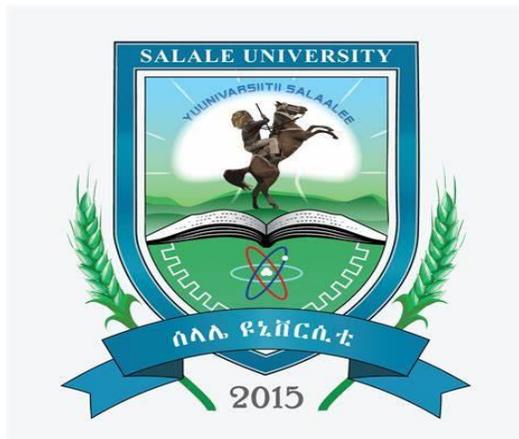


**FACTORS AFFECTING THE EFFECTIVENESS OF
MICROFINANCE CREDIT (THE CASE OF RURAL
HOUSEHOLD IN GIRAR JARSO WOREDA (BORROWER
PERSPECTIVE))**



**A Thesis Submitted to Salale University in Partial Fulfillment of the
Requirements for the Degree of Master of Science in Development Economics**

BY:Merid Jenenew

JULY, 2022

Fitche, Ethiopia

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SALALE UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

DEPARTMENT OF ECONOMICS

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Requirements for the Degree of Master of Science in Development Economics**

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July, 2022

Fiche, Ethiopia

DECLARATION

I Merid Jenenew ID. No. _____ do hereby declare that this thesis entitled “Factors Affecting the Effectiveness of Microfinance Credit (the case of rural household in Girar Jarso woreda (borrower perspective)” is my original work and that it has not been submitted partially or in full by any other person for an award of degree or publication in any other university/institution.

Submitted by:

Full Name _____ Signature _____ Date _____

CERTIFICATE

This is to certify that the Thesis entitled “Factors Affecting the Effectiveness of Microfinance Credit (the case of rural household in Girar Jarso woreda (borrower perspective))” submitted to Department of Economics College of Business and Economics, Salale University by Merid Jenenew for the degree of Masters of science in Development Economics, is original work done by the candidate under my supervision. I further certify that the entire thesis paper represents the independent work of Merid Jenenew and all the thesis works were undertaken by the candidate under my supervision and guidance.

This thesis has been submitted for examination with my approval.

Name of main advisor-----Signature----- Date-----

Name of co-advisor -----Signature----- Date-----

APPROVAL

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DEPARTMENT OF ECONOMICS

BOARD OF EXAMINERS THESIS APPROVAL SHEET

The undersigned certify that I have read and hereby recommend Department of Economics, Salale University, to accept the Thesis entitled “**Factors Affecting the Effectiveness of Microfinance Credit (the case of rural household in Girar Jarso woreda (borrower perspective))**” which had been submitted by Merid Jenenew in partial fulfillment of the requirements for the award of a Master Degree in Development Economics.

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Name of the department head _____	Signature _____	Date _____

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LIST OF ACRONYMS/ABRIVATION

AEMFI-	Association of Ethiopia Microfinance Institutions
AIM-	Amanah Ikhtiar Malaysia's
ASA-	Association for Social Advancement
BRAC-	Bangladesh Rural Advancement Committee and
G/JARSO-	Gira Jarso
GB-	Grameen Bank
LPM-	Linear probability model
MFIs -	Microfinance Institutions
MSEs-	Medium and small enterprise
MOE-	Measures of Effectiveness
NBE-	National Bank of Ethiopia
NGOs-	Non-Government Organization
OCSSCO -	Oromia Credit & Saving Share Company

ABSTRACT

The paper analyzes the effectiveness of microfinance credit in improving the life of rural household using data collected from 309 randomly selected households. Descriptive analysis of demographic factors and in what aspect of life changes was made. Whereas binary logit model output was used to analyze the socio-economic institutional factors that improved effectiveness. The results revealed the existence of various factors hindered the effectiveness of micro-finance to improve rural farmer's life as expected.

Microfinance credit related variables such as procedure and policy of institution, obtaining amount requested, credit –plus service, interest rate, considering farming calendar and grace period and using credit for consumption were found to be significant factors influencing the effectiveness of micro-finance credit in rural. Other determining factors include small land holding, interest rate, and distance to market. The policy implications of the results tend to focus on the factors that significantly affect the effectiveness of micro-finance in rural area.

CHAPTER ONE

1. INTRODUCTION

1.1 .Background Of the Study

Microfinance is defined as financial services for poor and low-income clients offered by different types of service providers. (Adera, 1995) financing of agricultural input and labor wages requires liquid cash that often is not readily available with the smallholder farmers. Therefore, it is essential to expand the states of rural credit at large to improve agricultural productivity. However, the literature reveals discrepancies between what microfinance ought to do, and what it actually does. More, evidence of the effectiveness of microfinance is still unclear. On the one hand, studies show that microfinance does help the poor improve their productivity or their well-being and enables them to pull out of poverty (Girabi and Mwangi, 2005)

Many poor families in the developing world have limited access to formal financial services, including credit, savings, and insurance. They instead rely on a variety of informal credit relationships with moneylenders, relatives, friends, or merchants. These options are, however, not ideal as they tend to be unreliable and unaffordable. This is largely because banks and other formal financial service providers, such as insurance companies, traditionally have not considered the poor as a viable market and penetration rates for formal financial services in developing countries are extremely low. The inability to acquire formal credit support has constrained poor farmers' capability to expand their production and improve their living condition, technology adoption, nutrition and health (Bauchet et al., 2011).

In developing countries, such as Ethiopia, the government gave attention mainly for two reasons. First, most of the conventional banks in the country are concentrated in urban areas, while more than 80% of the population is rural. Second, whenever available, the formal banking sector systematically excludes the rural poor due to the higher screening, monitoring, and enforcement costs of providing a small loan. Moreover, most poor have few or no assets that can be secured by a bank as collateral (Shu and Oney 2014; Hermes and Lensink 2007; Cull et al. 2011).

Microfinance institutions differ from formal commercial institutions in many ways: First, from the mission, the aim of microfinance institutions is not the profitability as much as the social-based mission to support low income and unemployed populations, and also, in particular, most vulnerable groups such as the women .Second, the source of funds for microfinance institutions which usually come from international development banks and Donors and NGOs (Berhane ital 2019).

In Ethiopia pioneer microfinance firms established by transformation of rural credit and saving scheme development and other projects by initiation of regional government after the issuance of the proclamation to license and supervise microfinance institutions by National Bank of Ethiopia (NBE) in 1996 (AEMFI, 2008).

By the end of 2019/20, the number of microfinance institutions (MFIs) reached 41. Their total capital and total asset increased by 17.3 and 10.5 percent to reach Birr 19.4 billion and Birr 92.2 billion, respectively. Similarly, their deposit mobilization went up by 6.7 percent to Birr 44.7 billion while their outstanding credit grew by 10.5 percent to Birr 64.9 billion. The five largest MFIs consisting of Amhara, Dedebit, Oromiya, Omo and Addis Credit and Savings institutions, which accounted for 82.6percent of the total capital, 90.1 percent of the savings, 85.9 percent of the credit and 86.3 percent of the total assets of MFIs by the end of 2019/20 (National Bank of Ethiopia 2019/20 Annual Report). Now , there are different institutions of microfinance services in Girar Jarso, i.e. Oromia Credit And Saving Share Cooperation (OCCSCO), WISDOM Micro Finance Institutions (MFIs) ,LIYU Micro Finance Institutions and GASHA Micro Finance. All institutions started with small size short term group lending policy of working capital loans.

The main product of these institutions are microfinance, the government-owned institutions that provide microfinance services to the poor include: micro credit and saving services and subsidized credit as well as expected to improve inadequate finance or credit facilities, inadequate farms input, Lack of technical know-how, lack of research and illiteracy of the farmers..

The study examined factor affect the effectiveness of microfinance credit in Girar Jarso. Too many researchers and written material mostly conducted on the accessibility of the credit in Ethiopia. However, how that loan amount has been used in the projected agricultural activities, what are the factors that hinder the effectiveness of microfinance credit needs due attention.

Microfinance institutions compete to have mass borrowers so as to boost their profitability. They do not care about how that credit has been achieved to the target that the credit provided. One indicator of effective MFIs is the loan repayment performance of the borrowers. High repayment rates are associated with benefits both for the MFI and the borrowers. In contrast, if there is low repayment rate, both the borrowers and the MFI will be affected. In this case the borrowers not be able to obtain the next higher loan and the lender will also lose their clients (Sengupta and Aubuchon, 2008).

1.2 .Statement of the Problem

A vast empirical and theoretical literature exists as microfinance is considered to be an entry point in a wider strategy for enlarging poor's lively-hood options. However, the existing evidence on the impact of microfinance credit on vulnerability reduction of poor is ambiguous. While some research work suggests that access to microfinance has the potential to reduce poverty significantly (Hashemi et al., 1996; Montgomery et al., 1996; Remenyi, 1997; Khandker, 1998; Husain, 1998;Khandker and Pitt, 2005; Swain et al., 2008), others argue that microfinance has a minimal impact on effectiveness of poverty reduction(Morduch, 1998; Altay, 2007; Banerjee et al., 2009; Roodmanand Morduch, 2009).

An exploratory survey was conducted by Rahman, Luo, Ahmed, and Xiaolin (2012) to analyze the microfinance customers' (borrowers') perception about the microfinance schemes adopted by different microfinance institutes (MFIs) in Bangladesh. The study covered three MFIs such as Grameen Bank (GB), Bangladesh Rural Advancement Committee (BRAC) and Association for Social Advancement (ASA). Convenience sampling technique was adopted in data collection process and the customers were asked to evaluate different objects selected in the questionnaire. The respondents ranked the attributes on a number of itemized five-point scale ratings bounded at each end by one of two bipolar adjectives. Based on the study, borrowers' experience suggests that income level has not been increased. This implies that MFIs are not effective to achieve their objectives of raising income and reducing poverty. It also shows that the factors such as member ship criteria, costs of credit, income level and religious restrictions are observed significant to affect Microfinance consumer experience in Bangladesh.

In contrary to this, there was also a study conducted to measure the impact of Amanah Ikhtiar Malaysia's (AIM) microcredit schemes on hardcore poor household's quality of life in Peninsular Malaysia. This study examined whether participation in AIM's microcredit programs improves the hardcore poor households quality of life. A quality of life index using eleven selected indicators was developed. Findings of this study extend the literature by providing empirical evidence that access to microfinance improved quality of life of the poor rural households in Malaysia. The findings confirmed that older respondents live in better and bigger houses, use permanent housing materials, use environmentally safe cooking fuel, enjoy healthy toilet facilities, own refrigerators, and televisions more than the new respondents. Also it was shown that respondent's participation status was associated with the size and quality of their houses (Abdullah, 2010 and 2012).

Hurissa (2012) identified the challenges of microfinance institutions by conducting research on the selected MFIs in Addis Ababa city. But the conclusion of the research is limited to the selected MFIs in Addis Ababa. The situation can vary from one MFI to another rural household from urban. So it is difficult to use the conclusions for all microfinance institutions. The study also concludes that the importance of MFIs credit is unquestionable. They contribute a lot to support the Ethiopian poor who are out of the formal banking system.

However, many research conducted on the microfinance institutions perspective such as the challenges of micro finance credit, the performance and accessibility of MFIs; there is a gap that concerning to examine the specific demographic and socio- economic factors views by raising the question what factors should give priority to improve the effectiveness of credit service in the study area. The previous study's focused on the accessibility rather than its effectiveness.

More of the farmers in the study area do even end up by selling their lands or cattle's or via informal credit with high interest in order to repay the credits they have borrowed in contrary to the goal of MFIs credit program. Therefore, the objective of the study is to identify factor affecting effectiveness of MFIs credit service in the study areas.

1.3. Research Questions

In order to determine the effectiveness of microfinance credit to improving rural household life, the following questions must be addressed.

- What are the factors affecting effectiveness of microfinance credit?
- Do conditions and procedure of credit set by MFIs favour the poor rural households?
- What are factors need prior improvement that related to the effectiveness of clients of MFIs credit in rural household?

1.4. Research Objectives

1.4.1. General Objective

The main objective of the study is to examine the factors affecting the effectiveness of microfinance credit (borrowers' perspective).

1.4.2. Specific Objective

The study was focused on the following specific objectives:

- To identify the factors that significantly affects effectiveness of microfinance credit on farming activities.
- To examine wheather the conditions and procedure of credit set by MFIs favour the poor rural households in the study area.
- To identify factors need priority improvement for the effectiveness of MFI credit in rural household.

1.6. Significance of study

The central objective of the study would be to discover the hidden realities related to factors affecting effectiveness of microfinance credit in Girar Jarso (borrower perspective). It is also expected to serve as an impetus for further researchers in this area of study. To the society, this researcher's work would create improvement of the microfinance services that enables them engage in economic activities by identifying a specific factors in the area. Finally, the salient findings of the study would also make the farmers to be more oriented in credit as input to improve their way of life.

In addition the study helps the government policy makers and micro-finance institutions procedure designers to pay attention the factors affect significantly effectiveness of MFIs credit in rural.

1.7. Scope of the study

The study has been conducted in Oromia region, Girar Jarso woreda , mainly because a number of microfinance credit institution that provide service to rural agriculture are located in woreda and because of its prominent agricultural activities being the primary occupation of the inhabitants of the woreda .The study examined the effectiveness of MFIs credit in rural Girar Jarso Woreda concerned to socio-economic and institutional factors in addition demographic factors, such as variables that screened out during observation of survey in the study area, Such as the farming calendar for the grace period, procedure of getting loan, using credit for consumption, interest rate, credit-plus service, small land hold and obtaining the amount requested as an independent variable.

1.8. Limitation of the study

- The study focused only on the three micro-finance institutions those are widely provide the credit in the study area was considered as limitation.
- The study covered only Girara Jarso woreda rural areas.
- Microcredit program is too big to cover wholly in this limited scope. It required huge time and huge space to cover. So the researcher will cover only some factors of MFI credit that is on the behalf of borrowers

1.9. Organization of the Paper

The research paper comprised 5 chapters in all with each chapter being subdivided based on content. Chapter one explores the background of the study, statement of the problem, research objectives and questions, how significant this research might be to other interested individuals and institutions, the scope and limitations. Chapter two, developed according to available literature on the topic. Chapter three explained the method of data collection, the instruments used and the tools for data analysis. It began with the research methodology, selection of population and sample size. Chapter four and five has been discussed data analysis and conclusion and recommendation respectively.

CHAPTER TWO

2. LITERATURE REVIEW

2.1. Theoretical Literature

This section primarily deals with what other authors have done in regard to this subject matter. But in case of our country few researches have been done in regard to this subject. So the researcher tries to have reviewed most of literature from foreign authors.

2.1.1. Definition Microfinance

Microfinance is the supply of loans, savings, money transfers, insurance, and other financial services to low-income people. Microfinance institutions (MFIs) which encompass a wide range of providers that vary in legal structure, mission, and methodology offer these financial services to clients who do not have access to mainstream banks or other formal financial service providers (Lafourcade et al., 2005). Similarly, Parker et al., (2000) defines microfinance as provision of small loans (called “micro-credit”) or savings services for people excluded from the informal banking system.

Microfinance is a type of banking service which provides access to financial and non-financial services to low income or unemployed people. Microfinance is a powerful tool to self-empower the poor people especially women at world level and especially in developing countries (Noreen, 2011).

The definitions of microfinance given by different scholars contain some similar points. They describe microfinance as provision of a small amount of loan for the poor, specifically the rural poor living in developing country. Some microfinance institutions provide non-financial services for their clients. But in our case, most of the micro finances are known by the provision of a small amount of credit and saving services.

2.1.2 Microfinance and Micro Credit

Microfinance is a wide range of financial services to low income micro level enterprises in the household sector. It includes small savings, small short term loans, micro insurance, remittances and money transfer, guarantees and broad range of financial services, as well as non-financial services such as provision of business development and capacity buildings. Empowerment of women needs, education, income generation opportunities, and health services are targeted for

low income clients. In microfinance it is important to highlight the significant influence of the savings and financial products, other than the loans for poor people. It is difficult for poor people to borrow money without first building up the capacity to save and discipline money management. The well to do clients (rich), as well as the poor clients need diversified financial services to develop their enterprises. Microfinance is useful for the smallest business; usually the income generating activity for a family. Micro credit, more narrowly explained, is a credit service to low income customers; usually small loans for micro enterprises and income generating activities. Most of the micro credit schemes involve compulsory savings which they use as collateral for the loans granted. These savings will become a capital of micro credit institutions. Both microfinance and micro credit use group based delivery systems for savings and credit to reduce the cost of service delivery. S. Godage & Brothers (Sep 2018 First Edition).

Another important consideration of microfinance is the realistic rate of interest. There are three elements to decide the interest rate:

These are Cost of funds (the rate paid to depositors, rate paid to borrowed money, cost of dividends etc.), Cost of loan defaults and Administrative cost (credit delivering and recovering, collecting savings, collecting insurance premium etc.). The microfinance interest rates on lending are higher than commercial banks' lending rates, but much lower than interest rate prevailing in the informal money market. Fundamentally, savings mobilization will strengthen the sustainability of the MFI's. Savings will increase the fund base and institutions can extend facilities to more clients. In addition, MFIs provide opportunities to invest in outside institutions (banks) and earn more profits. The increase of savings creates more liquidity for the MFIs. The keeping basic accounts and recording financial transactions for the purpose of income statement and balance sheet is another important fundamental for managing MFI effectively. Keeping proper accounts enhance MFIs position to face the issue of good governance, display greater transparency and accountability and control the MFIs activities.(Remenyi, 2002).

Identification of target markets for MFIs and development of market strategy is an important fundamental for MFIs. Each MFI should be oriented to the needs of the particular community and find innovative methodologies to increase outreach. Like any other financial product, microfinance also has its risks and challenges as follows;

Interest rate risk

The relationship between this variable and the probability of crisis in MFI can be either positive or negative. On the one hand, at a higher interest rate, customers will have more difficulties in repaying their loans, and this will result in higher default rates (Cermeno et al., 2011). Micro credit involves high administrative costs associated with small loans; they either need to be heavily subsidized or charge relatively high interest rates to cover overhead and transaction costs. This cost has to be accurately calculated. When large members of small loans are given to the poor, spread in large geographical area, borrowers are more likely to default, and allocation of loan installments is made more labor intensive. Due to these facts, comparatively, MFIs have to set the correct, appropriate rate of interest to avoid interest rate risk.

Market risk may develop due to competition of MFIs and other financial intermediaries in the area of operation. Profitable MFIs have to increase their deposit mobilization by increasing client. To attract more clients, if you increase the deposit rates or decrease credit interest rates, institutions' profitability will reduce unless if you keep at the correct economic scale. This risk has to be carefully monitored.

Operational risk

Operational risk is mainly due to the inefficient management of operational expense passed over to clients as increased interest rates. If managers are well trained and motivated and appropriate new technology is used, the operational cost can be reduced and the risk avoided. The managers need to be careful to ensure the borrower's success, providing good customer service and inform clients about the risk involved, to influence the borrower's response to the loan repayment. Operation risks would also increase due to wrong procedures of delivering credit, lack of administrative information, internal and external fraud, weaknesses of administrative structure, environment risk, legal problems (registration, taxes etc.) S. Godage & Brothers (Sep 2018 First Edition)

1.1.3 The Need for Microfinance

Microfinance institutions play many roles in the development process. The need for microfinance is also increasing in many countries. According to (Parker et al., 2000), in the right environments, microfinance can accomplish many roles such as financier people's economic choices, diversifying household income, making household less vulnerable to downturn in the

economy or personal, smoothening income flows of the household, improve quality of life throughout the year and strengthen the economic position of women so that they can take greater control of decisions and events in their lives. In addition to this MF contributes in the process of household asset building. It also provides savings service, allowing poor households to accumulate safe, but flexible cash accounts to draw on when needed.

Approaches of Microfinance

Two main approaches on the role of microfinance intermediation to ensure financial viability can be identified. In terms of the first approach that is portrayed as the *Minimalist Approach* the MFIs offer only financial services in the form of credit. These MFIs are unwilling to provide non-financial services due to multiple reasons ranging from high administrative costs to high transaction costs. In that sense, the primary focus of these MFIs is institutional profit and viability. On the other hand, MFIs that follow *Credit-plus Approach* provide other services in addition to financial services. These non-financial services may include skill development, training, educational activities, marketing assistance, supply of inputs and business development services¹. According to them, the provision of credit alone will not guarantee that the receivers of credit use scarce capital in productive manner so that the recovery of loans is not ensured. These services that include mainly the services that would assist entrepreneurs and the self-employed in developing their businesses are provided with, or prior to, the provision of key financial services, namely credit facilities, (Karlan D and Validivia M ,2007)).

Sharma (1967) stated that for agricultural development, credit is an important input which ensures adequate working capital as well as infrastructural development .Adequate credit increase the agricultural output. Hossain (2019) stated that economic development widens the path of social development. Winters P .(2002) emphasized that most of the NGOs of the world begin by teaching borrowers about health-related issues, providing small loans to install sanitary latrines, motivating them to receive primary education and consulting them on other socio-economic parameters to lead a healthier lifestyle

Measures of Effectiveness (MOE)

Definition: “A Measure of Effectiveness is a measure of the ability of a system to meet its specified needs (or requirements) from a particular viewpoint. This measure may be quantitative or qualitative and it allows comparable systems to be ranked. These effectiveness measures are defined in the problem-space. Implicit in the meeting of problem requirements is that threshold values must be exceeded.” Smith,(2007).

The concept of effectiveness used in this study is consistent with the definitions above. In particular, the term “effectiveness” in this study refers to the way an intervention achieves its desired outcome. An effectiveness analysis may investigate the whole intervention process: mobilization of inputs, organization of necessary activities, production of outputs, and the achievement of desired outcomes.

2.2. Empirical Literature Review

In Tanzania several studies has been done on microfinance institutions service, one of the researcher who have done research on MFIs is Kuzilwa and Mushi (1997), examined the role of credit in generating entrepreneurial activities. He used qualitative case studies with a sample survey of business that gained access to credit from a Tanzania government financial source. The findings reveal that the output of enterprises increased following the access to the credit. It was further observed that those enterprises, whose owners received business training and advice, performed better than those who did not receive training. He recommended that an environment should be created where informal and quasi-informal financial institutions can continue to be easily accessed by micro and small businesses.

In study conducted by Kessy & Urrio (2006) on contribution of MFIs on poverty reduction in Tanzania, the researchers covered four regions of Tanzania which are Dar es Salaam, Zanzibar, Arusha, and Mwanza. Primary and secondary data were collected, primary data were collected from 352 MSE's through questionnaires, and interviews were also conducted. PRIDE (T) Ltd which is a microfinance institutions were used as a case study so as to get the insight of MFI operations. The study findings pointed out that to large extent MFI operations in Tanzania has brought positive changes in the standard of living of the people who access their services, clients of MFI complained about high interest rate charged, the weekly meeting was pointed out as barrier as the time spent in weekly meeting could be used to other productive activities. The study recommended MFI to lower its interest rate, increase grace period and provide proper

training to MSEs.

Mainly the services are delivered by socially oriented non-governmental organizations (NGOs). Notably studied on Grameen Bank of Bangladesh as one and foremost microcredit institution that have created an impact of effectiveness of its microcredit among women in Bangladesh. Rahman, & Khan,(2013) measured beneficiaries' attitudes towards the microcredit program among beneficiaries for more than three (3) years. Their objective is to explore beneficiaries' attitudes towards their welfare under the microcredit program. Borrowers were asked questions about incomes, training, economic status, repayments, business skills, technical skills, social awareness and children's education. Henceforth, microfinance warrants public attention because it is very difficult to supply financial service to the target population. Since theories of development stressing strong local institutional capacity predict a strong correlation with sustainability microcredit program provides sustainable development in society especially among the recipients. Mazumder and Wencong (2013) probed on Bangladesh's access to microcredit for rural poor and its impact on their poverty situation among 360 microcredit recipients. They discovered that that positive impact was found on income, assets endowment, standard of living and poverty reduction. Utilization of credit appears to be a major factor for credit recipients raising income. Meanwhile, Mahmud, Mohamed, Ismail, Shamsudin & Hilton(2007) assessed whether the participants were benefited or not as a result of intervention of the microcredit project among 330 recipients in Bangladesh under the agriculture diversification and intensification project. The result showed that years of schooling, training provided by the program, mobility of borrowers, and household size were significantly related with borrowers' betterment as dependent variable.

Uma (2012) conducted a study on impact of rural institution on farmers. The main objective of the research was to identify the key factors that impact the farmers. After effective research she found that the more interest rate is high the low demand for credit among the farmers.

In Malaysia, there were a number of studies conducted on the micro credit program funded by the Federal Government. In order to evaluate the economic performance of recipients participating in the microcredit program of AIM, econometric model was applied (Duasa & Md Saad, 2011). Several proxies were used for the economic performance, such as level of earnings/income, ratio of spending to income and value of assets as dependent variable. The

independent variables used were education level, age, amount of loan, source of income, and ownership of assets. The study found that the economic performance of AIM participants was significantly determined by the amount of money borrowed from AIM. In addition there was also a study conducted to measure the impact of Amanah Ikhtiar Malaysia's (AIM) microcredit schemes on hardcore poor household's quality of life in Peninsular Malaysia (Abdullah, 2010 and 2012). This study examined whether participation in AIM's microcredit programs improves the hardcore poor households quality of life. A quality of life index using eleven selected indicators was developed. Findings of this study extend the literature by providing empirical evidence that access to microfinance improved quality of life of the poor rural households in Malaysia. The findings confirmed that older respondents live in better and bigger houses, use permanent housing materials, use environmentally safe cooking fuel, enjoy healthy toilet facilities, own refrigerators, washing machines and televisions more than the new respondents. Also it was shown that respondent's participation status was associated with the size and quality of their houses.

An exploratory survey was conducted by Rahman, Luo, Ahmed, and Xiaolin (2012) to analyze the microfinance customers' (borrowers') perception about the microfinance schemes adopted by different microfinance institutes (MFIs) in Bangladesh. The study covered three MFIs such as Grameen Bank (GB), Bangladesh Rural Advancement Committee (BRAC) and Association for Social Advancement (ASA). Convenience sampling technique was adopted in data collection process and the customers were asked to evaluate different objects selected in the questionnaire. The respondents ranked the attributes on a number of itemized five-point scale ratings bounded at each end by one of two bipolar adjectives. Based on the study, borrowers' experience suggests that income level has not been increased. This implies that MFIs are not effective to achieve their objectives of raising income and reducing poverty. It also shows that the factors such as membership criteria, costs of credit, income level and religious restrictions are observed significant to affect Microfinance consumer experience in Bangladesh.

2.3. Research Gaps

The theoretical and empirical literature review shows that many studies have been conducted to determine the effectiveness of Microfinance Institutions in providing credits to poor households. The literature has demonstrated that most of the scholars analyzed the efficiency (Magali , 2013). The effectiveness of MFIs was analyzed using logistic regression model. In general there

is a high recognition that MFIs contributes to poor households and small enterprises. In terms of satisfaction of the participants, most studies showed that the microcredit programs have fulfilled their expectations, thus, it can be considered that the microcredit programs are effective in certain aspects such as positive impact on income, assets endowment(like house ,a number of oxen),permanent housing materials, standard of living, agriculture diversification and intensification project. Most rural household did not know how to separate their business income, between their business and personal consumption. Many borrowers allocated a large portion of their income for personal consumption. However, despite all those efforts, credits provision remains a big challenge. The studies conducted based on credit delivery approaches and increasing accessibility to loans. Other important variables like that credit plus, educational trainings, adequate amount of money borrowed from MFIs, interest rate, and operational procedure are essential for rural household to ensure the effectiveness of credit are not researched and a lot remains to be desired. Specifically, the objective of the study will be to examine the effectiveness of MFIs in providing credits to poor households.

2.4. Conceptual Framework

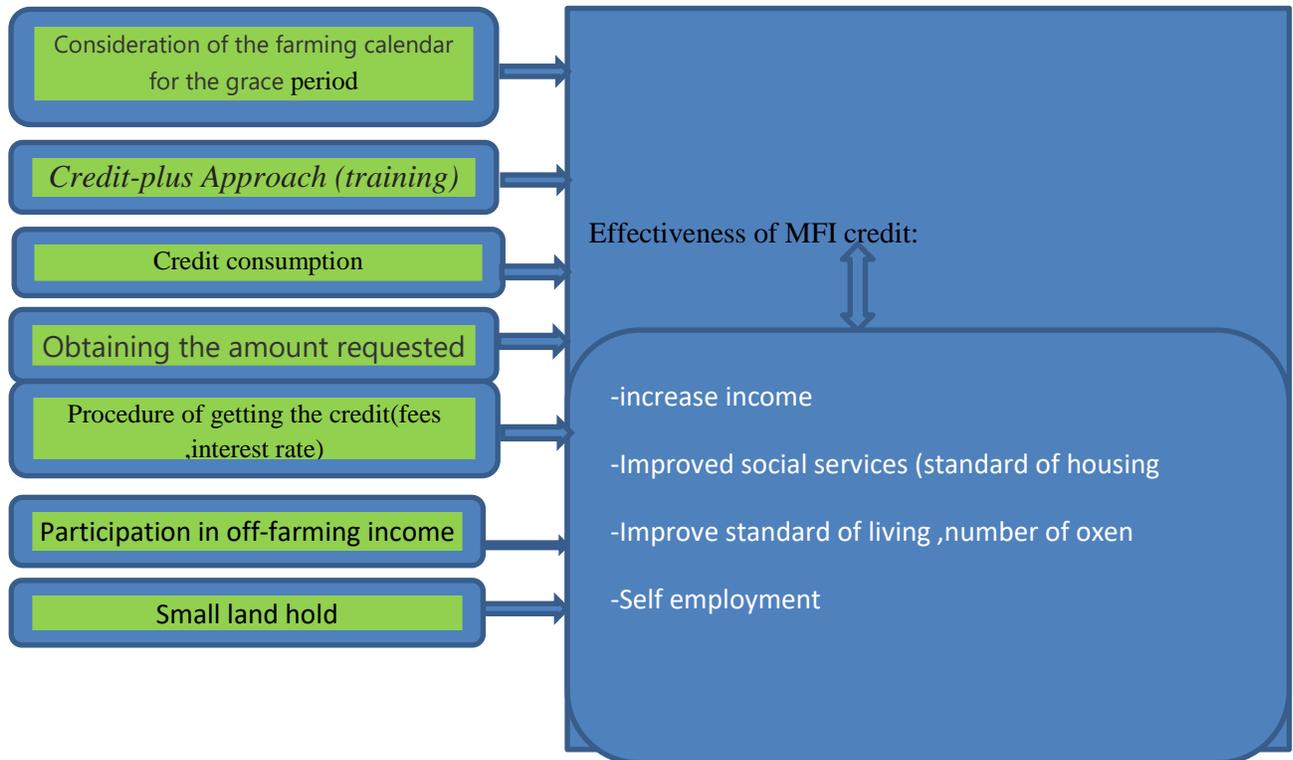
The past studies find three factors which can affect the effectiveness of microfinance loans which are procedure, loan consumption and income. Microfinance loan efficiency depends on above three variables. Effectiveness of Microfinance credit as dependent variable while consideration of the farming calendar for the grace period, procedure of getting loan, credit consumption ,affordable interest rate and obtaining the amount requested as well as credit-plus approach are an independent

Figure 2 Conceptual relationships

Conceptual relationships among factors that shape effectiveness of MFIs credit in rural household

Independent Variables

Dependent Variables



CHAPTER THREE

3. RESEARCH METHODOLOGY

3.1. Description of the Study

Gerar Jarso is one of the woreda in the Oromia of Ethiopia. Part of the salale(north showa) zone, Gerar Jarso is bordered on the south by Yaya Gulele, on the west by Degem, and on the east by the Amhara Region. The 2015 national census reported a total population for this woreda of 67,312, of whom 34,467 were men and 32,845 were women. Agriculture is the main stay of the economy for almost all of the population of the Woreda. Livestock is an integral component of the farming system. Oxen provide almost the entire traction and threshing power. In addition to agriculture, many people of the woreda, including rural people, are engaged in petty trade, particularly grain trade to supplement their unreliable income from crop production.(Central Statistical Agency in 2005)

3.2. Research Design and Research Approach

The study employed descriptive and explanatory type of research design. The researcher used both qualitative and quantitative approaches. Furthermore, in this study qualitative research approach was used to assess the opinion of the respondents towards the factors, their assumptions and the problems they faced. Quantitative approach used to indicate the frequency and percentage of the responses.

3.3. Types and Sources of Data

Data from financial and operational performance of MFIs credit collected in three institutions namely OCSSCO, VISION FUND and LIYU (Specialized Financial Promotional Microfinance). The data for the study obtained from both secondary and primary sources. The primary data was collected through questionnaire and using face to face interview with sample households (Micro finance credit users).Moreover, secondary data are also collects from those institutions. A cross sectional data was employed to assess the factors that the effectiveness of MFI credit in rural households.

3.4. Methods of data collection

The desired information for the study gathered through different data collection tools/instruments. To this effect, the data collections were conducted with the help of questionnaires

(close and open ended) and structured interviews. The questionnaires were personally administered where the respondents complete the questionnaire. The purpose of interviewing was to find out what is in or on someone else's mind. They further explained that, interviews permit researchers to obtain important data they cannot acquire and inaccessible through other data collection instruments.

The questionnaire has its own variables each variable has its separate questions used to record individual response. The first variable which has the three questions is about the procedure of getting the credit and repayment to the institution this part of the questionnaire asks the respondent for their measure on the procedure. Second variable is about the obtaining the amount requested it has five questions in which the respondent was asked to the size of the credit and its consumption on the projected business. Third variable which is about the consideration of the farming calendar for the grace period in this there are three questions in it which ask the respondents to give their response whether the credit is properly given at time in line with the farming season or not and In the last affordable interest rate.

3.5. Sample Design

Simple random sampling technique was adopted in which include borrowers that received credit from the three MFIS were chosen from each institution that widely participated in woreda such as OCSSCO, VISION FUND and LIYU at least for three years, so that the total sample size was 319. The random sampling enhances the likelihood of accomplishing this objective and also allows for the objective assessment of the reliability of the sample. According to Best and Kahn (2003), sample can simply be defined as the representative of the population. The degree to which the sample represents the population is the degree to which the result of one is applicable to another. To do this, the researcher wants to have the sample. The selected sample was actually involved in the research, to be representative of the larger population.

3.5.1. Target Population

The main target population was individual households who have been clients of the three MFIs for three subsequent years or borrowers who had completed at least three cycles of loan have been randomly selected out of 1850 borrowers.

3.5.2. Sampling Technique

For the purpose of this study, the researcher has employed both probability and non-probability sampling techniques. There are three MFIs in G/JARSO woreda, namely OCSCO Microfinance, Liyu Microfinance and Vision Fund MFI, that included in the sample. In the case of OCSCO Microfinance, it has 2 branches in Fiche town with the distribution of one branch operate at town and the other at G/Jarso woreda level. Because of the study is concerned at woreda, the researcher selected only 1branchwhich has higher customers in area purposively.

Vision Fund and Liyu Microfinance as a woreda branch does not have a sub branch in town. So both MFIs have been taken as stratum from the sample selected. There were about 1580 rural household borrowers in the selected three institutions. Out of these clients, 319 were selected by using simple random sampling method due to availability of list of the clients from each branch institution.

3.5.3. Sample Size Determination

In this study, to determine the sample size from the target population of 1580 sampling formula has been used 95% confidence level.

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

Where: n=sample size,

e= sampling error =5%

N=population size=1580, and

In order to select the actual sample size the researcher followed two steps.

The first step: Using this formula the sample size was

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

$$n = \frac{1580}{1+1580(0.05)^2} = 319$$

The second step: From the total population the researchers made proportionate random sampling method and in order to get the sample proportion of each stratum the researcher used the following formula i.e. Sample proportion (%) = Elements in each stratum= $n/N = 319*100/1580 = 20.189$ (0.2018%)

Table 3. 1 Proportion of Sample Size

No	Target population	Number	In %	Sample
1	OCSSCO	870	0.2018	176
2	Liyu	432	0.2018	87
3	Vision fund	278	0.2018	56
TOTAL		1580		319

3.6. Diagnostic test

Multicollinearity has been checked before running the model using variance inflation factor (VIF) and contingency coefficients (C). VIF shows how the variance of an estimator is inflated by the presence of multicollinearity (Gujarati, 2004). Each selected continuous variable is regressed on the other, so that the coefficient of determination (R^2) will be constructed. A variable is said to be highly collinear, if R^2 exceeds 0.9 or VIF exceeds 10 (Gujarati, 1995). VIF is express as:

$$VIF = \frac{1}{1 - R^2}$$

On the other hand, the contingency coefficients will be calculated as follows;

$$C = \frac{\sqrt{x^2}}{N - x^2}$$

Where C is the contingency coefficient, x^2 is Chi-square and N is the total sample size. The values of C range between 0 and 1, zero indicating no association between the variables and values close to 1 indicating a high degree of association, which means high degree of multicollinearity..

3.7. Methods of Data Analysis

3.7.1 Descriptive statistics

Quantitative data was analyzed using descriptive statistics such as mean percentage, tabulation and frequency distribution.

3.7.2. Econometrics Model

Binary logistic regression models were used to analyze factor affecting effectiveness of microfinance credit. Accordingly, the logistic model for the study was constructed stating that a household financial credit is effective($Y=1$) or otherwise ($Y=0$). For estimation purposes, the Logit model is as follows:

$$z_i = \ln \left[\frac{p_i}{1-p_i} \right] = \beta_1 + \beta_2 X_i + u_i$$

Where, L =the log of the odds ratio. P_i = the probability of financial credit is effective, where $Y = 1$.

$1-P_i$ =the probability of micro finance credit is not effective, where $Y=0$. X is a vector representing explanatory variables. U_i is the random error term.

Both qualitative and quantitative techniques were used to analyze the data. Qualitative data that was obtained by observation and focus group leader interview was organized in the field. A binary logit, model which fits the analysis for factors that affects MFI credit on rural household was employed.

The questionnaire was designed to capture information on socio-economic and demographic data like age, gender, household size, education status, procedure of getting the loan, obtaining the amount requested, interest rate, credit-plus, farming calendar for the grace period and loan duration. Household data was collected from the cross-sectional survey of households in Girar Jarso.

Dummy variable takes a value of zero or one depending on whether or not smallholder farmers use MF credit effectively according to objectives of the program. However, the independent variables were be both continuous and discrete. If the independent variables are not normal the discriminate-analysis estimator is not consistent, whereas the logit MLE is consistent and therefore, more robust (Maddala, 1983; Amemiya, 1981), the linear probability model (LPM) which is expressed as a linear function of the explanatory variable is computationally simple. However, despite its computational simplicity as indorsed by Amemiya(1981), and Gujarati (1988), it has a serious defect in that the estimated probability values can lie outside the normal zero and one range. Hence logit model is advantageous over LPM in that the probabilities are bound between 0 and 1. The justification for using logit is its simplicity of and that its probability lies between 0 and 1. Moreover, its probability approaches zero at a slower rate as the value of

explanatory variable gets smaller and smaller, and the probability approaches 1 at a slower and slower rate as the value of the explanatory variable gets larger and larger (Gujarati,1995) .Hence, the logistic model will be selected for this study. Therefore, the cumulative logistic probability model is econometrically specified as follows:

$$p_i = F(z) = \frac{1}{1 + e^{-z_i}} \dots \dots \dots (1)$$

Where, P_i is the probability that effectiveness of MFI on rural household credit user given X_i ; e denotes the base of natural logarithms, which is approximately equal to 2.718;

X_i represents the i th explanatory variables; and α and β are parameters to be estimated Hosmer and Lemeshew (1989) pointed out that the logistic model could be written in terms of the odds and log of odds, which enables one to understand the interpretation of the coefficients. The odds ratio implies the ratio of the probability (P_i) that an individual will choose an alternative to the probability ($1-P_i$) that He/ she will not choose it.

$$(1-P_i) = \frac{1}{1+e^{-z_i}} \dots \dots \dots (2)$$

Therefore, the odds ratio becomes,

$$\left(\frac{p_i}{1-p_i}\right) = \frac{1+e^{z_i}}{1+e^{-z_i}} = e^{z_i} \dots \dots \dots (3)$$

Therefore, to get linearity, the researcher will take the natural logarithms of odds ratio equation (4), which results in the logit

$$\left(\frac{p_i}{1-p_i}\right) = \frac{1+e^{z_i}}{1+e^{-z_i}} = e^{(\alpha + \sum \beta_i X_i)} \dots \dots \dots (4)$$

$$z_i = \ln \left[\frac{p_i}{1-p_i} \right] = \alpha + \beta_1 IR1 + \beta_2 CPA + \beta_3 COPR + \beta_4 CFC + \beta_5 DFL + \beta_6 OAR + \beta LACKFL + Bparoffr + U_i \dots \dots \dots (5)$$

If the disturbance term U_i is taken into account, the logit model becomes

Where P_i : is a probability that the income of i th farmer is improved.

e^{z_i} : stands for the irrational number e to the power of Z_i

Z_i : is a function of N-explanatory variables which is also expressed as:

Where IR-interest rate,

CPA-credit-plus approach,

OAR-obtaining amount request,

COPR-condition and procedure,

CFC-considering farming calendar,

DFL –distance of farm land,

LACKFL-lack of farm land and

Paroffr- participation in off-farm are Explanatory variables

α - is the intercept

$\beta_1, \beta_2, \dots, \beta_n$ are the logit parameters (slopes) of the equation in the model.

The slopes tell how the odds in favor of improved life of rural household changes as independent variables change. The unobservable stimulus index Z_i assumes any values and is actually a linear function of factors influencing effectiveness of MFIs.

The Z_i ranges form $-\infty$ to $+\infty$, P_i ranges between 0 and 1 and that P_i is non-linearly related to the explanatory variables. P_i is non-linear in X_j , and in the β 's as well.

It can be shown that $\left(\frac{p_i}{1-p_i}\right)$ is simply the odds ratio in favor of effectiveness micro-credit of rural household. It is the ratio of the probability that the farmer would have effective to the probability that he/she would not have effective.

3.7.3. Definition of Variables and Expected Sign

Definition of Variables

Dependent variable

The effectiveness of the MFIs credit was defined as binary dependent variable, where a dichotomous variable takes 1 for those with effective and 0 otherwise.

Explanatory variables

The explanatory variables included in the econometric model could be categorized into socio-

economic and institutional factors as well as Demographic factors, which are hypothesized to have influences on the effectiveness of household in MFIs credit. Based on the review of literature and actual conditions of the study area, the following explanatory variables were expected to explain the probability of having significant effect on effectiveness of micro-credit situation. In this study the independent variables were as follows:

Demographic factors

Family size, adjusted for dependency, is supposed to have direct relationship with the effectiveness of micro-finance credit. Besides family size, educational level, farming experience, gender, are important in effectiveness of microfinance credit analysis.

Socio-economic and institutional factors

Farming calendar and grace period

A period after a deadline for financial obligation where a late fee is waived, the financial obligation is satisfied within that period and convenient period. In the world of banking in general, and micro finance institution in particular, loan by its nature is both time and purpose sensitive. The customer of the institution would be more benefited if loan processing is made in accordance with the purpose of credit. Therefore, Farming calendar for the grace period is expected to have direct influence on the effectiveness MFIs of the farmers. The variable is dummy assuming a value of 1 if the customer indicates convenient farming calendar for grace period and 0 otherwise.

2. Obtaining the amount requested (OAR)

In principle, borrowers are expected to propose loan size along with loan purpose(s). Failure to provide the required loan amount is expected to have negative impact on the effectiveness of MFIs. In this study, the variable assumed a value of 1 if the client received the amount he/she requested and 0 otherwise.

3. Credit for consumption (CFC)

Utilization of the loan for the intended purpose, up on loan processing, all clienteles specify their respective loan purpose(s), for which they will have to use the loan, and they are not allowed to divert the loan to other purposes. But sometimes, customers are found to divert the credit to other purpose(s) specially of consumption, This will have an negatively affect the effectiveness

of MFIs credit on rural household .Therefore, utilization of the loan received, for the intended purpose(s) has direct relationship with the improvement of rural household life.

4. Credit-plus approach (CPA)

Credit-plus approach (CPA)- provides other services in addition to financial services. These non-financial services may include skill development, training, educational activities, marketing assistance, supply of inputs and business development services. Poor households and small enterprises need training on how to use the loan, including how to make investment appraisal which is viable. When training is given properly, the groups are empowered socially and economically. But in order for the groups to do well they need relationship with the management. So CPA expected to have a direct positive relationship on effectiveness of micro finance credit in rural household.

5. Off-farm income Off-farm activities are economic activities other than agricultural production. Therefore, engagement in off-farm economic activities is expected to have a direct positive relationship to improved effectiveness of MFIs credit.

7. Interest rate (IR)-are the cost of borrowing money. Interest rate normally expressed as a % of total borrowed it shows the return received on saving money. High interest rate expected to have negative impact on the effectiveness of MFIs credit.

8. Small land hold –the size of farm land also expected to have a direct relation with effectiveness of MFIs credit in rural and affect the effectiveness of MFIs negatively.

CHAPTER FOUR

4. DATA ANALYSIS

The data used in this paper were collected from rural households who have been clienteles of the OCSSCO, LIYU and wisdom MFIs for at least three subsequent years. In order to analyze the improvement the clientele's way of life, two types of data were collected and analyzed. Firstly, primary data were collected from 309 that randomly selected from 1580 customers of the three MFIs branch. Structured questionnaire consisting of variables relevant for attaining the objectives of the study were used for data collection. 319 questionnaires were distributed to household and 309 questionnaires were collected. Therefor a response rate is 96.81 %.

4.1. DESCRIPTIVE RESULT

4.1.1. Demographic characteristic

The main demographic variables were gender, age, family size, marital status and education.

Table 4. 1. Demographic characteristic

Variables	Category	Freq.	Percent
Gender	male	110	35.60
	female	199	64.40
Total		309	100
Education	None/illiterate/	155	50.16
	Primary	96	31.07
	Secondary	54	17.48
	Tertiary	4	1.29
Total		309	100
Age	18-44yrs	157	50.81
	above 45 yrs	152	49.19
Total		309	100

Source: Own Computation, 2022

Table 4.1 depicted that 199 and 110 were female and male respondent where 64.40 and 35.60 percent respectively.

Whereas among the respondents included in the study 155, 96, 54 and 4 participants were illiterate, primary, secondary and tertiary level of education respectively. This show that 81.23% respondents who were the beneficiary of micro-finance credit in rural house hold categorized under illiterate and primary level of education and secondary and tertiary was only 18.77%.Higher institution education.

In respect of gender more than half that is 64.40% of participants are females whereas 35.60% are males. The table also depict that 50.8% of the respondents are belongs to 18-44 years old and 49.19 % are above 45 years. This justify that most of the rural household participated in micro-finance credit were female.

4.1.2. Socio-economic and institutional characteristic

Table 4. 2 Socio-economic factors and institutions

Variables	Category	Freq.	Percent
OAR	Yes	222	71.84
	No	87	28.16
CFC	Yes	181	58.58
	No	128	41.42
CPA	Yes	187	60.52
	No	122	39.48
credit for consumption	No	77	24.92
	Yes	232	75.08

Sources: Compiled from field data,2022

Table 4.2 clearly indicated 71.84% of participants confirmed lack of obtaining the amount requested (OAR) considered as constraint to improve the effectiveness of micro-finance credit and 28.16% were not.

Out of 309 respondents who have been participating in micro-finance credit, 232(75.08%) responded to have used credit for their consumption, only 77 (24.92%) of them were responded as they have not used credit for consumption.

In the same way, 181(58.58%) of respondents confirmed that not considering of farming calendar and grace period (CFC) as constraint but 128(41.42%) not confirmed the impact on the effectiveness of micro-finance credit.

A large proportion of respondents (60.52%) responded that credit-plus service and follow up had the problem of micro-finance credit and only 39.48 not considered the training and follow up as constraint of micro-financer credit to improve their life standard.

Similarly, rural household asked as they were received training from MFIs or not and illustrated in table below.

Table 4. 3 Result of percentage borrowers received training and follow-up from MFI.

Training mfi	Freq.	Percent	Cum.
no	236	76.38	76.38
yes	73	23.62	100.00
Total	309	100.00	

Source: Own Computation, 2022

Table.4.3 depicted that 236(76.38%) of respondents were not received training and follow-up and only 73(23.62%) received. It is reasonable to conclude that MFIs were moving away from the training activity and micro-finance institutions were focused on loans rather than training.

Using credit borrowed from MFIs for consumption (credfcons)- the base category reference point those who consumed credit for consumption “yes” and marginal effect for those who did not used “no” is -0.21 meaning that the probability of effectiveness of micro-credit of rural

household is lower for the household used credit for consumption than they were not used by 0.21 when other remain constant.

Table 4. 4 Proportions of borrowers with Improved Living Conditions
Indicator in percent (%)

Improved income	Freq.	Percent
yes	119	38.51
no	190	61.49
Improved housing condition	Freq.	Percent
yes	106	34.30
no	203	65.70
Improved in number of oxen	Freq.	Percent
yes	100	32.36
no	209	67.64
Improved self-employment	Freq.	Percent
yes	88	28.48
no	221	71.52

Source: Own Computation, 2022

Assessment of the impacts of micro-finance credit were made by asking the rural households ways of improved their life after they have received micro-finance on variables listed in Table 4.4. The results indicate that income of 38.51% of the sample clientele improved while that of 61.49% showed no improvement.34.30% of respondents improved housing condition where as

65.70% were not improved. 34.30 % of Borrowers were confirmed that the improvement in number of oxen and 67.64 % have no improvement .The last indicators shows that number of respondents improved in self-employment is 28.48% and the majority of 71.52% have no improvement.

The below 4.5 show that effectiveness of MFIs credit based on improved ways of living standard of farmers after credit facility. So many ways can the living standard of rural house hold improved such as increase of household annual income ,improved social services (housing),(number of oxen) and self- employment. The table below shows the effectiveness of rural households in such improvement of way of life in percent.

Table 4. 5. Effectiveness of MFIs credit based on improved ways of living standard of farmers.

Mfiefte	Freq.	Percent	Cum.
Not effective	222	71.84	71.84
Effective	87	28.16	100.00
Total	309	100.00	

Source: Own Computation, 2022

The above table indicates among 309 respondents 222 in percent 71.84 borrowers of micro-finance credit were not effective in improving annual household income ,housing standard and number of oxen and only 87 respondents in percent 28.16 borrowers were effective after joining Micro-finance credit within three years.

Generally from the above descriptive analysis, the researcher conclude that most of the rural households who receive loan from micro-finance institution spend the credit in the households' consumption such as foods and clothing, this may be due to the fact the amount received from institution is not sufficient to invest. Most of respondents raised their perception to ward farming calendar and graced period provided by institution as constraint to be effective in micro-credit and not considering convenient period of credit process which is adversely affect the effectiveness of credit in rural household due to the fact that agriculture is more seasonal activity.

4.2 .ECONOMETRIC MODEL

In this study, econometric analyses was conducted. Contribution of MFIs credit to improve the life of rural household is determined by institutional factors such as credit-plus service, obtaining the amount requested, considering farming calendar for grace period, using credit for consumption, off-farming income and land hold size. Variation in the effectiveness of MFIs of the target groups may be due to any or all of these factors, which also vary spatially and temporally. In order to analyze the influences of these factors and identify the relative importance of these variables, a binary model was used.

4.3.1. HOSMER-LEMESHOW TEST (HL test)

HOSMER-LEMESHOW is a statistical test for goodness of fit for logistic regression models.it indicates a poor fit if the significance value is less than 0.05 .This statistics is the most reliable test of model fit for IBM^R SPSS^R statistics binary logistic regression because it aggregates the observations into groups of “similar “case.

Table 4. 6 Logistic model goodness-of-fit test

Number of observations	309
Number of groups	10
Hosmer-Lemeshow chi2 (10)	7.36
Prob > chi2	0.4983

Source .compiled from stata result ,2022

The HL test shows that prob>chi2, 0.4983 which is greater than 0.05 and HL chi2 is 7.36, so the model for the effectiveness of MFIs employed was good fit.

4.4.2. Results of Multicollinearity Test

Before estimating the model, it was necessary to check for the functional relationships between the explanatory variables. If multicollinearity is less than perfect, the regression coefficients, although determinate, possess large standard errors (in relation to the coefficients themselves),

which means that the coefficients cannot be estimated with great precision or accuracy (Gujarati, 1995). Existence of serious multicollinearity was tested using Variance Inflation Factor (VIF) for continuous explanatory variables and contingency coefficient for dummy explanatory variables. Table 8 and 9 display the contingency coefficients and VIF respectively.

Tests for Existence of Multicollinearity

The values of contingency coefficient, which basically range between 0 and 1 are significantly small (Table 4.7). Low value of contingency coefficient indicates absence of serious multicollinearity problem between the considered discrete variables.

Table 4. 7 Tests for Existence of Multicollinearity among Dummy Variables

	gen	age	tfamsiz	educ	COPR	OAR	IR	SLH	CFC	CPA	DFL	LACKFL	PAROFFr	credfc~s
gen	1.0000													
age	-0.4852	1.0000												
tfamsiz	0.4434	-0.0240	1.0000											
educ	0.0160	-0.1966	0.0943	1.0000										
COPR	0.0931	-0.4432	-0.0007	0.2128	1.0000									
OAR	0.1348	0.0461	0.4864	0.1368	0.0259	1.0000								
IR	-0.4295	0.1808	-0.0268	0.0203	-0.1538	0.3262	1.0000							
SLH	0.1360	-0.3342	0.0838	0.1383	0.0322	0.3893	0.1458	1.0000						
CFC	0.1313	-0.3806	-0.2710	0.1524	0.0390	0.1017	0.1783	0.2873	1.0000					
CPA	-0.2844	-0.0796	-0.0244	0.1552	0.2121	0.2304	0.2784	0.1620	0.1809	1.0000				
DFL	-0.4580	0.3162	-0.2772	0.0219	-0.1857	0.0634	0.4461	-0.0516	0.4739	0.1566	1.0000			
LACKFL	0.3684	-0.2604	0.1870	0.0847	0.1967	0.2128	-0.3211	0.0508	0.2211	0.0355	-0.1142	1.0000		
PAROFFr	0.0409	-0.0122	-0.0850	0.1862	0.3394	0.3322	-0.0739	0.0782	0.4160	0.2795	0.2390	0.2291	1.0000	
credfcns	-0.0220	-0.1216	0.1082	0.0265	0.0467	0.0113	-0.0209	0.0174	0.0136	0.1898	-0.0198	0.4181	-0.2436	1.0000.

Source: Compiled data from stata, 2022

Tests for VIF of Multicollinearity

A VIF value greater than 10 is used as a signal for the strong multicollinearity between the two considered continuous variables (Gujarati, 1995). The VIF is 1.85 the test, therefore, indicates lack of serious multicollinearity problem among the variables.

Table 4. 8 Tests for VIF of Multicollinearity among Variables

Variable	VIF	1/VIF
PAROFFr	2.70	0.370027
OAR	2.51	0.399048
CFC	2.30	0.435065
age	2.29	0.437164
COPR	1.84	0.542245
tfamsiz	1.76	0.566834
IR	1.67	0.597513
SLH	1.51	0.663256
CPA	1.39	0.721860
credfcons	1.26	0.791280
educ	1.12	0.896314
Mean VIF	1.85	

4.2.1. Econometric Results

Using the explanatory variables defined above, a logit model was estimated using the Stata software. Table 7 shows the parameter estimates and statistical significance of the coefficients.

The model predicts 65% of the cases correctly, which is considered as statistically significant. Among the factors of the microfinance credit service variables, age, gender ,family size ,Condition and Procedure of getting the credit(fees), Credit-plus and follow up service from MFIs after borrowing , and considering the farming calendar and grace period affected the probability of the effectiveness of rural house hold.

Moreover, condition and Procedure of getting the credit (fees), not obtaining the amount requested, not considering farming calendar and grace period have negatively and statistically significant influences on the probability of effectiveness of MFIs as well as Credit-plus and follow up service from MFIs, credit-plus service and follow up and education level have affect positively and significantly the probability of effectiveness of MFIs in improvement of rural household life.

Odds ratio

The odds ratio compares the odds of two events. The odds of an event are the probability that the event occurs divided by the probability that the event does not occur. The researcher tried to use the odds ratio to understand the effect of a predictor on dependent variables. Here in the study odds ratio for categorical predictors were applied.

TABLE 4.9 RESULT OF LOGISTIC REGRESSION OF ODDS RATIO

	Number of obs	=	309
	LR chi2 (16)	=	239.90
	Prob > chi2	=	0.0000
Log likelihood = -63.724825	Pseudo R2	=	0.6531

	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
2.gen	.3545396	.4145066	-0.89	0.375	.0358501	3.506218
2.age	.0237815	.0227722	-3.90	0.000**	.0036405	.1553512
educ						
2	4.848215	2.71142	2.82	0.005**	1.620085	14.50862
3	2.775752	2.137199	1.33	0.185	.613755	12.55354
4	.3590159	1.20171	-0.31	0.760	.0005081	253.6782
tfamsiz						
2	.7238511	.8408704	-0.28	0.781	.0742747	7.054362
3	1.010427	1.401315	0.01	0.994	.0666826	15.31078
4	1.038115	1.537541	0.03	0.980	.056956	18.92131
2.COPR	1.635856	.9867607	0.82	0.415	.5015262	5.33576
2.OAR	8.720425	7.897018	2.39	0.017**	1.478117	51.44775
2.IR	1.465956	1.177356	0.48	0.634	.3037339	7.075357
2.SLH	.5646117	.3270362	-0.99	0.324	.1814321	1.757056
2.CFC	7.696378	5.671277	2.77	0.006**	1.815751	32.62244
2.CPA	8.681312	5.125543	3.66	0.000**	2.729145	27.61494
2.PAROFFr	2.124159	1.585146	1.01	0.313	.492018	9.170502
2.credfcons	.0892037	.0600428	-3.59	0.000**	.0238474	.3336755
_cons	.4883049	.8887135	-0.39	0.694	.0137882	17.2932

Source: Own Computation, 2022

**Significant at 5% level,

Table 4.9 depicted the significant and insignificant variables that affect the effectiveness of MFIs credit in rural household with their respective sign .However, the researcher intended to interpret the significant at 0.05 predictors by screening out as follows:

Age (age) –Age is significant and negatively affects effectiveness of micro-finance credit. The odds of being effective of MFIs credit in rural household for the respondents categorized above age 45 years is 0.023 times less than that of the working age group 18-44yr. This justified that as the age of household goes to retired, the probability of effectiveness in micro-finance credit becomes less, elders of more than 45 years were considered as dependent and do not as such contribute to agricultural production. Why the reason the researcher have been grouped respondents into working and above working age.

Education (educ)- Education has significant effect and positive relation with the effectiveness of MFI credit in rural households. The odds of micro-finance effectiveness of credit in rural household for the category of primary educational level is 4.85 times more effective than none educated or illiterate farmers. This may be due to the awareness of the educated people towards the microfinance institution or because they have greater chance of handling the credit implementation than uneducated. From the above discussion and presentation we can generally conclude that there is positive relationship between levels of education.

Obtaining the amount requested (OAR)- table 4.9 show that obtaining the amount requested is significant and positively affect the effectiveness of MFIs credit in rural. The Odds ratio is 8.72, which indicate the odds that a respondent who have received sufficient credit are 8.72 times more effective while compared to that of the respondents have not received the amount requested. This is due to the fact that investment in agricultural inputs needs sufficient capital. Failure to provide the required loan size is expected to have negative repercussion on the loan performance. It is, therefore, hypothesized that provision of the required loan size would have high probability of increasing the income of the clientele. So it also may be the reason why majority of households were used credit for consumption.

Considering of farming calendar and grace period (CFC)-the regression above indicated that considering of farming calendar for grace period is significant and positively affect the effectiveness of MFIs of rural household. The odds ratio is 7.70 positively significant at 0.006, this indicated that the odds of the participants who have responded considering of farming calendar for grace period are 7.70 times more effective with that of the respondents were not considering of farming calendar for grace period. The borrowers of the institution would be more benefited if credit processing period consider is made in accordance with the farming time. Therefore, appropriate credit disbursement schedule is expected to have direct influence on effectiveness of micro-finance in rural household.

Credit-plus service and follow up (CPA)- the above table shows, credit-plus and follow-up service of MFIs for borrowers is highly significant and positively affect the credit provided to rural household. The odds ratio the of variables is 8.68,which indicates the odds that respondents those have received the credit-plus and follow-up service from MFIs are 8.68 times more effective while compared to that of the borrowers have not received the service.

Use credit borrowed from MFIs for consumption(credfcos)- the last variables depicted in the above table of logistic regression is using credit for consumption which is highly negative significant at 0.01 significant level. The odds ratio is 0.09 ,which tell us odds of the borrowers household that have used MF credit for consumption are 0.09 times less effective in comparison to the household borrowers those who have not used the credit for the seek of consumption.

Obtaining the amount requested (OAR)- the base level reference refers to the respondent those who said “yes” or those confirmed lack of obtaining the amount requested as constraint and the marginal effect for those who said ‘no’ or not confirmed as constraint is 0.18, means that the expected probability effectiveness of micro-finance credit is higher for the borrowers obtaining sufficient amount requested than not obtaining the amount requested by 0.18 when other independent variables are held constant.

In addition to this the interview asked, Was the MFIs credit amount sufficient?

Borrowers thought that they were not getting a sufficient amount for their project from the MFIs. If one organization failed to provide the amount of money a borrower needed then the existing borrowers were bound to get involved in different MFIs to meet their need. That is why the main reason rural household borrowers searching for different micro-finance for additional credit.

Considering of farming calendar and grace period (CFC)- the base level reference category yes mean that considering farming calendar for grace period as constraint and the marginal effect for those who were responded no is 0.17 this indicated that the expected probability effectiveness of MFIS Credit in rural household is higher for the households benefited considering of farm calendar for grace period than not considering farming calendar for grace period by 0.17 when other remains constant.

Credit-plus service and follow up (CPA)-the base level reference category benefited credit-plus and follow-up service those confirmed “yes” and the marginal effect for those who were not benefited “no” is 0.15 .This result depicted that the expected probability of micro-credit of rural farmers is higher for the household benefited service than not benefited by 0.15 while other independent variables remain constant.

We know that training and follow-up helps people to become more efficient. Karlan and Validivia (2007) claimed that borrowers are able to show better business knowledge after receiving training. Considering the importance of training activity, borrowers were asked whether MFIs provided any training activity or not. This study found that 70.50% of borrowers did not receive any training from this credit organization.

CHAPTER FIVE

5. Conclusions and Recommendation

5.1. Conclusion

The study confirmed the factors that affect the effectiveness of micro-finance credit in rural households. A cross sectional data was conducted to identify factors affecting effectiveness of micro-finance. Among 309 sample households of the OCSSCO, LIYU and WISDOM micro-finance 28.16 % are found improvement in their socioeconomic conditions such as increment of household income, housing improvement ,self-employment and number of oxen acquire during the three-year client-ship with the MFI. The impact of the microfinance service is 71.84 % highly not observed in terms of increased asset creation, number of oxen they acquire after got the credit facility. So this indicates that micro-credit institutions are not in favor of rural household to improve their life.

The logit model also finds that Credit-plus service and follow up (CPA) has a significant positive effect on the rural household to proper use of credit facility. This study has found that training would increase the effectiveness of the microcredit in rural area. However, those micro finance institutions included under this study were a financial institution, not training and follow-up provider so it is adversely affect MFIs credit in rural.

The econometrics results indicate the factors that affect the probability of effectiveness of Micro finance credit to improve household ways of life and concluded according to its priority as follows; using micro-finance credit for consumption purpose, credit-plus and follow-up service, and not obtaining sufficient amount requested, considering farming calendar and grace period, appropriateness of age and education level. The policy implications of the results could be the following;

5.2. Recommendation

The below recommendations are presented in order to improve the effectiveness of MFIs credit in rural areas in Girar Jarso woreda:-

- Considering farming period for convenient time of provision of rural credit is of paramount importance due to seasonality of agricultural production. Moreover, financial resources needed for rural household, particularly if needed for purchases of agricultural goods like input would be affected by the farming period so that micro-finance creditor should consider grace period and farming calendar.
- Sufficient capital used determines the economic scale of any business. Micro-finance credit institutions, however, not provide the amount requested. The econometric result revealed the importance of the amount requested on economic performance of the farmers. Hence, considering the nature of the loan and other parameters, it would be of paramount importance to provide the amount requested which is in line with their business plan.
- Using micro-financial credit for consumption adversely affect the effectiveness of credit where as utilization of loan for intended purposes implies increase its effectiveness, so identifying feasible income generation activities and proper business plan for rural household borrowers would be essential.
- Training should be provided on the basis of the borrower's geographical location and previous experiences. So the researcher would recommend the micro-finance institutions with the Local agricultural sector to provide for various aspects of training for its borrowers. Micro-finance should select those borrowers for training programmes before providing the credit to farmers and should also follow after the disbursement of loan. The study should not regard microcredit programmes in a similar way as traditional credit practices where the main purpose is profit rather than credit-plus service.
- Education is a powerful tool to make change in any aspect of life so that the government should pay attention for extension of basic adult education and primary level especially in rural area via participating NGO and other concerned body to improve the effectiveness of micro-finance credit in rural area.

- Micro-finance Institution should consider the appropriateness of age gap by providing especial support and create awareness for those who are above 45 years old .Unless otherwise working age categories are recommended to enhance the effectiveness of credit.
- Micro-finance institution should make revision assess on their applying current policy and procedure of lending toward poor rural household through conducting research and careful assessment. The government should also look for the mechanism to take action against those micro-financial institution that their primary goal is profit rather than improving the deprived life's of rural poor.

In general, the research revealed that the effectiveness of microfinance services to poor rural households in Girar Garso Woreda, however to enhance the effectiveness of Microfinance credit in rural areas more of such research should be conducted to various rural regions as countrywide and screening out the factors that hinder to bring objective of microfinance which helps to improve the rural household life. Furthermore the population size should be increased to cover most of the rural households since larger samples are more representative of the population than a smaller sample and various additional variables needs more study to coping up the problem that related with the effectiveness of micro-finance credit of rural household.

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APPENDIX

**Salale University
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Department Of Economics**

Questionnaires

The study is going to be conducted by Merid Jenenew. The study will result in to a report, which is a partial fulfillment of the requirements for the degree of Master of Science in economics. This study is about the” FACTORS AFFECTING THE EFFECTIVENESS OF MICROFINANCE CREDIT (THE CASE OF RURAL HOUSEHOLD IN GIRAR JARSO WOREDA (BORROWER PERSPECTIVE))”

The purpose of the survey is to gather data from different households in G/jarso. So I am requesting you to give me the requested information to accomplish this study.

Thank you for your cooperation

Instruction, encircle the choice for choose part and provide the necessary information on the blank space

Section I : Demographic characteristics of respondent.

1. Woreda _____

2. Gender

a. male

b. female

3. Age (Years)

a. 18 – 44yrs

b. Above 45yrs

3. Farming experience _____ year

4. Marital Status

a. Not married

b. Married

c. Divorced

d. Widowed

5. Family size: number of males _____ number of females _____ total _____

6. Level of education

a. None

b. Primary

c. Secondary

d. Tertiary

C. High Interest rate----

D. small-land hold in hectare -----

E. Considering of farming calendar for grace period ----

F. credit-plus service and follow up -----

G. Distance from lending MFIs----

H. Lack of farm land -----

I. Participation in off farm income -----

J. Please Specify if other

11. Did you receive any training from MFIs before borrowing?

a. no

b. yes

12. Did you use Credit borrowed from MFIs for consumption?

a. Yes

b. No

13. What was the amount borrowed from MFIs? _____Ethiopian Birr

14. What is the amount of savings that you have in your account with MFIs for the year 2011 to 2014?

	2011	2013	2014
Amount of savings(ETB)			

Interview question

15. Was the MFIs credit amount sufficient?.