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DETERMINANTS OF FARMERS LOAN REPAYMENT IN MICROFINANCE INSTITUTIONS OPERATING IN GURAGE ZONE, THE CASE OF ABESHGE WOREDA

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Determinants of Farmers Loan Repayment in Microfinance Institutions Operating in Gurage Zone, the Case of Abeshge Woreda

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ABBREVIATIONS AND ACRONYMS

CAMEF Conference of African Ministers of Economy and Finance

CFI **C**orporate financial institution

CGAP Consultative Group to Assist the Poor

CSA Central Statistical Agency

IFC International Fanatical Cooperation

JLG Joint liability group

MFIs Microfinance institutions

NBE National Bank of Ethiopia

NGOs Nongovernmental organizations

ROSCAs Rotating Savings and Credit Associations

RRBs Regional Rural Banks

SBA Small Business Administration

SIDA Swedish International Development Agency

US United State

UK United Kingdom

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ABSTRACT

Farmers often exhibit reluctance to repay loans from microfinance institutions (MFIs) due to a combination of socio-economic challenges, structural issues within the lending systems, and personal circumstances. This study was aimed at identifying factors affecting farmer's loan repayment in microfinance institutions operating in Gurage Zone, the case of Abeshge Woreda. Both descriptive, inferential statistics and econometric methods (probit model) of data analysis were employed. Random sampling method was used to select sample farmers considered in this study. In general, a total 314 farmers were used for gathering the required data. Based on the data about 27.07% of the respondents were defaulters while 72.93% were non defaulters. The mean comparison t-test showed significant difference among two groups (defaulters and non-defaulters) regarding family size, year of schooling, livestock ownership and distance to development agents and loan amount. Also, significant proportion difference was among defaulters and non-defaulters regarding the sex of households. The probit model outputs suggest that sex of the household head, educational attainment, and livestock ownership, income from farm and non-farm sources, proximity to extension service providers, distance to lending institutions, and the size of the loan are significant factors of farmer's loan repayment performance. The probability of households to repay the loan to microfinance institutions with in the loan repayment period is about 76.4%. The model validation statistics are also good enough for this analysis. High transaction costs, limited outreach, high loan interest rates, short repayment period, and financial literacy were significant constraints of farmers' loan repayment performance in the study area. To enhance loan repayment performance among farmers in this area, it is crucial to implement educational initiatives that support family growth and stability, improve access to livestock ownership, and reduce transaction costs for loans. Additionally, streamlining application processes, lowering fees, improving proximity to development agents, and encouraging income diversification are essential steps to address the socio-economic factors at play.

Key words: *Microfinance Institutions, Defaulter, Non-Defaulter, Likert Scale, Probit Model*

CHAPTER ONE

1. INTRODUCTION

1.1. Background of the Study

Ethiopia is one of the developing nations with a primarily subsistence agrarian economy, and the expansion of the agricultural sector is a major factor in the economic progress of these nations. The essence of Ethiopian agrarian farming is demonstrated by traditional micro_holdings, subsistence farms with an average land area of two hectares (CSA, 2007). While using suggested farm inputs is thought to be essential to agricultural development, using loans has been envisioned as one means of fostering technological transfer (Tomoya Takashi, 2010).

The Ethiopian government has been striving to reduce poverty, which is the nation's worst nemesis. Offering sustainable microfinance services to the impoverished is one of the most effective strategies for lowering family and national debt. The primary purpose of microfinance institutions, or MFIs, is to assist low-income and impoverished people who do not have collateral, a stable job, a verified credit history, or other requirements needed to obtain financial credit (Hundanol and Berhanu, Derje et al, 2013). The key to escaping poverty and hunger is microfinance, which enables the impoverished to diversify their revenue streams. Therefore, the growth of the financial sector is essential to achieving the government's development objectives for reducing poverty.

These organizations were either founded by the government or by private citizens, making them either privately or publicly held. In Ethiopia, MFIs offer both agricultural and non-agricultural loans, according to the SIDA (2003) report. Although both kinds of loans are offered through group lending methodologies, agricultural loans usually require a one-time payment at the conclusion of the loan term, whereas other loans are normally paid back on a weekly or monthly basis. By enhancing agricultural production and revenues, expanding off-farm sources of income, and accumulating household assets, these institutions in Ethiopia aim to reduce poverty and the vulnerability of impoverished households.

The provision of a wide range of financial services, including deposits, loans, savings, payment services, money transfers, and insurance, to low-income and impoverished households and their microbusinesses that are shut out of the official financial system is known as microfinance,

according to research by Frank Girabi (2013). These are the essential services that microfinance banks provide to farmers and various societal segments. In other instances, however, farmers had challenges in repaying their credit institution loans.

Dealing with farmer's loan repayment performance and potential barriers for loan repayment gives important information to stakeholders for intervention and decision making. Detail investigation this issue, a variety of factors influences how farmers repay loans from microfinance organizations. However, the factors influencing smallholders' loan repayment from microfinance institutions are controversial (Emmanuel Tetteh and Abdulai Admas, 2018). Therefore, this study is designed to extend the literatures by providing additional information about factors affecting loan repayment performance in Abeshege district of Guraghe Zone, Central Ethiopia,

1.2. Statement of the Problem

Farmers, who constitute a significant portion of Ethiopia's economy, encounter substantial challenges in securing funding for essential agricultural inputs within the subsistence farming sector. As prices for these inputs continue to escalate annually, there has been a notable increase in subsistence farmers' reliance on banking institutions for credit in recent years. This growing confidence reflects their urgent need for financial support to enhance productivity and sustainability in their farming practices (Boere et al., 2016).

In Ethiopia, agriculture is the main economic sector that is essential to providing internal food security, job creation, and poverty reduction, according to a review published in 2022 by Gutama Girja. According to Baser and Bozoglu (2018), the agricultural sector is strategically significant since it produces nutrients, supplies industry with raw materials, and generates foreign exchange through exports. Supporting farmers is therefore preferable in order to boost agricultural output and produce greater productivity because of its significance. The government established Proclamation No. 40/1996, the Microfinance Law, to increase the poor's access to credit in Ethiopia and to encourage the expansion of microfinance organizations.

In order to have sustainable and viable production processes and credit institutions, it is also crucial that borrowed money be invested for profitable purchases and that extra revenue be used to pay back loans. Giving out modest loans via microfinance organizations is seen as a way to reduce

poverty and increase economic opportunities. According to Wolday (2003), microfinance organizations are regarded as one of the key instruments for reaching the impoverished who have little or no access to credit from the conventional banking sector. However, a major issue facing farmers and agricultural lending institutions alike is farmers' inability to return their loans on schedule or at all. Poor loan repayment in developing countries has become a major problem in agricultural credit administration especially to smallholder farmers who had limited collateral capabilities (Okorie, 2004).

While loan repayment is determined by the willingness, ability, and other characteristics of borrowers, as well as business characteristics and product design, researchers Onyeagocha (2012) and Tundui (2013) argue that one way to limit the problem of loan repayment is to investigate the factors that affect loan repayment. It is also true that the factors influencing loan repayment capacity among borrowers are likely to vary not only by program but also from country to country depending on the domestic business and economic environment (Retrieved from Nestanet Eshetu, 2019).

According to others, such as Ayenalem Kefelegn (2020) and Ewnetu Tekola (2022), demographic concerns are a determining factor in loan payback. However, they disagree on whether each demographic characteristic has a favorable or negative impact on debt repayment. In the Gurage zone, one of the well-known administrations that produced a variety of agricultural goods was Abeshge woreda, or administrative district. Many governmental and non-governmental financial organizations in this woreda have provided lending facilities to farming households in an effort to close the gap between the capital needed and the capital owned in order to employ improved agricultural technologies that would boost productivity and output.

However, there is a difficulty with loan repayment in relation to the goals of the loan, borrower characteristics, institutional characteristics, and social factors. As a result, farmers typically utilize their loans regardless of their intended purpose, and the institution provides little instruction to farmers on how to mobilize and use their loans in the study region.

Loan repayment performance is critical for the sustainability of financial institutions and the economic stability of borrowers. High default rates can lead to financial losses for lenders and limit access to credit for borrowers, particularly in microfinance and small business sectors.

Understanding the factors influencing loan repayment is vital for developing effective lending practices and policies. Factors such as borrower characteristics (e.g., education level, income stability), loan characteristics (e.g., size, interest rates), and external economic conditions (e.g., market fluctuations) significantly impact repayment rates (Komba, GV, & Komba, MM; Shewalem, 2023).

Despite the increasing availability of credit facilities aimed at supporting small businesses and microfinance initiatives, loan repayment performance remains a significant challenge. High default rates not only jeopardize the financial viability of lending institutions but also restrict access to essential funding for borrowers. This research aims to investigate the multifaceted factors affecting loan repayment performance, focusing on borrower-related characteristics, loan-related attributes, and external economic influences. By identifying these determinants, this study seeks to provide actionable insights for financial institutions to enhance their lending strategies and improve borrower support systems.

1.3. Objectives of the study

1.3.1 General objective

The general objective of this study was to identify the determinant factors of farmers' loan repayment in micro finance institutions in Gurage zone.

1.3.2 Specific objectives

1. To identify factors affecting farmer's loan repayment at micro finance institutions in the study area Gurage zone.
2. To assess the major difficulties of farmers during the loan repayment process.\
3. To analyze the primary factor that most significantly influences the loan repayment conditions of farmers.

1.4. Basic Research Questions

1. What are the major socio economics factors that contribute to the loan repayments of farmers in Abeshege woreda?
2. What are the major barriers of farmers during the loan repayment process in the study area?

3. What are the primary factor that most significantly influences the loan repayment conditions of farmers?

1.5. Significance of the Study

The purpose of this research is to enhance the understanding of farmer's loan repayment performance. To that end, the study has identified key factors affecting the farmer's loan repayment performance. These findings would help policy makers and other concerned bodies to understand the need to support the performance of farmers. This however, requires extra efforts to communicate the results of the study with these bodies in the aftermath of the research completion. The research would assist the concerned zone administration office when formulating support schemes.

This research aims to provide valuable insights to government officials, policymakers, and microfinance institutions regarding the determinants of loan repayment performance among farmers. The findings would enhance decision-makers' understanding of the factors affecting loan repayment in the Abeshge district and identify the challenges that farmers face in fulfilling their loan obligations. Additionally, this study would serve as a reference for future investigations into loan repayment issues within microfinance contexts. Ultimately, it seeks to offer recommendations for addressing loan repayment challenges and propose viable solutions to relevant stakeholders.

1.6. Scope of the Study

Theoretically, the study was delimited to the assessment of the factors influencing the performance of farmer's loan repayment from microfinance institutions. Geographically, it was delimited to Abeshge district. Methodologically, the study has adopted a blend of qualitative and quantitative research approaches, descriptive and explanatory research design employed, primary and secondary data sources used and the data constituted both qualitative and quantitative types. The study has determined sample size to draw samples from the target population; farmers who took credit for 2015 production year. To that end, Yamane (1967) sample size determination formula was used. Actual participants were chosen using random sampling techniques. Data was collected from the sample using questionnaire as a principal tool. The collected data has undergone editorial process, coding and entered into software for analysis.

The data was analyzed using both descriptive and inferential statistics. Loan repayment performance was the dependent variable while sex, family size, education, livestock ownership, land size and other institutional factors were independent variables.

1.7 Limitation of the Study

Utilizing cross-sectional survey data limited the interpretation of results to a single year of study, making it challenging to capture the temporal dynamics of the subject matter. This design inherently restricts insights into changes over time and complicates causal inferences, as it does not allow for tracking developments or shifts in variables of interest. Thus, understanding the time-related aspects of the study topic remains difficult within this framework.

1.8. Organization of the Study

This research has five chapters. The first chapter consists of backgrounds of the study, statement of the problem, objectives of the study, research questions, significance of the study, scope of the study, and limitations of the study. Chapter two comprises review of related literature which addresses the definitions of micro finance, loan, loan repayment, polices related to the issue, the conceptual frame works, the world experience at large and Ethiopian experience in particular. The third chapters emphasize on research methodology such as research design, target population, sample size, sampling technique, and sources of data, data collection methods, and method of data analysis. Chapter four is about the result and discussions. Chapter five is about summary, conclusion, and recommendation.

CHAPTER TWO

2. LITRETURE REVIEW

2.1. Definitions of Microfinance Institutions

Microfinance is defined differently by different people and organizations, but generally speaking, they all agree that microfinance is the provision of financial services, primarily savings and credit, to low-income and impoverished households that do not have access to traditional banking services. According to a study by the UK Essay Group, microfinance is thought to offer a solution to the global poverty problem. Microfinance is being used in every nation and region with a diverse population to fight poverty. It is a relatively new idea in the financial and banking industries.

Microfinance is the practice of giving extremely tiny loans to the impoverished in order to help them launch their own businesses and escape poverty. The impoverished, who are primarily women, can achieve ongoing financial success thanks to microfinance, which is a hand up rather than a hand out.

According to Woodworth and Woller (1999), the Journal of Microfinance calls it "possibly the most innovative strategy to address the problems of global poverty." According to UKEssay group, Kofi Annan, the General Secretary of the United Nations, said in 2002 that microcredit is an important instrument for combating poverty and a prudent investment in human capital.

According to Schreiner (2000), microfinance is a formal program created to increase the well-being of the impoverished by giving them better access to loans for savings and services. According to the UK ESSAY group's citation of Murray, U., and Bores (2002), microfinance is small savings and lending amounts, usually, short-term loans have a one-year period, payment schedules attribute regular deposits or installments, principal and interest-bearing installments that are subject to amortization over time. Moreover, higher credit interest rates (lower than loan-shark rates but higher than commercial bank rates) are a reflection of the work-intensive nature of making small loans and enabling the microfinance intermediary to stabilize over time. Simple access to the microfinance intermediary helps the intermediary better understand the clients' social and financial standing while also saving the client time and money.

The application process is easy to understand. Short processing times (between application completion and loan disbursements). Customers who make their payments on time are eligible for larger, recurring loans. The use of tapered interest rates (decreasing interest rates over several loan cycles) as an incentive to repay on time. Larger loans are less costly to the MFI, so some lenders provide large size loans on relatively lower rates. In contrast to official banking procedures, no collateral is needed. Microfinance intermediaries employ different techniques in place of collateral, such as evaluating clients' ability to repay loans through cash flow studies, which are based on the cash flows produced by the operations for which loans are obtained. In a similar vein, other academics and organizations have different perspectives on microfinance institutions. An organization that provides small loans to those in need is known as a microfinance institution (MFI). Since each institution has its own policies and requirements for granting credit, the loan structure varies from one organization to the next. However, the primary objective is to provide financial aid to those in need.

When talking about MFIs, we can think about non-governmental organizations (NGOs) which also provide loan facilities to the poor. During the 1990s, many NGOs were converted into formal financial institutions so as to access and on-lend client savings, as a result improving their outreach.

Other types of microfinance institutions exist as well, like credit unions and cooperative housing societies. Every country has its own version of these organizations (Rehman, 2007). These days, even commercial banks are embracing the idea of micro lending. They are taking these steps in an effort to draw in new clients who wish to launch a business but lack the necessary funds to do it. They can be divided into the formal, semiformal, and casual categories. The formal providers (development banks, savings and postal banks, commercial banks, and non-bank financial intermediaries) are those who are subject to both general legislation and specialized banking regulation and supervision. Any legally recognized organizations that supply any kind of financial services may also be considered formal suppliers. Financial NGOs, credit unions, and cooperatives are examples of semi-formal providers that are registered entities subject to general and commercial laws but not often regulated or supervised by banks. Unregistered organizations like self-help groups and rotating savings and credit associations (ROSCAs) are examples of informal providers. The micro finance institutions have a number of characteristics that set them apart from traditional banking institutions. These are MFIs' main characteristics: Offer loans to individuals

who belong to the low -income group. The loan that are offered by these institutions are small amount; this is why these loans are known as micro loans, they are providing loans to borrowers for a short period. After they repay the loan, they can opt for another one; they give loans to people who want to start up a business for their own without any security or collateral.

Credit is the promise of future payment in exchange for goods and services. A loan can be given to another person in the form of cash, real estate, or other tangible items in return for the loan value plus interest or other fees in the future. Additionally, it shows why credit is essential in a dynamic economy because of the time that passes between an item's manufacture and eventual sale and consumption; credit fills this gap. (Hodgman, referenced by Feda Etefa, Mathios Kebede, and Monanol Trefe, 2020) Credit is now generally understood to be an agreement or promise of transaction between a lender and borrowers, whereby borrowers obtain something of assessment now and return later in the future.

2.2. Development of Microfinance Industry

Micro World claims that as an unofficial lending system, microfinance has existed for centuries, if not longer, across Asia. Microfinance as we know it today began in Bangladesh in the 1970s;

"In the midst of a famine, Dr. Muhammad Yunus, professor of economics at the University of Chittagong, was becoming disillusioned with the abstract theories of economics that failed to explain why so many poor people were starving in Bangladesh," Micro world explained as it was cited by Matt D'Angelo, 2023. Thus, the $27 loan was born as a practical solution.

Micro World claims that microfinance has existed as an unofficial lending system for centuries, and even longer in Asia. In Bangladesh, microfinance as we know it today began in the 1970s;

Yunus provided $27 of his personal funds to the women, meeting each of the 42 women's borrowing requirements. They broke free from the cycle of debt by selling their stools at a reasonable price. Muhammad Yunus and the Grameen Bank, which he established, were awarded the Nobel Peace Prize in 2006 for their community-based initiatives to help millions of people escape poverty.

Joseph Blatchford, a former Peace Corps commander and UC Berkeley law student, helped to develop microfinance. As a voluntary endeavor, Blatchford established the nonprofit financial organization in 1961. In order to determine whether a one-time financial infusion could help businesses in Brazil escape poverty, his group started providing small loans to them in 1973. It was a success: 1,386 new employments were created or stabilized thanks to 885 loans.

Microfinance has demonstrated efficacy in mitigating poverty. After eight years, 57.5% of Grameen Bank borrower households were no longer regarded as being in poverty, compared to 18% of non-borrower households, according to a survey that compared participants in microfinance programs to those without access (Marar, Iyer, & Brahme, 2009). While the average income of Bank Rakyat Indonesia borrowers increased by 112%, 90% of Indonesian households were lifted out of poverty.

More than three billion individuals in developing nations still lack efficient access to loan and deposit services, according to the International Financial Cooperation Organization. In Sub-Saharan Africa, where just five to twenty-five percent of households have a formal contact with a financial institution, the issue is especially severe. Additionally, only 2% of the world's microfinance institutions are located in this region.

Africa's private sector development is thus severely hampered by a lack of access to financial services. In order to fill this gap, new institutions must be established, and management and operational capabilities must be developed from the ground up. To support such an endeavor in Africa, IFC's Microfinance Program for Africa seeks to expand access to financial services and boost the number of commercially viable microfinance institutions, enabling the smallest enterprises in the region to obtain the financial services they require to prosper.

IFC plans to create 15 new microfinance banks and serve about 400,000 new borrowers by 2011 in collaboration with development partners. Conflict-affected nations with rapidly developing private sectors are the program's primary emphasis. Through fund structuring, debt insurance, credit guarantees, equity investment, and consulting services, this collaboration as an organization creates new institutions and builds their capabilities. IFC began supporting microfinance in Africa in 1997 when it invested equity in K-REP, a microfinance organization

in Kenya that has subsequently changed its name to a commercial bank that continues to provide services to micro and small companies. By 2011, the IFC hopes to have its microfinance program in 22 countries. Countries like, Angola, Benin, DR Congo, Ghana, Kenya, Mozambique, Nigeria, Madagascar, Cameroon, Tanzania, Liberia, Senegal, Sierra Leone, Burkina Faso, Burundi, Côte d'Ivoire, Rwanda, Zambia, Congo, Ethiopia, Malawi, South Africa. According to research by Anupam Basu, Rodolphe Blavy, and Murat Yulek from 2004, small businesses and the majority of the poor population in sub-Saharan Africa have very little access to deposit and credit facilities as well as other financial services offered by formal financial institutions.

For instance, approximately 5–6% of the population in Ghana and Tanzania has access to the banking industry. When one considers that in many African nations, the poor make up the majority of the population and that the informal sector plays a significant role in the economy, the lack of access to financial services provided by the official financial system is very startling. Many microfinance institutions (MFIs) have grown throughout time in Africa in order to help their countries mobilize their economies and satisfy the unmet need for financial services. Some of these organizations focus solely on lending money, while others also offer deposit and credit facilities, and a few are simply concerned in deposit collection. When the term "microfinance institutions" is used, it means financial institutions that help small businesses, the underprivileged, and households without access to the more institutionalized financial system mobilize savings and gain access to financial services. There are several different organizations that provide microfinance services, including commercial banks, state-owned development banks, and post offices.

According to a study that places special emphasis on loan outreach to the underprivileged, MFIs, as opposed to commercial banks, employ strategies like solidarity group lending, progressive loan structuring, immediate repayment arrangements, regular repayment schedules, and collateral substitutes to reduce associated financial risks and thus reach the underprivileged. For instance, Consultative Group to Assist the Poor (CGAP) reported that conventional banks in Sub-Saharan Africa serve only one quarter of the total borrowers. The reminder three-quarter borrows from nonbank financial intermediaries, nongovernmental organizations, credit unions/financial cooperatives and others. Banks held 53 percent of the total loan portfolio and

60 percent of the total deposits (CGAP, 2011). This indicates that banks are involved in large loans per client while MFIs dealt with lower per capita loans suggesting MFIs 'deeper outreach to the poor.

Governments and donors have pledged to help MFIs and thereby advance financial inclusion by doing so. Governments in Africa have made financial inclusion and microfinance a priority in their policies. A minimal set of policies to enhance MFI services among African Union member countries was advocated by the Conference of African Ministers of Economy and Finance (CAMEF) in December 2009 (Gashaw Tsegaye, 2014). The African financial institutions use a variety of strategies to achieve this ambitious objective. Cooperatives and associations, in other words, use both group and individual savings and credit programs. "Village Banking," a modification of the Grameen Bank model that K-REP (Kenya) originally brought to Africa, serves as a useful example of the use of community solidarity and the connection between saving and credit instruments. Both share capital and savings deposits are mobilized from members in this strategy, which is, for instance, used in Tanzania by Catholic Relief Services and the Netherlands Development Program (sometimes with matching funds from donors). Loans are made to groups of ten members, but benefiting only half of them at a time and reaching the second half only after repayment of the initial loans.

Also, a number of other institutions in Ghana are seeking to expand their activities and progress towards sustainability by pursuing a variety of approaches. For instance, in a group savings with credit scheme, a group of members mobilize and pool their savings jointly to qualify for a loan and may then use group savings as security against loans. In a group and individual savings with credit scheme, group and individual savings accounts coexist, both of which can be used as collateral. Group savings provide an additional security to back an individual loan. Loan repayments are made individually but handled through the group account. In such schemes, the institution minimizes its risk by basing its loan on high collateral, and involving group solidarity.

With individual savings with group lending, the group handles the collection of individual savings, receives the loan for distribution to members, and bears group responsibility for recovery. Finally,

the individual approach to both savings and credit may prevail if individuals have established a credible credit history, or in cases where the group approach is not appropriate

2.1. Microfinance Models

According to the corporate financial institution team/**CFI, 2022**/, there are two models outline how microfinance is operated:

1. Banking for individual entrepreneurs and small businesses revolved around relationship-based banking.
2. Services for a group, where multiple individuals come together to form a group to collectively apply for a loan. When applying for microcredit, individuals may not get a large loan – loans range from $10 to $2,000 – thus, they may decide to come together and form a group to qualify for a larger loan

2.2.2. Pros and Cons of Loan in Microfinance Institution

Many people and organizations contend that microfinance is crucial because it gives people in underdeveloped nations or with lower socioeconomic origins access to the financial system. Microfinance also promotes financial independence and gives them the financial resiliency they need to handle any significant unplanned expenses.

Microfinance also aids in bringing financial services to people living in distant areas where regular financial institutions do not operate. It additionally offers schooling. Finally, microfinance can support business growth and entrepreneurship in places that are struggling with poverty. Some downsides of microfinance include claims that it can take advantage of those in tough economic situations, a situation similar to loan sharks. Some microfinance loans may include interest that can be as high as 30% or even higher. Furthermore, according to several studies, recipients of microfinance loans did not realize an improvement in their annual net income (CFI, 2022).

According to Intrepid Private Capital Group, it is better to apply the traditional loan with that of the formal bank or any other alternative lenders. In such a case, they also justify micro loan

is an acceptable alternative to traditional loan in general. But they have an argument on the cons and pros of loan.in micro finance this include pros like;

Low Interest Rates

Microloans typically have low interest rates. Across all microloans, the average interest rate is about 7% to 8%. The U.S. Small Business Administration (SBA) offers microloans as well. For SBA microloans, the average interest rate is about 6.5%.

Little or No Collateral

Another benefit of using a microloan to finance your business is the simple fact that they require little or no collateral. With a traditional loan, you'll probably have to provide the lender with substantial collateral. Microloans are easier to obtain because they require little or no collateral.

Fast Financing

A microloan offers a fast way to secure financing. Unlike with a traditional loan, you won't have to wait for months to get approved. The application process is faster for microloans. Assuming you meet the necessary requirements, most lenders will approve your application in less than two weeks. On the other hand, it does have the following cons,

Small Amounts

One of the biggest drawbacks of using a microloan involves its size. As their name suggests, microloans are smaller than traditional loans. While traditional loans can exceed $1 million, microloans are typically capped at about $50,000. Depending on your business's financing needs, a microloan may not suffice. If your business needs more than $50,000, a traditional loan may be a better financing solution.

Short Repayment Terms

Another drawback of using a microloan to finance your business is a short repayment term. The repayment term, also known simply as the term, is the length of time for which a loan must be repaid. Traditional loans can have a repayment term of over five years. In comparison, microloans often have a repayment term of one year or less.

Restrictions

You might find that some microloans have conditions. In other words, the lender may demand that you use them for a particular purpose or may forbid you from doing so (Intrepid Private Capital Group, 2021).

2.2.3. Types of Microfinance Institution

Microfinance institutions are in charge of giving small loans to low-income borrowers, giving job opportunities to the unemployed, and building up the capacity of borrowers by teaching them skills like mobilization, loan utilization, entrepreneurship, and management (Yashoda Gandhi, 2021). Listed below are a few different kinds of microfinance organizations:

Joint liability Group

On the basis of mutual assurance, this is typically a small, informal group of 4–10 people looking for loans. The majority of the time, agricultural or associated businesses uses the loans. Farmers, rural workers, and residents are included in this group of debtors. Each JLG member is equally responsible for the loan's timely repayment. This entity doesn't require any financial administration because it is fundamental in nature. Personal preferences in credit lending are one of the structure's key faults, though, and they have contributed to the system's partial failure. The Joint Liability Group model's credibility has lately increased as a result of various marketing campaigns run by organizations including Indian Bank, Karur Vysya Bank, and Indian Overseas Bank. It continues to be regarded as a turning point in the struggle to uphold farmers' rights to their lands.

Self-help Group

A gathering of persons from similar socioeconomic circumstances that come together to support one another is known as a self-help collection. For the purpose of meeting their shared business needs, the owners of these small businesses band together for a brief period to create a shared fund. These groups fall under the non-profit category. The company is in charge of managing debt collection. Collateral is not required in this kind of cooperative financing. Furthermore, borrowing costs are frequently low.

Grameen bank model

Nobel Laureate Prof. Muhammad Yunus developed the Grameen Model in Bangladesh in the 1970s. Regional Rural Banks (RRBs) have been established in India as a result. The main purpose of this strategy is to boost the rural economy from start to finish. In India, however, SHGs/small holder groups/ have done better as MFIs than Grameen Banks. This strategy has not been fully adopted, according to Shastri (2009), because rural credit and recovery systems are a significant problem. Large amounts of non-performing assets contributed to the failure of these regional banks as well.

Rural Cooperatives

The establishment of rural cooperatives occurred at the time of India's independence. Through the pooling of the resources of the poor, financial services were made available. This strategy, however, only benefited creditworthy borrowers in rural India and had difficult monitoring methods. As a result, this tactic did not yield the desired results. Additionally, a sizable percentage of the nation's economically underprivileged people was excluded from this system because it only catered to credit-worthy individuals in rural areas (Yashoda Gandhi, 2021).

2.3. Microfinance Institution in Ethiopian Perspective

Semira Hassen and Solomon Alemu (2018), claim that the Ethiopian government's proclamation 40/1996 established the first microfinance legislation with the intention of giving microcredit services to individuals who are in need of them in order for them to access the official financial institutions. Additionally, Amha and Narayanaa (2000), claim that before ten years ago, around 6 million economically active impoverished people in Ethiopia had access to banking services.

According to Semira and Solomon Alemu's (2018) research, 8.3% of the active poor have benefited from services provided by authorized microfinance organizations out of this total. The national bank of Ethiopia (NBE) established a regulatory framework that is applicable to control and oversee the microfinance sectors in Ethiopia based on the proclamation 40/96 declaratory (Yirga Dejene, 2021). The Amhara Credit and Saving Institution, Dedebit Credit and Saving, Oromia Credit and Saving, Gashaw Micro Finance, Vision Fund, Sidama MFIs,

Africa Village Financial Service, Dire Microfinance, Agar MFIS, and others are just a few of the 50 microfinance institutions in Ethiopia, according to NBE (2023) data

2.4. Empirical Literature Review

Numerous studies on loan repayments have been examined by various scholars. However, the outcomes of their investigations were inconsistent in one way or another. Ewntu Tekola (2022) asserts that demographic parameters including age, sex, marital status, degree of education, and others play a significant role in influencing loan payback. According to his statistical analysis, the average age of non-defaulters and defaulters is 36.9 years. Accordingly, there were more defaulters around the age mean value of 36.9 as a result of the statistically significant mean difference between the two groups. In this instance, he came to the conclusion that there is a correlation between age and defaulters, with younger borrowers having a higher likelihood of doing so.

In addition to the sex group, statistically supported analysis reveals that 33.3% of all borrowers were men, while 66.7% were women. Males and females made up 37.5% and 41.3% of the total defaulters, respectively, while men and women made up 62.5 and 58.7% of the total non-defaulters. The difference between the two groups was statistically Significant. So that female borrowers were more likely default than male.

Others, such as Aynalem Kefelegn (2020), conducted a statistical analysis that was the opposite of that of Ewntu Tekola. In his study, the majority of 153 (57.3%) of the respondents agreed that being a man has a worse effect on loan payback. Some respondents, 16(6%), agreed that gender has no difference in effects. On the other hand, 47 respondents (17.6%) concurred that being a woman or a man has drawbacks. However, 51 respondents (19.1%) agreed that gender has no bearing on debt repayment. Accordingly, he justifies that the large numbers of males have more negative impact on loan repayment. Most of the time males are more extravagant than female According to the information obtain from interview

In addition to the research studies by Aynalem Kefelegn and Ewunetu Tekola (2020 and 2022) respectively, mentioned above, Fisum Tadele (2014) conducted a study on the factors that affect how well borrowers repay their loans in the Kefa zone. To ensure statistical accuracy, 339 borrowers were interviewed from five selected kebeles—two rural and three urban—of the

Kaffa zone. According to the researcher's survey results, 167 (49.26%) of the sample's borrowers came from OMFI's urban borrowers, while 172 (50.74%) came from its rural borrowers. 100 respondents (29.5% of the total) defaulted, while 239 respondents (70.50%) did not.

In addition, just 88 of the respondents (or 30.9% of the overall sample) are women, while the remaining 197 respondents (or 69.1%) are men. However, from the selected sample respondent in the study the response rate was 285(84.07%) which means urban 145(86.83%) and rural 140(81.4%) of respondent. On the basis of sex distribution, 30.9% of the respondents were female and the rest 69.1% were males in both defaulters and non-defaulters' group. About 5.6% of female respondents and 7.4% of male respondents in urban areas were in default on their loans, whereas 6% of female respondents and 11.6% of male respondents were in default in rural areas. This finding suggests that women in urban areas perform better than males when it comes to payback, whereas men in rural areas perform better than women. This result showed that some rural women borrowers engaged in low-return occupations and were ignorant about loan repayment.

Nesanet Eshetu (2019) asserts that demographic variables including age, gender, and family size significantly affect loan repayment. Since his findings indicated a favorable correlation between education and loan repayment, borrowers' capacity to access, assess, and comprehend new manufacturing methods and technology improves with increasing educational attainment. In addition, it is not only associated with education but also age of borrowers matters the possibility of loan repayment. The result of his research conclude that age and loan repayment are positively associated with each other, i.e., age of borrowers increase, it leads the borrowers become settled enough, generate and accumulate wealth which force them to acquire experience in controlling and managing business and use credit effectively as compared to that of the younger sections of borrowers.

His findings, however, guarantee that there was a substantial inverse relationship between borrower loan repayment and family size. According to the findings, the likelihood that borrowers will return their loans declines with the size of their family. As a result, having more people living in the home would raise consumption costs, and other associated costs will make loan payback challenging. The same analysis is done by Kibrom (2010), which supports the

idea of Nesanet regarding to the positive link between level of education, age and gender status; for Kibrom, an average 37% of sample borrowers educational level is below tertiary and among this average 67.57 % of them are able to their loan effectively and others 63% of borrowers whose level of education where above tertiary and among them 92.06 %of them can repay their loan successfully.

In this analysis, one can understand that the higher the level of education, the higher degree to pay loan successfully. The analysis of Kibrom also intended on the issue of gender on loan repayment status. In such a condition, he claimed that out of 100% sample respondents 14% are female borrowers and the rest 86% are male borrowers. As the conclusions of his research illustrate that female borrower an average 85.71% of them successfully repay their loan, where as 82.56%are male who repay their loan.in such empirical evidence, most of the studies that are related to this research topic's empirical analysis entails on the demographic characteristics such as sex, age, gender and family size as a determinant factor for loan repayment to become defaulter or non- defaulter. But in my view, it is beyond such identified factors determining loan repayment such as the location of the institution, the size and amount of loan provided by the institution and many other factors will determine the loan repayment performance of farmer borrowers. So, in this particular research, I would try to address and analyze the determinant factors determining farmer's loan repayment in the study area in more detail to show empirical evidence.

2.5. Conceptual Frame Work

This study's conceptual framework aims to identify and analyze the determinant factors that can affect farmers' loan repayment in MFIs operating in the Abeshege woreda's Gurage zone. The study primarily focused on identifying and analyzing social characteristics, such as household size and education, borrower characteristics, such as knowledge, institutional characteristics, such as training and repayment suitability, and loan objectives, such as business and household consumption.

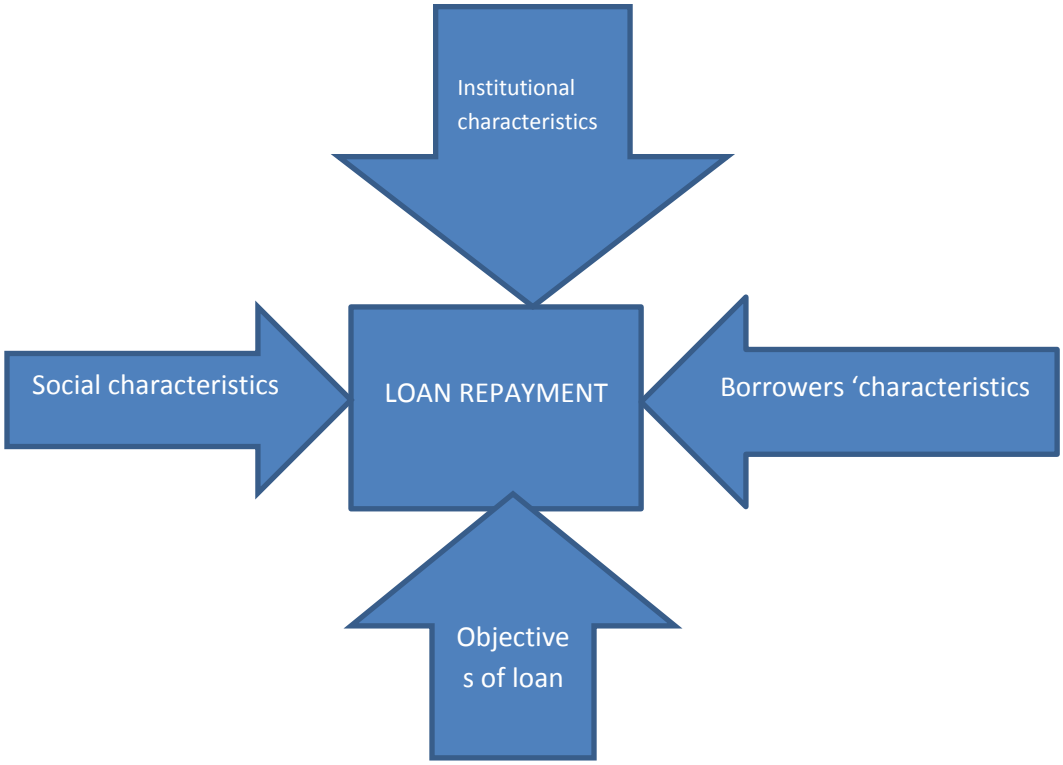


Figure 1: Conceptual Framework

Source: Own design-based literatures

CHPTER THREE

3. RESEARCH METHODOLOGY

3.1. Description of the study area

Abeshge is one of the districts of Gurage zones in central Region of Ethiopia. It is bordered in the south in the Cheha, in the west and north by the Oromia Region, and in the east by Kebena district. The district has a total population of 61,424, of whom 32,450 are men and 28,974 are women (CSA, 2007).

Abeshge District, located in Ethiopia, is characterized by a diverse agricultural landscape that plays a crucial role in the local economy. The district's agricultural activities are primarily driven by smallholder farmers, who face various challenges and opportunities in their farming practices. The main crops cultivated in Abeshge include teff, wheat, maize, and various oilseeds like sesame. Farmers typically engage in both rain-fed and irrigated agriculture, with irrigation being crucial in areas where rainfall is insufficient.

The Great Rift Valley's fertile soils support various crops when water is available for irrigation. Livestock plays an essential role in the agricultural economy of Abeshge. Cattle, sheep, and goats are commonly raised for meat, milk, and other products. The government has been promoting livestock health through improved veterinary services to enhance productivity.



Figure 2: Map of the Gurage zone and Abeshge District

3.2. Research Approaches

This study followed a mixed method that encompasses both qualitative & quantitative research approach in order to answer the research questions properly. The mixed method to research is used when the integration of qualitative & quantitative approach provides a better understanding of the research problem than either of the methods. According to Creswell (2009), a mixed research approach is a procedure for collecting, analyzing and mixing both qualitative and quantitative nature data in a single study to clearly extrapolate the objectives and research questions. Therefore, this study followed a qualitative approach in explaining the data in relation to the literatures of the subject and quantitative approach in dissecting the relationship between the identified dependent and independent variables.

3.3. Research Design

Both explanatory and descriptive research design was employed. Explanatory research design is used to explain the relationship among the dependent variable. This is justified by the fact that

the study has presented in an outright manner the data collected from the study participants without a sort of deviation. Descriptive studies are typically structured with clearly stated fact expository questions. Descriptive studies also concerned with narration of facts and characteristics concerning individual, group or situation. In this regard, it is important to know specific phenomena of the issues that must be identified and studied within a given situation (Kothari, 1990). Any further explanation to the study findings was compounded within the reference of the reality as exposed by the study endeavors and within the orientation of the literatures.

3.4. Sampling Population

The researcher comprises three micro finance institutions in Gurage zone, Abeshege woreda namely, Agar microfinance, Metmamen and Vision Fund saving and credit institutions. The numbers of beneficiary's data were taken from beneficiaries' profile of each microfinance institution. Based on the data; it comprises a total of 1466 customers (615 from Agar, 455 from Metemamen, 396 from Vision Fund) who use loan service in one year with in selected micro finance institutions.

3.5. Sample Size and Sampling Techniques

3.5.1 Sample Size

The study has covered sample kebeles from Abshege district, Ethiopia. In Abshege district, there are three main microfinance institutions namely Agar microfinance, Metmamen and Vision Fund saving and credit institutions and a total of 1466 customers. These microfinance institutions are selected as they are relatively more known microfinance institutions in the study area. Including all these microfinance institutions in the study was practically impossible provided the time and financial constraints. Hence, sample drawing becomes indispensable. To that end, sample size is determined by using Yamane (1967) formula; with an error of 5% and with a confidence coefficient of 95% as follows: -

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

Were,

n= sample size

N= the total size of population

e= acceptable sampling error, 95% confidence level with 5% precision.

Accordingly, the sample is determined as follows:

$$n = \frac{1466}{(1+ 1466(0.05)^2} = 314$$

3.5.2 Sampling Techniques

In the course of the study locations to be covered by the study were purposely selected. The locations proximity to the residence of the researcher was primarily considered due to transportation and time factors. Accordingly, out 29 rural kebeles four kebeles namely Walga, hudad 4, Hole, and Fentta were selected randomly. Provided the computed sample of 314, a proportional to population size sampling technique was used to determine the number of participants from each Microfinance institutions.

Table 3-1: Sample distribution by kebele and Microfinance Institutions

Kebeles/MFIs	Agar (n)	Metemamen (n)	Vision Fund (n)	Total (n)
Walga	**32**	**28**	**18**	**78**
Hudad 4	**41**	**24**	**25**	**90**
Hole	**27**	**31**	**22**	**80**
Fenta	**30**	**16**	**20**	**66**
Total	130	99	85	314

Own computation based on information from MFIs

3.6. Sources of Data

To do this study, the researcher used both primary and secondary source of data. In such a case, primary data were gathered from farmers as a key respondent who are taking loan from selected microfinance institutions. The secondary source of data is gathering from published and non-published materials. The primary data was collected using the structured questionaries' to be

responded by the selected sample borrowers. The research used questioners as the main issue for gathering primary data for analysis and interpretation.

The questionnaires were prepared in English language and translated in to official language Amharic to get proper information from respondents. In addition, the researcher obtained a qualitative data through interview and a direct communication with coordinator in each microfinance institution to become part of the personal interviewing process.in this way, the researcher forwarded questions to each coordinator in a face-to-face interviewing process for obtaining raw data about loan related issues in their institution.

Secondary data is gathered from published and non-published materials about microfinance institutions service like loan. The Secondary data used for this research was found from borrower's loan register books and files documented by the lending body, the year-end audited statements and reports of the selected microfinance institution. This source of data considered as part of scientific data that have been gathered in the past by researchers globally as well as nationally.

3.7. Data Collection Method

As it is stated before, the researcher used primary and secondary sources of data. Primary data contained interviews for coordinators in each micro finance institutions as to obtain raw data about loan size, interest rate, method of dispersing the loan and it was also collected from samples of respondents through questionnaires relating to borrowers' characteristics, institutional characteristics, social characteristics, the objectives of their loan. In the questioners, the researcher used both close- end and open- end questionnaires. Secondary data was obtained from the lending institutions in relation to their loan amount, number of beneficiaries, about repayment period and purpose of borrowing

3.8. Method of Data Analysis

3.8.1. Descriptive Statistics

Descriptive statistics like frequency, percentages, Likert scale, mean, and standard deviation were employed to examine constraints of accessing credit from microfinance institutions in Abshege

district. The study also employed chi-square and t-test analysis outputs to assess the presence of significant mean and proportional differences among defaulters and non-defaulters.

3.8.2. Econometric analysis

To determine the important factors that affect farmer's loan repayment performance in Abeshge district, a probit regression model was employed with the help of STATA version 14. This model is chosen over others for the following reasons: The dependent variable is dichotomous and qualitative, and therefore, the probit regression model is the best to use. Because the dependent variable, i.e., farmers loan repayment performance, is not a continuous one, the goal of the probit regression model is a bit different because it predicts the likelihood that the dependent variable, farmers loan repayment performance, is equal to 1 (rather than 0), given certain values of the explanatory variables.

It is used to predict the probability of an event occurring. In the case of the probit model, the dependent variable is binary and can only take on one of the two values, such as yes or no, true or false (Aldrich, 1984). Both continuous and categorical (or binary) explanatory variables were used in the probit model. Therefore, in the probit model, farmer's loan repayment performance (Gujarati, 2004) was specified as follows:

$$Y^* = X\beta + \varepsilon, \varepsilon \sim N(0, \delta^2) \quad y_i = \begin{cases} 0, if\ y_i^* \leq 0 \\ 1, if\ y_i^* > 0 \end{cases}$$

Where Y* is the latent variable that was observed in linear regression, yi represents the probability of the binary dependent variable of the individual farmers loan repayment performance (defaulter or non-defaulter). β shows the coefficient of independent variables that needs to be estimated; and Ɛ indicates the error term.

The relationship between an independent variable and the outcome of the probability is interpreted by means of the marginal effect, which accounts for the partial change in the probability of the dependent variable, farmer's loan repayment performance. The marginal effect associated with the explanatory variables X on the probability P (Yi = 1/X), holding other variables constant, can be derived as

$$\frac{\partial p_i)}{\partial X_{iK}} = \beta_i$$

This represents how much the probability of a change in the dependent variable is expected to increase or decrease for a unit change in an explanatory variable.

3.9. Definition and Hypothesis of Variables

The proposed variables (dependent and independent) description and their expected effect on the dependent variables are presented in the following table.

Table 3-2: Summary of Variable definitions and hypothesized effect

Variables	**Definition**	**Effect**
Farmers loan repayment performance	Dummy dependent variable (1= non defaulter, 0 defaulter).	
Explanatory variables		
Sex of a household head	Dummy variable represented by 1 if male, 0 otherwise	+
Age	Continuous variable in years	+
Family size	Continuous variable in numbers	-
Farming experience	Continuous variable in year	+
Educational level	Continuous variable in years of schooling	+
Land to crops	Continuous variable in hectare	+
Expenditure to festival	Continuous variable in Birr	-
Total livestock number	Number of livestock in TLU	+
Non/off farm income	Continuous variable in Birr	+
Distance to development station	Continuous variable in km	-
Distance to finance institutions	Continuous variable in km	-
Loan amount	Continuous variable in Birr	-

Source, reviewed literature

CHAPTER FOUR

4. RESULTS AND DISCUSSIONS

This part of the thesis presents the major findings of the study under three sub sections. The first sub section presents the descriptive analysis part of the study using mean, frequency, standard deviation. Moreover, chi square and t-test were used to comparison among defaulter and non-defaulters. For descriptive analysis purpose sample respondents were categorized as defaulters, if they failed to pay the loan on the loan repayment due date, and non-defaulters were those who paid the loan based on the agreement complete loan repayment date. The second describes factors affecting farmer's loan repayment performance in the study area. Related research works are presented for comparison with this study finding. The other section is about farmers' difficulties of farmers face in accessing loans from microfinance institutions and possible strategies to minimize these problems.

4.1. Characteristics of Respondents

Results related to demographic; socio-economic, institutional characteristics are presented in the Table 4-1. The results show that there is a statistically significant mean difference in sex, family size; educational level, tropical livestock unit, and distance to development station, and loan amount were found to be not significantly different between the two groups.

Table 4-1: Characteristics of sample respondents by continuous Variable

Variable	Observation (N=314)		Defaulter (N=85)		Non defaulter (N=229)		t-value	p-value
	Mean	**Std. err.**	**Mean**	**Std. err.**	**Mean**	**Std. err.**		
Age	41.46	0.796	41.37	1.597	42.49	0.920	-0.06	0.9462
Family size	5.42	0.118	5.07	0.211	5.55	0.141	-1.821*	0.069
Farming experience	26.37	0.788	26.08	1.649	26.48	0.893	-0.226	0.821
Educational level	2.471	0.173	1.34	0.230	2.89	0.215	-4.07***	0.0001
Land to crops	1.329	0.052	1.37	0.079	1.31	0.066	0.518	0.60
Expenditure to festival	14060	1018	11832	1034	14887	1340	-1.334	0.183
Total livestock number	4.2	0.177	3.696	0.2662	4.39	0.2217	-1.745*	0.081
Non/off farm income	1308	509	483	164	1614	694	-0.98	0.324
Distance to development station	3.56	0.246	5.04	0.614	3.01	0.240	3.372***	0.0002
Distance to finance institutions	40.81	1.56	39.02	2.996	41.47	1.844	-0.69	0.489
Loan amount	30085	1124	35705	976	32620	581	2.745***	0.0064
	Freq.	**%**	**Freq.**	**%**	**Freq.**	**%**	**Chi2**	p-value
Sex (male)	237	75.48	49	15.61	188	59.87	20.02***	0.000

***, ** and * denote statistical significance at 1%, 5% and 10% levels respectively

Source: Own Survey (2024), (n=314)

The average age of the respondents was 41.46 years with standard deviation of 0.796. On average, the mean age of defaulter was 41.35 while non-defaulter was on average aged 41.37 years. However, significant mean difference is not observed among two groups.

On average, the family size of sample respondents was 5.42 members with standard deviation of 0.118.The study result also showed out that the average family size of sampled farmers of defaulter was 5.07 members, and it is higher than the mean family size of non-defaulter farmers 5.55 members. The t-test result showed significant mean difference among defaulter and non-defaulter

regarding to family size at 10% level of significance. The mean family size of respondents was significantly different between the two groups, defaulter and non-defaulter.

Farming experience is among the continuous variables used in this study. On average, farmers had 26.37 years of experience with standard deviation of 0.788. Defaulter on average had 26.08 years of experience while non-defaulter had 26.48 years. Mean comparison t- test not showed significant difference among two groups.

The average year of schooling of the total sample was 2.471 years of schooling with standard deviation of 0.173. However, the average year of schooling for defaulter was 1.34 and non-defaulter was 2.89 years. T-test result showed significant mean year of schooling difference among two groups. The average year of schooling for non-defaulter was higher than defaulter. Mean comparison test revealed this difference at 1% level of significance. This finding show that farmers who were non defaulters were educated compared to defaulters.

On average smallholder farmers allocated 1.329 ha of their total land for crop production with standard deviation of 0.052. On average, defaulters allocated 1.37 ha of land for crop production while non-defaulters allocated 1.31 ha of land for crop production. However, the mean comparison t-test showed the absence of significant mean difference among the two groups.

The annual expenditure for social festival by sample respondents was used to determine its possible effect on loan repayment performance. On average, the annual expenditure of sample respondents was 14060 birr with standard deviation of 1018. The mean expenditure was 11832 while mean annual income for non-defaulters was 14837. However, significant mean difference is not observed among two groups as indicated by mean comparison test.

The average number of livestock owned by the respondents in the sample was 4.2, with a standard deviation of 0.177. For defaulters, the average tropical livestock unit was 3.696, accompanied by a standard deviation of 0.2662. In contrast, non-defaulters had an average of 4.39 tropical livestock units; with a standard deviation of 0.221.The results of the mean comparison test indicated a significant difference between the two groups. Specifically, the average number of livestock owned by non-defaulters was higher than that of defaulters, with this difference being statistically significant at the 10% level.

Non-farm and off-farm income were analyzed to determine if there was a significant difference in mean proportions between two groups. On average, respondents reported a combined non-farm and off-farm income of Birr 1,308, with a standard deviation of Birr 509. For defaulters, the average income from both sources was Birr 483, with a standard deviation of Birr 164. In contrast, non-defaulters had a mean income of Birr 1,614, with a standard deviation of Birr 694. Despite these differences in averages, no significant mean proportion difference was found between the two groups.

The distance traveled by respondents was one of the key variables used to compare the average distance from development agents between defaulters and non-defaulters. On average, respondents traveled 3.56 km to reach a development agent, with a standard deviation of 0.246 km. A significant difference in mean distance was observed between the two groups. Defaulters had a mean distance of 5.04 km from the development station, which was notably higher than the 3.01 km mean distance for non-defaulters. The t-test results indicated a significant difference at the 1% level, reinforcing the disparity in travel distances between these groups.

The distance of financial institutions from respondents' residences posed a challenge for credit repayment performance. The findings indicated that respondents lived, on average, 40.81 km away from these institutions. No significant mean difference was found between the two groups. Specifically, the average distance from financial institutions was approximately 39.02 km for defaulters and 41.47 km for non-defaulters.

The mean loan amount taken by the sample respondents was birr 30,085, with a standard deviation of 1,124. For defaulters, the average loan amount was birr 35,705, with a standard deviation of 976, while non-defaulters had an average loan amount of birr 32,620, with a standard deviation of 581. The loan amounts taken by defaulters were significantly higher than those of non-defaulters, with the mean comparison test yielding significant results at the 1% level.

More than half of the respondents were male headed households. As indicated in Table xxx, about 75.48% of the respondents were male headed while about 24.52% were female headed. The chi-square mean proportion comparison test result of sex showed that there is significant mean proportion difference among defaulters and non-defaulters at 1% significant level. From defaulters in the study area, about only 15.61% were male while 84.39% were female headed. On the other

hand, non-defaulters were dominantly male headed, which is about 59.87%. About 41.13% of female respondents were non defaulter. These observations imply that the farm households who were defaulters were largely female. It is widely acknowledged in the literatures that female farmers are less likely to adopt agricultural technologies than their male counterparts, and, this study result showed also they are less likely to repay loan on time.

4.2. Factors Affecting Loan Repayment Performance

The descriptive analysis result summary of explanatory variables used in the probit models is presented from Tables 4-2. The study result showed that about 85 (27.07%) of the sample respondents were not repay the loan with in the agreement loan repayment date and they are defaulters in this study case. On the other hand about 229 (72.93%) of the respondents repaid their loan with in the agreed loan repayment schedule and therefore they are non-defaulters in our case.

This study tried to investigate factors affecting Abeshge district farmer's loan repayment performance to microfinance institutions by considering their loan repayment performance as defaulter if they did not pay based on the agreement date, and non-defaulters if they already paid based on loan agreement date. The study conceptualize non-defaulters have good loan repayment performance and defaulters are those who didn't perform well in loan repayment activities. However, the study assumed loan repayment performance is affected by demographic, social, economic and institutional factors and for this reason the study employed probit model to investigate factors affecting loan repayment performance in the study area.

Based on the result from probit model, the predicted probability farmers of loan repayment performance is nearly about 76.4% (Table 4-2). The model was checked for the suitability and explanatory power of independent variables over the dependent variables. The test results indicated the likelihood function of the probit model was significant (Wald $\chi 2\,(12) = 50.52$) with $P< 0{\cdot}0001$), showing its good explanatory power of the dependent variable. The results of the probit model are presented in Tables 4-2 and some of the explanatory variables and their respective marginal values are statistically significant in determining farmer's loan repayment performance as expected. The marginal effects of the result indicated the changes in the probability of farmer's loan repayment performance for a change in the explanatory variable.

The marginal effects of significant explanatory variables are used in estimating the likelihood of farmer's loan repayment performance in Abeshge district, particularly smallholder farmers. The marginal effects of the probit regression analysis presented in Table 3 showed that sex of a household head, educational level of household head, livestock ownership, none and off farm income, distance to development station, distance to micro finance institutions and loan quantity significantly determine loan repayment performance of farmers in Abeshge district of Guraghe Zone, central Ethiopia. Except for distance from development station and amount of loan all other significant variables positively affect farmer's loan repayment performance.

Table 4-2: A probit model results on factors affecting loan repayment performance

				Marginal effects		
Variables	**Coeff.**	**Robust Std. error**	**p_ value**	**dy/dx**	**Std. error**	**p-value**
Sex	0.405**	0.1906	0.034	0.133**	0.0661	0.044
Age	-0.008	0.0123	0.493	-0.002	0.0037	0.491
Family size	0.005	0.0387	0.883	0.001	0.0119	0.883
Farming experience	0.012	0.0129	0.326	0.003	0.0039	0.323
Educational level	0.108***	0.0282	0.000	0.033***	0.0086	0.000
Land to crops	-0.074	0.1070	0.488	-0.022	0.0329	0.488
Expenditure to festival (log)	-0.039	0.0702	0.573	-0.012	0.0217	0.575
Tropical livestock unit	0.092**	0.0364	0.011	0.028**	0.0110	0.010
Non/off farm income	0.069**	0.0302	0.021	0.021**	0.0090	0.018
Distance to development station	-0.053***	0.0195	0.006	-0.016***	0.0060	0.006
Distance to finance institutions	0.006*	0.0031	0.052	0.001*	0.0009	0.052
Loan amount (log)	-0.741**	0.3124	0.018	-0.228**	0.0963	0.018
_constant	7.692**	3.3575	0.022			

Model fitness statistical result	
Pseudo R^2	0.1576
Wald $chi^2(12)$	50.52
Prob > chi2	0.0000
Number of sample observation	314
Pr(credit) (predict)	0.764

Source: Own Survey (2024), (n=314)

*, **, *** refers significant at 10, 5 and 1% level.

Sex of a household head is among the hypothesized variables affecting farmer's loan repayment performance positively. As expected, the study coefficient from the probit model analysis result showed the existence of positive relationship between sex (male head households) and, farmers loan repayment performance and this relationship was significant at 5% level ($p<0.034$). Male headed households are more likely focus on their agricultural activities and can accesses more information about their agricultural activities than female headed households due to gender related characteristics. Maybe, this gender related characteristics influence their farm level productivity, farm management, and other supply chain activities in farming industry. This would influence their farm income and their by loan repayment performance. The marginal effect result showed, the probability of being non defaulter is increased by 13.33% if the household head is male compared to female headed households.

Educational level of respondents is among the significant variables affecting farmer's loan repayment performance as expected. It is clear that education improves farmer's decision making ability on farm management including production, marketing, financing and resource management. So due to their wise decision making ability, respondents with more level of education are more likely be non-defaulters and the study result supports this findings at 1% level ($p=0.000$). The marginal effect of the variable showed that keeping other factors constant the probability of being non defaulters would increase by 3.3% for farmers with one more educational level in formal years of schooling. This could be due to the possible farm decision making ability due to more level of education by sample respondents in the study area.

The research posited that livestock serves as a vital source of cash income for farmers, enhancing their capacity to repay loans. As anticipated, there was a positive correlation between livestock

ownership and loan repayment performance, with the variable being statistically significant at the 5% level (p=0.011). The marginal effect indicated that for each additional tropical livestock unit owned by farmers in the Abeshege district of Ethiopia, the likelihood of being a non-defaulter increased by 2.8%. This relationship is largely due to the financial security that livestock provides, particularly in rural agricultural settings. The results imply that livestock ownership bolsters financial resilience, enabling farmers to fulfill their loan obligations even amidst adversities (Debeb, 2015; Mijena, 2011).

In a related study conducted in the Ada district, livestock ownership emerged as a statistically significant factor influencing timely loan repayment among smallholder farmers. Utilizing a Tobit model to assess various socio-economic factors affecting repayment performance, the study reaffirmed the positive impact of livestock on financial stability (Mijena, 2011; Kassegn and Endris, 2022).

The study posits a positive and significant relationship between non-farm and off-farm income and loan repayment performance. Specifically, the findings indicate that this relationship is statistically significant at the 5% level. The analysis reveals that a rise in non-farm and off-farm income correlates with a 2.1% improvement in loan repayment performance. This underscores the vital importance of income diversification in bolstering financial stability for borrowers. Farmers who participate in non-farm activities demonstrate enhanced capacity to manage loan repayments, especially during challenging agricultural conditions. By diversifying their income streams, borrowers can better fulfill their financial obligations, which leads to lower default rates and strengthens overall economic resilience within agricultural communities. The additional income acts as a financial cushion, enabling them to meet their commitments even when farming revenues are diminished (Million et al., 2012). This study highlights the crucial role of diversified income sources in supporting the financial health of agricultural borrowers.

The correlation between the distance to development agent and loan repayment performance is anticipated to be negative. The results from the probit model substantiate this hypothesis, achieving significance at the 1% level (p=0.016). Being closer to development agent fosters better communication and support on farm activities from development agent. Borrowers in proximity are more likely to receive timely information and assistance regarding their farm, which significantly improves their productivity and thereby repayment performance. This suggests that

as the distance from a borrower to extension service providers increases, the likelihood of timely loan repayment diminishes. The marginal effect analysis reveals that for every kilometer increase in distance, the likelihood of being non-defaulter decreases by 1.6%. This indicates that borrowers encounter difficulties in accessing crucial information of farm technologies and technology use and receiving follow-up support from extension service providers. Studies indicate that each additional contact with extension agents increases the probability of timely loan repayment. Farmers who live further away may have fewer opportunities for such interactions, leading to less effective support and guidance and thereby this would decrease the loan repayment performance (Aga and Negeri, 2023).

In contrast to the hypothesis, the relationship between the distance from lending institutions and loan repayment performance is both positive and significant. The findings were statistically significant at the 10% level ($p=0.052$). This study indicates that farmers situated farther away from lending institutions are generally less likely to default on their loans compared to those who live closer. The marginal effect of the results suggests that for every additional kilometer of distance from lending institutions to farmers' residences, the probability of being non-defaulter increases by 0.1%.

This phenomenon may be attributed to farmers in remote areas relying more on informal networks and community trust, which can enhance their sense of responsibility regarding loan repayment. Additionally, these farmers often adopt more conservative financial practices, opting to depend on savings or informal loans instead of formal credit. Such a cautious approach can contribute to lower default rates, as they manage their finances more carefully and avoid excessive debt.

Furthermore, farmers in these remote regions may diversify their income streams by participating in various agricultural activities or off-farm employment. This diversification can serve as a safety net during poor harvests or economic challenges, thereby decreasing the likelihood of loan defaults due to insufficient income. These findings align with the research conducted by Kiros et al. (2022) and Yirdaw (2021). However, a study conducted by Endris (2022) found that the odds of being a non-defaulter decreased by 0.863 for each kilometer closer a micro and small enterprise (MSE) is to its lending institution. This study result is contrary to this study result.

The study posited a negative relationship between loan amounts and repayment performance, with results supporting this hypothesis at a 5% significance level (p=0.018). This outcome suggests that farmers with larger loans may experience heightened pressure to generate adequate income for repayments, potentially leading to financial strain. Such strain can increase default rates, particularly if borrowers mismanage their finances or divert funds. Specifically, the analysis indicated that the likelihood of farmers being non-defaulters decreases by 22.8% for every 1% increase in loan size among the respondents. This implies that larger loans can exacerbate financial pressure and contribute to potential mismanagement of funds, ultimately resulting in lower repayment rates. Kiros (2023) corroborates these findings, highlighting the importance for lending institutions to take these dynamics into account when evaluating borrower profiles and structuring loans.

The results from the probit model indicate that several factors significantly influence loan repayment performance in the study area. These factors include the sex of the household head, educational attainment, and livestock ownership, income from both farm and non-farm sources, proximity to extension service providers, distance to lending institutions, and the size of the loan.

4.3. Major Difficulties Farmers Face in Accessing Loans from Microfinance Institutions

The study utilized five-point Likert scales to assess farmers' perceptions of various issues outlined in Table 4-3. A total of 314 farmers participated in evaluating the challenges of obtaining loans from microfinance institutions. The results indicated that approximately 64.01% and 20.38% of respondents strongly agreed and agreed, respectively, that high transaction costs are significant barriers to accessing loans from these institutions. Conversely, 4.78% and 5.1% of respondents strongly disagreed and disagreed, respectively, with the notion that high transaction costs hinder loan access in the study area, while about 5.73% remained neutral. The overall mean agreement among farmers regarding high transaction costs was 4.11, with a standard deviation of 1.216. This suggests a general consensus among respondents that transaction costs for obtaining loans are indeed high.

In terms of geographical barriers related to farmers' agreements on distances to access microfinance institutions (MFIs), approximately 28.66% of respondents agree, while 26.11% strongly agree that such barriers exist. Conversely, about 15.92% and 19.43% of respondents strongly disagree and disagree, respectively, with the notion of geographical barriers being a

problem. Additionally, around 9.87% of respondents remained neutral regarding their agreement or disagreement on this issue. The mean Likert scale value was 3.29, with a standard deviation of 1.442. These results indicate that geographical barriers do not significantly hinder access to microfinance institutions.

Limited outreach of microfinance institutions (MFIs) into rural areas was identified as a significant issue, with smallholder farmers expressing agreement reflected by a mean score of 4.11 and a standard deviation of 1.151. Specifically, approximately 51.97% strongly agreed, 24.52% agreed, 9.55% remained neutral, 10.83% disagreed, and 3.18% strongly disagreed. These results indicate a clear gap in the expansion of MFIs in rural areas, suggesting that farmers face constraints due to the limited outreach activities of these institutions.

Approximately 38.85% of respondents disagreed, and around 21.66% strongly disagreed with the notion that the loan amount is inadequate. About 16.88% remained neutral. In contrast, only 15.61% agreed, and 7.01% strongly agreed that the loan amount is insufficient. The overall average on the Likert scale for this variable yielded a mean of 2.47 and a standard deviation of 1.191. These results indicate that loan inadequacy is not a significant issue in the study area, as the majority of respondents expressed disagreement regarding the sufficiency of the loan amount.

Regarding the loan interest rate, approximately 64.01% of respondents strongly agreed, and 20.38% agreed that the interest rates are high. About 5.73% remained neutral, while 5.10% and 4.78% disagreed and strongly disagreed, respectively, with the notion that loan interest is high. The mean score was 4.33, with a standard deviation of 1.105, indicating that farmers generally perceive the loan interest rates as high.

Additionally, a short repayment period was identified as a significant issue for farmers in accessing loans from microfinance institutions in the Abeshege district. The mean score for farmers' agreement on the repayment period was about 3.99, with a standard deviation of 1.230. Specifically, around 48.41% of respondents strongly agreed that the repayment period is too short, while 22.93% agreed with this view. Conversely, about 7.64% and 6.37% respectively disagreed and strongly disagreed with this assessment. Overall, the results indicate that farmers somewhat agree on the inadequacy of the repayment time for loans.

Financial literacy and training emerged as significant issues for farmers in the study area. The average rating was 4.01, with a standard deviation of 1.285. Approximately 50.32% of respondents strongly agreed, and 26.11% agreed that financial literacy and training were problematic. Around 6.05% remained neutral, while 9.87% disagreed, and 7.64% strongly disagreed regarding the challenges related to financial management.

A few farmers reported facing repayment challenges due to external shocks such as droughts, floods, or health issues within their families when accessing and repaying loans from microfinance institutions. However, the overall mean score of 3.74, with a standard deviation of 1.349, indicates that this is not considered a significant problem in the study area. While there is some disagreement on this issue, the majority of respondents (66%) viewed it as a problem, either agreeing or strongly agreeing with the statement. About 11.15% remained neutral, while approximately 22% either strongly disagreed or disagreed.

Farmers often rely on multiple loans from various sources to fulfill their financial need, which increases their vulnerability and the risk of default if they struggle to manage repayments effectively. In this context, survey respondents were asked about their experiences with multiple borrowing. Approximately 39.49% reported that they frequently engage in multiple borrowing, while around 34.39% indicated that they do so occasionally. Conversely, about 11.46% disagreed with the practice, and 3.18% strongly disagreed. Additionally, 11.46% remained neutral on the matter. The mean response was 3.95, with a standard deviation of 1.121. These findings suggest that multiple borrowing is a significant factor to consider regarding loan repayment in the study area.

Similarly, many farmers turn to informal lenders, who may provide quicker access to funds than microfinance institutions, albeit at higher interest rates. This reliance can lead to financial instability when it comes to repaying loans. Interestingly, around 72.62% of respondents either strongly disagreed or disagreed with the idea of using informal credit for financing their farms. Only a small percentage (9.87%) expressed some agreement with using informal credit for farm financing, while 17.52% remained neutral on the matter. The overall mean score was 1.96, with a standard deviation of 1.09, indicating that the use of informal lending was not a significant concern for farmers in the study area.

Delays in credit processing are a significant reason why farmers turn to informal loans and become less inclined to seek formal credit. In this context, survey respondents generally acknowledged the existence of delays in loan processing, with a mean score of 3.95 and a standard deviation of 1.180. This indicates that there is limited evidence to suggest that processing delays are a major issue in the study area. Conversely, the lack of collateral emerged as a primary concern for farmers, with a mean score of 4.34 and a standard deviation of 0.586. This suggests that farmers largely agree on the prevalence of this problem in their access to farm financing.

Table 4-3: problems of that farmers face in accessing loans from microfinance institutions

No	**Problems of financing**	**Frq. (%)**	**1**	**2**	**3**	**4**	**5**	**Mean**	**Std. dev.**
1	High Transaction Costs	N	15	16	18	64	201	4.11	1.216
		%	4.78	5.1	5.73	20.38	64.01		
2	Geographical Barriers	N	50	61	31	90	82	3.29	1.442
		%	15.92	19.43	9.87	28.66	26.11		
3	Limited Outreach	N	10	34	30	77	163	4.11	1.151
		%	3.18	10.83	9.55	24.52	51.91		
4	Inadequate Loan Amounts	N	68	122	53	49	22	2.47	1.191
		%	21.66	38.85	16.88	15.61	7.01		
5	High Interest Rates	N	15	16	18	64	201	4.33	1.105
		%	4.78	5.10	5.73	20.38	64.01		
6	Short Repayment Periods	N	20	24	46	72	152	3.99	1.230
		%	6.37	7.64	14.65	22.93	48.41		
7	Financial Literacy and Training	N	24	31	19	82	158	4.01	1.285
		%	7.64	9.87	6.05	26.11	50.32		
8	Repayment challenges (external shocks)	N	30	40	35	84	125	3.74	1.349
		%	9.55	12.74	11.15	26.75	39.81		
9	Multiple Borrowing	N	10	36	36	108	124	3.95	1.121
		%	3.18	11.46	11.46	34.39	39.49		

10	Informal Lending Alternatives	N	140	88	55	19	12	1.96	1.09
		%	44.59	28.03	17.52	6.05	3.82		
11	Delays in Credit Processing	N	11	44	28	97	134	3.95	1.180
		%	3.50	14.01	8.92	30.89	42.68		
12	Lack of Collateral	N	-	-	49	109	156	4.34	0.586
		%	-	-	15.6	34.71	49.68		

Source: Own Survey (2024), (n=314)

CHAPTER FIVE

5. SUMMARY, CONCLUSION AND RECOMMENDATION

5.1. Summary of Findings

The study looked into the variables that affect farmers' loan repayment in Gurage zone microfinance institutions. Its particular goals were to determine the socioeconomic characteristics both positive and negative that have an impact on farmers' capacity to repay loans, evaluate the challenges they encounter during the repayment process, and suggest strategies to lower defaults based on these aspects. The study used cross-sectional data gathered from 314 farmers in the Abeshge district to accomplish these objectives. Farmers who had obtained loans from microfinance organizations in 2015 EC were included in the sample; they were chosen at random from a predetermined list.

Descriptive statistics, a five-point Likert scale, and probit regression modeling were used in the analysis. In order to evaluate loan payback, the dependent variable was loan repayment performance, which was coded as 0 for defaulters and 1 for non-defaulters. Among the independent variables were sex, age, family size, education level, land size, social festival spending, livestock ownership, income from both farm and non-farm sources, loan amount, distance to development stations, and closeness to financial sources. Except for gender, every independent variable was continuous. The total model fit was assessed prior to analysis and found to be sufficient for demonstrating the link between independent and dependent variables.

Based on the result of the descriptive analysis the respondents' average age was 41.46 years, with a standard deviation of 0.796. Defaulters had a mean age of 41.35 years, while non-defaulters averaged 41.37 years, showing no significant difference between the two groups. The average family size was 5.42 members (SD = 0.118), with defaulters averaging 5.07 members and non-defaulters 5.55 members. A t-test indicated a significant difference in family size at the 10% level, with non-defaulters having larger families. Farmers had an average of 26.37 years of farming experience (SD = 0.788), with defaulters averaging 26.08 years and non-defaulters 26.48 years, but no significant difference was found in experience levels. The average schooling was 2.471 years (SD = 0.173), with defaulters averaging 1.34 years and non-defaulters 2.89 years; this

difference was significant at the 1% level, indicating that non-defaulters were more educated. In terms of land allocation for crop production, respondents averaged 1.329 hectares (SD = 0.052), with defaulters allocating 1.37 ha and non-defaulters 1.31 ha, showing no significant difference. Annual expenditures for social festivals averaged 14,060 birr (SD = 1,018) without significant differences between groups. Respondents owned an average of 4.2 livestock units (SD = 0.177), with defaulters averaging 3.696 and non-defaulters averaging 4.39, revealing a significant difference favoring non-defaulters at the 10% level. Travel distance to development agents averaged 3.56 km (SD = 0.246), with defaulters traveling significantly further (5.04 km) than non-defaulters (3.01 km). The average loan amount taken was 30,085 birr (SD = 1,124); defaulters borrowed significantly more (35,705 birr) than non-defaulters (32,620 birr). Lastly, about 75.48% of households were male-headed, with significant differences in gender representation among defaulters and non-defaulters at the 1% level, indicating that a majority of defaulters were female-headed households, who tend to struggle more with loan repayment compared to their male counterparts.

The investigation reveals that multiple factors significantly affect the loan repayment performance of farmers in the Abeshge district of Guraghe Zone, Ethiopia. Key findings indicate that the sex of the household head, educational level, livestock ownership, and income from both farm and non-farm sources play crucial roles in determining repayment success. Additionally, the distance to development stations, proximity to microfinance institutions, and the amount of the loan also influence performance outcomes. Notably, all significant variables, except for the distance to development stations and loan amount, have a positive impact on farmers' ability to repay loans. This suggests that enhancing education and income opportunities, along with improving access to financial institutions, could foster better repayment rates among farmers in this region. Overall, these insights underscore the importance of addressing socio-economic factors to improve loan repayment performance in rural Ethiopia.

Regarding the problems that farmers face during the repayment process, the findings revealed that about 64.01% of respondents strongly agreed, and 20.38% agreed that high transaction costs pose significant barriers to accessing loans from microfinance institutions (MFIs). In contrast, only 4.78% strongly disagreed, and 5.1% disagreed with this viewpoint, while 5.73% remained neutral. The mean agreement score among farmers regarding high transaction costs was 4.11, with a

standard deviation of 1.216, indicating a general consensus on the issue. Geographical barriers, approximately 28.66% agreed and 26.11% strongly agreed that distance affects access to MFIs. Conversely, about 15.92% strongly disagreed and 19.43% disagreed, with a neutral response from 9.87%. The mean score was 3.29 (SD = 1.442), suggesting that geographical barriers are not a major hindrance. Limited outreach of MFIs into rural areas was also highlighted, with a mean score of 4.11 (SD = 1.151). About 51.97% strongly agreed and 24.52% agreed that this limitation affects farmers. On the adequacy of loan amounts, around 38.85% disagreed and 21.66% strongly disagreed that loan amounts are insufficient, yielding a mean score of 2.47 (SD = 1.191), indicating this is not a significant concern. In terms of loan interest rates, around 64.01% strongly agreed and 20.38% agreed that they are high (mean = 4.33, SD = 1.105). A short repayment period was also seen as problematic (mean = 3.99, SD = 1.230), with nearly half of respondents strongly agreeing. Financial literacy emerged as another critical issue (mean = 4.01, SD = 1.285), with over half agreeing on its importance. While external shocks affect repayment challenges for some farmers (mean = 3.74, SD = 1.349), the majority did not see it as a significant problem. Also, many farmers engage in multiple borrowing (mean = 3.95, SD = 1.121), which heightens their vulnerability in managing repayments, while reliance on informal lenders was not widely supported (mean = 1.96, SD = 1.09).

5.2. Conclusion

According to the study's findings, a number of important socioeconomic factors affect how well farmers in Ethiopia's Abeshge area in Guraghe Zone repay their loans. Respondents' average age was 41.46 years, and there was no discernible age difference between those who defaulted (41.35 years) and those who did not (41.37 years). There was a statistically significant difference at the 10% level between the average family size of 5.42 members and the average family size of non-defaulters, which was 5.55 members, and defaulters, which was 5.07 members. The average respondents had 2.471 years of education, and at the 1% level, the non-defaulters had much higher education (2.89 years) than the defaulters (1.34 years). All respondents had an average of 26.37 years of farming experience, and there were no appreciable variations between defaulters and non-defaulters. On average, respondents owned 4.2 livestock units, with non-defaulters owning significantly more (4.39 units) than defaulters (3.696 units).The average loan amount borrowed was 30,085 birr, with defaulters borrowing more (35,705 birr) than non-defaulters (32,620 birr), indicating a significant difference. Defaulters traveled an average of 5.04 km to access development agents, significantly further than non-defaulters at 3.01 km. High transaction costs were identified as a major barrier to accessing loans from microfinance institutions, with a consensus among farmers that these costs hinder their ability to repay loans. The findings underscore that education, family size, and livestock ownership are crucial determinants of loan repayment success. Non-defaulters tend to have better educational backgrounds and larger family sizes, which may contribute to their financial stability and ability to manage repayments effectively.

Male-headed households tend to have better repayment rates. Higher education correlates positively with loan repayment performance, emphasizing the need for educational initiatives. Both farm and non-farm income significantly affects repayment ability, suggesting that diversified income streams can enhance financial stability. Ownership of livestock is associated with improved repayment rates, likely due to increased financial security and asset value. Closer access to microfinance institutions facilitates better loan management and repayment. Distance to development stations did not show a significant positive impact on repayment, indicating potential inefficiencies in service delivery. The amount of the loan itself also plays a role; however, its impact is less straightforward compared to other factors.

5.3. Recommendations

The following six suggestions might be made in light of the research findings about farmers' loan repayment performance in the Abeshge district of Guraghe Zone, Ethiopia:

- Enhance Educational Initiatives

Implement targeted educational programs aimed at improving financial literacy and agricultural practices. Given that non-defaulters had a higher average of schooling (2.89 years) compared to defaulters (1.34 years), enhancing education can significantly improve loan repayment rates by equipping farmers with better management skills and knowledge of financial responsibilities.

- Support Family Growth and Stability

Encourage policies that support family growth, as larger family sizes among non-defaulters (5.55 members) correlate with better repayment performance. This could include family-oriented agricultural training sessions or community support systems that strengthen family units and their economic contributions.

- Facilitate Access to Livestock Ownership

Increase access to livestock through microfinance programs or cooperative models, as ownership correlates positively with loan repayment success. Non-defaulters owned more livestock (4.39 units) than defaulters (3.696 units), indicating that livestock can serve as a financial buffer for loan repayments.

- Reduce Transaction Costs for Loans

Address high transaction costs associated with accessing loans from microfinance institutions. Streamlining application processes and reducing fees can make loans more accessible, thereby improving repayment rates among farmers who struggle with current costs.

- Improve Proximity to Development Agents

Enhance the availability and accessibility of development agents by establishing more local offices or mobile services closer to farming communities. Since defaulters traveled significantly

further (5.04 km) than non-defaulters (3.01 km) to access these services, reducing this distance can facilitate better support and guidance for managing loans.

- Encourage Diversification of Income Sources

Promote initiatives that encourage both farm and non-farm income diversification. The study indicated that diversified income streams significantly affect repayment ability, suggesting that providing training in alternative livelihoods could enhance overall financial stability for farmers.

These recommendations are designed to address the socio-economic factors identified in the study, ultimately aiming to improve loan repayment performance among farmers in the region.

REFFERANCES

Aga, D. D., & Negeri, D. D. (2023). Loan Repayment Status of Small Holder Farmers of Oromia Credit and Saving Share Company Clients: The Case from Adola Rede Woreda Guji Zone, Oromia, Ethiopia. *Partners Universal International Research Journal*, *2*(3), 61-70.

Anupam Basu, Rodolphe Blavy and Murat yulek (2004), Microfinance in Africa, experience and lesson from selected African countries, international monetary fund working paper, African department.

Ayinalem Kefelegn (2020), challenges of loan repayment in Amhara credit and saving institution in the case of yifat cluster; Debrebrihan, Ethiopia.

Baser and Bozoglu (2018), determinations of value creating activities in the agricultural value chain, Turkish journal of agriculture-food science and technology.

CFI (2022), microfinance, corporate financial institution team.

CGAP (2011), Annual report of consultative group to assist the poor.

CSA, 2007, central satirical agency of Ethiopia.

Debeb, D. (2015). A Study on Loan Recovery Performance of Rural Saving and Credit Cooperatives in Laygaint worda, Amhara Regional State, Ethiopia. *European Journal of Business and Management www. iiste. org ISSN*, *7*(25).

Endris, E. (2022). Loan repayment performance of micro and small-scale enterprise: evidence from North Wollo Zone, Ethiopia. *Heliyon*, *8*(12).

Ewntu Tekola (2022), Assessment of the determinant of loan repayment performance of microfinance institutions in the case of agar microfinance share company, Addis Abeba, Ethiopia.

Fedaetafa, mathios kebede and MonanolTerefe (2020), determinants of loan repayment performance of smallholder farmers in Ethiopia, journal of business and economic management, Jima University, Ethiopia, Accadamia publishing.

Fisum Tadele (2014), determinants of microfinance loan repayment performance, the case of omo microfinance institution in keffa zone.

Frank Girabi (2013), impact of microfinance on smallholder productivity in Tanzania.

Gashaw Tsegaye (2014), microfinance institutions in Ethiopia, Kenya and Uganda, loan outreach to the poor and the quest for financial viability, the horn economic and social policy institute.

Gutma Girja (2022), literature on farmer's access to agricultural credit in Ethiopia, Anadolu journal of agricultural science.

Hanna Kattilakoski (2018), the financial sustainability of microfinance institutions in sub – Saharan Africa, Master thesis.

Hundanol and Berhanu, Derjeetal, (2013), Determinants of microfinance loan utilization by small holder farmers, Hadiya zone, southern people's regional state, Ethiopia.

IFC, international finance cooperation, World Bank group, microfinance in Africa, banking for the smallest business.

Intrepid private capital group (2021), the pros and cons of using a microloan to finance your business, a global financial services company.

Kassegn, A., & Endris, E. (2022). Factors affecting loan repayment rate among smallholder farmers got loans from the Amhara Credit and Saving Institution: in the case of Habru District, Amhara Regional State, Ethiopia. *International Area Studies Review*, *25*(1), 73-96.

KibromTadesse (2010), Determinants of successful loan repayment performance of private borrowers in development bank of Ethiopia, north region, Mekelle University.

Kiros, S., & Meshesha, G. B. (2022). Factors affecting farmers' access to formal financial credit in Basona Worana district, North Showa zone, Amhara regional state, Ethiopia. *Cogent Economics & Finance*, *10*(1), 2035043.

Kiros, Y. (2023). Loan repayment performance and its determinants: evidence from micro and small enterprises operating in Dire-Dawa, Ethiopia. *Journal of Innovation and Entrepreneurship*, *12*(1), 5.

Ledger wood (2002), Asian economic and financial review.

Matt D' Angelo (2023), Microfinance: what is it, and why does it matter? A contributing writer of business.com.

Mijena, A. (2011). *Determinants of credit repayment and fertilizer use by cooperative members in Ada District, East Shoa Zone, Oromia Region* (Doctoral dissertation, Haramaya University).

Million Sileshi, M. S., Nyikal, R., & Wangia, S. (2012). Factors affecting loan repayment performance of smallholder farmers in East Hararghe, Ethiopia.

NBE (2023), Microfinance institutions, National bank of Ethiopia, Ethiopia, Addis Ababa.

Nesanet Eshetu (2019), Factors affecting loan repayment performance of microfinance institutions; A study on microfinance institutions operating in Jimma Town, jimma Ethiopia.

Okorie (2004), Major determinants of agricultural smallholder loan repayment in a developing economy; empirical evidence from ondo state, Nigeria

Proclamation no.40/1996, the microfinance low of Ethiopia.

Rehman (2007), the impact of microcredit on poverty and women's empowerment.

Schreiner (2000), Informal finance and the design of microfinance.

Semira H and Solomon Alemu (2018), the performance of Ethiopian microfinance institutions, challenges and prospects.

SIDA (2003), short study on microfinance institution in Ethiopia, Swedish international development cooperation agency report.

Tomoya Takashi (2010), the impact of fertilizer credit on crop production and income in Ethiopia, national graduate institute for policy studies, MSC thesis, Tokyo, Japan.

Uk Essay group, ukEssay.com.

Wolday (2003), performance, challenges and role in poverty reduction

Wolday (2004), the development of microfinance industry in Ethiopia, current status and the prospects for growth, Addis Ababa.

Wondworth and woller (1999), microfinance: a comparative review of existing literature.

Yashoda Gandhi (2021), microfinance, types, advantage and challenges.

Yirdaw, A. (2021). *Determinants of Access to Formal Credit for Small Land Holder Farmers: A Case in Bahir Dar Zuria Woreda* (Doctoral dissertation).

Yirga Dejene (2021), Consumer's protection in microfinance institutions in northern shewa zone, the Amhara national regional state; the law and practice.

Boere, E., Mosnier, A., Bocqueho, G., Krisztin, T., & Havlik, P. (2016). Developing country-wide farm typologies: An analysis of Ethiopian smallholders' income and food security.

Komba, G. V., & Komba, M. M. (2024). Examining microfinance loan repayment challenges and procedures by small business owners: The case of Vikenge Village, Morogoro, Tanzania. *Science Mundi*, *4*(2), 107-116.

Shewalem, F. (2023). *Assessment Of Loan Repayment Performance In Addis Credit And Saving Institution In Case Of Arada Branch* (Doctoral Dissertation, St. Mary's University).

APPENDIX

Wolkite University

College of Business and Economics School of Graduate Studies

MA Developmental Planning and Management

Quantitative Questionnaire (English) To Be Filled By MFIs Beneficiaries

CONSENT FORM

The study on analysis of Determinants of Farmers Loan Repayment in Microfinance Institutions Operating in Gurage Zone, The Case of Abeshge Woreda by **Talegn Alemu** who is graduate student at Wolkite University College of Social Science and Humanities. 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

1. Sex of borrower's: 0) Male 1) Female
2. Age of borrowers '_____years
3. Educational level: 1) Illiterate, 2) grade1-8, 3) grade 9-12, 4) above grade 12
4. Marital status: 1) Single, 2) Married, 3) Divorce, 4) Widowed
5. Land size _____Ha
6. Total number of livestock owned _____
7. Income from non-farm activities _____ETB
8. Purpose of borrowing: 1=productive, 0= nonproductive
9. Total Family size: _____
10. Road distance _____Km
11. Contact with development agents _____
12. How many persons in your household are engaged in work that earns income or products_____?
13. How much far from your home to the institution? 0) <10km, 1) between 11 Km and 20 Km 3) > 30 Km
14. Residence of borrower: 0) Rural, 1) Urban

Part II: Loan Repayment Related Questions

1. How much was the loan you take from MFIs_____

2. When do you take the loan_____

3. Did you repay the loan to MFIs? 0) Yes, 1) No

4. If your answer to Q.1 is ‗fully repaid on time' what motivates you to repay your loan on time?

1. In the expectation of getting another large loan
2. To keep social status,
3. Build good relationship with the loan provider
4. Others (specify) _____

5. If your answer for Q2 above is ‗No 'what cause your repayment problem? (Multiple answers is possible)

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

PART III: Economic and cultural factors

1. When did you 1st join MFIs? Month……/year……. E.C
2. Did you have another source of income (cash income) before joining the loan program? 0) Yes 1) No
3. From which MFIS did you took credit recently 0) Agar 1) Vision fund 2) Metemamen 3) others (specify)___
4. Why do you borrow from Agar microfinance? (You can choose more than one response)

0) To repay other debts
1) To improve or expand business
2) To open a new enterprise
3) To purchase agricultural inputs
4) Improve the quality of existing product
5) Others (Specify)_____

5. The loan size you obtain from Agar MF is;

0) <10,000 20,000 50,000
1) 11,000- 2) 21,000- 3) >50,00

6. In which Business activities are currently you engaged?

0) Agricultural sectors
1) Commercial
2) Service sectors,
3) Enterprise sector

7. In Q.**6**, if you are involved in the Agricultural sectors, in which business activities are you involved?

0) Crop production,
1) Animal fattening,
2) Bees farming,
3) other (specify)_

8. In Q.**6**, if your business activities are in the commercial sector, in which business activities are you involved?

0) Ballitina,
1) Street or road trade (Gulliti)
2) Shop and container
3) other specify _____

9. In **Q.6**, if you are involved in service sectors, in which business activities are you involved?

0) Barber and beauty salon,
1) Computer maintenance and copy service,
2) Consultancy (law and related services)
3) Other (specify) _____

10. In **Q 6,** if you are involved in enterprise sectors, in which business activities are you involved?

0) Constriction,
1) Woodwork and metal work,
2) Kobil ―stone,
3) Other (specify)

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

0) one year, 1) two years, 2) three years, 3) more than four years.

12. How much money do you spend on social festivals (such as holidays, weddings, etc…)?

0) Never 1) sometimes 2) many 3) too many

Part III: Institutional and loan-related Questions

1. In which method of lending do you borrow from the institution? 0) individual, 1) Group

2. Why did you engage in group borrowing?

0) Easy to get loan in a group,
1) by initiation of one of the group members
2) By lacking other alternatives □,
3) Others_____

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

0) Yes, 1) No

4. Is the repayment period set by MFIs suitable in your opinion? 0) Yes,1) No

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

0) To give enough time before starting to repay
1) To make repayment period longer
2) Others

```
. vif
```

Variable	VIF	1/VIF
expr	5.12	0.195198
age	5.11	0.195517
land	1.98	0.506025
tlu	1.84	0.544218
lnexp_soc	1.57	0.635563
femal	1.20	0.831917
finance	1.19	0.838228
famsz	1.19	0.838454
lnofrmi	1.16	0.862197
grade	1.12	0.890757
devst	1.12	0.892809
lnnloan_q	1.05	0.956796
Mean VIF	1.97	

```
. probit credit femal age famsz expr grade land  lnexp_soc tlu lnofrmi devst finance lnnloan_q

Iteration 0:   log likelihood =  -183.3617
Iteration 1:   log likelihood = -154.78256
Iteration 2:   log likelihood = -154.45914
Iteration 3:   log likelihood = -154.45859
Iteration 4:   log likelihood = -154.45859

Probit regression                                 Number of obs     =        314
                                                  LR chi2(12)       =      57.81
                                                  Prob > chi2       =     0.0000
Log likelihood = -154.45859                       Pseudo R2         =     0.1576
```

credit	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
femal	.405009	.1943719	2.08	0.037	.024047	.785971
age	-.0084669	.0129465	-0.65	0.513	-.0338415	.0169078
famsz	.0057058	.0438701	0.13	0.897	-.0802781	.0916897
expr	.0127623	.0129894	0.98	0.326	-.0126966	.0382211
grade	.1084769	.0318643	3.40	0.001	.0460239	.1709298
land	-.0742016	.1293119	-0.57	0.566	-.3276483	.1792452
lnexp_soc	-.039559	.0872619	-0.45	0.650	-.2105891	.1314711
tlu	.0925912	.037455	2.47	0.013	.0191807	.1660017
lnofrmi	.0694767	.0275439	2.52	0.012	.0154916	.1234619
devst	-.0538097	.0198482	-2.71	0.007	-.0927114	-.0149079
finance	.0060793	.0032465	1.87	0.061	-.0002837	.0124424
lnnloan_q	-.7411768	.3223174	-2.30	0.021	-1.372907	-.1094464
_cons	7.692024	3.527685	2.18	0.029	.7778889	14.60616

```
. mfx

Marginal effects after probit
      y  = Pr(credit) (predict)
         =  .76400546
```

variable	dy/dx	Std. Err.	z	P>|z|	[95% C.I.]		X
femal*	.1330824	.0675	1.97	0.049	.000785	.26538	.754777
age	-.0026079	.00399	-0.65	0.513	-.010429	.005213	42.465
famsz	.0017575	.01351	0.13	0.897	-.02473	.028245	5.42357
expr	.003931	.004	0.98	0.326	-.003912	.011774	26.3758
grade	.0334129	.0096	3.48	0.001	.014595	.052231	2.47134
land	-.0228554	.03977	-0.57	0.566	-.100807	.055097	1.32948
lnexp_~c	-.0121849	.02686	-0.45	0.650	-.064836	.040466	9.02675
tlu	.0285198	.01145	2.49	0.013	.006075	.050964	4.20401
lnofrmi	.0214001	.00847	2.53	0.011	.004807	.037993	2.18419
devst	-.0165744	.00615	-2.70	0.007	-.02862	-.004528	3.5643
finance	.0018725	.001	1.88	0.061	-.000083	.003828	40.8143
lnnloa~q	-.228296	.0987	-2.31	0.021	-.421744	-.034848	10.3837

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

```
. ovtest

Ramsey RESET test using powers of the fitted values of credit
       Ho:  model has no omitted variables
                 F(3, 298) =      1.57
                  Prob > F =      0.1969
```