business venture and for borrowers to continue getting a sustainable source of finance, borrowers have to keep paying in accordance with loan repayment schedule. For the lending institute under consideration, there is a serious problem of loan default, which significantly eroded the MFIs liquidity position.

From the study findings it can be fulfilled that even though many factors can lead to loan defaults, some of the factors were regarded to be of higher effect. This is evident from the way respondents replied to questions and the analysis arising thereof. This study has shown that borrowers characteristics, business and lender factors all of which contribute to the loan repayment performance positively or negatively with varying degree of impact.

Many programs do not give much emphasis to women as non-defaulters as statistically significantly supported by the result in this study. A finding in this study strengthens the need to treat women as good credit risk than men. The study discloses that female borrowers, other things remaining the same, are less likely to fail in repaying their loan as compared to their male counter parts.

The continuance of family members and dependents would have two impacts on the loan repayment performance. The existence of family members and dependents are affecting the repayment performance of the loan positively when provided that the additional member is active in support the business or get some other income other than the business undertaking with the

borrowed capital, if the entrepreneur is able to collection this income definitely. The latter, high number of dependents, on the contrary, affects the loan repayment performance of the borrower negatively while these family members are more of inactive. Though the mere size of the family is not found to be statistically significant in this study, dependency ratio was. That is, entrepreneurs with large number of dependents are more likely to default.

The other finding of the borrowers who support their business by other sources of income (through either remittance or other business activities) or those who have good monthly sales are more likely to be more of a non-defaulter. The existence of these variables help the borrowers loosen other household's burdens on the borrowed capital which raise the available money to repay the loan. As the study under consideration indicates, repayment size has also similar effects where borrowers with higher repayment size are less likely to repay their loan on time.

The findings with respect to the educational status as well as business and credit experience of the borrowers reveal that borrowers who are relatively endowed with these factors are less likely to default. In other words, these three variables make the borrower to be rich on how to effectively and efficiently manage the borrowed capital (more of a literacy effect), the consequences of not paying back the loan on time (more of credit experience effect), and fight fierce competition to have a good market share (more of business experience effect), the intermingled effect of all of which enabling the borrower to pay the loan on time.

Finally, the research result assures that frequent follow up and supervision by loan officers help the borrower not to end up being defaulter that means less likely to be a defaulter.

5.2. Recommendation

Based on the results of the study the possible policy recommendations that emanate from this study are presented as follows.

1. As the results of the study indicated illiterate borrowers have lower loan repayment performance, then MFIs should target them differently with prior information that they need intensive training, follow up and monitoring on loan use, which when backed up by adult education can have unquestionable positive effect in increasing the likelihood of timely repayment of the loan. Since most of the clients are adults, trainings through informal means can be a potential area to focus on to mitigate loan repayment problems.
2. It has been manifestly observed from the result that the existence of many dependents encourage exclusive burden on the borrower and hinder loan repayment performance. Macro-economic variables like family planning programs, as a long term solution, would lower the dependency ratio attributed to clients where by increasing their chance of being a non-defaulter.
3. It has been found that availability of other sources of income as a remittance or by means of other business activities has significant implication for borrowers' loan repayment decision. Thus, programs should focus on diversifying business activities of the clients other than the one the loan is taken for
4. Even though loan diversion was not considered as independent variable in the regression model in this study, however house hold survey depicts significant number of borrowers who are defaulters have diverted their loan from the initial intended use. Most households in the default category divert loan to nonproductive purposes are unable to repay the loan on due time. Hence, it is important to come up with reliable and sound business plan rather than changing plans after receiving the loan. The lenders should provide training, and strictly evaluate the borrowers' business plan and provide manageable loans based on the cost benefit analysis. On top of this, the institution should work and investigate why the clients divert their loan particularly for unproductive purpose so as to fill the gap of

unproductive and unintended loan diversion.

5. Loan supervision and monitoring systems were also found to be important factors that enhance loan repayment performance. Therefore, ADCSI, or other credit service providers should pay due attention on supervision of borrowers immediately after loan disbursement to minimize the willing defaulters. Likewise, effective supervision systems minimize the tendency of borrowers not to borrow multiple loans. Moreover, loan monitoring has to be given due attention since Credit Agents' technical assistance will improve borrowers' business performance and also enable lenders to evaluate the status of disbursed loans at different stages. Monitoring, organizing discussion forums to understand the borrowers feeling and suitability of the lenders also improves the lender- customer relationship thereby encouraging borrowers to stay long with the organization and finally develop trust and sense of ownership.
6. Although continuous follow up and supervision is important for loan repayment, there is not enough supervision made by loan officers. This is due to the increasing number of clients in the institution with un-proportionate number and competency level of loan officer. Therefore, it is recommended to make the number of clients and loan officer comparable.
7. Finally the lending institutions should focus on the repayment challenges which are stated by the borrowers and take corrective actions. In order to solve the internal and external problems of the institution, the main thing might be improve the financial capacity of the institution and expand the services and upgrade the skill of loan officers in line with loan appraisal ,loan monitoring and supervision.

6. REFERENCES

1. 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.
2. Abdillahi Farah, 2008. The Impact of Microfinance on poverty Alleviation in the Case of Dire Microfinance in Dire Dawa City. An MSc Thesis Submitted to Ethiopian Civil Service College.
3. Abraham, G. (2002). Loan repayment and its determinants in small scale enterprises financing in Ethiopia. MSc. Thesis, Department of Economics, Addis Ababa University. Addis Ababa, Ethiopia.
4. Absanto, G. & Aikaruwa, D. (2013).Credit rationing and loan repayment performance: The case study of victoria savings and credit cooperative society. Global Advanced Research Journal of Management and Business Studies, 2(6), 328-341. Retrieved from <http://garj.org/garjmbs/index.htm>
5. Addis Credit & Saving Institution (ADCSI). (2016). ADCSI Profile. Addis Ababa, Ethiopia.
6. Al- Mamun, A., Wahab, S., Malarvizhi, C. A. & Mariapun, S. (2011) Examining the critical factors affecting the repayment of microcredit provided by Amanah Ikhtiar Malaysia. International Business Research, 4(2), 93-102. Retrieved from <http://www.ccsenet.org/ibr.doi:10.5539/ibr.v4n2p93>
7. Amare Berhanu, 2005. Determinants of Formal source of credit loan repayment Performance of Smallholder Farmers: The Case of North Western Ethiopia, North Gondar: M.Sc. Thesis, Haramaya University, Ethiopia.
8. Aquah, H.D. AND Addo, J. (2011). Determinants of loan repayment performance of fishermen: Evidence from Ghana. Department of agricultural economics and extension, University of Cape
9. Assefa A.,Gebrehiwot A. and Mulat D.(2005) Rural Finance in Ethiopia: Assessment of the Financial Products of Microfinance Intuitions. AEMFI, Occasional paper No.12: Addis Ababa, Ethiopia.
10. Berhanu, A. (2005). Determinants of formal source of credit loan repayment performance of

- smallholder farmers: The case of North Western Ethiopia, North Gondar (Master Thesis). Alemaya University, Ethiopia.
11. Besley, T.J. (1994). How do market failures justify interventions in rural credit markets. *World Bank Research Observer*, 9(1): 27-47.
 12. Bichanga, w. & Aseyo, L. (2013). Causes of loan default within microfinance institutions in Kenya. *Interdisciplinary Journal of Contemporary Research in Business*, Institute of Interdisciplinary Business Research, 4(12), 316-335. Retrieved from <http://www.ijcrb.webs.com>
 13. C.R.Kothari (1990). *Research methodology* 2nd Revised edition. Retrieved from <http://www.newagepublishers.com>.
 14. Coast; Ghana. Vol. XLIV (4). Retrieved from <http://www.agris.cz/files>.
 15. Fikirte, R. (2011). Determinants of loan repayment performance: A case study in the Addis Credit and Saving Institution, Addis Ababa, Ethiopia. MSc Thesis, Department of Development Economics, Wageningen University, The Netherlands.
 16. Gebereheywot Ageba and Wolday Amha, (2004) *Micro and Small Enterprises Development in Ethiopia: Survey Report*, EDRI.
 17. Getaneh, G. (2001). Evaluating the potential of microfinance as anti-poverty strategy: A Case study of the Amhara credit & saving institution. *Proceeding of Conference on the Microfinance Development in Ethiopia*. Association of Ethiopian Microfinance Institutions
 18. Gibbouns, D.S. (1992), *The Grameen Reader*, 2nd edition, Grameen Bank, Dhaka
 19. Gobezie, Getaneh, *Regulating Microfinance in Ethiopia: Making it more Effective*, Amhara credit and savings institution (acsi) Essay No. 3, April 2005
 20. Godquin, M., 2004. Microfinance Repayment Performance in Bangladesh: How to Improve the Allocation of Loans by MFIs. *World Development*, 32(11):1909–1926.
 21. Hunte, C. K. (1996). Controlling loan default and improving the lending technology in credit institutions: *Savings and Development*. 20(1), 1-19. Retrieved from <http://www.gdrc.org/icm/grameen-ref.html>.
 22. International Labor Office. (2008). *know about business: Gender Sensitive Manual*, International Training Center of the ILO, Turin, Italy.
 23. Khandker, Shahidur R., Baqui Khalily, Zahed Khan (1995), “Grameen Bank performance and Sustainability”, *World Bank Discussion paper*, the World Bank,

Washington, D.C.

24. Mengistu, B. (1997). Determinants of micro enterprises loan repayment and efficacy of screening mechanism in Urban Ethiopia: The Case of Bahir Dar and Hawasa Town. MSc. Thesis, Department of Economics, Addis Ababa, Ethiopia.
25. Micheal, A. (2006). Micro-finance repayment problems in the informal sector in Addis Ababa. Occasional paper, Ethiopian Journal of Business & Development. 1(2), 29-50. Addis Ababa, Ethiopia.
26. National Bank of Ethiopia. (2010). Risk management guidelines for microfinance institutions. Microfinance Institutions Supervision Directorate, Addis Ababa, Ethiopia.
27. Nawai, N. & Shariff, M. (2013). Loan repayment problems in microfinance programs that use individual lending approach: A qualitative analysis. Journal of Transformative Entrepreneurship, 1(2), 93-99. Retrieved from <http://www.ijebf.com/>
28. Nigussie, G. & Mitiku, F. (2013). Filling the breach: Microfinance. Journal of Business and Economic Management. Jima University, Ethiopia: Academia Publishing, 1(1), 010-017. Retrieved from <http://www.academiapublishing.org/jbem>
29. Oke, J. T. O., R. Adeyemo and M.U. Agbonlahor, 2007. An Empirical Analysis of Microcredit Repayment in Southwestern Nigeria. Humanity and Social Sciences Journal, 2 (1): 63-74.
30. Olagunju FI, Adeyemo R (2007). Determinants of repayment Decision among Small Holder Farmers in Southwestern Nigeria. Pakistan J. Soc. Sci., 4(5): 677-686.
31. Olomola, A.S. (2000). Determinants of smallholder loan repayment performance: evidence from the Nigeria micro-finance system. Retrieved from <http://www.economics.ox.nc.uk/CSAEadmin/conferences/2000-oiA/pdfpapers/olomola.pdf>.
32. Onyeagocha, S. Chidebelu, D. & Okorji, E.(2012). Determinants of loan repayment of microfinance institutions in Southeast States of Nigeria. International Journal of Agricultural Management & Development, 2(3), 167-175. Retrieved from <http://www.ijamad.com>.
33. Otero, M.1999. Bringing Development Back into Microfinance, New Development Finance, held at the Goethe University in Frankfurt, September 1999.
34. Oyatoya E.T.O., "An Economic Appraisal of Small Farmers Credit Schemes: A Cost Study of Western Nigeria ", Savings and Development, vol. VII, No.3, 1983, pp. 279-91.
35. Retta Guddisa (2000), "Women and Micro Finance: The Case of Women Fuel Wood

- Carriers in Addis Ababa”, M.Sc. Thesis, AAU.
36. Rosenberg, R. (2002). Calculating effective interest rates. Occasional Paper No. 1
 37. Rudkius, T. (1994), “Sustainability in micro credit- the need to eliminate access Barriers”, Small Enterprise Development, Vol.5, No.1.
 38. Sally, H. (2011). Learn the three Cs of credit. Retrieved from <http://www.creditcards.com/credit-card-news/herigstad-three-cs-of-credit-scores>.
 39. Samuel, S. (2011). Credit default risk and its determinants of microfinance industry in Ethiopia. MSc. Thesis. Department of Accounting and Finance, Addis Ababa University. Addis Ababa, Ethiopia.
 40. Saunders, A. & Cornett, M. (2001). Financial markets and institutions. New York, NY: McGraw– Hill.
 41. Schreiner, M.; and H.H. Colombet. (2001) “From Urban to Rural: Lessons for Microfinance from Argentina”, Development Policy Review, Vol. 19, No. 3, pp. 339–354. Versión en español: “Las Microfinanzas en la Zona Rural de Argentina”.
 42. Sinha, S., editor, 1998, ‘Microcredit: impact, targeting and sustainability.’ IDS Bulletin, 29(4), 1-11, October
 43. Vigano, L. (1993). A credit-scoring model for development banks: An African case study. Savings and Development, 17(4), pp 441{482}.
 44. Von Pischke, J.D. (1991), ‘Finance at the Frontier: Debt Capacity and the Role of Credit in the Private Economy’, EDI Development Studies, the World Bank, Washington D.C.
 45. Wolday Amha, 2003. Micro Finance in Ethiopian Performance, Challenges and the Role in Poverty Reduction: AEMFI, Occasional Paper No.7.
 46. Wolday, A. (2000). Microfinance institutions in Ethiopia: Performance, challenges and role in poverty reduction. Occasional Paper No. 7, Addis Ababa, Ethiopia.
 47. Wolday, A. (2005). Managing growth of microfinance institutions: Balancing sustainability and reaching large number of clients in Ethiopia. Proceeding of the bi-annual conference on microfinance development in Ethiopia. Addis Ababa, Ethiopia: Association of Ethiopian Microfinance Institutions.
 48. Wrenn, E. (2005). Micro-Finance: Literature review. Retrieved from <http://www.bwtp.org/publications>.
 49. Zeller, M., 1998. Determinants of Repayment Performance in Credit Groups: The Role

of Program Design, Intra group Risk Polling, and Social Cohesion. International Food Policy Research Institute. Reprint No. 384.

50. Zeman Ayalew, 2005. A Study on the Repayment of Farmers Multi-Purpose Service Cooperative Agricultural Input Credit in Amhara Region, in the Case of Bure Woreda of West Gojjam: An MSc Thesis Submitted to Haramaya University.

7. ANNEXES

7.1. Appendix I: Survey instrument

St. Mary's University

Institute of Agriculture and Development Studies

MSc. Program in Agricultural Economics

Factors influencing the repayment performances of micro and small scale Enterprise borrowers (The case study of Addis Credit and saving institution)

Questionnaire

Section I Personal Details (Borrower characteristics)

- 1) Age of the borrower _____ Years
- 2) Gender
 - 1) Female
 - 2) Male
- 3) Category of the Respondent
 - 1) Defaulter
 - 2) Non defaulter
- 4) Marital status
 1. Married
 2. Unmarried/Single
 3. Divorced
 4. Widowed
- 5) What is your level of education
 1. illiterate
 2. Primary Education Grade 1-8
 3. Secondary Education Grade 9-12
 4. Tertiary education Grade 12-16(Diploma or Degree)
 5. Above Degree
- 6) Family size
 - 6.1 Total households number _____
 - 6.2 No of dependents in the household _____

7) How many individuals being supported by the borrower outside the house hold members?

1. One
2. Two
3. Three
4. Four and more please specify_____

II) Management experience

8) What is the current or the present amount of loan you borrowed in birr?

9) Was the amount of credit you received adequate for your business?

1. Yes
2. No

10) If your response is no for the question number 9 what was the amount you requested?
_____ETB (Ethiopian Birr)

11) How many years of experience you have in running your business managing yourself? _____years

12) How much is the monthly repayment amount of your loan(Principal and interest only) in birr _____

13) How was the sale amount in most of the months after you took the loan?

1. Increasing
2. Decreasing
3. Remains the same

14) What was the monthly average planned sales amount while you are planning to take loan i.e during the loan appraisal period in birr _____?

15) What is the current average sale per month considering the last 12 months in birr _____?

16) Do you have other sources of income other than the business financed by the loan

1. Yes
2. No

17) If yes to question 16 What was the other business or source of income _____

18) If yes to question 16 what is the average income amount per month

19) Have you paid for the loan repayment from other business or other income other than the loan financed business?

1. Loan financed project only
2. Other income sources as well

III CREDIT /LOAN UTILIZATION

20) How many times did you take the loan from Addis Credit and Saving Institution? _____ times

21) Did you get the loan at the right time after you apply for the loan?

1. Yes
2. No

22) If your answer to question 12 is no, what is the reason for delay?

1. Lengthy period the institution took in loan processing.
2. Failure to timely provide the necessary documents by the promoter.
3. Failure of the promoter to timely fulfill the preconditions stipulated on the loan contract
4. Delay in settlement of the previous loan.
5. Others (specify)

23) What was the impact of the delay?

24) How do you get the method of disbursement of the loan?

1. Suitable
2. Not suitable

25) If your answer to question 24 is not suitable, what do you think the suitable form of disbursement?

26) What was the Purpose of the credit was taken?

1. Retail trade
2. Production of construction inputs
3. Metal and wood work
4. Hotel and catering services
5. Other Miscellaneous business please describe -

27) Did you spend the entire loan on purposes specified in the loan agreement?

1. Yes
2. No

28) If no to question 27 what was/were the reason(s) for spending part or entire loan for non-intended purposes?(multiple answer possible)

1. The loan amount was not enough for the intended purpose
2. Delay in disbursement
3. The loan agreement did not coincide with my initial intention
4. To repay another loan
5. To make a more profitable business
6. Over finance
7. Other (specify)_____

SECTION IV: CREDIT/LOAN REPAYMENT

29) What is the status of recent loan?

1. Fully repaid
2. Repayment on schedule
3. Repayment in arrears

30) If in arrears what is the balance remaining (Ethiopian Birr)? _____

31) What was the problem for the loan to be in arrears?

(Multiple answer possible)

1. Loan based business activity was not profitable
2. Used some of the loan for household living expense
3. working capital shortage
4. Loss of assets acquired by the loan
5. Lack of follow up
6. Change business environment
7. unfavorable repayment schedule
8. Other (specify)_____

32) Do you perceive the cost of default to be high?

1. Yes
2. No

33) Which of the following is the most important on motivating or forcing you to repay your loan on time?(multiple response possible)

1. Claim against personal wealth
 2. Claim against guarantors
 3. Social sanctions (e.g. loss of social status) or to keep social status
 4. Fear of losing another loan in future
 5. Knowing that paying back loan is your obligation
 6. Other (specify)
-

SECTION V: SUPERVISION, CONSULTATIVE VISITS AND TRAINING

34) Have you ever been supervised regarding loan utilization by ADCSI staff?

- 1) Yes
- 2) No

35) Have you ever been supervised for loan repayment?

1. Yes
2. No

36) If yes to either No. 34 or 35 how many times were you supervised per week _____per month _____per year_____?

37) If your answer to question to 35 is no what is the problem faced in relation to this

_____?

38) Do you consider supervision as being important for loan repayment?

1. Yes
2. No

39) If your answer is for question 35 is yes what is the benefit you get in loan utilization and repayment supervision?

1. helps good administer the loan
2. Consultations
3. helps to know regulation and responsibility
4. if other please specify

40) Did you get any training before receiving loan?

1. Yes
2. No

- 41) If yes, what kind of training was it?
1. Business
 2. Marketing
 3. Saving
 4. Book keeping
 5. Other (specify)_____
- 42) Do you think that the training has helped you increase your income?
1. Yes
 2. No

SECTION VI: MARKET SITUATION AND CREDIT BENEFIT

- 43) Please list the major products and/or services produced from your business that is financed by the credit/loan from your customer Microfinance Institution?
-
-

- 44) How was the demand for your product that you produced and/or service rendered?

1. High
2. Average
3. Low

- 45) What was the trend of profits in the level of your business in the past 5 years?

1. Increased
2. Decreased
3. Stayed the same

- 46) If your response for question number 45 is increased, what do you think is the reason behind?

1. Sufficient fund
 2. Availability of market
 3. Quality advantage
 4. Favorable price
 5. Other (please describe)_____
-
-

47) If your response for question number 45 is decreased, what do you think is the reason behind?

1. Insufficient fund
2. Increase in input price
3. Lack of business knowledge
4. High competition/low sales
5. Decline in selling price
6. Other (please describe)_____

SECTION VI: INFORMATION ON OTHER ISSUES

48) Did you have a saving account before participating in this credit and/or microfinance institution scheme?

1. Yes
2. No

49) If your response for question number 48 is yes, what is the average amount that you manage to save monthly?_____ Birr

50) Do you keep accounting records for your activities that you take the loan?

1. Yes
2. No

51) If your answer for question number 50 is yes, for what purpose you keep record?

1. To evaluate profit and loss
2. For loan repayment purpose
3. Other (please describe)

52) If your answer for question number 50 is No, explain the reason(s) of not keeping records?

1. Lack of knowledge
2. Transaction too small to keep a record
3. Other (please describe)_____

