# Determinants Of Microfinance Loan Repayment Performance : A Case Of Omo Microfinance Institutions (OMFIs) In Gurague Zone

A Thesis Submitted to the School of Graduate Studies of Jimma University in Partial Fulfilment of the Requirements for the Award of the Master of Science in Accounting and Finance (M.Sc.)

BY:

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# JIMMA UNIVERSITY

# **COLLEGE OF BUSINESS & ECONOMICS**

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NOVEMBER, 2021

JIMMA, ETHIOPIA

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### CERTIFICATE

This is to certify that the thesis entities "Determinants of Microfinance Loan Repayment **Performance: The Case study in Omo Microfinance (Omfi) of Gurague Zone**", Submitted to Jimma University for the award of the degree of Master of Science in Accounting and Finance (M.Sc.) and is a record of bona fide research work carried out by **Mr. Bayuh Birhan**, under our guidance and supervision.

Therefore we hereby declare that no part of this thesis has been submitted to any other university or institution for the award of any degree or diploma.

Main Adviser's Name	Date	Signature
Co-Advisor's Name	Date	Signature

### DECLARATION

I hereby declare that this thesis entitled "Determinants of Microfinance Loan Repayment Performance: The Case study in Omo Microfinance (Omfi) of Gurague Zone", has been carried out by me under the guidance and supervision of Mr. Abiy Getahun (Asst. Prof) and Mr. Temam Abdulahi (MSc).

The thesis is original and has not been submitted for the award of any degree or diploma to any university or institution.

Researcher's Name

Date

Signature

**BAYUH BIRHAN** 

#### Abstract

The study was conducted on determinants of Microfinance loan repayment performance in omo microfinance institution of Gurague zone district, SNNPRS, Ethiopia. The study uses a mixedmethods approach and stratified random sampling has been adopted to select a sample of urban and rural borrowers in terms of loan repayment status as (defaulter and non-defaulter). Hence, from total loan beneficiaries in the district, 389 borrowers were selected randomly followed by a probability proportional sample from the Gurague zone district. Accordingly, both primary and secondary data were collected and have been processed and analyzed using quantitative and qualitative analysis techniques. Descriptive statistics were employed to summarize and describe the socio-economic characteristics of the respondents. Furthermore, t-test analyses were also employed to compare defaulters and non-defaulters with the explanatory variables. In addition, binary logit econometric model was employed to identify the factors that influence loan repayment performance of the selected sampled loan beneficiaries. According to the regression, the result shows that age, educational level, family size, the residence of borrowers, other sources of income, participation in social festivals, method of lending, and suitability of installments period have significantly related to loan repayment, whereas gender, the distance of borrowers from institution loan size, business type and timeliness of loan releas have not significant determinants of loan repayment performance of omo microfinance institution's borrower and the institution better to revise loan installment period and expand the collection period, so as some the loan financed activities require more than a year to get a return from investment.

Keywords: loan repayment, microfinance, binary logit, defaulters and non-defaulters

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### **List of Acronyms**

- ACSI: Amara Credit and Saving Institutions
- ADCSI: Addis Credit and Saving Institutions
- AEMFI: Associations of Ethiopian Micro Finance Institutions
- AfDB: African Development Bank
- CIDA: Canadian International Development Bank
- **IFC:** International Financial Corporations
- LR: Loan Repayment
- MSEDA: Medium and Small Enterprise Development Agency
- MSEs: Medium and Small Enterprises
- MF: Micro Finance
- MFI: Micro Finance Institutions
- NBE: National Bank of Ethiopia
- NGO: Non- Governmental Organizations
- OCSSCO: Oromia Credit and Saving Share Company
- OCSI: Oromia Credit and Saving Institution
- OMF: Omo Micro Finance
- **OMFIs: Omo Micro Finance Institutions**
- SNNPRS: South Nation's Nationality and People's Regional State
- SPSS: Statistical Package Software for Social Science

### **CHAPTER ONE**

## **INTRODUCTION**

#### **1.1. Background of the Study**

The eradication of poverty continues to be a top political agenda in most developing countries. In the 1970s the biggest developments in microfinance occurred for the poor people. The microfinance uprising has come a long way since Muhammad Yunus first provided financing to the poor in Bangladesh. As per the World Bank (WB) estimates more than 500 million people have improved their economic conditions via microfinance-related entities. Also, the International Finance Corporation (IFC) estimated that, as of 2020, over 930 million people were directly benefited from microfinance-related operations. But, approximately only 20% of the three billion people who fall under the category of the world's poor can avail these microfinance operations. IFC also helped in establishing or improving the credit reporting bureaus in 30 developing nations. Microfinance is also a source of capital for the people. It also empowers women in particular, which may lead to more stability and prosperity for families (Ram et al., 2020)

Microfinance is a broad term that includes deposits, loans, payment services, insurance, and other financial products targeted at low-income clients (Daley-Harris, 2002). Over the last decade, development practitioners and donor agencies have focused on the sustainability of MFIs and poverty reduction through microfinance Poor economic conditions prevail (Bumbie, 2013);(Mphaka, 2016)

In developing countries, like Ethiopia, financial resource is an important input for continuous development. Most peoples living in the third world are under the poverty line. They need a wide range of financial services for consumption, running their business, and building assets. Due to lack of collateral, poor people in most cases have no credit access from Banks. Microfinance offers financial services such as loans, savings, and micro-insurance to poor people either on an individual or in a group basis to those people. The achievement of microfinance activities in Ethiopia is mainly affected by the income of clients, which directly depends on the effectiveness

of the small business of borrowers who live in urban areas; also it depends on crop harvest and the high risk due to drought for rural areas. The fluctuations of product prices, which are difficult to predict, also affect the performance of MFI (Wolday, 2000)Currently, most microfinance institutions suffer from credit risk, which leads to default. Hence, these studies try to address some determinants of loan repayment that affect borrowers' repayment performance.

Microfinance can be a critical element of an effective poverty reduction strategy. Well-organized access and efficient provision of savings, credit, and insurance facilities, in particular, can enable the poor to smooth their consumption, manage their risks better, build their assets gradually, develop their microenterprise, and enhance their income earning capacity. Thus, microfinance helps to promote economic growth and development (Ke, n.d.)To this end, the current study was tried to identify and examine determinants of loan repayment in OMFIs in the Gurague zone, SNNPRS, Ethiopia.

#### **1.2.** Statement of the problem

An overwhelming majority of the poor people live in Third World countries. Various approaches have been employed in alleviating poverty of which provision of credit that targets the poorer. Many are now of the opinion that allowing the poor to have command over resources through credit can contribute towards poverty alleviation. Bumbie, (2013). Argue that the best way to do something about poverty is to let the people do their own thing. Nobody will have more motivation to change his situation than the sufferer himself.

Poverty alleviation has been one of the key development challenges over the decades in most developing economies. One of the identified key constraints faced by the poor is a lack of access to formal credit. Microfinance institutions were established to fill the gap of scarce finance resources by providing funds to the poor and lower-income groups to alleviate poverty and enhance their business activities. Credit is considered to be an essential input to increase productivity Nawai & Shariff, (2013). Provision of credit to the poor takes advantage of economic opportunities to increase their level of output, hence moving out of poverty. Wichterich, (2012) The primary objective of MFIs is to provide financial services (credit and saving) to the poor to relieve financial constraints and help alleviate poverty. Microfinance institutions offer loans mostly to urban and rural peoples who cannot afford collaterals to get loans from banks. Financial services in Ethiopia are characterized by a high urban concentration

Kipesha & Xianzhi, (2013) Although the performance of the MFIs in Ethiopia has been impressive since their establishment, they are experiencing default problems as can be observed in their declining repayment rates. To fill this gap microfinance institutions provide credit to the poor, who lack access to formal credit from financial institutions. The micro-finance sector currently faces challenges of loan repayment (defaults) by clients. The poor loan controlling system causes a serious challenge to most microfinance institutions.

Every microfinance institutions try to maximize its repayment performance. Improving repayment rates helps reduce the dependence of the MFIs on subsidies, which would improve sustainability Godquin, (2004) One indicator of the effectiveness of MFIs is the loan repayment performance of the borrowers (Addisu, 2006 as cited Gudde Jote, (2018) High loan repayment rates benefit both MFIs and the borrowers Godquin, (2004)Also it argued that high repayment rates reflect the adequacy of MFIs' services to clients' needs and high repayment rate helps to obtain the next higher amount of loan Contrary to this if there is low repayment rate, both the borrowers and the MFI were affected. In this case, the borrowers will not be able to obtain the next higher loan and the lender will also lose their customer.

Default rates are the number of loans not collected on the current and past loan maturity period. Loans taken from credit institutions vary from country to country, region to region, sector to sector. However, almost all credits of developing countries were found to share one common characteristic; all suffer from a considerable amount of default rate (Kashuliza, 1993)Increasing default rate in microfinance leads to the following implication. For instance, it discourages financial institutions to refinance the defaulting members, which puts the defaulters once again into a vicious circle of low productivity. Therefore, a rough investigation of the various aspects of loan defaults, source of credit, the purpose of the loan, form of the loan, and condition of loan providers are of utmost importance both for policymakers and the lending institutions kelly, (2005) Even if the default is random and influenced by unpredictable behaviors or it is influenced by certain factors in a specific situation needs an empirical investigation so that the findings can be used by micro-financing institutions to manipulate their credit program for the better Khandker S. (2000)

According to Awoke 2004, cited in Ahmmed et al., (2012) reports that most of the defaults arose from poor management procedures, loan diversion, and unwillingness to repay loans. For this

reason, the lenders must give various institutional methods that are targeted to reduce the risk of loan default.

To maintain the sustainability of MFIs, one important thing is to identify the socio-economic and institutional factors which significantly affect the loan repayment performance from both borrowers and lender sides.

Many rural credit schemes have sustained heavy losses because of poor loan collection. And yet a lot more have been dependent on government subsidies to financially cover the losses they faced through loan default. But such dependence will not prove helpful for sustainability. MFIs should rather depend on loan recovery to have a sustainable financial position in this regard so that they can meet their objective of alleviating poverty.

(Reta, 2011) undertook a study on determinants of loan repayment performance: a case study in the Addis Credit and Saving Institution, Addis Ababa, Ethiopia. Based on a sample of 200 randomly selected clients, she analyzed the socio-economic factors that influence loan repayment. A total of twelve explanatory variables were included in the regression. Out of these, six variables were found to be significant for the probability of being a defaulter. Age and five business types' baltina and petty market, kiosk, and shop, services providing, weaving and tailoring, and urban agriculture), sex, and business experience of the respondents were found to be significant performance. However, as Tadele, (2014) revealed that, sex business type and family size was found to be insignificant effect on loan repayment performance of microfinance beneficiaries.

Other various studies were conducted on the determinants of loan repayment performance in different countries. The majority of the studies conducted were focused on loan repayment related to rural borrowers, but few studies indicate the loan repayment performance of urban borrowers. However, this research was focused on the determinants of loan repayment performance of both rural and urban microfinance beneficiaries of MFI that was not done by the other researchers before.

Furthermore, even though the Gurague zone district is being among the early 14 pilot districts in the region, there was a little empirical literature reviews on the selected woredas about the determinants of microfinance loan repayment performance of borrowers in the district and also some of these variables are not supported by the recent empirical study conducted by abovelisted researchers.

As we observed above, there were inconsistencies and contradictions of findings between the previous researcher's studies. Thus, these issues motivate this paper. Therefore, the paper provides some new evidence on the determinants of microfinance loan repayment performance. To this end, the current study tried to identify determinants of loan repayment in OMFIs in Gurague zone, SNNPRS, Ethiopia.

#### **1.3.** Research questions

In view of the above-mentioned problems, the following questions deserve attention.

- Solution What are the socio-demographic factors that affect loan repayment performance of the borrowers in OMF in a rural and urban areas?
- Solution what are the cultural and economic factors that influence the loan repayment performance of OMF borrowers?
- Solution What are the institutional and loan-related that affect loan repayment performance of the borrowers in OMFI's?

#### **1.4.** Research Hypothesis

The relationship between the loan repayment status of borrowers and the factors affecting loan repayment is hypothesized based on practical experiences. Accordingly, borrowers' sociodemographic characteristics, economic and cultural factors, and institutional and loan-related factors are hypothesized to explain the loan repayment performance of borrowers.

H1: Gender is significantly affects loan repayment of MFIs' borrowers.

H2: Age is significantly affects loan repayment of MFIs' borrowers

H3: Family size is significantly affects loan repayment of MFIs' borrowers.

H4: Education is significantly affects loan repayment of MFIs.

H5: Distance of borrowers is significantly affects loan repayment of MFIs' borrowers.

H6: Residence of borrowers is significant affects loan repayment of MFIs borrowers.

H7: Other sources of income is significantly affects loan repayment of MFIs' borrowers.

H8: Loan size is significantly affects loan repayment of MFIs' borrowers.

H9: Types of business is significantly affects loan repayment of MFIs' borrowers.

**H10:** Celebration and participation in social festivals is significantly affects loan repayment of *MFIs'* borrowers.

H11: Method of lending is significantly affects loan repayment of MFIs' borrowers

H12: Timeliness of loan release is significantly affects loan repayment of MFIs' borrowers.

**H13:** Suitability of installation period is significantly affects loan repayment of MFIs' borrowers.

### 1.5. The objective of the Study

#### 1.5.1. General Objectives

The main objective of the study is to analyze determinants of microfinance loan repayment performance of borrowers of OMFIs in the Gurague zone.

#### 1.5.2. Specific Objectives

- To analyze the socio-demographic factors of Omo microfinance borrowers in rural and urban areas.
- To identify the cultural and economic factors that influence loan repayment performance of OMF borrowers.
- To examine the institutional and loan-related factors that influence the repayment performance of the client.

#### **1.6.** Significance of the Study

The findings of this study may be of value to businesses because MFIs may increase their profits because of reduced loan default. Determinants of loan default in the study area will help the concerned bodies to make relevant decisions to intervene in the development of appropriate policies and strategies.

The findings of this study may also contribute to social change. The microfinance industry was created to provide sustainable financial services to populations that were not able to access financial services from the mainstream commercial banks (Kent and Decin,2013) When MFI enterprises become more profitable, some MFI may expand their loan to serve additional customers in the added MFI portfolios, thereby reducing unemployment among community members. The new MFI clients may be able to use their disposable income to enhance the value

of life in their families by, among other ways, educating their children, constructing better houses, becoming food secure, and solving various household and community problems that require funds to resolve.

In addition to the above significance, the studies try to provide:-

- As a source of knowledge for future references by people who have the interest to gain insight about loan repayment performance of the institution
- Provide relevant information to decision-makers about the loan repayment performance of OMF.
- As a baseline data to compare against similar studies to be made in the future in the study area.

#### **1.7.** Scope of the study

The scope of this study was restricted to determinants of microfinance loan repayment performance and socio-demographic factors that affect loan repayment performance of OMFI borrowers that were limited to carry out in Gurague zone SNNP because it is the largest MFI having a large number of borrower clients. Having a large number of clients and branches in that zone helps to get a variety of clients with a different profiles. The analysis of determinants of loan repayment more than enough respondents may not address properly. Since the research to be conducted is academic research that should meet the deadline set by the University and this all reduces the freedoms of the researcher not expand the area as he wishes. Therefore, its scope is limited in terms of coverage and depth owing to financial and time resources availability.

#### **1.8.** Limitation of the study

The study experienced initially slow response and some customers of the centers are unwilling to reveal important or correct information. This nearly posed a major problem to the research study. However, this limitation was overcome by having a letter of cooperation from the university to assure the respondents that the response they provided would be used for academic purposes only and thereby be treated with confidentiality

### **1.9.** Organization of the paper

This research paper consists of five chapters. The first chapter comprises the background of the study, statement of the problem, research questions, and objective of the study, the significance of the study, and scope and limitation of the study. Chapter two presents a literature review concerning the theoretical perspective and empirical studies. the research hypothesis of the study and conceptual framework of the study. Chapter three presents the research approach, target population, sample frame and sample size, source & method of data collection, methods of data analysis and interpretations, and finally, the model specification was discussed. In chapter four the result and analysis of the data have been discussed. In the fifth chapter, the conclusion and recommendation were provided. In the end, references and appendixes were attached.

#### **CHAPTER TWO**

#### 2. LITERATURE REVIEW

This chapter deals with the literature review relevant to the investigation under determinants of microfinance loan repayment performance. It has an overview of microfinance in Ethiopia and factors affecting loan repayment, challenges of microfinance, types, causes, and sources of loan default, theoretical review, empirical review, hypothesis, and the conceptual framework of the study.

#### **2.1. THEORETICAL REVIEW**

A theoretical framework is a group of interrelated ideas dependent on theories. It attempts to clarify why things are the way they are based on theories; it's a general assumption about nature and phenomenon (Kombo & Tromp, 2006).

#### 2.1.1. Overview of microfinance

In Europe in the 15th century, the Catholic Church founded so-called pawn shops to keep people from shady loan sharks and money lenders who gave out loans at higher interest rates. These pawn shops later spread throughout the continent Helms, (2006). According to Seibel, (2005) "informal finance and self-help have been at the origin of microfinance in Europe". More formal credit and savings institutions for poor people were already established in Ireland by the Irish Loan fund system as early as 1720, using peer monitoring to enforce the repayment in weekly installments of initially interest-free loans from donated resources According to Bumbie, (2013) another cornerstone in the history of microfinance was the opening of the Indonesian People's Credit Bank in 1895 that became the largest microfinance system in Indonesia. In Bangladesh Professor Muhammad Yunus, the famous founding father of Grameen Bank, with his lending policy started its operations in the 1970s and is currently a synonym for microfinance). He provide the first loan service from his pocket to a group of rural women in Jobra in 1976 and successfully developed the concept of microfinance with his Grameen Bank throughout the country and later the whole worldwide (Yunus 1999)

The development of MFI in Ethiopia is a recent phenomenon and known by its fast-growing according to(Asgedom, 2017) and aggressive drive to achieve a large scale of geographic location

in the country, a dominance of government-owned MFIs, an emphasis on rural households, promoting both credit and saving products, a strong focus on sustainability and in fact, it is Ethiopian owned and driven sector. After the Ethiopian government proclamation no. 40/1996 of MFI was issued, this paved the way for the establishment of MFIs to provide financial service to the communities who suffered lack of financial service from the formal banks, various MFIs have legally been registered and started delivering service of microfinance like other countries and they can mobilize savings once they got registered and legally empowered to supervise the activities MFIs by the NBE Wolday, (2000)According to Getaneh (2005), in Ethiopia MFI spread across urban and rural areas to offer deposit, withdrawal and accept a draft to the public and to manage the microfinance business funds which are allowed by law. The Ethiopian deposit-taking MFIs provide different financial services such as; savings, micro insurance, loan, remittance, and payment such as collecting taxes, pension payments, and other related service charge. Consequently, a progressive transition has been seen in Ethiopian MFIs from microcredit to microfinance and finally to financial inclusion Wolday and Anteneh, (2015).

The Ethiopian five-year growth and transformation plan (GTP) and the micro and small enterprise development agency (MSEDA) strategy has given more emphasis on the saving behavior of households and saving mobilization and this is why all MFIs in Ethiopia offer both compulsory and voluntary savings. The financial performance of this sector has shown remarkable achievements and the sector outreach is impressive, according to AEMFI's 2016 annual report, the Ethiopian MFIs has shown remarkable progress in terms of outreach and performance, the sector outreach or the number of active borrowers is 3.9 million in which out of these borrowers 1.7 million were women.

#### 2.1.2. Definition and Concept of Microfinance and Microcredit

Microfinance is a broad term that includes deposits, loans, payment services as well as insurance, and other financial products targeted at low-income clients (Daley-Harris, 2002). According to Canadian International Development Agency (CIDA, 2007) microfinance means the provision of financial services to poor women and men to enable them to increase their incomes, build assets and reduce lack of access to formal financial institutions. Microfinance is a developmental approach that provides financial and social intermediation. Financial intermediation includes the provision of savings, credit, and insurance services, while social intermediation involves

organizing citizens groups to voice their aspirations and raise concerns for consideration by policymakers and develop their self-confidence (Robinson, 2002). As (Tesfaye et al., n.d.) reported microfinance is often used more narrowly to refer to loans and other services from microfinance institutions. In addition to financial services, some MFIs provide social intermediation services such as the formation of groups, development of self-confidence, and training of members in that group on financial literacy and management. According to (Reta, 2011) microfinance offers financial services such as loans, savings, and micro-insurance to poor people either on an individual or on a group basis. Microfinance has been established to support the low-income groups of societies by enabling them to finance their start-up businesses and expansion of their low-scaled income-generating activities.

From the above argument, we can conclude that microfinance means the provision of financial services such as micro-credit, saving, insurance, micro-insurance, and other services to low-income clients including consumers and self-employed, who lack access to formal financial institutions.

#### 2.1.3. Importance of Microfinance Institutions

Ethiopia, like many other developing countries, needs huge financial recourses for rapid and sustainable development thereby improving the living standards of low-income households (Yimer, 2019) (Tadele, 2014) argued that in developing countries, like Ethiopia, the financial resource is important to input for continuous development. Most peoples living in the third world are under the poverty line. They need a wide range of financial services for consumption, running their business, and building assets. Due to lack of collateral, poor people in most cases have no credit access from Banks. Microfinance offers financial services such as loans, savings, and micro-insurance to poor people.

(Alemayehu, 2008) argued that micro finances are considered as a chance for the poor people to promote self-employment through credit and saving service delivery. Microfinance has been established to support the low-income groups of societies by enabling them to finance their startup businesses which help the expansion of their low-scaled income-generating activities. Moreover, people living in poverty, like in Ethiopia, need a wide range of financial services for consumption smoothing, running their businesses, and building assets. But due to collateral requirement problems, poor people in most cases have no credit access from formal financial institutes (Reta, 2011)Microfinance came into being with the view that more people can get not only credit but other financial services from MFIs to help improve their micro-enterprises (Demuma & Seyoum, 2015)

Microfinance institutions were established to fill the gap in the financial services sector by providing funds to the poor and lower-income groups and thus alleviating poverty and enhancing their business activities. The MFIs provide funds for start-up businesses or working capital. In addition, some MFIs also provide funds for non-business activities such as for education and emergencies purpose (Yimer, 2019)

Microfinance institutions in developing countries have great contributions to reducing poverty. It has been proved that microfinance service can be viewed as a developmental strategy implementer that intended to empower poor women entrepreneurs, to initiate their businesses, and provide awareness on how to manage their assets and their related risks (Ibtissem and Bouri,2013)

As mentioned in the above paragraphs by different study microfinance institution has a major role in the economic growth of developing countries critically by providing small loan to poor people which help them in the creation of a job, and changing their worst standard of living in their day-to-day economic activities.

#### 2.1.4. Challenges of Microfinance institution

Loan default is the single biggest threat to microfinance profitability and sustainability globally (Ibtissem and Bouri, 2013). (Ibtissem and Bouri,2013)revealed that loan default in microfinance operations is a significant problem because it affected negatively the dual objectives for the establishment of MFIs in achieving both the social mission of alleviating poverty among the poor and the financial purpose of making MFIs profitable. Profitability occurs when MFI borrowers make timely loan repayments (Dodson, 2014)). Reducing loan default achieves both the business and the social missions of establishing MFIs. Sustainability in microfinance refers to the point at which an MFI has sufficient funds to cover all its costs and makes profits for the services offered (Ibtissem and Bouri,2013)The reduced loan default rate enhances the profitability of MFIs. (Hunte, 1996) also argued that default problems destroy lending capacity as the flow of repayment declines, transforming lenders into welfare agencies, instead of viable financial

institutions. Loan default may also deny new applicants access to credit as the microfinance institution's management problems augment in direct proportion to the increasing default problem.

Although the provision of financial services to the underserved or non-served poor peoples is the primary objective of micro finances, an increasing rate of defaulters with a large amount of outstanding loans is still the challenge of most microfinance institutions that are operating in Ethiopia (Abreham, 2002) According to (Gudde Jote, 2018) high percentage of loans that are in arrears is one of the key issues facing the microfinance industry. (Lilay, 2015) also argued that the performance of the MFIs in Ethiopia has been impressive since their establishment although they are not free of default problems".

As mentioned in the above paragraphs by different study loan default in microfinance institutions is the single most adversely affecting the dual objectives for the establishment of MFIs in achieving both the social mission of alleviating poverty among the poor and the financial purpose of making MFIs profitable.

#### 2.1.5. Types, Causes, and Sources of Loan Default

#### 2.1.5.1. Types of microfinance loan default.

In microfinance, loan default occurs when the borrower fails to make loan repayment installments according to the agreed loan repayment schedule (Thuo & Juma, 2014). In an experiment about appropriate loan repayment enforcement measures in microfinance lending in India, (Czura, 2015) identified three types of loan default. One type involved borrowers who were willing to repay the loan but could not because their enterprises were not profitable to enable them to repay the loan. The second category involved borrowers whose enterprises yielded enough profit to afford loan repayment, but they willingly decided to default. The third type was of borrowers who had profitable enterprises to afford the loan repayment; they were willing to make the repayment, but they lacked the motivation to go through the loan repayment process (Czura, 2015) Knowledge of the types of loan defaulters helps the MFI leader know how to recover loans efficiently and improve the MFI's loans portfolio.

#### 2.1.5.2. Causes of loan default.

The reasons for the default of the loan may be institutional or client-based, or both. (Hossein, 2016) has shown that poor lending management strategies are causing institutional defaults. The institutional reasons for the default of the loan also included the nature of the loans, the time of the disbursement, the profitability of the customers' enterprises, the terms of the loan, the interest rate, and other causes of the default. (Siaw, A. et al., 2014)

#### 2.1.5.3. Reasons for loan default,

Different reasons prevent borrowers from repaying loans and ex-ante and ex-post moral hazards were the two primary reasons for loan default. (Van den Berg n.d.2015) showed that information asymmetry is the reason for loan default because insufficient information about the creditworthiness of loan applicants leads to lenders giving loans to borrowers with poor credit ratings. Other reasons for MFI loan default are financial instability, death, family calamity, or other reasons beyond the lenders' control (Berg, 2015)

Understanding types, causes, and sources of loan default are critical for MFI leaders to be able to develop appropriate strategies to reduce loan default.

#### 2.1.6. Methods of lending (Approaches) of microfinance

According to various researchers, microfinance institutions' loan repayment performances can be influenced by several factors identified as borrower's characteristics and lender's lending characteristics. The lending approaches of microfinance can be classified as group-based approaches and individual-based approaches.

#### 2.1.6.1. Group Lending Approach

A common characteristic of the group lending approach is that the group obtains the loan under joint liability, where each member in a group is responsible for the repayment of loans of his or her peers. Group lending approaches create better information on borrowers' efforts in settling the loan obligations and have better monitoring advantages among the members than that of individual borrowers. Members can get important information like reputation, indebtedness, and asset ownership of the loan applicants at a lower cost. They can also easily monitor individual efforts made towards ensuring repayment. Moreover, group members appeared to be in a better position to assess the reason for default and inform the lending institutes for the shocking experience exercised by the members which seem beyond their control (Cheriye, 2013) Individuals are supposed to select those whom they trust to form a group with; that is they are more interested to form a group with those whom can make regular repayments and have a good concern about the possible loss they face in case of non-repayments (Borena & Waktola, 2019)

#### 2.1.6.2. Individual Lending Approach

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

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

#### 2.1.7. Microfinance in Ethiopia

Microfinance institutions were introduced in Ethiopia after the dawn fall of the Derg regime following the policy of economic liberalization. The development of microfinance institutions in Ethiopia is a recent phenomenon. Ethiopian development strategy is the establishment of sustainable microfinance institutions serving a large number of poor people. Microfinance is taken as a shift from government and NGO subsidized loan programs to finance services run by specialized financial institutions. Later microcredit programs were changed to microfinance institutions. Non-governmental organization (NGO) credit schemes and informal sources of finance have existed in Ethiopia for many years; the government instituted a legal and policy framework for MFIs in 1996 through Proclamation 40/1996 (Gebrehiwot, 2002).

#### 2.2. Review of Related Empirical Literature

(Dire, 2018) has done a study on determinants of loan repayment of micro and small enterprises in Jimma town. Based on a sample of 341 randomly selected Micro and Small Enterprises clients, he analyzed the effect of Individual characteristics, loan characteristics, and firm characteristics on loan repayment of micro and small enterprises in Jimma town. The result of analyzed data revealed that Sex of respondents and Experience positively and significantly affect loan repayment. The inconvenience of the loan payback period, Lack of financial skill, and planning were negatively and significantly affected loan repayment of enterprises. Lack of Marketing Skills, Follow up and supervision positively and were found to significantly influence loan repayment of micro and small enterprises.

(Borena & Waktola, 2019) analyzed determinants of group loan repayment performance of micro and small scale enterprises: case study Oromia credit and saving share company (Eastern Wollega Zone branch). The survey data was collected by using the structured questionnaire from 162 groups owned by MSE's. The result of this study showed that out of the predicting variables used in this study, group leaders education level, group leaders experience in a similar business, the enterprise's beginning capital, loan repayment period, loan follow up, Training offered by the loan officers of OCSSCO and access to output market for the enterprises finished products were found to positively influence while the enterprise's group size, additional loan they received, the problem of information disclosure among members, the problem of financial statement recording experience in the business, loan interest rate, the problem of power interruption and shortage of water supply around the enterprise working area have negatively influenced the group loan repayment performance of MSE's sectors in the study area.

(Reta, 2011) undertook a study on determinants of loan repayment performance: a case study in the Addis Credit and Saving Institution, Addis Ababa, Ethiopia. Based on a sample of 200 randomly selected clients, she analyzed the socio-economic factors that influence loan repayment. A total of twelve explanatory variables were included in the regression. Out of these, six variables were found to be significant for the probability of being a defaulter. Age and five business types' baltina and petty market, kiosk, and shop, services providing, weaving and tailoring, and urban agriculture), sex, and business experience of the respondents were found to be significant performance.

(Abreham, 2002) did his study on factors affecting loan repayment performance of borrowers: an empirical study on selected microfinance institutions in Oromia region. Using multi-stage sampling techniques 319 sample borrowers were selected from the total of 2910 borrowers

served by those selected MFIs. The result shows that ten variables including constant: sex, income from other sources, monitoring utilization of other members in a group, credit timeliness, repayment time suitability, repayment trend on a monthly basis, and training adequacy are found significant and positively influence loan repayment performance of the borrower. While loan utilization for the intended purpose, repayment trend on an irregular basis and visit & follow-up on the irregular basis was found to negatively influence the repayment performance of borrowers. The extensive involvement and interference of third parties on the decisions of loan approval processing to the lending institutes were found as a contribution for high defaulting.

(Tesfaye et al., n.d.) have researched determinants of group loan repayment performance of MSE's manufacturing sector: A case study in Dedebit credit and saving institution (DECSI). The study has applied a purposive sampling design to select the 34 MSEs Group leader respondents. According to the study out of the nine explanatory variables, the six explanatory variables, i.e., group composition, group initiation, peer pressure, suitability of repayment period, loan size and external shocks have a statistically significant effect on loan repayment of the group borrowers; whereas the three explanatory variables, i.e., internal rule and regulation, loan supervision, and training have a statistically insignificant effect on loan repayment of the group borrowers.

(Firafis, 2015) has done a survey study on determinants of loan repayment performance: A case study of Harari microfinance institution. The study was intended to assess factors affecting loan repayment performance of Harari MFI by selecting 120 sample households through systematic random sampling techniques between defaulter and non-defaulter of MFI. A total of fifteen explanatory variables were hypothesized to influence loan repayment performance. The result of the study revealed that nine variables were found to significantly influence the dependent variables. These significant variables are: saving habit of borrowers, loan size, perception of borrowers on repayment period, source of income, availability of training, business experience; business type, family size, and purpose of saving were found to significantly influence loan repayment performance at 1%, 5%, and 10%. His result indicated that the probability of default increase as the family size increases when borrowers have a negative perception of the loan repayment period, less training, low business experience, poor saving habit, and only a single source of income.

(Gudde Jote, 2018) has done a study on determinants of loan repayment: The case of microfinance institutions in Gedeo Zone, SNNPRS. About 364 samples of borrowers were selected by using stratified random sampling. According to the study, a total of ten explanatory variables were analyzed, out of these, six variables were found to be statistically significant to influence the probability of loan repayment. These significant variables are educational level, method of lending, nearness of borrower's residence to the institutions, family size, and income from activities financed by loan and training. The study reported that education level, nearness of borrower's residence to the institution level, nearness of borrower's residence to the institution, income from activities, and training are positively related with loan repayment whereas there is a negative association between the method of lending and loan repayment of borrowers in MFIs. This shows that as borrower obtain loans individually, the probability to repay their loans decreases. If the borrower obtained a loan as per the individual lending scheme, he or she will not obtain the support and guidance from others and incentive to operate effectively as the loan was taken individually. This found negatively influences the probability of borrower's loan repayment performance.

(Tadele, 2014) investigated determinants of microfinance loan repayment Performance: Case of OMF microfinance in Kaffa zone. The analysis was performed with the data obtained from 339 respondents which were selected using stratified sampling. The analysis of the study found out that sex, age, education, source of income before loan, method of lending, loan size, suitability of installment period, and timeliness of loan release were important in influencing loan repayment performance of the borrower. However, family size, the distance of borrowers from the institution, the residence of borrowers, and the frequency of collection were found to be insignificant. In the method of lending of OMF individual lending borrowers have performed worse loan repayment performance than group borrowers. Moreover, the percentage of individual defaulters was higher than group defaulter borrowers.

A study conducted by (Yimer, 2019) on determinants of Amhara credit & saving institution Loan Repayment Performance: a case of Jawi branch by analyzing primary data collected from 168 sample borrowers (84 defaulters and 84 non defaulters) using a questionnaire, revealed that all the socio-economic independent variables included in the study (borrowers' gender, age, place of residence, marital status, educational level, family size, source of income from activities not financed by the received loan, and monthly income level earned from activities financed by loan)

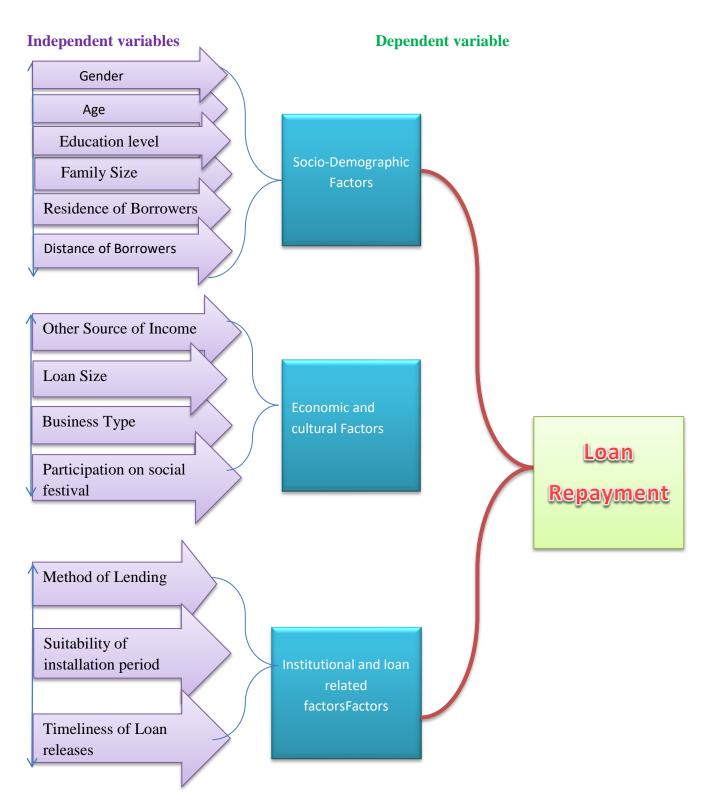
significantly determine loan repayment performance. The findings also revealed that businessrelated factors like having saving account experience, accounting/financial records experience, business experience, and business information significantly determine loan repayment performance, but conducting market study before starting a business has no significant influence on loan repayment performance of borrowers. Among loan-related independent variables included in this study, the analysis portrayed that except training conducted before taking loans, the remaining variables (suitability of loan repayment period, timelines of loan release, adequacy of supervision of loan utilization and loan repayment, applying for the received loans on the purposes specified in the agreement and adequacy of the loan) significantly determine loan repayment performance.

Finally, other various studies were conducted on the determinants of loan repayment performance in different countries. The majority of the study conducted was focused on loan repayment related to rural borrowers, but few studies indicate loan repayment performance of urban borrowers. However, the present research was focus on the determinants of loan repayment performance of both rural and urban microfinance beneficiaries of OMFIs, which was not done by the other researchers before.

#### **2.3.** Conceptual Framework of Determinants of Loan Repayment

According to Mugenda, O.M.& .M.A. (2003) as cited by Gudde Jote, (2018) conceptual framework involves forming ideas about relationships between variables in the study and showing these relationships diagrammatically. This study adopted the conceptual framework as shown in figure 2.1 which demonstrates the conceptual framework of the relationship between the dependent variable (loan repayment) and the independent variables(*sex, age, education level, family size, a distance of borrowers from the institution, method of lending, the residence of borrowers, loan size, other sources of income, suitability of installment period, participation on social festivals, timeliness of loan release and business type (the determinant factors affecting loan repayment performance of Microfinance institution's loan beneficiaries).* 

A conceptual framework represents the researcher's synthesis of the literature on how to explain a phenomenon. It maps out the actions required in the course of the study, given his previous knowledge of other researchers' points of view and his observations on the subject of research. In other words, the conceptual framework is the researcher's understanding of how the particular variables in his study connect. Thus, it identifies the variables required in the research investigation. It is the researcher's "map" in pursuing the investigation



*Figer 2. 1 Conceptual framework of the study (own source)* 

## **CHAPTER THREE**

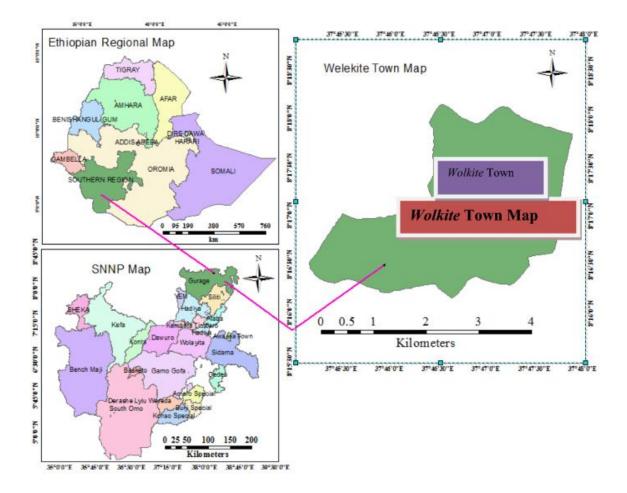
# **RESEARCH DESIGN AND METHODOLOGY**

#### 3.1 Description of the study area

The study was conducted in Gurague Zone in the Southern Nations, Nationalities, and Peoples' Region of Ethiopia. It is located in the Southern parts of Ethiopia and shares boundaries on the southeast by Hadiya and Yem special woreda, on the west, north, and east by the Oromia Region, and on the southeast by Silte zone. Wolkite town is the administrative center of the Gurage Zone of the Southern Nations, Nationalities, and Peoples' Region, the zone has a latitude and longitude of 8°17′N 37°47′E / 8.283°N 37.783°E and an elevation between 1910 and 1935 meters above sea level, which is found at about 134 Kms far from Addis Ababa, and 201 Kms far from Jimma University.

Based on the 2007 census conducted by the Central Statistical Agency of Ethiopia (CSA), Gurage has a total population of 1,280,483; lives in the area, Since the town is midway on the road between Addis Ababa and Jimma, trade is the major economic activity employed in the town and relying on the ensete cultivations around their houses for a minimum of food.

Various financial institutions assist the economic activities in the gurague zone. Some Banks, private and government-owned, working in Ethiopia have branches in wolkite, the capital city of the gurague zone. OMFI has branches in all Woredas/district/ and 1 town administrations. However, OMFI does not serve only the Woredas center but also has a post office in all kebeles of the Gurague zone (OMFI, 2020).



Figer 3. 1 Map of the study area.

#### 3.2 Research design

A mixed-methods approach has been adopted (both qualitative and quantitative research designs). The reason why the design is chosen, first the purpose of the study demand diverse methods of treatment where a single approach considered may not be able to search a problem thoroughly. Second, the use of both methods is considered effective to interpret and analyze data using the statistical analysis, descriptive figures as well as narrative, and allow us to match the results from the quantitative and qualitative analyses to determine if the two databases yield similar or dissimilar results thereby improving the validity and authenticity of results.

#### 3.3 Source of Data

The data sources for this study were collected from both primary and secondary sources. Primary data were collected using closed-ended and semi-structured questionnaires to generate information. The reason why the above data collection tools were chosen is to allow respondents to express diverse opinions, explain and share experiences. Secondary data were collected through an extensive review of documents from microcredit institutions, loan cycle, and loan repayment records to help select the target population for the study. The review of the secondary data helps to expose diverse theories and conceptual issues surrounding repayment performance of loan beneficiaries thus serving as a guide to the study.

#### 3.4 Types of data

The data type for the study was uses both qualitative and quantitative data. Qualitative data is non-statistical and is typically unstructured or semi-structured. This data isn't necessarily measured using hard numbers used to develop graphs and charts. Instead, it is categorized based on properties, attributes, labels, and other identifiers. On the other hand, quantitative data is statistical and is typically structured in nature meaning it is more rigid and defined. This type of data is measured using numbers and values, which makes it more suitable for data analysis. Due to this reason the researcher were used both for consuming their valuable and jointly they enable the studies more reliable about loan performance of MFIs borrowers.

### 3.5 Target Population

The study was carried out in Gurague zone SNNPRS because it is the largest MFI having a large number of group and individual borrower clients. Having a large number of clients and branches in that zone may help us to get a variety of clients with different profiles. The above argument, therefore, makes it appropriate for carrying out the study in this MFI.

The target populations for the study were group borrowers and individual borrowers of both urban and rural settled customers of MFI in the Gurague zones branch. The sampling frames included all loan borrowers of both urban and rural settled customers who have completed at least one loan cycle. Currently, the institutions have 13,273 borrowers. The survey mainly considers three service delivery posts namely; wolkite town administrations for urban respondents and, Abeshge and kebena Woreda for rural respondents were selected in terms of their large number of clients.

## **3.6 Sampling design**

#### **3.6.1** Method of Sampling

The study adopted both stratified random sampling and purposive sampling in selecting the representatives because the population of this study has heterogeneous characteristics between the group (strata), but is homogenous within the group. In this case, from probability sampling, the stratified sampling technique was applied by dividing the borrowers (population) into two strata, in terms of loan payment status as non-defaulters and defaulters for both Rural and Urban residents to obtain a representative of the entire population. The sample for this study consists of the defaulter and non-defaulter loan beneficiaries for both rural and urban residences responding to the questionnaires. and purposive sampling was adopted for selecting loan officers for interviews.

In this technique, the sample items are selected from each stratum, and the items selected from each stratum were based on simple random sampling or stratified random sampling with a proportionate stratified sampling method.

#### **3.6.2** Sample Size Determination

To develop the sampling size, lists of borrowers on the entire microfinance institution who have completed at least one loan cycle were acquired from Gurague zone's microfinance borrowers profile list. As per loan list survey 2020, out of a total of 13,273 borrowers, 9588 borrowers are non-defaulter and 3685 are defaulter borrowers. Representative samples are selected from the total borrowers by using a stratified sampling technique dividing the borrowers (population) into two strata, in terms of loan payment status as non-defaulters and defaulters for both Rural and Urban residents to address the borrowers in all round and in the expectation that the sampling technique possibly represents the entire population.

The researcher has selected a sample of 389 from total borrowers as per stratified sampling. This sample size can be used as representative of the microfinance institutions' beneficiaries because

borrowers under similar strata have homogenous characteristics and have a common environment in which they are exposed to similar problems.

This sample is obtained based on a simplified formula provided by Yamane, (1967) to determine the required sample size at 95% confidence level, Where n = the sample size, e = the level of precision (acceptable error margin =5%), N= the total number of borrowers in the district and

$$n = \frac{N}{1 + N(e^2)} = \frac{13273}{1 + (13273)(0.05^2)} = 389$$

Where n= is the sample size

N= is the population size

e= is desired level of precision

These samples from borrowers (389) are selected from each Stratum using relative proportionate allocation concerning the percentage of the total population. Hence, from the above two strata (defaulters and non-defaulters borrowers), proportionate sample size was taken. The reason for using a proportionate sample is to give equal chance for all respondents.

To determine sample size from each stratum, the following sample size determination formula

has been used: 
$$n_{h=\left(\frac{N_h}{N_S}\right)n}$$

Where:  $n_h$ = sample size from each stratum,

 $N_h$ = Total population in each stratum,

Ns=Total population of the sum of strata for study and

n= Total sample size from the study population.

Based on this formula, the sample size from each stratum is provided in the table below.

Table 3 1 proportionate sample size for each stratum

	Loan repa	yment status	Total	Proportio	onate sample	Total
			population	size		sample
Resident	Non	Defaulters		Non-	Defaulters	size

of borrowers	defaulter	S		defaulte	rs	
Rural	3924	2252	6176	115	66	181
Urban	5664	1433	7097	166	42	208
Total	9588	3685	13273	281	108	389

## **3.7** Method of Data collection

Survey questionnaires have been revised and adopted from various related studies (Abafita Jemal, 2003; Abreham, 2002; Reta, 2011; Tadele, 2014) and others. The questionnaire has mainly two sections, were divided into four main parts: as socio-demographic profile of borrowers, economic and cultural related questionnaires, institutional and loan-related questions, internal and external factors also conducted for respondents interview According to (Kothari, 2004) in this method the researchers uses mostly the closed-ended questions. Closed questions have the advantages of easy handling, being simple to answer, quick, and relatively inexpensive to analyze. In addition, qualitative data collected through semi-structured interviews and discussions are made with selected loan officers and branch managers, and relevant documents were reviewed. The questionnaire was prepared in English language and translated into local languages for the collection purpose (Amharic) the language spoken by the majority of the population in the study area.

#### **3.8** Method of data analysis

The study was used both Descriptive and Econometric methods of data analysis to analyze the determinants of microfinance loan repayment performance of both rural and urban borrowers. Descriptive statistics such as mean, frequency, percentage, range, and standard deviation were used to assess different demographic and socio-economic characteristics of the sampled loan beneficiaries. And the logistic regression model was applied for analyzing the data based on a binary logistic model, which deals with loan repayment performance **13** of explanatory variables included in this study. Loan repayment status is a dependent variable, while different socioeconomic, business-related, and lender(institutional) related factors are considered as independent variables. In this case, the value of this dependent variable is 0 and 1, zero stands for

borrowers paid credit timely and one otherwise. Therefore, loan repayment is treated as the dichotomous dependent variable.

## **3.9** Method of Data Presentation

Data presentation was done after all the relevant data have been gathered from the respondents and after the Quantitative data edition, coding and entered into a computer and processed using SPSS Version 20.0 statistical software. Errors related to the inconsistency of data were also checked and corrected during data cleaning. Descriptive statistics discussions were used for presenting the data by different measures like percentages, tables, and maps used for comparing borrowers not paid credit/defaulters/ and paid credit/non-defaulters/in various explanatory variables. The t- test was applied to the cross-tabulation to determine whether there is a significant difference between distributions.

# **3.10** Model specification

Loan repayment is a dependent variable, while different socio-economic and lender-related factors are considered as independent variables. The dependent variable's value is equal to 0 and 1, which is 0 if the borrower is a non-defaulter, and 1 if the borrower is a defaulter. The researcher was used the binary logistic regression model because it has got an advantage over the others in the analysis of dichotomous outcome variables in that it is an extremely flexible and easily used model from a mathematical point of view and results in a meaningful interpretation (Hosmer and Lemeshew (1989). Hence, the binary logistic model was selected for this study to reveal the impact of different variables on credit use and loan repayment performance. Therefore, the cumulative logistic probability model is econometrically specified as follows

The joint effects of all explanatory variables were being put together on the odds (Hossein, 2016)

Odds 
$$\frac{p}{1-p} = e^{a+B1X1+B2X2+\dots+BPXP}$$
.....Equ,1

Taking the logarithms on both sides

$$\log \quad \frac{p}{1-p} = \log a + B1X1 + B2X2 + \dots + BiXi \dots \dots \dots Equ, 2$$

$$\begin{split} Y &= logitp = \alpha + \beta_1 \, SX + \beta_2 \, AG + \beta_3 \, EDL + \beta_4 \, FSZ + \beta_5 \, DIS + \beta_6 \, MOL + \beta_7 \, RSB + \, \beta_8 \, LSZ + \\ \beta_9 \, OSIC + \beta_{10} \, SIP + \beta_{11} \, PSF + \beta_{12} \, TmLRs + \beta_{13} \, BT + \, \varepsilon i \end{split}$$

**P**=1 is the probability that a borrower will pay back its loan

 $\mathbf{a}$  = is the intercept coefficients and  $\varepsilon$  is the error term

 $\beta$ 1...13 are the coefficients of each of the independent variables

If the error term ( $\epsilon$ ) is taken into account, the logit model becomes:

The unknown parameters s '  $\beta$  is estimated by likelihood function (equation 4)

The determinants of the loan repayment problem model will be analyzed using logistic regression (Gujarati, D.N. (2003).

## **3.11** Definitions of Variables and Their Expected Sign

The variables that are used in the analysis and their theoretical expectations of these variables on defaulters of MFI borrowers are explained below. These variables were chosen based on the available literature. To make the estimation of the model more clear and make it easier for the reader to understand the variables used are discussed below.

#### **3.11.1 Dependent Variable**

The dependent variable is the estimated result of the independent variable being operated on and whose value depends on the value of independent or explanatory variables. It measures to demonstrate the effect of the independent variable. In this study, the dependent variable is loan repayment (LR) for the n<sup>th</sup> borrowers (If LR<sub>n</sub> =0, borrowers repaying the loan on time and LR<sub>n</sub> = 1, borrowers do not repay the loan on time). The borrowers that did not repay the amount of money they borrowed as per credit schedules are considered defaulters denoted by one. Likewise, borrowers that repaid the amount they borrowed per credit schedule are considered as non-defaulters denoted by zero.

#### 3.11.2 Independent Variables

The independent variable is normally the variable indicative of the value being manipulated or changed and used to explain the dependent variable. For this study, the researcher has included

13 independent variables assuming that it is best to explain the determinants of loan repayment performance of OMF borrowers.

- 1. Gender (GR): many researchers argue that females were better payers than male borrowers, taking into consideration they are being more entrepreneurial that results from assuming more responsibilities in the internal affairs of a household. But some researchers have found the opposite result. So nothing can be said about the sign of this variable. In this study, gender has been hypothesized as a positive sign.
- 2. Age (Ag): In this study, age was hypothesized a positive impact on repayment performance. Usually, at a certain level of age limit, borrowers get more stability and experience but beyond a certain age limit, this variable has a negative relationship. This shows as people get older, their ability to effectively use loans and generate income declines, the variable could also have a negative impact. Hence, may have a nonlinear relationship with loan repayment.
- **3.** Education Level (EDL): This variable is expected to have a positive impact on repayment performance in general. Considering normal circumstances, a more educated borrower is expected to use the loan effectively as compared to a less-educated one.
- 4. Family Size (FSZ): Define as the total number of households in the family and elsewhere that depend on the borrower for their livelihood. When the number of households increases, the borrower will need more money to fulfill their requirements in addition to the obligation of loan repayment. As a result, he/she may divert the loan to meet the needs of the dependents. If the respondent has a large number of family members, they need more income to cover the expense of their household members. Therefore, the borrower may use the loan directly for their daily consumption and other expenses which in turn increases the default rate. On the other hand, the number of dependents is the number of nonworking members of the family (Reta, 2011); (Lilay, 2015). Hence we expect this variable to have a negative impact on loan repayment.
- **5. Distance of Borrower from Institution (DIS):** average distance (in kilometers) between borrowers and the lending institution. Non-defaulter respondents traveled on average less distance than defaulters (Abreham, 2002)The variable has an expected negative sign. In this study consider as the distance is less than 5km it is nearest otherwise far from the institutions.
- 6. Method of Lending (MOL): In group lending, there might be more group pressure for defaulters than individual lending. In addition, there was a social norm that governs the group

members (Cheriye, 2013). The group members may feel responsible for the other group member loan. Therefore, they may put social sanctions on the defaulters within the group and enforce them to repay a loan. Therefore, group lending has a positive impact on loan repayment.

- **7. Residence of Borrowers (RSB):** This variable is a dummy capturing the fact that the borrower lives in rural or urban areas. Borrowers in rural areas are predominantly farmers. Loans extended for agricultural purposes are expected to face a problem of default because of risk and uncertainty attached to agriculture (Jemal, 2003) In addition, rural areas are limited by the difficulty of access, poor quality of infrastructures, and limited local markets. Hence this variable is expected to have a negative sign.
- 8. Loan Size (LSZ): If the amount of loan released is enough for the purposes intended, it will have a positive impact on the borrower's capacity to repay. On the other hand, the amount of loan exceeds what the borrower needs and can handle, it will be more of a burden than help, thereby undermining repayment performance. An also positive or negative sign may be expected.
- **9.** Other Source of Income (OSIC): Some borrowers may have other sources of finance before joining loan programs, like agriculture, trade, from employment in government or private organizations of the borrower and like. Such sources of finance are expected to have a positive contribution towards loan repayment performance (Jemal, 2003)However the availability of such sources creates negligence on the part of borrowers in fulfilling their obligation of repayment possibly considering the next loan unnecessary, it may damage repayment performance. The researcher hypothesized the variable has a positive sign.
- **10. Suitability of Installment Period (SIP):** If borrowers find the repayment periodappropriate, they can utilize the loan proceeds effectively for the intended purpose than those who regard the period of repayment unsuitable. So we expect a positive sign for this variable.
- 11. Participation in social festivals (PSF); the event of festivals ordinarily celebrated by a community and centering on some characteristic aspect of that community and its religion or cultures. It is often marked as a local or national holiday. In Ethiopia, celebrations are great and colorful events, mostly religious, and frequently take place over several days. The variable is measured by the total amount of money spent (in Birr) on celebrating different types of social holidays like a wedding. This variable was hypothesized to have a negative

impact on loan repayment as it is a nonproductive expense. (Yemer & Sani, 2017)found that celebrating social festivals can negatively influence loan repayment performance it will expect negatively influence loan repayment performance.

- 12. Timeliness of loan release (TmLRs): If a loan is not disbursed in time, it is unlikely that it will be diverted to non-intended purposes. As cited by (Gudde Jote, 2018), (Johnson, 1997) noted that timeliness of loan disbursement is important when loans are used for seasonal activities. They argued that complicated appraisal and approval procedures, which might delay disbursement, influence a program of seasonal loans that use to buy inputs. Further, they noted that this could in turn worsen the prospects of repayment by diverting loans to non-intended purposes. Hence a positive sign is expected.
- **13.** Business Type (BT): business type Like Agricultural sector, commercial sector, enterprise sector, and service sector affects the performance of loan repayment depending upon their sensitivity and riskiness.

From the theoretical and empirical literature, traditional observable characteristics that may influence the probability of being a defaulter or non-defaulter (loan repayment performance) were summarized below.

Table 3.2Summary of variables and their measurement for the study

Variables	Symbols	Description	Expected sign
Loan repayment LR		0= non-defaulters ( borrowers paid on time) 1= defaulters (borrowers do not on paid time)	
Sex( dummy)	SX	0= male borrowers and 1= female borrowers	
Age( continuous)	AG	Borrowers age measured in years	+
Education level (categorical)	EDL	<ul> <li>0) Illiterate</li> <li>1) grade 1-8</li> <li>2) grade 9-12</li> <li>3) above grade 12</li> </ul>	-
Family size (continuous)	FSZ	Whether the borrowers have more members or not. High family size may unable to pay the loan	(-)
Distance of borrowers from the institution	DIS	Less distance of institution from borrowers home, high probability of loan repayment	(-)
Methods of lending(dummy)	MOL	0= individual lending method, 1= group lending method	+
Residence of borrowers(dummy)	RSB	0= rural borrowers 1= urban borrowers	+
Loan size(continuous)	LSZ	The amount of money borrowed from OMFIs is measured in Birr.	(+)/(-)
Other sources of income(dummy)	OSIN	The existence of borrower's extra income (1=yes, 0=otherwise)	+
Suitability of installation period	SIP	The better the installation period, the more the loan puts for the intended purpose and probably increases the borrower loan repayment performance.	+
Participation on social festival(continuous)	PSF	Higher expenditure and/or engagement, low probability of loan repayment	(-)
Timeliness of loan release(dummy)	TmLRs	The timeliness of the loan release for this study is less than one month. Otherwise not.0 for yes and 1 for no	+
Business type (continuous)	BST	The ability of loan repayment probably depends on the type of business and its sensitivity and risk	+

# **CHAPTER FOUR**

# **4 RESULTS AND DISCUSSION**

This chapter describes the methods applied to achieve the study objectives or answer the research questions. It focuses on presenting, analyzing, discussing, and interpreting the results of the study. The chapter presented the empirical findings and results of the application of the variables using descriptive and inferential analysis. The chapter is organized under the following sub-headings; socio-demographic characteristics of respondents, economic and cultural factors of borrowers, institutional and loan-related factors of borrowers, and also, binary logistic regression analysis for the overall model and determinants of loan repayment were presented and discussed under this chapter.

# 4.1 Socio-demographic Characteristics of Respondents

				Residence of	fborrowers					
		Rural			Urban	Urban				
Variables		Loan repayment status			Loan repay	Loan repayment status				
	ND		D Freq. A		ND D		Freq. B	-		
Gender	Male	75(19.3 %)	43(11%)	118(30.3% )	96(24.7%)	26(6.7%)	122(31.4% )	240(62%)		
Gender	Female	40(10.3%)	23(5.9%)	63(16.2%)	70(18%)	16(4.1%)	86(22.1%)	149(38%)		
	<=30	31(8%)	20(5.1%)	51(13.1%)	75(19.3%	7(1.8%)	82(21%)	133(34.2% )		
The age group of	31-40	39(10%)	15(3.8%)	54(13.8%)	, 71(18.3%	5(1.3%)	76 (19.6%)	<b>130(33.5%</b> )		
borrowers	41-50	38(9.7%)	30(7.7%)	68(17.4%)	14(3.6%0	(2%)8	225.6%)	90(23%)		
	51-60	3(0.7%)	14(3.6%)	17 (4.3%)	6(1.5%)	7 (1.8%)	13 (3.3%)	30(7.7%)		
	>60	4 (1%)	2(0.5%)	6(1.5%)	0	0	0	6(1.5%)		
Educationa	Illiterate	16(4.1%)	51(13.1% )	67(17.2%)	5(1.3%)	9(2.3%)	14(3.6%)	81(20.8%)		

#### Table 4-1 socio-demographic characteristics of respondents

grade 1- 8	46((11.8% )	12(3.1%)	58(14.9%)	20(5.2%)	17(4.4%)	37(9.6%)	95(24.4%)
grade 9- 12	41(10.5%)	2(0.5%)	43(11%)	55(14.1%)	11(2.8%)	66(17%)	109(28%)
above grade 12	12(3%)	1(0.3%)	13(3.3%)	86(22.1%)	5(1.3%)	91(23.4%)	<b>104(26.7%</b> )
Single	17(4.4%)	11(2.8%)	28 (7.2%)	58(14.9% )	6(1.5%)	64(16.4%)	92(23.6%)
Morriad	92(21 20/)	48(12.3%	131(33.6%	93(23.9%	15(3.8%	108(27.7%	239(61.4%
Marrieu	65(21.570)	)	)	)	)	)	)
Divorce	7(1.8%)	15(3.9%)	22(5.7%)	12(3.1%)	2(0.5%)	14(3.6%)	36(9.2%)
Widowe d	8(2.1%)	7(1.8%)	15(3.9%)	3(0.8%	4(1%)	7(1.8%)	22(5.7%)
< 5 KM	38 (9.77%)	37(9.5%)	75(19.3%)	125(32.1% )	21(5.4%)	146(37.5% )	<b>221(56.8%</b> )
>5 KM	77(19.8%)	29(7.5%)	106(27.3% )	41(10.5%)	21(5.4%)	62(16%)	<b>168(43.2%</b> )
	8 grade 9- 12 above grade 12 Single Married Divorce Widowe d < 5 KM	8       )         grade 9-       41(10.5%)         12       41(10.5%)         above       12(3%)         grade 12       12(3%)         Single       17(4.4%)         Married       83(21.3%)         Divorce       7(1.8%)         Widowe       8(2.1%)         d       38 (9.77%)	$ \begin{array}{cccc} & & 12(3.1\%) \\ 8 & ) & & 12(3.1\%) \\ grade 9 & & & & & & \\ 12 & & & & & & & \\ above & & & & & & & & \\ grade 12 & & & & & & & \\ 12(3\%) & & & & & & & & \\ 10.3\%) & & & & & & & \\ grade 12 & & & & & & & & \\ 10.3\%) & & & & & & & \\ \hline Single & 17(4.4\%) & 11(2.8\%) & & & & & \\ Married & 83(21.3\%) & & & & & & \\ Married & 83(21.3\%) & & & & & & \\ Married & 83(21.3\%) & & & & & & \\ Married & 83(21.3\%) & & & & & & \\ \hline Married & 83(21.3\%) & & & & & & \\ \hline Married & 83(21.3\%) & & & & & & \\ \hline Married & 83(21.3\%) & & & & & & \\ \hline Married & 83(21.3\%) & & & & & & \\ \hline Married & 83(21.3\%) & & & & & & \\ \hline Married & 83(21.3\%) & & & & & & \\ \hline Married & 83(21.3\%) & & & & & & \\ \hline Married & 83(21.3\%) & & & & & & \\ \hline Married & 83(21.3\%) & & & & & & \\ \hline Married & 83(21.3\%) & & & & & & \\ \hline Married & 83(21.3\%) & & & & & & \\ \hline Married & 83(21.3\%) & & & & & & \\ \hline Married & 83(21.3\%) & & & & \\ \hline Married & 83(21.3\%) & & & & \\ \hline Married & 83(21.3\%) & & & & \\ \hline Married & 83(21.3\%) & & & & \\ \hline Married & 83(21.3\%) & & & & \\ \hline Married & 83(21.3\%) & & & & \\ \hline Married & 83(21.3\%) & & & & \\ \hline Married & 83(21.3\%) & & & & \\ \hline Married & 83(21.3\%) & & & & \\ \hline Married & 83(21.3\%) & & & & \\ \hline Married & 83(21.3\%) & & & & \\ \hline Married & 83(21.3\%) & & & \\ \hline Married & 83$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	12(3.1%) $58(14.9%)$ $20(5.2%)$ $17(4.4%)$ $8$ ) $12(3.1%)$ $58(14.9%)$ $20(5.2%)$ $17(4.4%)$ $12$ $41(10.5%)$ $2(0.5%)$ $43(11%)$ $55(14.1%)$ $11(2.8%)$ $above$ $12(3%)$ $1(0.3%)$ $13(3.3%)$ $86(22.1%)$ $5(1.3%)$ $grade 12$ $12(3%)$ $11(2.8%)$ $28(7.2%)$ $58(14.9%)$ $6(1.5%)$ $Narried$ $83(21.3%)$ $48(12.3%)$ $131(33.6%)$ $93(23.9%)$ $15(3.8%)$ $Married$ $83(21.3%)$ $15(3.9%)$ $22(5.7%)$ $12(3.1%)$ $2(0.5%)$ $Midowe$ $8(2.1%)$ $7(1.8%)$ $15(3.9%)$ $3(0.8%)$ $4(1%)$ $< 5  KM$ $38(9.77%)$ $37(9.5%)$ $75(19.3%)$ $125(32.1%)$ $21(5.4%)$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

#### Source: Survey result, 2021

The demographic, socio-economic, and institutional characteristics of the respondents such as gender, age, level of education, marital status, family size, number of HH dependent, the residence of the borrower, and other variables related to loan repayment (defaulters and non-defaulters) were analyzed using descriptive statistics.

In this study, 389 borrowers were interviewed from selected five kebeles (3 Rural and 2 urban) from two selected woredas and wolkite town of Gurague zone respectively. According to the survey result, the total number of borrowers in sample 181 (46.53%) are from the rural borrowers and 208 (53.47%) are from the urban borrowers of OMFI. Of the total respondents, 281(72.24%) are non-defaulter while 108(27.76%) are defaulters (Table 4.1). Besides this, from the total respondents, only 149(38%) of the total sample are female, the rest 240(62%) are male. And the researcher uses more than the calculated sample size for the study in considering the response rate, due to this technique the selected sample of the respondent is exactly equal to the number of sample respondents.

Based on sex distribution, 38.3% of the respondents were female and the rest 61.7% were males in both defaulters and non-defaulters groups (Table 4.1). Regarding the loan repayment status of the clients, about 11% of male respondents and 5.9% of male respondents in rural were defaulters, while 6.7% of male and 4.1% of female borrowers were defaulters in the urban area.

From this result, one can infer that in the urban female have better repayment performance than males, while in rural male borrowers are better than females. This result indicated some women borrowers in rural areas engaged in low return activities and lack knowledge about loan repayment (Table 4.1).

The survey results show that the majority of both urban and rural borrowers are in the productive age group. From (Table 4.1)13.1 % and 13.8% of the rural and 21 % and 19.6% of the urban borrowers are in the age group of 18-30 and 30-40 respectively. While 68 % of the total borrowers lie in the productive age group 18 up to 40 age for the whole sample. Most of the borrowers are youngsters.

In terms of educational level (Table 4.1), about 20.8% of the respondent have never attended school, 24.4% of them have grades/1-8/, 28% attended grade /9-12/ and the remaining 26.7% of the respondents have certificate holder and completed college diploma and above.

The result of this study showed that the higher the literacy level of the clients, the higher will likely be non-default.

In Table 4.1 the percentage of married respondents was high in the non- defaulter group than the defaulter's group. Non-defaulters were more likely to be married. From this the married in the marital status group were largely participate in the access of credit use.

The survey results showed that from total respondents 9.5 % of the rural defaulters were near to Omo Microfinance institutions, whereas 7.5% were not near to Omo MFI and 5.4% % of the rural defaulters were near to Omo Microfinance institutions, again also 5.4% were not near to Omo MFI. To this end, the distance of borrowers from the offices doesn't affect the loan repayment rate of borrowers. This implies being far and/or near to the Microfinance institutions was not related to the loan repayment performance and thereby to loan default.

# **4.1.1 Descriptive statistics for continuous variable**

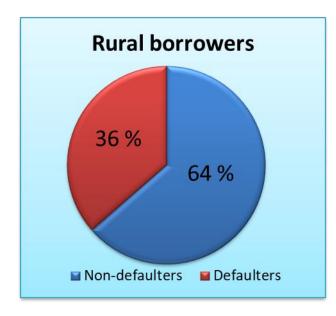
Variables	ariables Descriptive Statistics Loan repayme				epaymei	nt status		t-test			
						ND (N = 281)		D (N =108)		Troluc	Sig. (2-
	Ν	Min	Max	Mean	S.D	Mean	S.D	Mean	S.D	T-value	tailed)
Fam.S	389	1	9	3.14	1.75	2.83	1.507	3.94	2.066	-5.070	.000
NO. depen	389	0	6	2.10	0.86	1.95	0.879	2.51	1.279	-4.206	.000

#### Table 4-2 Descriptive statistics for continuous variables

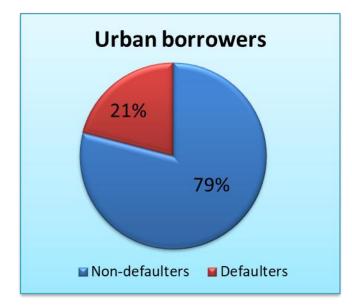
#### Source: Survey result, 2021

The above table 4.2 presents summaries of descriptive statistics used to determine the mean scores of continuous independent variables and independent sample T-test used to compare mean scores of continuous scale variables between non defaulters and defaulters. Thereby, to see whether the total number of family size and the number of dependents in the household of borrowers and the mean number of a family size difference between non-defaulters and defaulters.

As shown on the descriptive statistic column of table 4.2 the mean borrowers of family size variables are higher in defaulters (Std.Deviation=(2.066) which is 3.94 than non-defaulters (Std.Deviation=1.75) which is 2.83 with the value for the mean of family size. And also the average number of dependent households is higher in defaulters (2.51) than non-defaulters which is (1.95) and finally, the result of t-test statistics reveals that the mean of the number of family size and the number of dependents in the household was significantly different between non-defaulters and on loan repayment.



#### 4.2 Loan repayment performance



#### Source: Survey result, 2021

Figer4. 1 Loan repayment performance of urban and rural borrowerss

In this finding, the borrower performance is measured in terms of the repayment performance of borrower status. Regarding residence of borrowers, 64% of rural borrowers are non-defaulters which is higher than the corresponding figure (36%) for the defaulters. Moreover, 79 percent and 21 percent of the respondents in urban areas were non-defaulters and defaulters respectively (figure 4.1). This implies that being rural borrowers is negatively related to loan repayment performance as expected, although the difference in rural and urban defaulters was statistically significant (at p-value .000).

# 4.2.1 Borrowers Reasons for Defaulting

Table 4-3 Borrowers responses on main reasons for default

	Residence of	f borrowers	_ Total		
Borrowers Reasons for Defaulting	Rural	Urban	_ 10000		
	Frequency 'A'	Frequency 'B'	Frequency 'A+B'	%age	
Weak legal enforcement for defaulters	2	1	3	1.73%	
Loan activity was not profitable	11	6	17	9.77%	
Personal problem (like sick, change of place)	9	5	14	8.5%	
Lack of sales demand for our product	25	12	37	21.3	
Natural disaster (thief, fire, flood)	16	3	19	10.9	
Used enterprise capital for consumption (food, clothing, HH goods)	28	12	40	23%	
Due to the high-interest rate	5	7	12	6.9%	
Family celebration (wedding, birthday, holly day, social festival, etc.)	18	14	32	18.4%	

Source: Survey result, 2021

In (Table 4.3) an attempt was made to know the reasons for defaulting. The response from the borrowers indicated that the main reasons for not repaying were; diverting borrowed capital to consumption like clothes and household goods (23%), lack of demand for production(21.3%), Family celebration (wedding, birthday, holly day, social festival, etc.) (18.4 %) natural disaster (like a thief, fire, flood...) (10.9% loan activity was not profitable (9.77%), Personal problem, like sickness (8.5%), due to high-interest rate (6.9%) and the remaining 1.73% of defaulters are unable to pay the loan weak legal enforcement by the institution.

# 4.3 Economic and Cultural factors

Variables		<b>Residence of</b>	borrowers			Total %age from all sample	
		Rural		Urban			
		Loan repaym	ent status	Loan repayme	nt status		
		ND	D	ND	D	_	
Other	Yes	84(21.6%)	16(4.1%)	125(32.1%)	10 (2.6%)	60.4 %	
source of	No	31(8%)	50 (12.9)	41 (10.5%)	32 (8.2%)	39.6%	
income							
The amount	< 5000	9 (2.3%)	5 (1.3%)	7 (1.8%)	3 (0.8%)	6.2%	
of loan	5001-10000	28 (7.2%)	21 (5.4%)	20 (5.1%)	12 (3%)	20.7%	
	10001-15000	34 (8.7%)	22 (5.7%)	51 (13.1%	11 (2.8%)	30.3%	
	15001-20000	33(8.5%)	11 (2.8)	50 (12.8%)	13 (3.3%)	27.4%	
	>20000	11 (2.8%)	7(1.8%)	38 (9.8%)	3 (0.8%)	15.2%	
Business	< 1 years	7 (1.8%)	5(1.3%)	27 (6.9%)	12 (3%)	13%	
experience	2 years	9 (2.3%)	3 (0.8%)	49 (12.6%)	8 (2%)	17.7%	
	3 years	29(7.4%)	5 (1.3%)	62 (16%)	10 (2.6%)	27.3%	
	> 4 years	67 (17.2%)	56 (14.4%)	28 (7.2%)	12 (3%)	41.8%	
Participatio	not at all	1 (0.3%)	4 (1%)	6 (1.5%)	0	2.8%	
n of social	some times	50 (11.8%)	8(2%)	116 (29.8%)	17 (4.8%)	48.4%	
festivals	Many	43 (11%)	6 (1.5%)	29 (7.4%)	10 (2.6%)	22.5%	
	too many	18 (4.6%)	55(14.1%)	11 (2.8%)	19 (4.8%)	26.3%	

Table 4-4 Economic and cultural factors of respondents

Source: Survey result, 2021

# 4.3.1 Other sources of income

Table 4.4 reveals that, sources of finance before joining loan programs. According to the survey result, 60.4 percent of borrowers have responded that they have sources of income before getting a loan, those are21.6 percent and 32.1 of non- defaulters from rural and urban respondents, and only 4.1 and 2.6 percent were defaulters of rural and urban respectively, while 39.6 percent of the respondent were no income sources other than the loan or before getting a loan, of this 8 and 10.5 percent of rural and urban respectively which is higher than those who have another source of income. Hence, income from other sources of finance is positively and significantly related to loan repayment performance and thereby reduces loan default.

## 4.3.2 Loan size

As shown in the above table 4.4, the loan amounts released, that only 6.2% of total sample respondents have gets the amount of loan less than birr 5000 which is 2.3% and 1.8% of non-defaulters of rural and urban borrowers whereas, 1.3% and 0.8% of respondents were defaulters of both rural and urban respectively. While,93.8% have get the loan more than 5000 which is 20.7%, 30.3%, 27.4%, and 15.2% of the loan amount 5,001-10,000, 10,001-15,000, 15,001-20,000, and above 20,000.

The result shows that concerning the amount of loan was taken, the majority of borrowers are engaged in a higher amount of money they received to be sufficient for the purpose they intended. To observe that all loan size has some association with the repayment Performance of borrowers. However, loan size is not a significant statistical difference between non-defaulters and defaulters as shown in the above table 4.4.

### 4.3.3 Business experience

The survey results showed that from total respondents who have an experience of more than four years in their business engagement,17.2 % and 7.2 % of the respective rural and urban were non-defaulters however, 14.3% and 3% of respective rural and urban were defaulters. Therefore, non-defaulters had more business experience than defaulters. This variable has a significant impact on loan repayment performance.

# **4.3.4** Participation in social festivals

In Table 4.4 above, this study has considered borrowers' participation in social festivals as important variables affecting loan repayment performance. In our study time out of interviewed respondents, almost all of the respondents were celebrated one or more of the above occasional ceremonies during the study period and only 2.8% of respondents were not suffering at all and from those who participate in the ceremonies 43 % of respondents were from rural (25.4% were non-defaulter and 17.6% were defaulters) and 54.2 % of respondents were from urban area (40% were non-defaulters and 14.2% were defaulters), This implies participation on the social festival is negatively affect loan repayment performance in a rural area more likely than an urban area, Hence, participation on social festivals is negatively and significantly related to loan repayment performance and thereby increases loan default.

# 4.3.5 Business Type

Table 4-5	<b>Business</b>	type	and	purp	ose d	of bo	rrowing

Sector	Types of business (purpose of loan)	Loan repayr	nent status		Total % age from all
		"ND" "D"		TOTAL	sample
Agricultural	Crop production	49 (36%)	48 (35.3%)	97 (71.3%)	24.9 %
	Animal fattening	17 (12.5%)	15 (11%)	32 (23.5%)	8.2 %
	Bees farming	3 (2.2%)	1 (0.7%)	4 (2.9%)	1%
	Others	0	3 (2.2%)	3 (2.2%)	0.8 %
Commercial	Ballitina	20 (20%)	3 (3%)	23 (23%)	5.9 %
	Street or road trade (Gullit)	15 (15%)	6 (6%)	21 (21%)	5.4 %
	Shop and container	34 (34%)	2 (2%)	36 (36%)	9.3 %
	Selling serials	12 (12%)	5 (5%)	17 (17%)	4.4 %
	Others	2 (2%)	1 (1%)	3 (3%)	0.8 %
Service	Barber and beauty salon	18 (21.7%)	12 (14.5%)	30 (36.2%)	7.7 %
	Computer maintenances	29 (34.9%)	3 (3.6%)	32 (38.5%)	8.2 %
	and copy service				
	Others	20 (24%)	1 (1.2%)	21 (25.2%)	5.4 %
Enterprise	Construction	17 (24.3%)	3 (4.3%)	20 (28.6)	5.1 %
	Wood and metal work	17 (24.3%)	0	17 (24.3%)	4.4 %
	"Kobil" stone	21 (30%)	5 (7.1%)	26 (37.1%)	6.7 %
	Others	7 (10%)	0	7 (10%)	1.8 %
TOTAL		281	108	389	100%
				(100%)	

#### Source: Survey result, 2021

Respondents were found to engage in various business activities. For this study purpose, the most important businesses are categorized into four parts namely agricultural, commercial, service, and enterprise sectors.

As shown above (table 4.5,) borrowers of OMFI are engaged in various business activities. Those activate are divided into four sectors, agricultural, commercial, service, and enterprise sectors which accounts for 35 %, 25.7%, 21.3%, and 18% of the total respondent respectively. The type of business the borrowers engaged in has a significant effect on loan repayment. The result shows that concerning the purpose for which the loan was taken, the majority of borrowers are engaged in agricultural sectors followed by commercial sectors. In (Table 4.5) from the agricultural sector, large numbers of borrowers involved in rural were; for the sake of crop production (71.3 %) to purchase, farm oxen and basic seeds, animal fattening (23.5%), bees keeping, and honey filtration (2.9%) and the remaining others (2.2%) are engaged like &) milk and milk product. moreover, the service sector and business enterprises sectors of borrowers are more likely non-defaulters than agricultural sectors.

# 4.4 Institutional and loan-related factors

# Table 4-6 Institutional and loan-related factors

		Reside	ence of b						
Variables		Rural			Urbaı	ı			
v al lables		Loan repayment status		ent status	Loan repayment status			— Total	
		ND	D	Subtotal	ND	D	Subtotal		
Methods of	Individually	60	44	104 (26.7%)	99	24	123 (31.6%)	227 (58.4%)	
lending	Group base	55	22	77(19.8%)	67	18	85 (21.8%)	162 (41.6%)	
Timeliness of loan	Yes	45	2	47(12.1%)	80	17	97 (25%)	144 (37.1%)	
release	No	70	64	134 (34.4%)	86	25	111 (28.5%)	245 (62.9%)	
Suitability of installation period set by OMFIs	Yes	28	6	34 (8.7%)	59	4	63 (16.2%)	97 (24.9%)	
	No	87	60	147 (37.8%)	107	38	145 (37.3%)	292 (75.1%)	
	enough time								
	before	26	9	35 (12%)	38	15	53 (18.1%)	88 (30.1%)	
	repayment								
	to make								
	repayment	35	12	47(16,10/)	21	7	28 (120/)		
	period	55	12	47 (16.1%)	31	7	38 (13%)	85 (29.1%)	
	longer								
Suggestions to make	to make								
repayment scheme	repayment								
suitable	period								
	seasonal	26	39	65 (22.2%)	32	16	48 (16.4%)	113 (38.7%)	
	(when there								
	is high								
	sales)								
	Others	0	0	0	4	2	6 (2.1%)	6 (2.1%)	

Source: Survey result, 2021

## 4.4.1 Method of lending

Table 4.6 above reveals that from total sampled respondents, 227 individual borrowers, 68(30%) which is (44 from rural and 24 from urban) while out of 162 respondents of individual borrowers 40 (24.6%) are defaulters (22 from rural and 18 from urban) were defaulters, the remaining 159 (70%) of individual borrowers (60 from rural and 99 from urban) were non-defaulters and 122 (75.4%) of group borrowers (55 from rural and 67 from urban). Method of lending has been included in the estimation, being group borrowers were found to be positively and significantly affected loan repayment performance of borrowers.

## 4.4.2 Timeliness of loan release

This study has considered the attitude of borrowers towards loan repayment and timeliness of loan release issuance as important variables affecting loan repayment performance. (Table 4.6) above reveals that 144(37.1%) of the respondent get the loan timely i.e.(the application date up to the approval of the loan is <1 month), while 245 (62.9%) respondents get loan >a month after application or request of loan to the institution. The study found that borrowers who get a loan within <1 month have more likely to repay their loan than borrowers who get a loan >1 month. The variable has significantly affected the repayment performance and the impact is higher in seasonal loans especially agricultural loans. According to the institution regulation, borrowers should get the requested amount of money within a month. In this study above, >1 month is considered as a delay of loan release.

# 4.4.3 Suitability of Installment Period

In Table 4.6 above regarding the opinion of respondents on the suitability of loan installment period, 28(28.8%) of the respondents in rural and 59(60.8%) in urban who consider it as suitable are nondefaulters, which is greater than the corresponding figure for the defaulters' borrower 6(6.2%) in rural and 4(4.12%) in urban. This is an indication that the variable under consideration is positively related to repayment performance.

Regarding the suitability of repayment, the remaining 292(75.1%) of the sample respondents are of the opinion that the repayment period, which is one year, is not suitable. Of these borrowers 88 (30.1%) require enough time before repayment, 85 (29.1%) recommended a repayment period longer while the rest 113 (38.7%) recommended making the repayment period seasonal (when there is high sales).

# **4.4.4** The explanation from an interview strengthens the above response as follow

According to abeshge woreda's loan officer "Most of our borrowers are not fully utilized the loan given for business that makes them finally default. In addition, little pressure from the lender may reduce the delinquent on the payment and most of our OMFI's borrowers accessed the loan for purchasing agricultural inputs thereby after production the period of repayment may not convince them to sell their products on the higher amount and they may unable to pay the loan and this may cause the clients to delay their payment or just pay a minimum amount, on the other hand, having a larger size of land enhances a borrower's capacity to repay his/her loan timely." This is due to the fact that those borrowers with larger land sizes earn more income from agricultural activities, which in turn helps them in loan repayment.

According to the loan director "our institutional survey result, rural borrowers are more defaulters than urban borrowers. This may be due to off-farm activities, loss of products, flood, and rural borrowers more likely to use the loan partially or fully for non-intended purposes than urban borrowers, such as for consumption or purchase of household assets, for medical expense, for celebrating family festive and other purposes." Hence, these figures imply that a higher percentage of default in repayment of the loan is reported in the rural area than in the urban area

According to the Branch manager "currently, OMFI has to face internal and external problems. Some of the internal problems are:- shortage of supervision and monitoring, Poor documentation, insufficient working area, shortage of loanable funds for further expansion, and high turnover of employees' to other organizations. In addition to this some external problems like; government collateral for the job-creating opportunity, interference of the third party in the decision of loan approval, and borrowers unwillingness to repay."

According to **Sub Branch managers** the most typical challenges faced by any microfinance institution are; - activities in the institution are done manually or without available computer access, not enough employees in the institution mainly in the loan department, borrowers think of the loan as a government gift and giving false certification for borrowers in kebeles level(without considering the ability to pay)

# 4.5 Inferential statistics

Under this section, the correlation analysis, Assumptions of Binary logistics regression, and the result of Binary logistics regression analysis were discussed.

## 4.5.1 Assumptions of Binary logistics regression

According to Pallant (2005), binary Logistic regression does not make many of the key assumptions of linear regression and general linear models. It does not require a linear relationship between the dependent and independent variables, the error terms (residuals) do not need to be normally distributed, the homoscedasticity is not required and the dependent variable is not measured on an interval or ratio scale. However, some other assumptions still apply which include large sample size and multicollinearity. Binary logistic regression requires little or no multi colinearity among the independent variables or the independent variables should not be too highly correlated with each other. Therefore, these two assumptions were checked before the binary logistic Regression is run.

#### 4.5.1.1 Sample Size Test

To calculate for sample size requirements for binary logistic regression a formula N > 50 + 8m (where N = sample size and m = the number of independent variables) provided by Tabachnick et al. (2007) took into account the number of independent variables is employed. In our case, the number of independent variables is 13 and the sample size is 389. Substituting these values into the formula, 389 > (50+8\*13) gives 389>254, and thus, the assumption of sample size requirements was met.

## 4.5.1.2 Tests for Multi Co-linearity.

The term Multi co-linearity indicates the existence of an association between two or more explanatory variables. This association level might be nil that can be ignored or high that significantly affects the estimation of the parameters. If Multi co-linearity is perfect, the regression coefficients of the independent variables are undetermined and their standard errors are immeasurable. If Multi co-linearity is less than perfect, the regression coefficients, although determinate, possess large standard errors, which means the coefficients cannot be estimated with great precision or accuracy (Gujarati 2003).

According to Brace et al. (2003), multicollinearity is a situation where a high correlation is detected between two or more predictor variables and which causes problems in drawing inferences about the relative contribution of each predictor variable to the success of the model. To diagnose the presence of the multicollinearity problem, VIF (Variance Inflation Factor) which the reciprocal value of the tolerance value is used

#### Table 4-7: Multicollinearity Test Result

		Collinearity	Statistics
Model		Tolerance	VIF
1	Gender of borroweres	.836	1.196
	Age of borrowers	.307	3.259
	Educational level	.482	2.076
	Total family size	.322	3.108
	Residence of borrowers	.473	2.114
	Distance of borrowers from institution	.876	1.142
	Other source of income before loan	.737	1.358
	The amount of loan they borrow	.794	1.260
	Business types	.451	2.217
	Participation of social festivals	.622	1.607
	Methods of lending	.844	1.185
	Timeliness of Ioan release	.708	1.412
	Suitability of installation period set by OMFIs	.713	1.402

#### Coefficients<sup>a</sup>

a. Dependent Variable: Loan repayment status

#### Source: Survey result, 2021

According to Myers (1990), a VIF value greater than 10 is a indicates multicollinearity, whereas a tolerance value of below 0.1 will indicate a problem of multicollinearity as suggested by Menard (1995). Thus, as shown above, in table 4.7, VIF for all predictor variables is lower than 10, and tolerance levels are above 0.1 indicating that there is no problem of multicollinearity. Therefore, the assumptions for performing binary logistic regression were met and the logistic regression model should be considered adequate to test the hypotheses of this study.

# 4.5.2 Correlation Analysis

In this study, as shown in (Appendix 2) the correlation Matrix which is made among the independent variables reveals that the slight existence of correlation problem. A serious problem for correlation has occurred if the correlation is about 0.8 or larger (Gujarati 2003). Also as stated in Brooks (2008), zero correlation among explanatory variables is not occurring in any practical work. Thus, even though there is some indication for the existence of correlation among the explanatory variables (age of borrowers and family size) which is 71.2 percent; it does not have a great effect on the accuracy. The correlation effects

of all other independent variables are below 50 percent and it can be confident to say there are no significant effects between all variables since any of them are not above the conventional 80 percent.

# 4.5.3 Binary logistic regression result and discussion

Loan repayment is a dependent variable that is begun by adding independent variables to the categorical variable list in SPSS version 20.0 and coded on the date set for 0 and 1 for dummy variables. The study ensures that independent variable is categorical variables is declared in this analysis. In addition for continuous variables the researcher considers the first choice as the first reference and the last choice in the last reference

# 4.5.3.1 The Goodness-of-Fit Model

The binary logit model results revealed that microfinance loan repayment performance was determined by the interaction of different demographic socio-economic factors, borrowers related factors, and lender related factors.

# Table 4-8 Omnibus test of model coefficients

		Chi-square	df	Sig.			
Step 1	Step	235.447	13	.000			
	Block	235.447	13	.000			
	Model	235.447	13	.000			

Omnibus Tests of Model Coefficients

From above Table 4.8 to test the measure of goodness of fit in logistic regression analysis, the chi-square was computed and showed that the model was significant at a 1% significance level. Consequently, the null hypothesis stating the coefficients of independent variables to be equal to zero was rejected and the alternative hypothesis of the non-zero slope was accepted. The value is given in the Sig. the column is the probability of obtaining the chi-square statistic given that the null hypothesis is true. In other words, this is the probability of obtaining this chi-square statistic (235.447) if there is no effect of the independent variables, taken together, on the dependent variable. This is, of course, the p-value, which is compared to a critical value, perhaps .05 or .01 to determine if the overall model is statistically significant. In this case, the model is statistically significant because the p-value is less than 5 % (Table (4.8)

Table 4-9 Goodness of Fit Statistics- model summary

# Model Summary

Step	-2 Log	Cox & Snell R	Nagelkerke R
	likelihood	Square	Square
1	200.902 <sup>a</sup>	.486	.701

 a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.

The most commonly used technique for measuring goodness-of-fit is the likelihood ratio test, which is simply the chi-square difference between the null model (i.e. the model that only includes the constant) and the model that contains predictors. The -2 log-likelihood ratio statistics is 200.902 Although the SPSS does not provide statistics for the model that only contains the constant, we know it to 436.349 = (200.902 + 235.447).

As seen in Table 4.9 (Above), the results indicated that the value of Nagelkerke R2 is 0.701, which shows that the model explains roughly 70.1% of the variation in the outcome. In addition to this, the two values .486 and .701, suggesting that between 48.6 percent and 70.1 percent of the variability is of the dependent variable (i.e., loan repayment performance) is explained by explanatory variables included in the study.

Table 4-10 Goodness of Fit Statistics- Hosmer-Lemeshow test

**Hosmer and Lemeshow Test** 

Step	Chi-square	df	Sig.	
1	24.704	8	.312	

. As shown in Table 4.10 (above), the (Hosmer n.d. Lemeshow)test was insignificant (P-value = 0.312). Hair et al. (2010) argued that if the significant value in the (*Hosmer and Lemeshow*) test is greater than 0.05, then the model used can feasibly be used for further analysis.

In addition, the Wald test was used to measure the statistical significance of each predictor in explaining the dependent variable (i.e., loan repayment performance). The Wald test shows whether the  $\beta$  –

coefficient in logistic regression for the predictor variable is significantly different from zero. If so, then the predictor is assumed to form a big contribution to the result of the variable.

# Table 4-11 Classification table

	Classification Table <sup>a</sup>							
Observed			Predicted					
			Loan repaym	Percentage				
				Defaulters	Correct			
Step 1	Loan repayment status	Non-defaulters	269	12	95.7			
		Defaulters	23	85	78.7			
	Overall Percentage				91.0			

a. The cut value is .500

The other measure of goodness-of-fit in the logistic regression model was checked by observing the value in the prediction table to verify whether the model correctly predicted it or not. The fit is said to be good if the overall correct prediction rate exceeds 50% (Shewhart and Wilks, 2013). A classification table is a simple tool that indicates how good the model is at predicting the outcome variables. To characterize our model as use full, to compare the overall percentage accuracy rate produced SPSS version 20.0 classification table at step"0" and at step"1" or overall %(Table 4.11). Accordingly, the result indicated that the overall accuracy rate computed by SPSS at step"0" was 72.2 % and the accuracy rate computed by SPSS 20.0 at step"1" was 91 % were correctly predicted at the cut value of 0.5; and overall, (above Table 4.11). Hence, the criteria for classification accuracy are satisfied. Generally, the higher the overall percentage of correct predictions in this case 91 percent shows the fitted binary logistic regression model.

## 4.5.3.2 The binary logistic regression result

The binary logistic result is shown in Table 4.12 (below) revealed that loan repayment performance of borrowers was influenced by nine explanatory variables, Age, Family size, level of education, the residence of borrowers, another source of income, Business type, Participation in social festivals, method of lending, and suitability of installation period. Other variables including, gender, the distance of borrowers from institution loan size and timeliness of loan release are no significant impact on loan repayment performance of borrowers.

Table 4-12 Binary logistic regression result

		В		Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
			S.E.					Lower	Upper
Step 1 <sup>a</sup>	Gender	159	.407	.153	1	.696	.853	.384	1.894
	Age	113	.038	8.663	1	.003	.894	.829	.963
	edulevel	-1.698	.291	33.994	1	.000	.183	.103	.324
	famsize	.677	.187	13.024	1	.000	1.967	1.362	2.841
	Resdnc	-2.204	.608	1.123	1	.000	9.060	2.750	29.854
	Distnc	.008	.398	.000	1	.983	1.008	.462	2.199
	OthrsrcIncm	2.043	.430	22.575	1	.000	7.711	3.320	17.909
	loansize	.124	.188	.431	1	.511	1.131	.783	1.636
	Businesstype	227	.287	1.624	1	.430	.797	.454	1.399
	socialfestival	-1.525	.256	35.445	1	.000	4.593	2.781	7.587
	lendingmethod	802	.419	3.666	1	.056	.449	.197	1.019
	timelineofloan	.447	.464	4.929	1	.335	.639	.257	1.588
	suitabilityofpaytprd	.879	.538	2.669	1	.102	2.408	.839	6.911
	Constant	-1.960	1.582	1.535	1	.215	.141		

Variables in the Equation

a. Variable(s) entered on step 1: Gender, Age, edulevel, famsize, Resdnc, Distnc, OthrsrcIncm, Ioansize, Businesstype, socialfestival, lendingmethod, timelineofloan, suitabilityofpaytprd.

#### Source: SPSS result 2021

The binary logistic result is shown in Table 4.12 (above) revealed that loan repayment performance of borrowers was influenced by age, educational level, family size, the residence of borrowers, another source of income, social festival lending method, timeliness of loan release, and suitability of installation period almost at P<0.1 while other variables including, gender, a distance of borrowers from institution and loan size are no significant impact on the repayment performance of borrowers. Since the association is statistically significant and null hypothesis is rejected when the p-value (value listed in the column called "Sig.") is smaller than or equals to the specified significant level like .05 or .01 or 0.1. Whereas, when p-value listed in the sig. the column is greater than the specified significance level, the association between the independent variable and dependent variable is statistically insignificant.

### Socio-demographic factors

### Age (Ag)

The binary logistic result shows that Age of the borrowers' was found to be as expected, as a positive impact on loan repayment, which means as age increased, the probability of being defaulter is decreased (Table 4.12), the variable Age of respondent has a negative and significant effect on the repayment performance of borrowers at (P= .003) level of significance. This implies that being younger the borrowers are more likely to be defaulters than the elder borrowers. Therefore, the negative influence of age suggests that as an individual's elderly the less probable he/she will be a defaulter. This may be due to the borrowers were becomes elder, they might be wealthy and they feel responsibly and also expected that social ties and other benefits such as information-sharing increase with the age of the borrower increases. Thus, the result of this study is consistent with the result of a study made by (Reta, 2011; Tadele, 2014; Yimer, 2019)

#### Family size (FSZ):

It was hypothesized that there is a significant association between family size and loan repayment of MFIs. The result from the binary logistic regression model in above table 4.12 above indicates a positive sign for the family size variable ( $\beta$  of .677), which shows a positive association between family size and the inability of loan repayment of MFIs. This shows that as borrowers' family size increases, the probability of borrowers being defaulters on loan repayment increases. Having a higher number of household members will increase consumption expenses and other living expenses which led loan repayment difficult.

Since the Sig. statistic or p-value (.000) is smaller than the chosen significance level (0.05 or 5 percent), the association between family size and the loan repayment is statistically significant i.e., having a lower or higher number of household members or family size contributes to the change (increase or decrease) in the probability of loan repayment performance of borrowers. By another way, as the Wald statistic of family size (13.028) is outside of confidence interval (1.362–2.841), the developed research hypothesis that there is a significant association between family size and the loan repayment is accepted. Hence, there is a significant association between family size and loan repayment of borrowers in MFIs.The same finding was obtained in a study made by(Firafis, 2015).

#### **Educational level (EDL):**

It was hypothesized that education is associated with loan repayment of MFIs. The result from the binary logistic regression model in the above table 4.12 indicates a negative sign for the education level variable

( $\beta$  of -1.698), which implies a negative association between education level and being defaulters on loan repayment. This shows that as a level of education increases, the possibility of borrowers being defaulters is decreased. Since the Sig. statistic or p-value in some other statistical application (.000) which is smaller than the chosen significance level (0.05 or 5 percent), the association between education level and the loan repayment is statistically significant i.e., the level of education contributes to the variance in probability of borrower's loan repayment performance. By another way, as Wald statistic of education level (33.994) is outside of 95 percent confidence interval (.103 – .324), the developed research hypothesis that there is a significant association between the educational level of borrowers and loan repayment of MFIs. This result is consistent with the previous study of (Borena & Waktola, 2019; Gudde Jote, 2018; Yimer, 2019)

#### **Residence of borrowers (RSB)**

It was hypothesized that the residence of borrowers is associated with loan repayment of MFIs. The result from the binary logistic regression model in the above table 4.12 indicates a positive sign for the residence of borrowers variable ( $\beta$  of -2.204), which implies a negative association between the residence of borrowers and being defaulters on loan repayment. This shows the possibility of borrowers being defaulter is higher in rural more likely than urban borrowers. Since the Sig. statistic or p-value in some other statistical application (.000) which is smaller than the chosen significance level (0.05 or 5 percent), the association between residents of borrowers and loan repayment is statistically significant i.e., the settlement of borrowers contributes to the variance in probability of borrower's loan repayment performance. The developed research hypothesized that there is a significant association between the residence of borrowers and loan repayment of MFIs. The same finding was obtained in a study made by (Gudde Jote, 2018).

#### Other sources of income (OSIC)

The researcher hypothesized that another source of income before getting the loan is associated with loan repayment of MFIs. The coefficient from the binary logistic regression model in above table 3 and table 4 above indicates a positive sign for this variable ( $\beta$  of 2.043), which implies a positive association between another source of income before getting the loan and loan repayment MFIs. This shows that as the source income increases, borrowers enhance their ability to repay their loans on time.

Since the Sig. statistic or p-value in some other statistical application (.000) is smaller than the chosen significance level (0.05 or 5 percent), the positive association between other sources of income and loan

repayment is statistically significant i.e., the change in the level of income contributes to the change in probability of borrower's loan repayment performance. On the other hand, as Wald statistic regarding income from activities financed by the loan (22.575) is outside of 95 percent confidence interval (3.320-17.909), the developed research hypothesis that there is a significant association between other sources of income and loan repayment is accepted. Hence, another source of income before getting the loan and loan repayment of MFIs' borrowers has a significant association. Thus, the result of this study is consistent with the result of a study made by (Tadele, 2014; Yimer, 2019)

#### Participation in social festivals (PSF)

The researcher hypothesized participation in social festivals is associated with loan repayment of MFIs. The coefficient from the binary logistic regression model in the above table 4.12 indicates a negative sign for this variable ( $\beta$  of -1.525), which implies a negative association between participation in social festivals and loan repayment MFIs. This shows that as borrowers celebrate or ceremonies and festivals, the possibility of being the default and the amount of money spent on social celebration goes in the same direction. Since the Sig. statistic or p-value in some other statistical application (.000) is smaller than the chosen significance level (0.05 or 5 percent), the negative association between participation in social festivals and the loan repayment is statistically significant i.e., the change in the level of participation in festivals contributes to the change in probability of borrower's loan repayment Thus, the result of this study is consistent with the result of a study made by (Yemer & Sani, 2017)

### Method of lending

Method of lending (MOL): It was hypothesized that there is a significant association between the method of lending and loan repayment of MFIs. But, the result from the binary logistic regression model in the above table 4.12 indicates a negative sign of the coefficient for this variable ( $\beta$  of -.802), which shows a negative association between the method of lending and loan repayment of borrowers in MFIs. This shows that as borrowers obtain loans individually, the probability to repay their loan decreases. If the borrower obtained a loan as per the individual lending scheme, he or she will not obtain the support and guidance from the others and incentive to operate effectively as the loan was taken individually. This negatively influences the probability borrower's loan repayment performance.

As the Sig. statistic or p-value (.056) is smaller than the chosen significance level (0.05 or 0.1 percent), the negative association between the method of lending and loan repayment is statistically significant i.e., obtaining a loan as per individual lending scheme or group lending scheme contributes to the change (increase or decrease) in the probability of loan repayment performance of borrowers. (*Mersland - 2008*) find that MFI tends to choose group lending when its main market is rural, when it prefers female

borrowers, and when the average loan amount is small. The studies show that the group-based lending approach cannot ensure a high repayment rate in MFIs. And also the finding of this study is consistent with the finding of the study made by (Gudde Jote, 2018; Tadele, 2014).

# Suitability of installation period (SIP)

The coefficient of the variable is hypothesized to influence loan repayment. As the regression model shows that, the variable has a significant and positive ( $\beta$  of .879), effect on loan repayment performance at (p =.102). This may be due to the fact that borrowers who have a positive perception of the repayment period tend to develop repayment and become friendly with the lender, which results in a reluctance to fulfill their loan repayment obligation. Hence, they do not bother about the consequences arising from the dalliance in loan repayment. On the other hand, those who have no positive perception towards repayment period, the dalliance repayment period of loan become defaulters. Thus, the result of this study is consistent with the result of a study made (Abreham, 2002; Firafis, 2015)

# **CHAPTER FIVE**

# **CONCLUSIONS AND RECOMMENDATIONS**

This chapter presents a summary of the major findings of the study and the necessary recommendations. In this study, an attempt was made to look into the factors that determinant the repayment performance of microfinance borrowers and to evaluate non-defaulters and defaulter borrowers of both rural and urban loan beneficiaries. Moreover, it assessed the impact of institutional factors on the loan repayment performance of borrowers. The present study was intended to identify and analyze the determinants of loan repayment performance of borrowers in the Gurague Zone.

# 5.1 Conclusions

Based on the analysis made in chapter four, the following conclusion was made on socio-demographic characteristics of borrowers, economic and cultural factors, and institutional and loan-related factors were as follows:-

The finding of this study has shown that men clients benefited more than women, which is agents the policy objective of the institution. The regression analysis reveals that the age of the beneficiaries of the loan is a significant determinant of loan repayment performance. The elder borrowers have taken responsibility to repay their loans than younger ones. And also there is a significant association between family size and loan repayment of MFIs. This shows that as borrowers' family size increases, the probability of borrowers repaying their loans decreases. Having a higher number of household members will increase consumption expenses and other living expenses which led loan repayment difficult.

The findings in respect of educational level can be concluded from the result that, as educational level increases, the riskiness of loan repayment decreases. Especially borrowers with higher educational levels are most likely to become low defaulters. One possible reason that could be given for better repayment performance by this group of borrowers is the comparative advantage they have in their business opening and operation by applying their technical know-how from their formal education background. So there is a need for continuous supervision on loan utilization and training to reduce both the problem of using the loan for non-intended activities as well as lack of skill observed because of the wide-scale illiteracy (particularly in the rural and urban areas 13.1% and 2.3 % from total respondents respectively).

In the method of lending of OMF individual lending borrowers have performed worse loan repayment performance than group borrowers. Moreover, the percentage of individual defaulters was higher than group defaulter borrowers. i.e., obtaining a loan as per an individual lending scheme or group lending scheme contributes to the change (increase or decrease) in the probability of loan repayment performance of borrowers. This may be due to the members may put social sanctions on the defaulters within the group and enforce them to repay a loan. Hence the cumulative effect of the method of lending has a negative and significant relationship with loan repayment.

According to the findings of the institutional survey, rural borrowers are more likely to default than urban borrowers. This could be due to off-farm activities, product losses, floods, and rural borrowers being more likely than urban borrowers to use the loan partially or entirely for non-intended purposes, such as consumption or purchase of household assets, medical expenses, family celebrations, and other reasons.

Finally, the regression result shows that age, educational level, family size, the residence of borrowers, other sources of income, participation in social festivals, method of lending, and suitability of installments period have significantly related with loan repayment, whereas gender, the distance of borrowers from institution, loan size, , business type and timeliness of loan release were not significant determinants of loan repayment performance of omo microfinance institution's borrower.

# 5.2 Recommendations

The finding of this study revealed that the age of respondents negatively and significantly determines the loan repayment performance of borrowers. This indicates that the elder respondents have better repayment performance than youngsters. And the elders were more responsible to repay the loan than youngsters The study recommends that the age of the borrower should have to be considered in granting credit to the users because this variable was positively associated with repayment performance.

The education level determines loan repayment significantly. The borrowers who attained higher education level able to pay better than the borrowers who were in lower level schooling and/or illiterates. Therefore, the institution should motivate educated people and also be easy to provide training. The time lag between loan application and disbursement should be reduced to increase the repayment rate. The complicated loan processing procedures, which might lead to delay in disbursement, further, will increase the default rate. The supervision made by the loan officers and borrowers ratio should be reduced and it leads to increase follow-up services. Borrowers who have a small number of or no dependents in the

household perform better in loan repayment. The borrowers who support a large number of dependants also perform well with proper supervision.

So the institution should give special attention to individual lending Therefore group lending might be the reason for better repayment performance of the borrower.

Participation in the social festivals was also found as an essential and significant determinant of loan repayment rate negatively. This means, diverting loans into non-income generating activities or nonproductive expenses increases the default rate. Therefore, it is recommended that the institution should give attention to continuous follow-up on proper loan utilization and borrowers should also reduce the frequency of celebration or reduce the amount they spent.

Timeliness of loan release was found to be insignificant determinant of loan repayment performance of borrowers. Suitability of loan repayment period for borrowers was found to significantly increase the probability of repaying the loan. Convenient installation period to enable the borrowers to put their money for the intended purposes, through making feasibility analysis and based on a business plan, the payment period of the loan should extended the reasonably suited period. Therefore, the institution has to give enough time to clients so that they will be able to work with the loans they have borrowed and arrange the time to collect loans that will be suitable for them to sell their business output.

I recommend that the institution better to revise the loan installment period and expand the collection period, so as some the loan financed activities require more than a year to get a return from investment and others may require a short period to get a return on investment, a flexible repayment period should be designed in order to improve the existing default rate such as; - for the agricultural loan on-farm time (November to February).

# **5.3 Direction for Further Research**

This study examined certain variables related to determinants of loan repayment performance of borrowers. However, loan repayment performance on behalf of small and medium enterprises was not investigated. Thus, further researches can conduct on this issue to breach the gap in this area. As the result of this study from thirteen variables nine of them have significantly affect the loan repayment performance while gender, the distance of borrowers, loan size and timeliness of loan release are insignificant relationships with loan repayment performance. This is maybe due to the method of data collection or another factor so it is advised for future researchers to oversee this issue. The study adopts those variables from various theories to identify determinant factors of loan repayment performance.

However, there are so many variables that were not included in this study. Thus, future researchers may be interested in validating the consistency of the result and providing supplementary results for this study by including another variable from other theories.

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+ Basic + econometrics + % 284 th + ed.% 29. + New + York% 3A + McGraw + Hill + Book + Co.&btnG = Co.Without a standard standar

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## Appendix; I

## JIMMA UNIVERSITY

#### **COLLEGE OF BUSINESS AND ECONOMICS**

#### SCHOOL OF GRADUATE STUDIES

#### MSC PROGRAM IN ACCOUNTING AND FINANCE

#### Quantitative Questionnaire (English) To Be Filled By OMF Beneficiaries

#### CONSENT FORM.

The study on analysis of Determinants of Microfinance loan repayment performance; a case study on Omo microfinance institution in Gurague zone will undertake by **Mr. Bayuh Birhan** who is Postgraduate student at Jimma University College of Business and Economics. Participation in this study is voluntary and the names of respondents will not be used in reporting the results and all the information provided by the respondent will be strictly confidential and your response to this Questionnaire will serve as a source of information to the research paper to be done for thesis purpose. Any response you provide here will be used exclusively for the research Purpose. Your honesty in responding to the right answer is vital for the research outcome to be reliable.

#### **PART I: Socio-Demographic Characteristics**

**QI.1,** Sex of borrower's: 0) Male  $\square$  1) Female  $\square$ 

QI.2, Age of borrowers':

**QI.3,** Educational level: 0) Illiterate, 1) grade1-8, 2) grade 9-12, 3) above grade 12

**QI.4,** Marital status: 0) Single  $\Box$ , 1) Married  $\Box$ , 2) Divorce  $\Box$ , 3) Widowed  $\Box$ 

QI.5, Total Family size: \_\_\_\_\_

QI.6, How many persons in your household are engaged in work that earns income or products?

**QI.7,** How much far from your home to the institution? 0)  $<5km\Box$ , 1)> 5Km $\Box$ 

**QI.8,** Residence of borrower: 0) Rural $\Box$ , 1) Urban $\Box$ 

## **Loan Repayment Related Questions**

**Q0.1,** Did you repay the loan to OMFIs? 0) Yes  $\Box$ , 1) No  $\Box$ 

**Q0.3,** If your answer to Q0.2 is *'fully repaid on time'* what motivates you to repay your loan on time?

- 0) In the expectation of getting another large loan  $\Box$
- 1) To keep social status  $\Box$ ,
- 2) Build good relationship with the loan provider  $\Box$
- 3) Others (specify)

Q0.3, If your answer for B-18 is 'No' what cause your repayment problem?

- 0) Weak legal enforcement for defaulters  $\Box$ ,
- 1) Loan activity was not profitable  $\Box$
- 2) Personal problem (like sick, change of place  $\Box$ ,
- 3) Lack of sale/ demand  $\Box$ ,
- 4) Disaster (theft, fire, flood, etc.)  $\Box$ ,
- 5) Used enterprise capital for consumption (food, clothing, HH goods)  $\Box$ ,
- 6) Due to high-interest rates  $\Box$
- 7) Family celebration (wedding, birthday, holly day, social festival, etc.) $\Box$ .

#### PART III: Economic and cultural factors

**QII.1,** When did you 1st join OMFIs? Month....../year...... E.C

QII.2, Did you have another source of income (cash income) before joining the loan program?

0) Yes  $\Box$ , 1) No  $\Box$ 

QII.3, Why do you borrow from Omo microfinance? (You can choose more than one response)

0) To repay other debts  $\Box$  1) To improve or expand business  $\Box$ 

2) To open a new enterprise $\Box$	4) Improve the quality of existing products $\Box$						
3) To purchase agricultural inputs $\Box$	5) Other (specify)						
QII.4, The loan size you obtain from OMF is;							
0) < 5000 🗆	3) 15,000-20,000 🗆						
1) 5,000-10,000 🗆	4) > 20,000 □						
2) 10,000-15,000 🗆							
QII.5, In which Business activities are curren	ntly you engaged?						
0) Agricultural sectors $\Box$	2) Service sectors $\Box$ ,						
1) Commercial $\Box$	3) Enterprise sector $\Box$						
QII.5.1, In Question No.QII.5, if you are inv	volved in the Agricultural sectors, in which business						
activities are you involved?							
0) crop production $\Box$ ,	2) bees farming $\Box$ ,						
1) Animal fattening $\Box$ ,	3) other (specify)						
QII.5.2, In Question No.QII.5, if your busine	ness activities are in the commercial sector, in which						
business activities are you involved?							
0) Ballitina□,	3) selling serials $\Box$						
1) Street or road trade (Gulliti) $\Box$ ,	4) other specify						
2) shop and container $\Box$ ,							
QII.5.3, In Question No.QII.5, if you are invo	volved in service sectors, in which business activities						
are you involved?							
0) Barber and beauty salon $\Box$ ,	2) Consultancy ( law and related services)						
<ol> <li>Computer maintenance and copy service□,</li> </ol>	3) Other (specify)						
QII.5.4, In Question No.QII.5, if you are	e involved in enterprise sectors, in which business						
activities are you involved?							
0) Constriction $\Box$ ,	2) "Kobil "stone□,						
1) Woodwork and metal work $\Box$ ,	3) Other (specify)						
	5) Guier (speeny)						

QII.6, From the above business activity you selected, how long has your business experienced?

0) One year  $\Box$ , 1) two years  $\Box$ , 2) three years  $\Box$ , 3) more than four years  $\Box$ .

QII.7, How much money do you spend on social festivals (such as holidays, weddings, birthdays, etc...)?

0) Never  $\Box$  1) sometimes  $\Box$  2) many  $\Box$  3) too many  $\Box$ 

## Part III: Institutional and loan-related Questions

QIII.1, In which method of lending do you borrow from the institution?

0) individual  $\Box$ , 1) Group  $\Box$ 

QIII.2, Why did you engage in group borrowing?

- 0) Easy to get loan in a group  $\Box$ ,
- 1) by initiation of one of the group members  $\Box$
- 2) By lacking other alternatives  $\Box$ ,
- 3) others\_\_\_\_\_

QIII.3, Do you believe the loan was issued timely? (Less than 1 month timely otherwise not)

0) Yes  $\Box$ , 1) No  $\Box$ 

QIII.4, Is the repayment period set by OMFIs suitable in your opinion?

0) Yes  $\Box$ , 1) No $\Box$ 

QIII.5, What was your suggestion to make the repayment scheme suitable?

- 0) To give enough time before starting to repay  $\Box$
- 1) To make repayment period longer  $\Box$
- 2) Others\_\_\_\_\_

## JIMMA UNIVERSITY

# COLLEGE OF BUSINESS AND ECONOMICS SCHOOL OF GRADUATE STUDIES MSC PROGRAM IN ACCOUNTING AND FINANCE

## Qualitative Questionnaire for Deep-Interview (English)

#### **CONSENT FORM.**

My name is Bayuh Birhan I am a part of the research work team of Jimma University. The research will assess the determinate of microfinance loan repayment performance. Your response to this questionnaire will serve as a source of information for the research paper to be done for thesis purposes. Any response you provide here is strictly confidential and will be used exclusively for research purposes. Your honesty in responding to the right answer is vital for the research outcome to be reliable.

#### **Interview Questions**

1. What are the main factors that affect the loan repayment performance of borrowers in your institution?

2. Do you think which loan distribution area (from rural and urban) effectively repaid the loan?

3. What kind of lending methodology is utilized by OMFI and which method is more effective related to loan repayment?

4. What challenges are faced by borrowers towards loan service utilization? Related to both rural and urban business sectors

#### ጂጣ ዩኒቨርስቲ

#### **ቢ***ዝነስ* **እና ኢኮኖሚክስ ኮሌጅ**

የ አካውቲንግ እና ፋይናንስ ት/ት ክፍል

#### በ ኦሞ ማይክሮ ተበዳሪዎች የሚሞላ የጥያቄ ቅፅ

የተክበራችሁ የ አሞ ማይክሮ ፋይናንስ የ ብድር ተጠቃሚዎች ይህ የመመረቂያ ጽሁፍ የሚያተኩረው በ ኦሞ ማይክሮ ፋይናስ ተበዳሪ የብድር አመላለስ ላይ ሲሆን ጥናቱን የማደርንዉ እኔ አቶ ባዩህ ብርሃን በጅማ ዩኒቨርሲቲ የ ቢዝንስና ኢኮኖሚክስ ኮሌጅ በ አካዉንቲንን እና ፋይናንስ ት/ት ክፍል• የድህረ ምረቃ ተማሪ ስሆን እርሶም የ ማይክሮ ፋይናንስ ደንበኛ በመሆንዎ በማይክሮ ፋይናንስ ብድር ክፍያ አፈፃፀም ላይ በተደረንው ጥናት በብድር አመላለስ ወቅት ያሰውን አሰራር ያውቃሉ ተብሎ በመታሰቡ ሰ²\_ህ ቃስ መÖÃ ተመርÖ<sup>a</sup> ል። የዚህ ጥናት ተሳትፎ በፈቃደኝነት ነው እናም የመሳሽ ስም ውጤቱን ሪፖርት ለማድረግ ጥቅም ላይ የማይውሉ ሲሆን ተጠሪ የሰጠው መረጃ ሁሉ በጥብቅ ሚስጥራዊ ይሆናል እናም ለዚህ መጠይቅ የሰጡት ምላሽ ለሚደረንው የጥናት ወረቀት የመረጃ ምንጭ ይሆናል ። እዚህ የሚሰጡት ማንኛውም ምላሽ ለምርምር ዓላማ ብቻ ጥቅም ላይ ይውላል ። የምርምር ውጤቱ አስተማማኝ እንዲሆን ትክክለኛውን መልስ ለመስጠት የእርስዎ ታማኝነት በጣም አስፈላጊ ነው ።

#### <u>ክፍል I: ማህበራዊ-ስነ-ህዝብ ባህሪዎች ጋር የተያያዙ ጥያቄዎች</u>

QI.1 ኖታ: 0) ወንድ 🗆 1) ሴት 🗆

QI.2 የተበዳሪካ /ª ዕድሜ '\_\_\_\_

QI.3 የትምህርት ደረጃ: 0) Á**ልተጣረ** 1) ክፍል 1-8 2) ክፍል 9-12 3) ከ 12 ኛ ክፍል በላይ

QI.4 የጋብቻ ሁኔታ: 0) Áላብ 🗆 1) Áብ 🗆 2) አግብቶ የፌታ 🗆 3) ሚስት/ባል የምተበት 🗆

OI.5 ጠቅላላ የቤተሰብ ብዛት : -

OI.6 በቤተሰብዎ ውስጥ ምን ያሀል ሰዎች ንቢ በሚያ**ንስ**ኝ ሥራ ላይ ተሰማርተዋል?

OI.7 የመኖሪያ ቦታዎ የት ነው? 0) ንጠር 🗌 1) ከተማ🗌

QI8 ከቤትዎ እስከ ኦም ጣይክሮ ፋይናንስ ተቋሙ ምን ያህል ርቀት ነው?

0) ከ 5 ኪ.ሜ በታች □ 1) ከ 5 ኪ.ሜ በላይ□

የብድር ክፍያን በተመስከቱ ጥያቄዎች

Q0.1 ከ ኦም ማይክሮ ፋይናንስ የወሰዱትን ብድር ከፍለዋል? 🛛 🛛 🖓 እልክፌልኩም 🗆

Q0.2 በ ዓ Áቄ ቁዓር Q0.1 የሰÖ ት መልስ ነአልክሬልኩም፣ ከሆነ ላለመክሬል የዳረሳት ችግር ምንድነው?

0) ብድርን ያለመመለስ ተጠያቂነቱ አነስተኛ ስለሆነ 🗌

1) የብድር እንቅስቃሴ ትርፋማ **ያስመሆን** 🗌

2) በግል ችግር (እንደ በሽታ፣ የቦታ ለውጥ) 🗌

3) የ ምርት ገባያ ማጣት 🗆

4) ¾ተð ዓ 🕻 አደጋ (ስርቆት ፣ እሳት ፣ ሳርፍ ወዘተ) 🗌

5) መካሻ ካፒታልን ለሌላ ተማባር ማዋል (ምግብ ፣ ልብስ ፣ የቤት ዕቃዎች) 🗌

6) የብድር ወለድ ጣጠን ከፍተኛ ስስሆነ 🗌

7) በዓ <b>ላትን ለማክበር</b> (የሠርግ ፣ የልደት ቀን ፣ <b>የ አመታዊ</b> በ	፫ ል ቀን ፣ ማህበራዊ ኑሮ) □								
ክፍል II: <u>ከ ኢኮኖሚያዊ ፣ ባህላዊ ና ከ ብድር Òር Áሎ ተ</u>	<u>ዛማጅ ጥያቄዎች</u>								
QII.1 የማይክሮ ፋይናንስ ተቋም አባል <b>የሆኑት <i>መች ነ</i>በር</b> ?	ውርም								
QII.2 የብድር ፕሮግራሙን ከሙቀላቀልዎ በፊት ሌላ የንቢ ም'	ነጭ ነበሮት?								
0) አዎ <b>ን</b> 🗆 1) አይÅ <b>ስም</b> 🗆									
QII.3 ከኦሞ ማይክሮ ፋይናንስ ለምን	ይዋሳሉ? ( <b>ስአንድ በሳይ መመሰስ ይቻሳል</b> )።								
0) ሌሎች እዳዎችን ለሞክፈል 🗆	3) የግብርና ግብዓቶችን ለጮግዛት 🗆								
1) ንግድ ለማሻሻል ወይም ለማስፋፋት 🗆	4) የነበሩትን ምርቶች ጥራት <b>ለማ</b> ሻሻል 🛛								
2) አዲስ ድርጅት ለጮክፈት 🗆	5) ሌላ <b>ክስ</b> (ይግለጹ)								
<b>QII.4</b> ከ <i>ኦሞ ማይክ</i> ሮ ፋይናንስ ያንኙት የብድር መጠን;									
0) < 5000 🗆	3) 15,000-20,000 🗆								
1) 5,000-10,000 🗆	4) > 20,000 □								
2) 10,000-15,000									
QII.5 በአሁኑ ወቅት በየትኛው የንግድ ሥራ ላይ ተሰማርተዋ									
0) የግብርና 🗆	2) የአገልግሎት ዘርፎች 🗆								
1) ንግድ 🗆	3) የድርጅት ዘርፎች 🗆								
QII.5.1 በጥያቄ ቁጥር QII.6 ውስጥ በግብርና ዘርፍ የተሰማ።	ሩ ከሆነ በየትኛው እንቅስቃሴ ውስጥ ተሳትፈዋል?								
0) የሰብል ምርት 🗆	2) ንብ <b>ማነበ</b> □								
1) የእንስሳት ማድለብ 🗆	3) ሌላ (ይግለጹ)								
QII.5.2 በጥያቄ ቁጥር QII.6 ውስጥ ሥራዎ ንግድ ከሆነ በየ	ትኛው የንግድ እንቅስቃሴ ውስጥ ተሳትፈዋል?								
0) ባ <b>ል</b> <i>ት</i> ና □									
1) የጎዳና ወይም የጦንንድ ንግድ (ንሊቲ)□	3) ተከታታይ ፊልሞችን በጮሸጥ ላይ 🗌								
2) ሱቅ እና ኮንቴነር🗆	4) ሌላ ይግለጹ								
QII.5.3 በጥያቄ ቁጥር QII.6 ውስጥ በአንልግሎት ዘርፎች ው	ስጥ <b>ከሆነ</b> በየትኛው የንግድ እንቅስቃሴ ውስጥ ተሳትፈዋል?								
0) ፀንር አስተካካዮች እና የውበት ሳሎን 🗆	2) የ ምክር አገልግሎት (የህግ ና መሰል አገልግሎቶች 🗆								
1) የኮምፒተር ጥንና እና የቅጅ አንልግሎት 🗆	3) ሌላ (ይግለዱ)								
<b>QII.5</b> .4 በጥያቄ ቁጥር QII.6 ውስጥ በድርጅት ዞ	lርፎች ውስጥ ከ <b>ሆነ</b> በየትኛው እንቅስቃሴ ውስጥ ተሳትፈዋል?								
0) ኮንስትራክሽን 🗆	2) ኮብልስቶን (ድንጋይ) ማንጠፍ 🛛								
1) የእንጨት ሥራ እና የብረት ሥራ 🗆	3) ሌላ (ይግለጹ)								
QII.6 ከዚህ በላይ በመረጡት የስራ ዘርፍ ለምን ያህል ን	ደዜ ቆÃ ተª ል?								
0) አንድ ዓመት 🗌	2) ሦስት ዓጮት 🗌								
1) ሁለት ዓጮት 🗆	3) ከአራት ዓመት በላይ 🗆								

QII.7 ማሀበራዊ በዓልን ለማክበር (እንደ አመት በዓል፣ ሰርÓ፣ ልደት ወዘተ ያሉትን) ለማክበር ገንዘብዎን ምን ያክል ÁÖኛሉ?

0) በβ ራሽ 🗆 1) አንድ አንኤ 🗆 2)	ብ²· □ 3) በጣም በ²· □									
<u>¡አልⅢ. ከ ኦሞ ማይክሮ ፋይናንስ ተቃም አሰራር <i>ጋ</i>ር የ</u>	<u>'ተደደኩ ጥያቄዎች</u>									
QIII.1 ብድር የወሰዱት በየትኛዉ መንገድ ነዉ? 0) በ Óል 🗆 🛛 1) በቡደን 🗆										
QIII.2 ለምንበቡድን <b>ለመበደር ወሰኑ</b> ?										
0) በቡድን ብድር ለማግኘት ቀላል <b>ስለሆነ</b> 🛛 1) በቶÅኛ አነሳሽነት 🗆	2) ሌሎች አማራጮችን በማጣት 🛛 <b>3) ሌሳ</b> (Ã Ó <b>ስ</b> è )									
QIII.3 የተሰጠው ብድር በወቅቱ ደ <b>ርሶናል ብለው</b> ያምናሉን? (ከ 1 ወር በታች <b>ከሆነ ብቻ ወቅታዊ</b> )										
0) አዎን 🗆 1) አይÅ <b>ለም</b> 🗆										
QIII4 በ ኦሞ ማይክሮ ፋይናንስ የተቀጣጠው የክፍያ ጊዜ በእርስዎ አስተያየት ተስማሚ ነውን? 0) አዎ 🗆 1) አይÅ <b>ለም</b> 🛛										
QIII.5 ለቁጥር QIII.5 የሰጡት  ጣልስ <b>ነአይደ</b> ለም፣ ከሆነ የጣ	ስፈያ ጊዜው ተስማሚ እንዲሆን ሀሳብዎ ምን ነበር?									
0) ብትሩንለመክፈል በቂ ጊዜ ቢሰዓ 🛛										
1) የክፍያ ጊዜው <b>ረ² ም ቢል</b> 🗆										
2) ወቅዊ በሆነ ጊዜ ቢሰበሰብ (ከፍተኛ ሽይጭ ሲኖር) 🗆										
3) ሌላ ካለ (Ã ÓΛè)										

# sAppendix II

CUTERAUUT MALUX															
		Constant	Gender	Age	edulevel	famsize	Resdnc	Distnc	Othrsrcincm	loansize	Businesstype	socialfestival	lendingmetho d	timelineofloan	suitabilityofp ytprd
Step 1	Constant	1.000	359	608	- 358	.096	253	208	.026	223	266	304	.007	231	15
	Gender		1.000	.170	.087	012	148	.017	210	.103	.279	.160	043	035	.05
	Age			1.000	.338	712	.028	.033	265	172	.192	179	043	.258	21
	edulevel				1.000	135	272	.035	274	173	031	183	.231	.265	01
	famsize					1.000	.132	024	.353	.100	.043	.212	021	169	.17
	Resdnc						1.000	.151	.169	.015	464	.231	.007	.010	.0
	Distnc							1.000	.000	.120	014	.071	047	014	.0
	Othrsrcincm								1.000	.089	051	082	100	144	.13
	loansize									1.000	018	.143	.074	.030	.1
	Businesstype										1.000	.148	305	.019	1
	socialfestival											1.000	174	213	.0
	lendingmethod												1.000	.033	0
	timelineofloan													1.000	3
	suitabilityofpaytprd										8				1.0

Correlation Matrix