



**DETERMINANTS OF LOAN REPAYMENT OF
SMALL SCALE ENTERPRISES: THE CASE OF WOLKITE TOWN**

MSc. THESIS

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WOLKITE UNIVERSITY, WOLKITE, ETHIOPIA

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SCALE ENTERPRISES. THE CASE OF WOLKITE TOWN**

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**A THESIS SUBMITTED TO THE DEPARTMENT OF ECONOMICS,
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DECLARATION

As I have confirmed in my signature, I hereby declare that the thesis entitle “Determinant of loan repayment of small scale enterprises’ in Gurage Zone, a case of Welkite Town submitted by me for the award of the Degree of Master's with specialization in Developmental Economics of Welkite University, through the Department of Economics is my original work and has not been presented for a degree in any other university, and all sources of materials used for this thesis have been properly recognized.

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ABBREVIATIONS AND ACRONYMS

ACORD	Agency for Cooperation in Research and Development
CBOs	Community Based Organization
DBE	Development Bank of Ethiopia
DECSI	Debit Credit and Savings Institution
EDUC	Educational level
FS	Family size
GB	Grouped Borrower
GDP	Gross Domestic Product
INCOM	Income from activity
ILO	International Labor Organization
LDCs	less Developed Countries
LOD	Loan diversion
LORL	Loan release
LOSSE	Location of small-scale enterprise
LOSZ	Loan size
LRP	Loan repayment period
LR	Loan repayment
LPM	Linear Probability Model
MF	Micro Finance

MSE	Micro and Small Enterprise
NBE	National Bank of Ethiopia
NGO	Non- Governmental Organization
POCSSBO	Project Office for the Creation of Small-Scale Business Opportunities
PURL	Purpose of loan
OYS	Office of Youth and Sport
SACS	Supervised Agricultural Credit Schemes
SEALS	Social Emergency Loan Scheme
SLIP	Sufficient of loan for the intended purpose
SNNPRG	Southern Nations Nationalities and Peoples Regional government
SSEs	Small Scale Enterprises
TML	Time line of loan release
SRP	Suitability of repayment period
VIF	Variance Inflation Factor
WTJCEAR	Wolkite Town Job Creation and Enterprise annual report

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ABSTRACT

This study was conducted on the determinants of loan repayment of small-scale enterprises in Wolkite Town. The objective of the study was to investigate the socio economic, institutional and financial determinants of loan repayment of small-scale Enterprises in the study area. The primary data were collected from randomly selected 226 borrowers /sample of respondents. The secondary data were collected from relevant organizations and pertinent documents. The data were analyzed using both descriptive statistics and econometric models. The descriptive statistics such as mean, standard deviation, frequency distribution, percentages, t and Chi-square tests were employed to compare non-defaulters and defaulters' group, with respect to some explanatory variables. A binary probit model was selected and specified to analyze determinants of loan repayment of small-scale enterprises in the study area. The descriptive analysis revealed that from total of fifteen selected explanatory variables 12 variables illustrate there is significant difference between defaulter & non-defaulter groups. These variables includes:, members of borrower, age, annual income, family size, education, location of enterprises, sufficient of loan releases, loan diversion, timeliness of loan, amount of loan size, loan repayment period and suitable repayment period. Econometric result revealed that from total of 15 selected explanatory variables 9 variables illustrate there significant results. These variables are Age, education, members of enterprise, and suitability of repayment period were statistically significant at 1%, whereas purpose of loan, loan size and loan diversion were statistically significant at 5%. And also, location of enterprise and timeline for loan release were statistically significant at 10%. Based on the findings of the study, the researcher recommended that the variable age, group borrowers and education were empowered to loan repaid at a time. Thus, the institution should give adequate training programs and workshops in enhancing their skills on managing the money they took and the way how it is returned. Loan diversion and loan size are a major determinant affecting the loan repayment of borrowers. Therefore, government sectors like Wolkite town job opportunities creation and Enterprise Office and Omo microfinance institution should be solved the problems of the borrowers financial institution credit experience, appraisal of the project to determine the appropriate loan size and terms of the loan should be conducted to ensure the proper utilization of the loan for the intended purpose.

Key words: determinants of loan repayment, small scale enterprise, descriptive statistics, econometric model, binary probit model.

CHAPTER ONE

1. INTRODUCTION

1.1. Background of the study

According to Eton *et al.* (2017), there is no universally agreed definition of Small Scale Enterprises and the term covers a wide range of definitions and measures varying from country to country. Those who attempt to define Small Scale Enterprises use their characteristics such as the size of capital investment, number of employees and sales turnover. For developing countries, small scale enterprises generally mean enterprises with less than 50 employees while medium sized enterprises are those with 50-99 employees (Arinaitwe and Mwesigwa, 2015). Small Scale Enterprises are the backbone of all economies and are also globally considered as the stepping stone for industrialization. Developed and robust economies like the United States of America (USA) and United Kingdom (UK) trace their development from the growth of small and micro enterprises (Kamunge *et al.*, 2014). Micro and small enterprises are considered to be the lifeblood of most economies and are viewed as key drivers of economic and social development in Africa (Gichuki *et al.*, 2014). They play a critical role in triggering and sustaining economic growth and development in both developed and developing economies. Because of the contributions made by Small Scale Enterprises such as creation of employment opportunities and government revenue, they need prioritized financial resources to boost the economy and enhance economic growth and development in Africa.

In Ethiopia various development strategies were designed to pull country out of their problem of poverty and unemployment. One of the important strategies adopted was micro and small enterprises development strategy. The Ethiopian government recognized the significance of this sector and showed its dedication to promote the micro and small enterprises development by issuance of National micro and Small Enterprises Strategy 1997 and establishment of the Federal Micro and Small Enterprises Development Agency. The promotion of this sector is justified on the ground of enhancing growth with equity, creating long term jobs, providing the basis for medium and large enterprises and promoting export. The strategy puts a means to

support the micro and small enterprises through the provision of infrastructure, financial facilities, supply of raw materials and training (Taye et al., 2016).

For Small Scale Enterprises to grow and contribute to economic development, access to adequate credit finance is critical (Hasnah et al., 2013). This is because Small Scale Enterprises cannot raise adequate equity finance through informal savings and retained earnings to sustain their operations and growth. Several studies have established that credit finance obtained at affordable interest rates and well utilized have a positive significant effect on growth of Small Scale Enterprises. For instance, findings of previous studies by Sitharam and Hoque (2016), Chowdhury and Alam (2017) and Lukuma et al. (2019) reveal that access to credit financing provides funds required to enhance growth of micro, small and medium enterprises .However, empirical studies by Moscalu et al. (2019) and Kamunge et al. (2014) show that high costs of credit, bank charges and fees hamper growth of SMEs. Furthermore, Mweheire (2014) state that majority of SSEs lack access to formal financial services provided by commercial banks and only access financial loans from informal money lenders and microfinance institutions. This is because, commercial bank loans are hard to pay back and have laborious requirements to fulfill before the loan application is approved.

The main sources of capital needed to finance growth of Small Scale Enterprises; retained earnings and informal personal savings are normally unpredictable, insecure and have little scope for risk sharing. Because of this inadequacy, Small Scale Enterprises normally seek for bank and microfinance loans to fund their growth plans and increase sales revenue. These loans include secured, group and working capital loans Gichuki et al. (2014). Growth of Small Scale Enterprises is determined by increase in stock, capital and revenue. It is also assessed in terms of consistent increase in profits, market share and customers. Secured loans are offered to SSEs after providing collateral to the lending institution. Group loans are offered to borrowers after forming groups usually ranging from 25 to 30 people and members in the group act as security to each other since they normally interact closely. Working capital loans are a newly introduced form of loans offered to entrepreneurs of Small Scale Enterprises for a short period agreed upon by the lending institutions (Byabashaija et al., 2015).

Small scale enterprises predominantly prevail in the small towns while medium and large scale enterprises dominate bigger towns and cities. Small scale enterprise sector is particularly important for low income, poor and women groups. In Ethiopia, like in any other developing countries, medium and large scale manufacturing or service giving sectors due to state bureaucratic could not jobs to absorb the ever increasing labor force, especially in urban area. In such situation, small enterprises may be reported to be source of livelihood for poor and unemployment people in both urban and rural areas (Fantahun, 2012). Consequently, many people have been forced into marginal activities in the informal sector as subsistence farmers, petty traders and tiny handicraft producers with limited market scope. This collection of informal and small enterprises is in need of significant upgrading if the Government of Ethiopia is to be successful in its efforts to reduce poverty and to strengthen the private sector as a creator of employment and economic growth (Fantahun, 2012).

According to Wolkite Town Job Opportunity Creation and Enterprise annual report of 2020, for the last three years (2018, 2019 and 2020) a total of Birr 34,671,195 has been disbursed for small scale enterprise but only 49.76% of it is collected back. Obviously, the data shows as the loan repayment is so poor implying as examining repayment performance is crucial agenda. Thus, for high loan repayment rate it is crucial to thoroughly investigate various aspects of loan defaults, and determining factors for loan repayment so that it can help financial institution, stakeholders and policy makers have information on the issue and help them as a basis for intervention motives. Thus, this study is undertake to investigate how loan repayment is going on among the members of the small scale enterprises based on Wolkite Town administration (Wolkite Town Job Opportunity Creation and Enterprise annual report, 2020).

1.2. Statement of the problem

To become lower middle income country in 2025, promoting small scale enterprises empowerment which is mainly grouped by women and youth, ensure their effective participation in development process & enable them to derive equitable benefit from the outcome of development is one of the strategic pillars of Ethiopia (NPC, 2015). As the result the Youth Opportunities Creation Program is one of youth development packages led by

Ethiopian government and mainly focused on reducing youth unemployment by providing financial loans to the urban and rural unemployed youths by collaborating with microfinance institutions in the country. The fund/loan/ provided by the program to the small scale enterprises focused on youth's small business group's development as a key strategy that will increase economic opportunities for and participation by Ethiopian youth in nation building. However these youth loan funds were established in last recent years in the country, the huge amount of loan default triggers question on effectiveness of the fund. For example, in 2019/20 budget year the SNNPRG's bureau of Youths & Sports planned to collect previously loaned money Br.409, 553,719 from the youth groups throughout the region, but it was actually collected only 32% of the planned amount (OYS, 2020).

The study area is one of city administration in Southern Nations Nationalities and Peoples Regional government. In this city administration there is a loan repayment problem. According to Wolkite Town Job Opportunity Creation and Enterprise annual report of 2020, for the last three years (2018, 2019 and 2020) a total of Birr 34,671,195 has been disbursed for small scale enterprise but only 49.76% of it is collected back to revolve. This inefficient loan repayment clearly shows that the repayment problem is very crucial challenges to the MFI's effectiveness in providing financial service to create job opportunity & reduce unemployment in the future time. The default problem reduces the lending capacity of financial institutions. It also denies new applicants access to credit as the financial institutions cash management problems augment in direct proportion to the increasing default problem. In other words, it may disturb the normal inflow and outflow of fund a financial institution has to keep staying in sustainable credit market (Abreham, 2002).

Several studies were carried out on factors affecting loan repayment performance in several parts of the country to provide solutions to the repayment problems. (Tenishu, 2014) studied on Microfinance credit rationing & loan repayment performance of small scale enterprise in Konso by using Probit econometric regression model and has been concluded that education, income, loan supervision, suitability of repayment period, availability of other credit sources and livestock are positive factors that boosts loan repayment performance, while loan diversion and loan size are found to significantly increase loan default. Daniel (2014) has made study on determinants of agricultural loan repayment performance of small scale

enterprise, in Chiro Woreda, West Harerghe Zone of Oromia Regional State. The Tobit econometric regression model of his study reveals that, extension contact, livestock holding and non-farm income had positive and significant effect on loan repayment performance while family size, celebration of social ceremonies and distance from the main road had a significant negative effect on loan repayment rate.

Improving the repayment rates helps reduce the dependency of the microfinance institutions on subsidies, which would improve sustainability. It is argued that high repayment rate reflects the adequacy of microfinance institution's services to clients' needs (Godquin, 2004). In order to maintain sustainability of microfinance institutions' one important thing is to identify the socio-economic and institutional factors which significantly affect the performance of loan repayment from different perspective. The poor loan repayment performance seen clearly implies repayment problem was a core problem commonly shared by that institution engaged in providing loan. The above mentioned studies made in the country didn't specifically touch the case of Wolkite Town administration. This study therefore tries to narrow the research gap paying attention to this sector of the economy and the study is initiated to look at the determinants of loan repayment on small scale enterprise in Wolkite Town administration.

1.3. Objective of the Study

1.3.1. General objective

The general objective of the study is to investigate determinants of loan repayment of small-scale Enterprises in Wolkite Town administration.

1.3.2. Specific objective

- ✓ To analyze the major demographic and economic factor like income from activities financed by the loan that affect loan repayment of small scale enterprises
- ✓ To assess the main institutional factors like amount of loan, training and method of lending that influence loan repayment performance of small scale enterprises
- ✓ To identify how the repayment period affect the loan repayment performance of small-scale enterprise

1.4. Research question

- ❖ What are socio-economic factors that significantly determine the loan repayment of small-scale enterprise?
- ❖ What are the institutional factors and method of lending that affects loan repayment of small scale enterprises?
- ❖ What is the relation between repayment period and status of repayment on small scale enterprises?

1.5. Significance of the Study

Small scale enterprises are the essential for growth and development of the developing countries like Ethiopia where poverty and unemployment are prevalent. Effective functioning of small-scale enterprises is considered as one of the important strategies to meet out the poverty reduction policy of the government. There is a growing recognition that small scale enterprises have great role in enhancing the income of the poor and there by leading to poverty alleviation in developing countries like Ethiopia. Consequently, national policies and strategies that support such businesses have been designed to help them achieve the desired goal. The main objective for this study would be investigated determinants of loan repayment on small scale Enterprises. The output of the study benefits small scale enterprises and governmental organizations. The study also provides important information to relevant stockholders that support small scale enterprises. It also provides the basis for any further research in the area while filling the knowledge gap existing in the area of measuring loan repayment and factors affecting the performance of small-scale enterprises.

1.6. Scope of the Study

The study was conducted on determinants of loan repayment of Wolkite Town administration Gurague Zone in Southern Nations, Nationalities and Peoples Regional State of Ethiopia. The study will be concerned about the analysis of the main determinants of loan repayment of Wolkite Town administration on small scale enterprises during 2020. This study was mainly focused on the socio-economic & institutional factors which affect repayment of the small

scale enterprises, the influence of business type on repayment and challenges & problems of the program and the borrowers which are hindering the repayment performance in the study area.

1.7. Limitation of the study

The study focused on the small scale enterprises loan repayment specifically in Wolkite Town administration. The major limitations of this study will be used mainly attributed to one time data. The study focuses only on small scale enterprises who borrowed from the MFIs of Urban Youth Job Opportunities Creation Program Fund and the relatively higher asymmetry of information in small scale enterprises. Hence, the study was undertaken to meet its objectives within the above limitations.

1.8. Organization of the study

Chapter one provides an overall introduction with sub sections; background of the study, statement of the problem, objectives of the study, Research question, and significance of the study, scope and limitations of the study. Chapter two covers a review of some important theoretical and empirical studies on factors affecting loan repayment performance are presented. The third chapter will explain research methodology including description of the study area, sampling techniques, methods of data collection and tools for data analysis. In the fourth chapter the main findings of the study will be discussed. Finally, conclusions and recommendations will be provided in chapter five.

CHAPTER TWO

2. REVIEW OF LITERATURE

INTRODUCTION

This chapter presents the literature related to the study. It reviews both theoretical and empirical literature. The chapter is divided into five sections. Section one presents definition of the concepts. Section two reviews, methodological literature by providing description on theories concerning loan default. Section three analytical literatures by providing description on theories concerning loan default and conclude with analytical justification. Section four reviews empirical literature and finally, section fives presents the conceptual framework for the study.

2.1. Definitions

2.1.1. The Credit Market and Small-Scale Enterprise

Finance is central to establish and operate productive activity. Sufficient finance is a requirement to appropriate organization of production, acquiring of investment assets or raw materials and development of marketing channels etc. Credit is a device for helping transfer of purchasing power from one individual or organization to another. As indicated by A.E. Temu, M. Mwachang'a and K. Kilima(2011), credit provides the basis for increased production efficiency through specialization of functions thus bringing together in a more productive union the skilled labor force with small financial resources and those who have substantial resources but lack entrepreneurial ability. The effective credit management policy is particularly important in the case of small-scale entrepreneurs in LDCs like Ethiopia where most of the borrowers don't have sufficient entrepreneurship capacity to conduct scientific study before deciding on investing in a particular project. It would save the borrowers from undertaking risky project as well as the bank from default risk (Tenishu, 2014).

Globally, credit finance has been identified as one of the major factors that facilitate the growth of SMEs (Ramcharran, 2017). Adequate access to finance is vital to enable SMEs

improve their operations and contribute to economic growth and development of a nation (Hasnah et al., 2013). Growth of micro and small enterprises is vital because of the role they play in triggering and sustaining economic growth in both developed and developing economies. SSEs provide prolific sources of employment and also grow into medium and large enterprises, which are critical for industrialization (Kamunge et al., 2014). The growth of small-scale enterprises is attained by accessing new customers and increased sales. The high volume of products stocked by an enterprise attracts new customers and agents to open up other business outlets. Increase in stock volume builds confidence in the customers and confirm an enterprise as a going concern which indicates growth of small-scale enterprises. To facilitate growth, SSEs in Uganda have opportunities to access secured, group and working capital loans from financial institutions, but the nature and form of the loan determines the activity to be funded depending on the agreed duration of the loan, interest rate and loan size. However, despite these available options of credit financing, most micro and SSEs fail within the first year of operation. Eton *et al.* (2017) argue that access to credit and especially working capital remains a constraint hindering growth and performance of SSEs. Also, most of the SSEs have limited access to capital markets because of the perception of high risk, information asymmetry and high costs of intermediation (Kofi *et al.*, 2013).

A secured loan is one that relies on assets such as a home title, television set, car, and land title among others as collateral securities (Ezera, 2010). And because of this, secured loans attract low interest rates compared to other types of loans hence borrowers find them convenient for business growth. However, according to Chiou *et al.* (2011), financial institutions find it hard to give secured credit to small-scale businesses due to of lack collateral security. It is important to note that in Uganda, demand for secured loans from banks and nonbank institutions has increased over time through the amendment of the fiscal policy by Government which encourages financial institutions to provide financial loans to SSEs (World Bank, 2009). However, this has not been useful because most SSEs continue to fail in their first year of startup even when secured loans are expected to provide a longer repayment period to facilitate them to grow (Kagugube, 2010). Contrary to this, OyelaranOyeyinka and Lal (2006) states that secured loans offered by the microfinance institutions mount tension on the small businesses, limiting the benefits from market opportunities and innovation possibilities because of fear to lose their securities which

adversely affect the growth of SSEs. This view is supported by Okpukpara (2009) who asserts that secured loans cannot facilitate growth of SSEs because of their negative impact through high and rough debt policy.

To understand the effect of secured loans, Bowale and Akinlo (2012) examined their influence on the growth of SSEs and discovered that, entrepreneurial traits may influence the impact of the secured loans on the performance of the firm. However, enterprises which offer valuable securities are inclined to work towards the realization of more sales to finance the loan obligation. This view is supported by Ramcharran (2017) who argues that secured loans enable small-scale enterprises to increase their sales and generate enough revenue business expansion. However, much of the returns are used to service the debt, leaving the business with little resources for re-investment in the growth of the firm. This forces entrepreneurs in developing countries to maintain a low profile for many years.

2.1.2. Loan failure to meet loan repayment plan on time

Many authors define the term loan default in different ways. Murray defines a loan default as a borrower, who fails to fulfill his or her obligation according to the loan contract or when one party that is the debtor does not observe his or her part as started in the agreement of the loan documentation. For instance, when an individual or a group fails to meet their expectance loan schedule repayment plan, such a borrower is said to have not abide by the by-laws of the loan. From the above, loan default is defined as failure to meet loan repayment plan on time. This happens when a borrower or debtor consciously or unconsciously decides not to meet up with a loan as scheduled. Failure on the part of a borrower or debtor to keep to loan repayment plan as documented is referred to as loan default (Murray, 2011).

Default is inability of a borrower to pay the interest or principal on a debt when it is due. If a person or institution responsible for repaying a loan or making an interest payment fails to meet that obligation on time, that person or institution is in default. In default, an individual may lose any property kept as collateral to get the loan. Defaulting has a negative impact on credit history and credit score, which generally makes it difficult to borrower again in the future (Mosha, 2016)

Loan default is also considered loan delinquency when its ability for recovery becomes difficult. Delinquency is considered very important as it serve as an indicator to an increased risk of loss, warnings of operational flaws, and may help to also predict how much of the loan portfolio will eventually be lost or becomes a bad debt. Out of the lot of forms of default indicators, only three major forms will be considered: the ratio of collected rates of amounts paid actually to expected amount; the ratio of debtors amounts delinquent to the outstanding amounts.; and risk portfolio which rates overdue amounts to that of total debt outstanding (Bernie, 2015). Moreover, when a three to four installment payment within twenty-four (24) months period is missed, such a risk threshold is a default of loan. This implies and indicates that such a signal throws more light on the fact the borrower by all standards will default in the loan repayment if all other repayments are ceased. This is a global accepted standard and is considered vital due to the fact that a general description was needed for loan default. This also does not refer to debtors who by all standards have ceased servicing the loan and hence necessary measures taken against the borrower or financially as described, as the loan has been written off as bad debt. That is the whenever a borrower is not able to meet the amount required on stipulated time is loan default (Bernie, 2015).

2.1.3. Arguments on loan default problem

The type of loan would be either formal or informal. In developing countries, the main source of finance so far is informal sector. The probability of default of small-scale enterprises loan from informal source is low, because informal financial markets are much closer to their clients & potential clients, through daily contacts they are much more of their activities than a formal banker. Therefore, they know the risks they are exposed to. On other hand small scale credit scheme from formal financial markets has experienced a high rate of default in many developing countries. Non-defaulters are those who repaid the loan in due date and the defaulters are those who did not repay the loan within the due date. The proper recovery of loan is not only a prerequisite for rapid expansion of microfinance service but also a question of life or death for any credit agency (Mosha, 2016)

In Ethiopia, the administrative measures applied to enforce repayment are harsh and did not take into account borrower's circumstances. The system does not accommodate the interests

of borrowers who are willing to incur additional interest by delaying crop and other asset sales in hopes that price will be better off later in the year. Defaults in Ethiopia may rise from three major factors. The first is the inability of borrowers to repay the loan as a result of crop and other investment failure for various reasons. Secondly, due to unwillingness of the borrowers to repay because the loan has sometimes viewed as a grant or as a political patronage. The third factors could be institution and policy problems. The systems of credit delivery and collection mechanisms of the institutions have contributed to poor loan repayment. Loan default is source of falling to implementation of lending strategies and faithful policies in the demise of credit institutions. Loan default problems destroy lending capacity, deny new applicants' access to credit, and cause public embarrassment and the loss of social standings Zemane 2005, cited in (Dulla, 2012).

2.2. Methodological review

2.2.1. Theory of the Business Cycle

To understand the Austrian theory of the business cycle, we must know about how credit is created through financial intermediaries. Credit has two main sources in financial markets. Firstly; credit creation can be the result of saving. In this case banks (Microfinance Institutions) act as financial intermediaries and provide a link between savings and investment. Money is saved with the bank in return for interest; these savings are then loaned out to borrowers who also pay interest. The other source of credit comes about through the issuance of loans from monetary deposits held in the bank on behalf of customers. This is referred to as fiduciary media creation as this credit is not backed by savings (Davidson, 2013).

The rise of savings by the households can increase the availability of loanable funds in the banks. The general argument of the theory though not the full argument can be stated in terms of the conventional macro-economic aggregates of savings and investments. The levels of investment are determined by the supply of and demand for loanable funds. Supply reflects the willingness of households to save at various rates of interest; demand reflects the willingness of business to borrow in order to finance investment projects. Each represents a state of equilibrium in the loan market. An increase in the supply of loanable funds has

obvious initial effects on the rate of interest and on the level of investment borrowing. But the ultimate consequences differ importantly depending upon whether the increase supply of loanable funds derives from increased saving by households or from increase credit creation by the central bank. Even in this simple loanable funds framework many aspects of the Austrian theory of the business cycle are evident. The natural rate of interest is the rate that equates saving and investment. The bank rate diverges from the natural rate as a result of credit expansion. When new money is injected into credit markets, the injection effects which the Austrian theorist emphasizes over price level effects take the form of too much investment (Boldizzoni, 2008).

An increase in the rate of saving implies a change in the preferred consumption pattern such that planned consumption is shifted from the near future to the remote future. A savings induced decrease in the rate of interest favors investment over current consumption. Significance in Austrian theorizing it favors investment in more durable over less durable capital and in capital suited for temporally more remote rather than less remote stages of production. These are the kinds of changes within the capital structure that are necessary to shift output from the near future to the more remote future in conformity with changing inter temporal consumption preferences (Gatimuet,al, 2014).

This theory puts more emphasis on long-term investments running into the remote future with emphasis that such remoteness is likely to fetch higher interest rate for the firm. While this sounds prudent in theory, in practice such financial management principle may end up starving the organization of the short-term interest to run its day-to-day operations in anticipation of future booming interests. In any event even the time value of money is also not catered for in this theory. By extension the theory also does not provide a caveat on exactly what happens in the event that the interests payable and even the capital accrued from long - term loans is not forthcoming. This is a research gap that must be filled so as to determine the factors influencing non-performance of loans especially in public financial corporations (Gatimu et.al, 2014).

2.2.2. Agency theory and loan defaults

This theory recognizes that relationship between Agency theory and likelihood of borrowers to default their loan obligations. Information asymmetry between the Microfinance Institutions and their borrowers leads to some borrowers to acquire loan even when the probability of repayment is low. Moral hazard is the principal's inability to observe and/or verify the agent's action. Adverse selection arises when borrowers have characteristics that are unobservable to the lender but affect the probability of being able to repay the loan (Mosha, 2016).

When a borrower has taken a loan, the loan defaults partly depend on the borrower's actions. Normally, it is expecting the borrower to choose actions such that the additional benefit of each action equals its additional cost. This is different when the lender has no perfect information concerning the borrower. In addition, when there is no collateral, the borrower does not personally take the full cost of loan default. Moreover, the lender cannot specify perfectly how the borrower should run the business, in part, because some of the borrower's actions are cost full to obtain (Mosha, 2016).

In this study Principal represents Microfinance institutions while Agent represents the borrowers who are entrusted with loans and expected to repay as per MFIs requirements. Therefore, the MFIs inability to obtain borrowers information about socioeconomic characteristics, business knowledge and experience and general business performance may lead to loan defaults. Also, in some cases the study proposes that when Loan supervisors becomes an Agents of MFIs, usually fail to meet the microfinance institution's interests acting as Principal to ensure the borrowers are well supervised and report any detail that signals defaults for immediate and appropriate measures. This study uses the Agency theory which supports MFIs to enter into loan contract with the borrowers without having perfect information of the borrowers. This theory shows the occurrence of loan default as a result of either moral hazard or adverse selection (Mosha, 2016).

2.3. Analytical Review

2.3.1. Theory of frequent repayment

This theory was emerged in 1990s by Prof. Mohammed Yunus during formation of Grameen Bank which recommends about microfinance organizations often use high frequent repayments. Borrowers are typically required to repay their loans in regular installments, beginning soon after the loan is given out. This aspect of the repayment schedule is usually explained as inducing ‘fiscal discipline’ among borrowers. The potential for moral hazard leads MFIs to use innovative mechanisms, such as regularly scheduled repayments, which indirectly co-opt the better-informed informal lenders. Conversely, this installment repayment structure allows informal lenders to survive. Further, they show that this linkage can not only expand the volume of informal lending, but may also raise the interest rate in the informal sector (Mburung’a, 2011).

Taking a large amount wad of bills out of one’s pocket and pay the lender is difficult. There is enormous temptation from one’s family to use that money to meet immediate consumption needs...Borrowers find this incremental process easier than having to accumulate money to pay a lump sum because their lives are always under strain, always difficult. Intuitively, when borrowers are present-biased, the immediate gain to defaulting on any larger payment is subject to significant temptation. When these payments are spread out, the instantaneous repayment burden at any time is smaller and thus less subject to temptation (Mosha, 2016).

According to Yunus, 2003, frequent repayment also means that at the time of the first payment, the rewards are further away from the repayment decision and thus more heavily discounted. On the other hand, so, too, is some of the repayment burden. On balance, frequent repayment relaxes the incentive compatibility constraint for present biased borrowers. But these benefits do not come without costs. Frequent repayment imposes an opportunity cost of meeting attendance on borrowers and direct costs on the lender. It might also distort the investment incentives of borrowers toward projects that generate consistent, if meager, returns. The optimal frequency balances these costs against the positive incentive effects. The quasi-hyperbolic utility functions underlying these models can come from a number of different sources, including insecure savings, demands of future consumption from other

family members or a behavioral bias towards current consumption. The theory, following standard practice, embeds them all in the parameter for present bias and represents a further step in understanding the role these collected factors may play in repayment behavior (Mburung'a, 2011).

2.4. Empirical studies on loan repayment

2.4.1. Empirical Studies in Ethiopia

Selam, (2016) Employed that two limit tobit regression model in the study of the determinants of loan repayment performance, in the case of Small-Scale Enterprises in Dire dawa, Ethiopia. In this study 12 explanatory variables were considered in the econometric model, out of which 5 variables were found to be significantly influence the loan repayment performance of the borrowers. These were repayment period, efficient loan size, follow up and supervision, business sector, and business experience. The other variables such as sex of borrowers, age, education level, saving habit, training, other source of income and revenue from the business were found to have no significant effect on the loan repayment performance of borrower.

Fikrite (2017), studied Determinants of loan repayment performance in Addis credit and saving Institution by using the logit model. A total of 11 explanatory variables were considered in the econometric model. Out of which 6 variables were found to be significantly influence the probability of being defaulter at different significant level. The age and business type such as: - baltina and petty market, kiosk & shop, service providing, weaving & tailoring and urban agriculture, were significantly influence to be a defaulter. But sex, education level, business size, business experience and dependency ratio had no significant effect on the probability of being defaulter.

(Abreham G.2012) Had employed that the Tobit econometric model to study the determinants in small scale enterprises financing in Ethiopia, around Zeway area, Ethiopia. The finding of the study revealed that, having other source of income, education, work experience in related economic activity before the loan and engaging on economic activities other than agriculture are enhancing loan diversion. Being male borrower & giving extended loan repayment period are undermining factors of the loan recovery performance of the projects.

(Million, 2012) Studied factors affecting loan repayment performance of smallholder farmers in eastern Harerghe, Ethiopia by the use of two limit tobit model. The two limits Tobit model results indicated that 7 out of the 16 explanatory variables considered influenced loan repayment performance in the area. Agro ecological zone, off-farm activity, and frequency of contact with extension agents positively and significantly influenced loan repayment while, production loss, informal credit, social ceremonies, and loan-income ratio negatively influenced the loan repayment performance of small holder farmers in the study area.

Medhin (2015) employed the Logistic regression model to study Determinants of loan repayment performance of rural women-based saving cooperatives in the case of Dire dawa administration in Ethiopia. There was total 14 explanatory variables included in the model. From these variables, such as livestock ownership, loan supervision, education level, loan size, income from activities financed by the loan, timeliness of loan release, suitability of loan repayment period, income from other activities, age, celebrating and participating on social festivals, and loan diversion were found to be statistically significant in determining loan repayment performance of women. But agro-ecological zone, marital status & voluntary saving are insignificant in determining loan repayment performance of the women.

Dulla (2012) had used the binary logistic regression model in the study of socio-economic factors influencing loan repayment performance of Microfinance clients, in case of Busa Gonofa Microfinance institution in Ethiopia. A total of sixteen explanatory variables were included in the regression. Out of these, eight variables were found to be significant for the probability of being defaulter. These are family size, income from other activities, livestock holding, membership duration, loan diversion, loan supervision and monitoring, training on loan use and celebration of social ceremonies. Regarding the sign of the significant variables, loan diversion, family size, and celebration of social ceremonies have a negative significant effect on loan repayment rate while the remaining five variables have a significant positive effect.

(Abebe, 2011), employed the tobit model to identify factors influencing loan repayment performance of the households. The result of the model showed that family size, livestock ownership, on-farm income, non-farm income and saving habit were the statistically significant factors influencing timely loan repayment performance positively. On the other

hand, multiple linear regression models were used to identify the variables that contributed to the amount of fertilizer use among respondents. From a total of 12 explanatory variables included in the model, education level, number of draught oxen owned, cultivated land size, family size and saving habit of the respondents were found to be the most significant variables contributing to the amount of fertilizer use positively, while age of the household head influences it significantly and negatively.

(Jemal, 2013), employed the probit model in the study of Microfinance and Loan Repayment performance in case of the Oromia Credit & Savings Share Company in Kuyu. The probit model shows that education, income, loan supervision, suitability of repayment period, availability of other credit sources and livestock are important and significant factors that enhance the loan repayment performance, while loan diversion and loan size are found to significantly increase loan default. In addition, female borrowers were found better in terms of loan repayment.

Gap Analysis

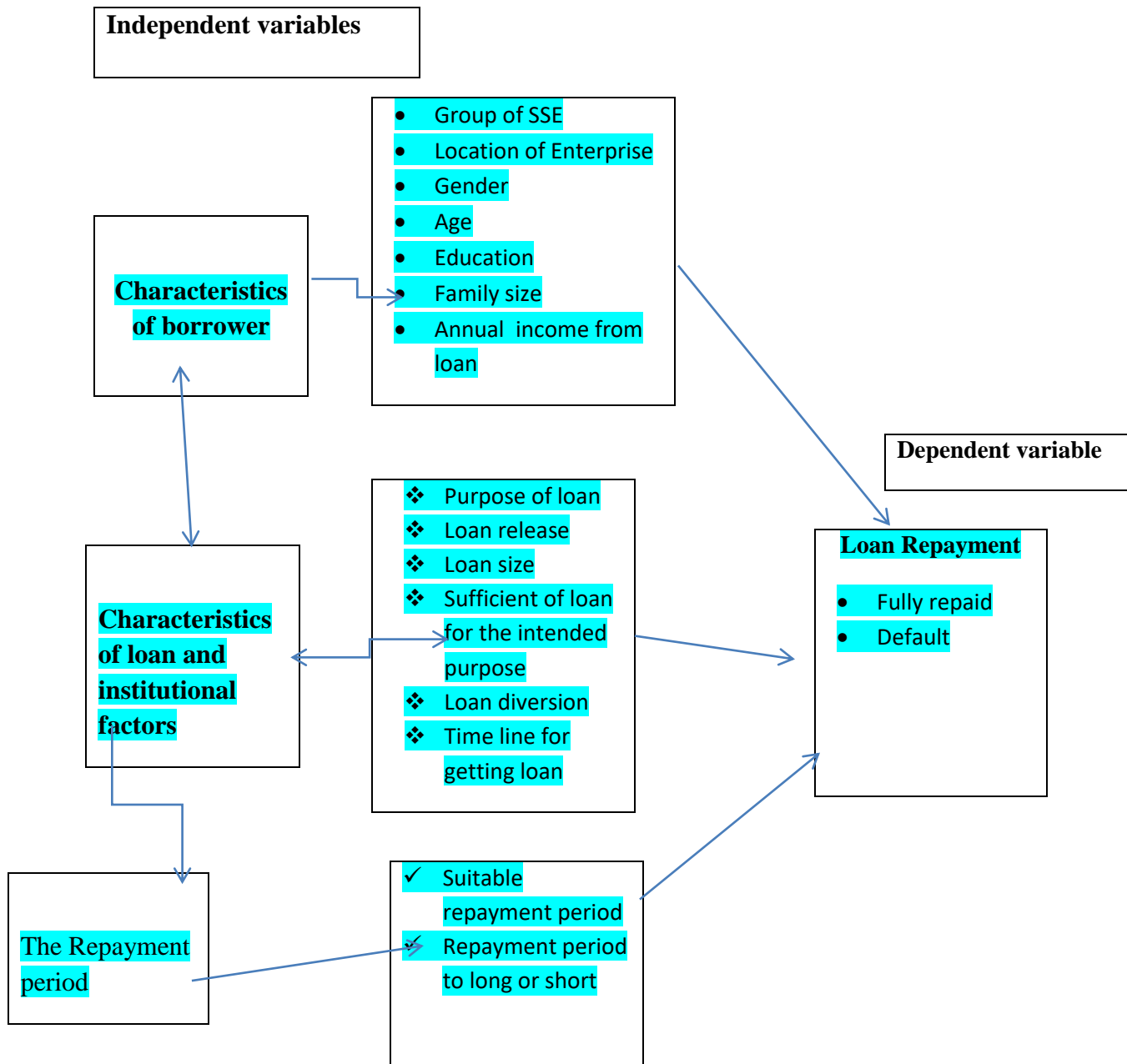
Small scale enterprises are the essential for growth and development of the developing countries like Ethiopia where poverty and unemployment are prevalent. Effective functioning of small-scale enterprises is considered as one of the important strategies to meet out the poverty reduction policy of the government. The main objective for this study would be investigated determinants of loan repayment of small scale Enterprises. The output of the study benefits small scale enterprises and governmental organizations. The study also provides important information to relevant stockholders that support small scale enterprises. It also provides the basis for any further research in the area while filling the knowledge gap existing in the area of measuring loan repayment and factors affecting the performance of small-scale enterprises.

Therefore, the current study similarly focus on small scale enterprises regarding its loan repayment with special reference to small scale enterprises in Wolkite Town administration. As per the researcher knowledge, there is no similar research conducted on small scale enterprises in the study area.

2.5. Conceptual Framework

After a detail literature review, the conceptual framework was constructed. The conceptual framework shows the basic relationship between dependent and independent variables of the study. The research adopted the conceptual framework is illustrated in figure 1 below.

Figure 1 Conceptual Framework



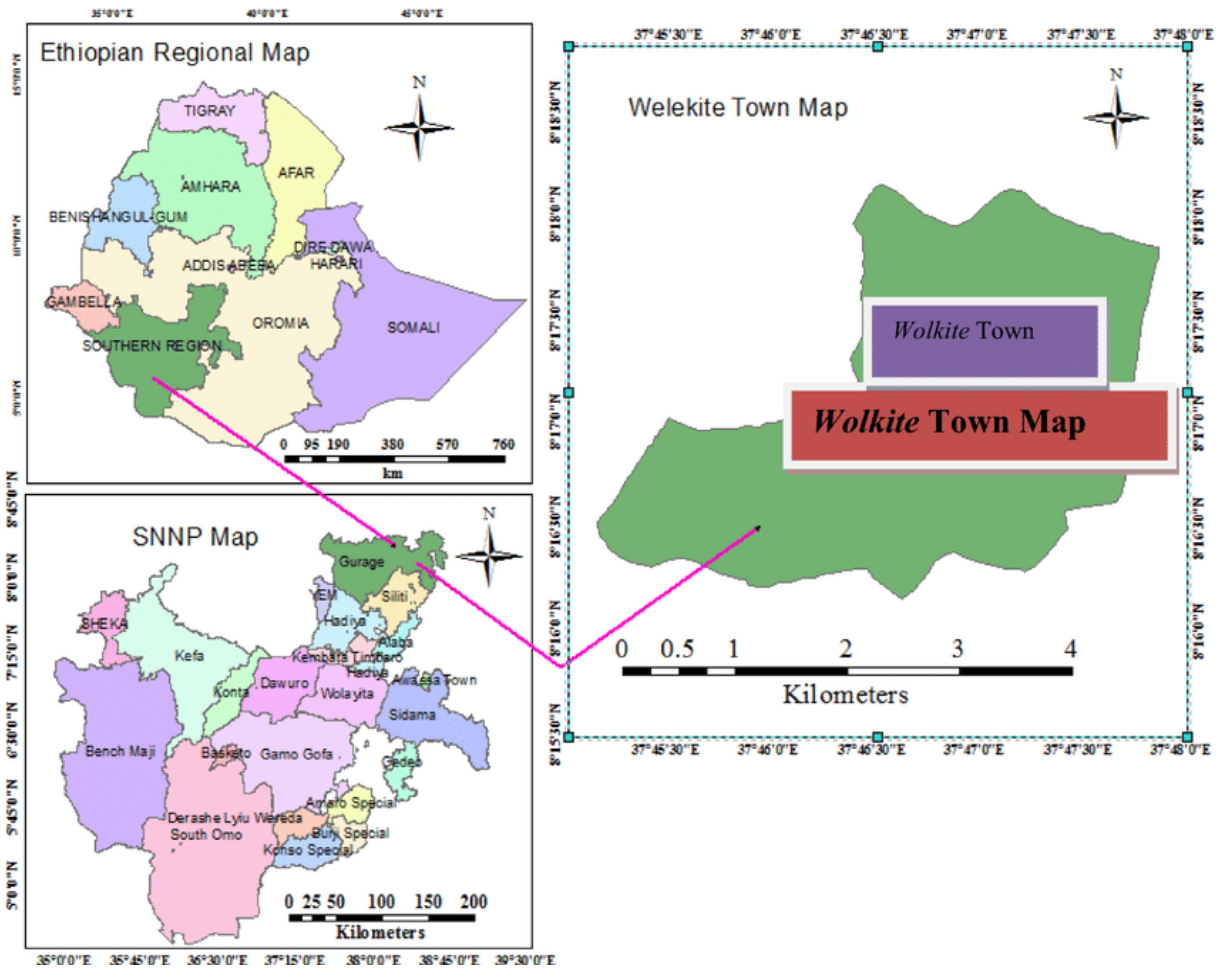
CHAPTER THREE

3. RESEARCH METHODOLOGY

3.1. Descriptions of Study Area

The study was undertaken in Wolkite Town which is the administrative center of Gurage zone of southern Nations, Nationalities and peoples Region. The town has a latitude and longitude of 8°17'N 37°47'E and an elevation between 1,910 and 1,935 meters above sea level and located south western part of Ethiopia at a distance of 157 km away from the capital city, Addis Ababa, to south. The total population of the city as per the national census of 2007 G.C was estimated to be 84,000. The estimated total area of the town is 7,000 hectares. The city has 06 urban and 4 rural a total of 10 kebele administrative. Business activities, agriculcheral farm and public sector employment are the dominant economic activities in the town Administration.

Figure 2 Map of the study area



3.2. Target Population of the Study

As Enterprise and Industry development office of Wolkite Town Administration 2019 report shows 2,265 small scale enterprises operating privately and cooperatively. However, the researchers sample size was selected on 540 small scale enterprises, they have got a loan services in the town. Enterprise numbers in the study area are trade, services, construction, urban agriculture and manufacturing.

3.3. Research Approach

The researchers were aimed /proposed to use a mixed research approach of qualitative and quantitative. The literature suggests a growing interest in a mixed approach (triangulation) following on from the argument that 'one is used to strengthen the other. Often, combining qualitative and quantitative methods, also known as the triangulation of methods, can capture a more holistic, complete and contextual view of a phenomenon both qualitative and quantitative data collection approach was followed. Qualitative data collection approach applied to gather data through interviews & Quantitative data was gathered through questionnaires.

3.4. Data type and sources

The researcher has used both primary and secondary data sources. The primary data were collected from members of small-scale enterprises benefiting from credit service directly through questionnaire by using closed ended and open-ended questionnaire. The questionnaire was adopted to evaluate for consistency, clarity and to avoid duplication and to estimate the time requirement during data collection. For the data collection, the enumerators who speaks the local languages fluently from the study area were collected the data under close supervision and follow up by the principal investigator. The secondary data was collected from different documents, Lending institutions, official reports and different documents from any relevant organizations. Published and unpublished documents were existed.

3.5. Research Design

The study was aimed to adopt an explanatory research design. The main aim of explanatory research is to identify any causal links between the factors or variables that pertain to the research problem. Explanatory research goes on to identify reasons and causes for something that occur which is suitable to this research that aims to identify determinants of loan repayment on small scale enterprise and financial determinants of small-scale enterprise in study area.

3.6. Sampling techniques

Multistage sampling methods were used for this study. The researchers used this sampling technique because the enterprises were heterogeneous. In first stage, five sectors were selected purposely (i.e trade, services, construction, urban agriculture and manufacturing). In the second stage, list of members under each enterprise was taken. Then 230 individual borrowers were selected as a sample from each sector randomly by 42.5% sample proportion from the total of 540 population size. The proportion of sample size from the total number of enterprises determined by enterprises was 42.5 percent. The number reduced to 226 because 4 questionnaires were not accurately filled by respondent.

The sample size for the study was determined using the formula by Yamane (1967): to determine the appropriate sample size: the level of precision, the level of confidence or risk, and the degree of variability in the attributes being measured. If the population is small then the sample size can be reduced slightly. This is because a given sample size provides proportionately more information for a small population than for a large population. A Simplified Formula for Proportions Yamane (1967) provides a simplified formula to calculate sample sizes. This formula was used to calculate the sample sizes in A 95% confidence level and P =0.05 are assumed. $n = N / [1 + N (e)^2]$ Where n is the sample size, N is the population size, and e is the level of precision. When this formula is applied to the study sample,

$$n = N \div (1 + Ne^2) \dots \dots \dots 3.1$$

$$N=540 \quad e=5\% \quad n=?$$

$$n= 540/ (1+540*0.052) = 230$$

Calculating the amount, the sample should take from each selected enterprise.

Table 1: Name of selected enterprises, total number of their members and sample sizes

Sectors of small enterprise	Members	Sample size
Construction	206	88
Manufacturing	76	32
Urban agriculture	73	31
Service	59	25
Trade	126	54
Total	540	230

3.7. Methods of data analysis

This section presents descriptive and Econometric analytical techniques that were in this study. After the data has been collected, stata 14 software was used to analyze the data obtained from primary sources.

3.7.1. Descriptive statistics

A descriptive analysis is employed to analyze borrower characteristics, loan characteristics and loan repayment period that affect loan repayment rate. Under this method of the data analysis descriptive statistics such as mean, standard deviations and percentage were used for summarize and describe the borrowers' characteristics. Moreover, chai square and t test were also used to compare defaulter and non-defaulter in terms of different explanatory variable.

3.7.2. Econometric model

Econometric analysis to determine those factors affecting loan repayment. The study hypothesis that successful loan repayment is expected to depend on: characteristics of the borrowers, characteristics of loan, and characteristics of the loan repayment. The econometric model was used for empirically identify the factors behind loan repayment of the borrowers was Probit model. This model was selected because loan repayment, which is the dependent

variable, is binary, taking the value 0 and 1 for defaulting and non-defaulting respectively. To achieve the desired objectives of the study, the probit model is chosen for its simplicity of getting the marginal effects of the coefficients. That is the marginal effect of the explanatory variable is remaining constant throughout, which seems deliberately unrealistic (Gujarati, 1995).

Probit analysis is an alternative of the logit method. The main difference is that it assumes a normal distribution of random variables (independent variables in the model). The difference lies in the fact that the logistic function has heavier "fat tails". There are no significant differences in practice only in the case that the sample contains numerous observations with extreme values. Parameter estimates obtained by logit and probit models cannot be compared directly because the logarithmic distribution has a variance equal to $\pi^2/3$, therefore the estimates obtained by the logit model have to be multiplied by $3\pi/2$ in order to be comparable with estimates obtained in the probit model (Lehútová, 2011).

Logit analysis is characterized by the prediction of the probability of the event that either occurs or not. Calculated probability is thus equal to either 1 or 0. It is necessary to realize the logit transformation within the logistic regression to establish this condition. This logit transformation is based on the "ratio of chances and hopes". The given transformation allows the ideal relationship between the dependent variable y and a vector of independent variables x . If the values of the independent variable are very low, the probability of the variable y is close to zero, and if the values of the independent variable are high, the probability of y is close to one. Logistic regression uses a categorically explained variable (Kollár, 2014).

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

To specify the likelihood equation, define P as the probability of observing whatever value of successful loan repayment.

$LR = \Pr (LR_i = 1/X_i)$ if $LR_i = 0$ defaulter.

$1 - \Pr (LR_i = 1/X_i)$ if $LR_i = 1$ repaid

The likelihood equation as presented by Long (1997) is

$$L\left(\frac{\beta}{LRR_i}, X_i\right) \leq \Pr\left(LR_i = \frac{1}{X_i}\right) \leq \left[1 - \Pr\left(LR_i = \frac{1}{X_i}\right)\right] \dots \dots \dots 3.2$$

$LR=0$ $LR=1$

Where the index of multiplication indicates that the product is taken over only for those cases; where $LR=0$ and $LR=1$ respectively.

The model being estimated is then specified as;

$$LR_i = \beta X_i + U_i \dots \dots \dots 3.3$$

Where

LR_i = Vector of Loan Repayment

X_i = Vector of explanatory Variables.

β = Vector of Unknown parameters.

U_i = Disturbance or Error term, that represent all factors that affect loan repayment but those which will not be taken in to account explicitly.

Model Specification

The model would be estimated is Specified as;

$$LR = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + \beta_{11} X_{11} + \beta_{12} X_{12} + \beta_{13} X_{13} + \beta_{14} X_{14} + \beta_{15} X_{15} + U_i \dots \dots \dots 3.4$$

Where

LR = loan repayment

X_1 = members of the borrowers

X_2 = location of enterprise

X_3 = Sex of borrowers

X_4 = Age of borrowers

X_5 = Educational level of borrowers (years)

X_6 = Family size

X_7 = annual of income from the loan

X_8 = purpose of the loan

X_9 = Loan released

X_{10} = Amount loan released (loan size)

X_{11} = Sufficient of loan for the intended purpose

X_{12} = Loan diversion

X_{13} = Timeliness loan release

X_{14} = Suitable for loan repayment period

X_{15} = Repayment period

3.7.3. Definition of variables

Dependent variable

Loan repayment (LR), which is the dependent variable is binary, taking the value 0 and 1 for defaulting and non-defaulting respectively.

Independent variable

Grouped borrowers (GB): The number of employees associated in the enterprises is the total number of workers employed (Cetin, 2010). The number of employees in the enterprises should be determined by the size of the enterprises Islam and Siengthai (2010). It will be assumed in this study that the number of employees in the enterprises indicates size of the enterprises as micro enterprises are labor intensive. The 5 to 6 number of employees with the size of enterprises assumed to have positive influence on the values of the enterprises. The sign of the coefficient of the variable for the number of employees was expected to positive.

Location of small-scale enterprises (LOE): This variable is a dummy capturing the fact that the borrower lives in rural area is 0 or urban areas is 1. Loans for rural purposes are expected to face problem of default because of risk and uncertainty attached to market problem. Hence, we expect a negative sign for this variable. (Kiliswa, 2012), had studied Major determinants of loan repayment in small scale enterprises in Kariobang Division, Nairobi County, Kenya, by using multiple regression model. The study found that location of SSE was found to rural had a negative relationship to loan repayment.

Gender of borrower: There is a belief among many entrepreneur specialists that female are better payers than male borrowers, taking into consideration their being more entrepreneurial that results from assuming more responsibilities in the internal affairs of a household. (Vigano,1993). Also, Khanker *et al.* (1995) explains that loan recovery rates have been higher for women than for men in the case of Grameen Bank. But some researchers have found the opposite result. Thus, the sign of this variable is inconclusive.

Age borrowers: Vigano (1993) noted that with increase in age, it is usually expected that borrowers get more stability and experience. So, we expect this variable to have a positive impact on repayment performance. Where up to a, certain level of age loan there is a positive relationship.

Educational level of borrowers (EDUC): This variable will be expected to have a positive impact on repayment performance in general. Considering normal circumstances, a more educated borrower is expected to use the loan effectively as compared to a less educated one. In this case we expect a positive sign for the variable. (S.M. Feroze, 2011) Employed the tobit regression model in the study of factors influencing educational level, was found to have a positive relationship to loan repayment

Family Size (FS): It is expected to have a negative sign. Because large household size implies more consumption expenditure hence may wear away the fund that will be available for loan repayment. (Abebe, 2011), employed the Tobit model to identify factors influencing loan repayment performance of the households. The result of the model showed that family size was the statistically significant loan repayment performance negatively.

Income from activities financed by loan (INCOM): Through increased capacity of the borrower to repay loan, an increase in the borrower's income from the business financed by the loan would be expected to have a positive influence on his/her repayment performance. This is based on the assumption that both the ability and willingness to pay affects loan repayment. Kashuliza (1993) has concluded that farmers who obtained higher income from farming were more likely to repay their loans. Hence this variable has positive sign.

Purpose of the loan (PURP): This is a categorical variable, which takes a value 1 if the borrower loan for working capital and 0, for fixed investment. The expenses on variable inputs purchase. As this variable alternative the use of the loan for productive purposes, it is expected to have positive impact on loan repayment performance of small holders (Amare, 2005).

Loan released (LRL): If the loan is released in cash directly to the loan, the borrower could have an incentive to divert the loan other than the intended purpose because money is fungible. Thus, a negative sign is expected. According to Wellen and Mulder (2008) lending institutions always offer in kind, loans with expected to encourage entrepreneurs of small enterprises to increase sales volumes and profit.

Loan size (LSZ): Von Pischke (1991) noted that sufficient loan sizes fit borrowers' repayment capacity and stimulate enterprise. If amount of loan released is enough for the purposes intended, it will have a positive impact on the borrower's capacity to repay. If on the other hand the amount of loan exceeds what the borrower needs and can handle, it will be more of a burden than help, thereby undermining repayment performance. Also, positive or negative sign may be expected if the loan is too small. If the loan is too small it may be easy to repay such loans thus enhancing performance (i.e., positive sign). Providing borrowers, the efficient amount of finance can significantly reduce the possible repayment problem, Medhin (2015). On the other hand, borrowers those have enough amount of loan size to conduct the intended investment poorly perform loan repayment than those borrowers granted small loan size, Selam (2016).

Sufficient of loan for the intended purpose; small loan may not bring commitment on borrowers to use the loan productively (Herath, 1994). It may also encourage borrowers to divert the loan to other purposes, increasing credit risk and discouragement performance, in which case a negative sign for the variable is expected. But if the loan is Sufficient of loan for the intended purpose, positive sign for the variable is expected.

Timeliness of loan release (TM): If loan is paid in time, it is suspect that it will be diverted to non-intended purposes. Johnson and Rogaly (1997) noted that timeliness of loan payment is important when loans are used for seasonal activities. They argued that complicated evaluation and approval procedures, which might delay payment, influence a program of seasonal loans for enterprise that use to buy inputs. Further they noted that this could in turn worsen the prospects of repayment by diverting loan to non-intended purpose. In such cases a positive sign is expected. When the requested loan is released by the MFIs to the borrower on

time, there is a possibility that borrowers become successfully finance their business, so that they are less likely to become defaulters, Abreham (2017)

Loan diversion (LOD): The impact of this Variable depends on what use the diverted loan is put to. If the used for productive purposes than the intended ones then repayment will be enhanced. If on the other hand the loan is diverted to non-productive uses, it will have a negative impact. Medhin, (2015) found that, loan diversion affects loan repayment negatively. Therefore, the sign of this variable can't be predetermined.

Repayment Period (RPP): If the repayment period is long, the probability that the project is exposed to risk and uncertainty is very high. Then the lender may prefer to release loan very smaller than the borrower's demand. Therefore, a negative sign is expected.

Suitability of repayment period (SRP): It is a dummy variable which takes 1 if the loan repayment period is suitable and 0 if not. It is expected that suitable repayment period could help borrowers benefit from the loan finance properly, gain profit and pay the loan back on time. This variable is hypothesized to have a positive influence on loan repayment. This variable is hypothesized to have a positive influence on loan repayment. Jemal (2003) found that this variable can positively influence loan repayment rate.

Table 2: Variables and their description

Variables	Symbol	Unit of measurement	Expected sign/Hypotheses
Dependent variable			
Loan repayment rate	LPR	Nominal	
Explanatory variables			
Grouped borrower	GB	Continuous	+ (the size of enterprises assumed to have positive influence on the values of the repayment)
Location of SSE	LOE	Nominal	-(Loans for rural purposes are expected to face problem of default because of risk)

Gender of borrower	SEX	Nominal	+/- (There is a belief among many entrepreneur specialists that female are better payers than male borrowers. But some researchers have found the opposite result)
Age borrowers	AGE	Continuous	+ (where up to a certain level of age loan there is a positive relationship)
Educational level of borrowers	EDUC	Continuous	+ (high education level, high loan repayment performance)
Family Size	FS	Continuous	-(high family size , high probability of loan repayment performance)
Income from activities financed by loan	INCOM	Continuous	+ (high income from activities financed by loan, high loan repayment performance)
Purpose of the loan	PURP	Nominal	+ (the use of the loan for productive purposes)
Loan released	LRL	Nominal	-(If the loan is released in cash directly to the loan, the borrower could have an incentive to divert the loan other than the intended purpose)
Loan size	LSZ	Continuous	- (small loan may not bring commitment on borrowers to use the loan productively)
Sufficient of loan for the intended purpose	SLIP	Nominal	+ (High loan amount, high the probability of loan repayment performance)
Timeliness of loan release	TM	Nominal	+(timeliness of loan payment is important when loans are used for seasonal activities.)
Loan diversion	LOD	Nominal	+/--(Loan is loan is diverted to productive positive if not negative)
Repayment Period	RP	Nominal	- (If the repayment period is long, the probability that the project is exposed to risk and uncertainty is very high)
Suitability of repayment period	SRP	Continuous	+ (It is expected that suitable repayment period could help borrowers benefit from the loan finance properly, gain profit and pay the loan back on time)

CHAPTER FOUR

4. RESULTS AND DISCUSSION

4.1. Descriptive Statistics

A descriptive statistic is employed to analyze borrower's socio-economic characteristics, loan characteristics and loan repayment of the respondents. Under this method of data analysis, descriptive statistics including mean, standard deviations, frequency, percentages, etc. were used to summarize and describe the borrower's characteristics. Moreover, t-test and chi-square tests were used to compare the defaulters and non-defaulters in terms of different explanatory variables.

4.1.1. Borrowers demographics Vs Loan Repayment

Group of the borrowers

Regarding the group of borrower's characteristics out of 226 as table 3 indicates that of the total sample respondents, 74 were non-defaulters, whereas 152 were defaulters. Similarly, the table shows clearly that, on average the group member of the borrower had 5.57 Defaulters and non-defaulters had a mean of 5.23 and 6.24 members of borrowers respectively. Moreover, the mean difference between the two groups was statistically significant at less than 1%. The result of this explanatory variables explained that the size of enterprises had positive influence on the values of the enterprises was default or not. So, the result was coincided with the hypothesis.

Age of the respondents

Age is one of the explanatory variables related with borrower's characteristics and expected to the determine loan repayment of the borrowers. As depicted on table 3, indicates that as 226 total sample respondents, 152 were non-defaulters, whereas 74 were defaulters. Similarly, the table shows clearly that the average age of the respondents was 30 years. In addition, the mean ages of defaulters and non-defaulters are 29 and 33 years respectively. The age of non-defaulter had on average higher than the defaulter. Vigano (1993) noted that with increase in age, it is usually expected that borrowers get more stability and experience. So, the variable

had a positive impact and the result was coinciding with the hypothesis on repayment performance. Besides, the mean difference between the two groups was statistically significant at less than 1%.

Education of the respondents

As depicted on table 3, on average, respondents have been attended at 4.12 formal education levels. Whereas, grade 3.38 and grade 5.64 were the average level of education attainment for defaulters and non-defaulters respectively. The education level of non-defaulter had on average higher than the defaulter. The difference between the mean values of the two groups was statistically significant at less than 1% level. Outcomes show that, non-defaulters are more educated compared to defaulters which indicates the importance of education in repaying loans on time. It is assumed that educated borrowers may acquire better knowledge in choosing a profitable business, could have better market information, and exposure to technologies.

Family Size

Size of family refers to the total number of family members of the household. The larger number of family members, the more the labor force available for production purpose. This is true if the dependency ratio of the household is small. As depicted on table 3, the average family size of the variable was 3.9 the mean value of non-defaulters and defaulters were 3.8 and 4 respectively. The difference between the mean values of the two groups had statistically significant at less than 1%. Defaulters had on average slightly higher family size than non-defaulters. This implies that the higher the household size related with the higher the dependency ratio for non-defaulters. The result was coincided with the hypothesis.

Availability of the annual Income

Respondents were asked as to how much annual income they gained from the finance they accessed through loan. On average, defaulters have gained Birr 14,680 and non-defaulters gained Birr 53,195 from the loan. The annual income of non-defaulter had on average higher than defaulters. The mean difference between the two groups was statistically significant at less than 1%. Kashuliza (1993) has concluded that farmers who obtained higher income from farming were more likely to repay their loans. The study had showed that, an increase in the

borrower's income from the business financed by the loan was positive influence on his/her repayment performance. The result was coincided with the hypothesis.

Table 3: Borrower's characteristics for continuous sample borrowers

Variable	Defaulter		Non defaulter		Average
	mean	Std.dev	mean	Std.dev	
Gb	5.23	0.83	6.24	2.32	5.56
Age	29	3.30	33	4.30	30
Educcation	3.38	1.35	5.64	1.8	4.12
Family size	4	1.15	3.8	1.57	3.9
Income	14,670	15,054	53,216	40,420	27,291

Source: Survey data (2021)

Location of enterprise

According to table 4 below, 89% (135) of the respondents where replied the location of enterprise was urban were defaulted and 11% (17) of the respondents who replied the location of enterprise was rural were defaulted. Whereas 98.6% (73) of the respondents where location was urban and 1.4%(1) of the enterprise where location was rural area were non-defaulters respectively. The chai square test indicated that the proportion difference between defaulters and non-defaulters are statistical significant at less than 1%.

Table 4: Descriptive statistics of location enterprise by repayment Status

Status study area	Defaulter		Non defaulter		(Chi-square Value) P	Total	
	Number	Percent	Number	Percent		Number	Percent
Urban	135	89	73	98.6	8.51(0.004)	208	92
Rural	17	11	1	1.4		18	8
Total	152	100	74	100		226	100

Gender

According to table 5 below, 68.5% (113) of the respondents whose gender was male were defaulted and 31.5% (52) of the respondents whose gender was male were non-defaulted. Whereas 64 % (39) of the respondents whose gender was female and 36% (22) of the respondents whose gender was female were defaulted and non-defaulters respectively. Female borrowers were higher non-defaulter than that of male borrower. The chai square test indicated that the proportion difference between defaulters and non-defaulters are statistically insignificant.

Table 5: Descriptive statistics of gender by repayment

Gender	Defaulter		Non defaulter		(Chi-square Value) P	Total	
	Number	Percent	Number	Percent		Number	Percent
Male	113	68.5	52	31.5	0.4146(0.520)	165	100
Female	39	64	22	36		61	100
Total	152	67.2	74	32.8		226	100

Sorce: survey data 2021

4.1.2. Loan Characteristics Vs Loan Repayment

Purpose of the Loan

According to table 6 below, 60% (91) of the respondents who replied the purpose of loan was working capital were defaulted and 40% (61) of the respondents who replied the purpose of loan was fixed investment were defaulted. Whereas 70% (52) of the respondents who replied the purpose of loan was working capital and 30% (22) of the respondents who replied the purpose was fixed investment were non-defaulters respectively. The chai square test indicated that the proportion difference between defaulters and non-defaulters are statistical insignificant.

Table 6: purpose of loan by repayment

purpose of loan	Defaulter		Non defaulter		(Chi-square Value) P	Total	
	Number	Percent	Number	Percent		Number	Percent
Working capital	91	60	52	70	2.357(0.13)	143	63.3
Fixed investment	61	40	22	30		83	36.7
Total	152	100	74	100		226	100

Source: Survey data (2021)

Loan Release

According to table 7 below, 71% (108) of the respondents who replied the loan released was in cash were defaulted and 29% (44) of the respondents who replied the loan release was in kind were defaulted. Whereas 75% (56) of the respondents who replied the loan release was in cash were non defaulters and 25% (18) of the respondents who replied the loan release was in kind were non defaulters. The chi square test indicated that the proportion difference between defaulters and non-defaulters are statistical insignificant.

Table 7: Loan released by repayment

Loan released	Defaulter		Non defaulter		(Chi-square Value) P	Total	
	Number	Percent	Number	Percent		Number	Percent
In cash	108	71	56	75	0.54(0.462)	164	72.5
In kind & both	44	29	18	25		62	27.5
Total	152	100	74	100		226	100

Source: own survey data (2021)

Sufficient loan release

According to table 8 below, 24.3% (37) of the respondents who replied the sufficient of loan release was sufficient were defaulted and 75.7% (115) of the respondents who replied the sufficient was not sufficient were defaulted. Whereas 71.6% (53) of the respondents who replied the sufficient loan was sufficient were non-defaulters and 28.4% (21) of the respondents who replied the sufficient loan was not sufficient were non-defaulters. The chi square test indicated that the proportion difference between defaulters and non-defaulters are statistically significant.

Table 8: sufficient loan by repayment rate

Sufficient loan	Defaulter		Non defaulter		(Chi-square Value) P	Total	
	Number	Percent	Number	Percent		Number	Percent
Sufficient	37	24.3	53	71.6	46.87(0.00)	90	39.8
Not sufficient	115	75.7	21	28.4		136	60.2
Total	152	100	74	100		226	100

Source: survey data (2021)

Loan Diversion

According to table 9 below, 49.3% (75) of the respondents who replied the diversion was diverted were defaulted and 50.7% (77) of the respondents who replied the loan diversion was not diverted were defaulted. Whereas 93% (69) of the respondents who replied the loan diversion was diverted were non-defaulters and 7% (5) of the respondents who replied the loan diversion was not diverted were non-defaulters. The chi square test indicated that the proportion difference between defaulters and non-defaulters are statistically significant at 1%.

Table 9: loan diversion by repayment of loan

Loan diversion	Defaulter		Non defaulter		(Chi-square Value) P	Total	
	Number	Percent	Number	Percent		Number	Percent
Loan diverted	75	49.3	69	93	48.7(0.00)	144	63.7
Not diverted	77	50.7	5	7		82	36.3
Total	152	100	74	100		226	100

Source: Survey data (2021)

Timeliness of loan release

According to table 10 below, 32.8% (50) of the respondents who replied the timeliness of loan release was yes were defaulters and 67.2% (102) of the respondents who replied the timeliness of loan release was no were defaulters. Whereas 89% (66) of the respondents who replied the timeliness of loan release was yes were non-defaulters and 11%(8) of the respondents who replied the timeliness of loan release was not were non-defaulters. The chi square test indicated that the proportion difference between defaulters and non-defaulters are statistically significant.

Table 10: Timeliness of loan release by repayment of loan

Timeliness	Defaulter		Non defaulter		(Chi-square Value) P	Total	
	Number	Percent	Number	Percent		Number	Percent
Yes	50	32.8	66	89	69.8(0.000)	116	51.3
No	102	67.2	8	11		110	49.7
Total	152	100	74	100		226	100

Source: Survey data (2021)

Loan size

Respondents were asked as to how much loan amount they gained through loan. On average, the mean amount of defaulters had gained Birr 134,291 and the mean amount of non-defaulters gained Birr 350,105. Whereas, Birr 204,956 was the mean average of loan size that

the respondents accessed from the enterprise. The loan size of non-defaulter had on average higher than defaulters. The t-value on Table 11: shows that there is the mean difference between the two groups were statically significant at 1% values.

Table 11; Amount of loan release (loan size) of loan repayment

Variable	Defaulter		Non defaulter		(t-test) P
	Mean	Std. dev	Mean	Std. dev	
Loan size	134,291	62,507.66	350,105	271,814.4	0.000

Source: survey data (2021)

4.1.3. Loan repayment characteristics

Suitability of loan repayment period

According to table 12 below, 27% (41) of the respondents who replied the repayment period was suitable were defaulted and 73% (111) of the respondents who replied the repayment period was unsuitable were defaulted. Whereas 89% (66) of the respondents who replied the repayment period was suitable were non-defaulters and 11% (8) of the respondents who replied the repayment period was unsuitable were non-defaulters. The chai square test indicated that the proportion difference between defaulters and non-defaulters are statistically significant at 1%.

Table 12: suitability of repayment period by repayment of loan

Suitability repayment period	Defaulter		Non defaulter		(Chi-square Value) P	Total	
	Number	Percent	Number	Percent		Number	Percent
Suitable	41	27	66	89	84.7(0.000)	119	52.6
Not suitable	111	73	8	11		107	47.4
Total	152	100	74	100		226	100

Source: survey result (2021)

Repayment Period

According to table 13 below, 13% (20) of the respondent who replied the repayment period was longer was defaulted and 87% (132) of the respondents who replied the repayment period was no longer were defaulted. Whereas 1.4% (1) of the respondents who replied the repayment period was longer was non-defaulters and 98.6% (73) of the respondents who replied the repayment period was no longer were non-defaulters. The chi square test indicated that the proportion difference between defaulters and non-defaulters are statistically significant at 1%.

Table 13: Repayment period by repayment of loan

The repayment period was long time	Defaulter		Non Defaulter		(Chi-square Value) P	Total	
	Number	Percent	Number	Percent		Number	Percent
No longer	132	87	73	98.6	10.8(0.000)	205	90.7
Yes	20	13	1	1.4		21	9.3
Total	152	100	74	100		226	100

Source: survey result (2021)

4.1.4. Mean Comparison of fully loan repaid and not fully repaid Borrowers

As indicated on various parts of the paper the number of sample borrowers who repay their loan is 74 which is 32.74 % of the sample 226 borrowers, and the number of borrowers who fail to repay is 152, which represent 67.26% of the sample borrowers

Table 14: Summary of mean comparison for defaulters and non-defaulter

Variable	Defaulters	Non defaulters
Members	5.263	6.189
Location enterprise	0.111	.014
Gender	0.256	.297
Age	29	33
Education	3.368	5.689
Family Size	3.973	3.794
Income	14,670	53,216
Purpose of loan	0.598	0.702
Loan released	1.24	1.28
Loan size	133,733	351,251
Sufficient of loan release	0.243	0.716
Loan diversion	0.5	0.918
Timeliness of loan	0.328	0.891
Suitable of loan repayment period	0.269	0.891
Loan repayment period	0.861	0.986

Source: survey data (2021)

4.2. Results of the Econometric Model

4.2.1. Test for multicollinearity

Before running the probability regression model, both the continuous and discrete variable was checked for the existence of multicollinearity problem. Multicollinearity means the existence of correlation between two or more independent variable in the model. The existence of multicollinearity might cause the estimated regression coefficient to have the wrong sign, smaller t value and high standard errors. Two methods are usually suggested to test the presence of multicollinearity problem. These are variance inflation factor (VIF) to test the association among continuous variables and contingency coefficient to test multicollinearity problem for dummy variable. The larger the value of variance inflation factors the more the problem of multicollinearity. As a rule, if the variance inflation factor of a variable exceeds 10, it indicates the problem of multicollinearity in the model. As shown in (Appendix 2) below the value of inflation factor (VIF) for all continuous variables are less than 10. Therefore, there is no multicollinearity problem in the model.

Contingency coefficient value ranges between 0 and 1. According to Gujarati (2003) the dummy variable with contingency coefficient bellow 0.8 show weak association among the dummy variables and the value above it indicates strong association among dummy variables. In this model the contingency coefficient for all the dummy variable was less than 0.8(Appendix 3).

4.2.2. Test of model fit

After building a model, it is necessary to determine whether it's reasonable estimate the behavior of the data. To test the goodness of fit for binary probity model the researcher used **Hosmer Lemeshow goodness of fit** statistics to determine whether the model adequately explain the data. According to Hosmer Lemeshow goodness of fit statistics, if the significant value is less than 0.05 the fit is poor. As indicated below the Hosmer Lemeshow goodness of fit statistic significant of the model in the study is Prob > chi2 = 0.9914. Therefore, the model can explain the data.

Probit model for LR, goodness-of-fit test

Number of observations = 226

Number of groups = 10

Hosmer-Lemeshow chi2 (8) = 1.58

Prob > chi2 = 0.9914

4.2.3. Regression results

According to table 18 shown below, out of the total fifteen variables which were hypothesized to determine loan repayment rate, nine of them were found to be statistically significant. These were groups of the borrowers, location of enterprise, age, education, purpose of loan, loan size, and loan diversion, suitability of repayment period, and timeline for loan release. Age, education, members of enterprise, and suitability of repayment period were statistically significant at 1%, whereas purpose of loan, loan size and loan diversion were statistically significant at 5%. And also, location of enterprise and timeline for loan release were statistically significant at 10%. Loan size and timeline were negatively related with loan repayment, the rest significant explanatory variables had positively relationship with loan repayment rate. The remaining explanatory variables such as sufficient of loan, gender, family size, income, and repayment period and loan release can affect the loan repayment rate positively or negatively, but their impact on borrower's repayment rate was insignificant.

Table 15: the maximum likelihood estimation of the binary probit model for determinants of Loan repayment

Loan Repayment	Coef.	Robust Std.erro	Z-value	P > z	Marginal effect Dy/dx
MOE	5.566	0.039	-0.21**	0.003	0.0081
LOE	0.079	0.153	0.24*	0.084	0.038
Gender	0.269	0.108	-1.49	0.318	-0.153
Age	30.300	0.014	-4.83***	0.000	0.058
Education	4.128	0.029	-1.80**	0.003	0.050
FS	3.942	0.041	-0.04	0.935	-0.001
Income	27,291.8	2.88	-0.73	0.151	-2.10
PUOL	0.632	0.119	1.20	0.047	0.136
LOR	1.274	0.101	0.85	0.467	0.083
LOSZ	204,956	8.39	-2.09**	0.015	-1.54
SFLIP	0.398	0.102	0.77	0.218	0.080
LOD	0.637	0.094	-1.81**	0.013	0.174
TMOLR	0.513	0.106	-1.43*	0.055	-0.148
SOLRP	0.473	0.101	-4.62***	0.000	0.485
LRP	0.907	0.122	-1.01	0.287	-0.169
CONS					

Source: survey result (2021)

No of observations = 226
 Prob> F = 0.000

F (15, 211) = 183.95
 Pseudo R2 = 0.6436

Grouped borrowers (GB):

The variable member of the enterprise is positively associated with loan repayment. The hypothesis says that the number of employees associated in the enterprises is the total number of workers employed and also the number of employees in the enterprises should be determined by the size of the enterprises. It will be assumed in this study that the number of employees in the enterprises indicates size of the enterprises as micro enterprises are labor intensive. Based on this study for a continuous variable grouped borrowers increased by one, the loan repayment increased by 0.8% *citrus paribus*. The number of employees associated in the enterprises is the total number of workers employed (Cetin, 2010). The number of employees in the enterprises should be determined by the size of the enterprises Islam and Siengthai (2010).

Location of small-scale enterprises (LOE):

This variable is a dummy capturing the fact that the borrower lives in rural area is 0 or urban areas is 1. Loans for rural purposes are expected to face problem of default because of risk and uncertainty attached to market problem. Location of small-scale enterprises is one of the explanatory variables that have significant effect on loan repayment of Wolkite Town. The result showed that it had a significant positive effect on the loan repayment at less than 10% significant level. From the marginal effect table, we can observe that as the borrower live in urban, the loan repayment increases by 3.8% *citrus paribus* Medhin, (2015)

Age (AGE):

The variable AGE was positively associated with loan repayment. Its relation was significant at 1% level. It was the same to the hypothesis, positively related with loan repayment. Its implication is the number of years that one lives is by itself justify having work experience and elders are better than youngers in adopting technologies, being flexible, accessing education and the like. For a continuous variable age increased by one year the loan repayment also increased by 5.8% *cetrisparibus*

Education level (EDUC):

As anticipated education was positively and significantly (1%) associated with loan repayment. An increase in education level, could lead loan repayment to be progressed by 5%. This shows the hypothesized role of education in raising the level of awareness, exposure to technologies, and information to business. This result is consistent with the descriptive statistics result and the findings of Abrahams (2012) but inconsistent with that of Fikirte (2017) and Selam (2016) both of them had shown on their studies, education had no significant effect on loan repayment

Loan diversion (LOD):

Another variable that adversely and significantly (5%) influenced loan repayment was loan diversion. Borrowers who diverted the loan to consumption other things remain constant were found to be defaulters. This is due to the non-productive and income generating role of consumption. The implication is those borrowers who divert the loan finance to consumption will face a shortage of finance to be involved in income generating activities which finally leads them to be defaulters. Marginal effect result indicated that, *ceteris paribus*, as a discrete change in dummy variable from 0 to 1, the loan repayment increased by 17.4%. The result is similar with the hypothesis but Jemal (2003) arise with opposing result.

Suitability of loan repayment period (SRP):

This variable was one of the significant (1%) factors which affected the loan repayment of the borrowers positively supporting the hypothesis. probit result table (15) revealed that, *ceteris paribus*, a discrete change in dummy variable from 0 to 1, the loan repayment increased by 48.5%. Its implication is as financial institutions arrange suitable loan repayment schedule; the amount of loan repayment will increase. This result is also the same as Medhn (2015) and opposed with the descriptive statistics result of Jemal (2003).

Loan size (LSIZ):

According to econometric result loan size was negatively related with loan repayment at 5% significant level. Hence, the marginal effects result, *ceteris paribus*, as loan size increased by one unit i.e. above the intended purpose, loan repayment decreased by 15.4%. The result is consistent with Seiam (2016) and Medhn (2015).

Purpose of the loan (PURP):

The result shows that it is positive and significantly related to loan repayment. It implying that a categorical variable, which takes a value 1, if the borrower loan for working capital and 0, for fixed investment. The expenses on variable inputs purchase. Hence, the marginal effects result, *ceteris paribus*, as loan for the intended purpose i.e. for working capital increased by one unit, loan repayment also increased by 13.6%.

Timeliness of loan release (TM):

If loan is paid in time, it is suspect that it will be diverted to non-intended purposes. We know that timeliness of loan payment is important when loans are used for seasonal activities. This variable was one of the significant (10%) factors which affected the loan repayment of the borrowers negatively supporting the hypothesis. probit result table (15) revealed that, *ceteris paribus*, a discrete change in dummy variable from 0 to 1, the loan repayment decreased by 14.8%. Further they noted that this could in turn worsen the prospects of repayment by diverting loan to non-intended purpose.

CHAPTER FIVE

5. CONCLUSION AND RECOMMENDATIONS

5.1. Conclusion

Based on the major findings of this study, the following conclusions could be drawn along with some policy implications to be brought to the attention of the institution and any other interested parties.

In the study the loan repayment on small scale enterprises in Wolkite Town was analyzed using primary and secondary data. The primary data was collected from 226 borrowers in Wolkite Town small scale enterprises and secondary data was collected from relevant organizations and pertinent documents. The survey results were analyzed by descriptive analysis and empirically by applying econometric model. The sample borrowers were asked four kinds of questions. The questions are related to the borrower's characteristics such as grouped borrowers, age of the borrower, educational background of the borrower, gender of the borrower, household size of the borrower and availability of source of income. The second types of questions are related with the knowledge of loan, which include the purpose of loan. The third types of questions refer to the loan characteristics, which include released of the loan, size of loan, sufficient of loan release for the intended purpose, loan diversion and timeliness of loan. The last type of questions refers to loan repayment period, which include a suitable repayment period and status of loan repayment, completed the loan of repaid and repayment period.

The descriptive analysis revealed that from total of fifteen selected explanatory variables 12 variables illustrate there is significant difference between defaulter & non-defaulter groups. These variables includes:, members of borrower, age, annual income, family size, education, location of enterprises, sufficient of loan releases, loan diversion, timeliness of loan, amount of loan size, loan repayment period and suitable repayment period.

On Borrowers demographics part on average the group member of the borrower had 5.57 Defaulters and non-defaulters had a mean of 5.23 and 6.24 members of borrowers respectively. Moreover, the mean difference between the two groups was statistically significant at less than 1%. The average age of the respondents was 30 years. In addition, the mean ages of defaulters and non-defaulters are 29 and 33 years respectively. The age of non-defaulter had on average higher than the defaulter. Educational levels, on average, respondents have been attended at 4.12 formal education levels. Whereas, grade 3.38 and grade 5.64 were the average level of education attainment for defaulters and non-defaulters respectively. The education level of non-defaulter had on average higher than the defaulter. The difference between the mean values of the two groups was statistically significant at less than 1% level. The outcomes showed that, non-defaulters are more educated compared to defaulters. This indicates that the importance of education in repaying loans on time.

On Loan Characteristics part according to table 8, 24.3% (37) of the respondents who replied the sufficient of loan release was sufficient were defaulted and 75.7% (115) of the respondents who replied the sufficient was not sufficient were defaulted. Whereas 71.6% (53) of the respondents who replied the sufficient loan was sufficient were non-defaulters and 28.4% (21) of the respondents who replied the sufficient loan was not sufficient were non-defaulters. The chi square test indicated that the proportion difference between defaulters and non-defaulters are statistically significant. According to table 10, 32.8% (50) of the respondents who replied the timeliness of loan release was yes were defaulted and 67.2% (102) of the respondents who replied the timeliness of loan release was no were defaulted. Whereas 89% (66) of the respondents who replied the timeliness of loan release was yes were non-defaulters and 11%(8) of the respondents who replied the timeliness of loan release was not were non-defaulters. The chi square test indicated that the proportion difference between defaulters and non-defaulters are statistical significant.

On Loan repayment characteristics part According to table 12 below, 27% (41) of the respondents who replied the repayment period was suitable were defaulted and 73% (111) of the respondents who replied the repayment period was unsuitable were defaulted. Whereas 89% (66) of the respondents who replied the repayment period was suitable were non-

defaulters and 11% (8) of the respondents who replied the repayment period was unsuitable were non-defaulters. The chi square test indicated that the proportion difference between defaulters and non-defaulters are statistically significant at 1%.

Econometric result revealed that Age, education, members of enterprise, and suitability of repayment period were statistically significant at 1%, whereas purpose of loan, loan size and loan diversion were statistically significant at 5%. And also, location of enterprise and timeline for loan release were statistically significant at 10%.

Based on this study for a continuous variable grouped borrowers increased by one, the loan repayment increased by 0.8% *ceteris paribus*. The number of employees associated in the enterprises is the total number of workers employed (Cetin, 2010). And also a variable age increased by one year the loan repayment also increased by 5.8% *ceteris paribus*. An increase in education level, could lead loan repayment to be progressed by 5%. From the marginal effect table, we can observe that as the loan size was negatively related with loan repayment at 5% significant level. Hence, the marginal effects result, *ceteris paribus*, as loan size increased by one unit, loan repayment decreased by 15.4%. The other variable, probit result table (15) revealed that, *ceteris paribus*, Suitability of loan repayment period which is a discrete change in dummy variable from 0 to 1, the loan repayment increased by 48.5%.

In the case of Loan diversion, Borrowers who diverted the loan to consumption other things remain constant were found to be defaulters. This is due to the non-productive and income generating role of consumption. The implication is those borrowers who divert the loan finance to consumption will face a shortage of finance to be involved in income generating activities which finally leads them to be defaulters. Marginal effect result indicated that, *ceteris paribus*, as a discrete change in dummy variable from 0 to 1, the loan repayment increased by 17.4%. The variable location of enterprise is a dummy capturing the fact that the borrower lives in rural area is 0 or urban areas is 1. Loans for rural purposes are expected to face problem of default because of risk and uncertainty attached to market problem. Location of small-scale enterprises is one of the explanatory variables that have significant effect on loan repayment of Wolkite Town. The result showed that it had a significant positive effect on the loan repayment at less than 10% significant level. From the marginal effect table, we can observe that as the borrower live in urban, the loan repayment increases by 3.8% *ceteris*

paribus. Purpose of loan implying that a categorical variable, which takes a value 1 if the borrower loan for working capital and 0, for fixed investment. The expenses on variable inputs purchase. Hence, the marginal effects result, *ceteris paribus*, as loan for the intended purpose increased by one unit, loan repayment also increased by 13.6%. The variable timeline was one of the significant (10%) factors which affected the loan repayment of the borrowers negatively supporting the hypothesis. probit result table (15) revealed that, *ceteris paribus*, a discrete change in dummy variable from 0 to 1, the loan repayment decreased by 14.8%. Meaning that Loan paid nearest to the in time, noted that this could in turn worsen the prospects of repayment by diverting loan to non-intended purpose.

Among the loops that have been observed during the survey, there are also some other factors that corresponds to the government involvement and supports to the lending institutes and borrowers' needs. Limited facilitation of market linkage with suppliers, vendors and end users of products, provision of inaccessible and unsuitable production places, limited legal and technical supports to the borrowers business and lending institutes financial services, lack of infrastructures (suitable production and market place, sufficient inputs, roads) have reported as significant challenges to the success of borrowers business.

Moreover, as it was discussed in the previous section, the respondents from the lending institutes have reported that although the goal of this sectors are realizing and enhancing better economic development in poverty reduction programs, this missions have been probably misled by some borrowers, lending institute staffs and corresponding sector staffs due to information gaps on credit service delivery (information asymmetry) which contributes for high default.

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

5.2. Recommendation

After identifying the explanatory variables which have both positive and negative influence on loan repayment rate, it will be applicable for small scale enterprises, stakeholders, and policy makers to perform in accordance with their respective responsibility to tackle the poor loan repayment challenges. Based on the findings of the study, the following recommendations are stated:

- The variable age was positively associated with loan repayment that the number of years that one life can by itself justify having work experience and elders are better than youngsters. Group borrower also very important to scale-up their unity, work motivation & doing of business as profitability. Therefore, they have empowered to loan repaid at a time. Thus, different practical demonstration sites should be allocated so as to make the youngsters get training and develop experience. Moreover, SSE based financial modalities should be given a focus to specially address their need. The institution should give adequate training programs and workshops in enhancing their skills on managing the money they took and the way how it is returned. The positive and significant association between education and loan recovery rate seems to suggest the need for training to small scale entrepreneurs so as to develop their entrepreneurship and managerial capacity.
- The econometric regression result of the probit model also revealed that suitability of the repayment period is significant and positively affecting factor of loan repayment. Suitable repayment period indicates peak producing time of business activities, adjustment of repayment schedules regarding to the characteristics of the business type. Therefore, financial institutions should have to make the repayment schedule consider good product price seasons in the town.
- Loan releasing timeline is one of important institutional factors which determine loan repayment. Timely released loan help SSE, use the loan in appropriate way & perceived importance of loan by the borrowers & accelerates the chance of the repayment of the loan at proper time. Therefore, financial institutions should have to take care of active work planting season and business income obtaining seasons through the year. Because a borrower who applied to participate in business production & selling must get the loan in

the producing season, otherwise, he/she will fail to do the intended plan due to the time lag.

- Loan diversion and loan size are a major determinant affecting the loan repayment of borrowers. It is in turn a combined effect of the borrower's limited credit experience, due to release of loan in cash, short grace period given for implementation of projects and due to large loan size. All these variables revolve around the effectiveness of the appraisal technique and method of disbursement. Therefore, government sectors like urban youth job opportunities creation Office of Wolkite Town and also Omo microfinance institution should make a thorough assessment of the borrowers financial institution credit experience, appraisal of the project to determine the appropriate loan size and terms of the loan should be conducted to ensure the proper utilization of the loan for the intended purpose. Further supervisory visits by credit officers after loans have been disbursed facilitate proper use of borrowed funds thereby enhancing chances for higher profitability of enterprises and loan repayment.
- The study has included group discussion from different stockholders related to that of loan repayment. Based on the challenges identified and explained from the borrower's perspective, lending institute perspectives, government perspectives and microfinances perspectives, they should design the proper integration strategies to overcome the problems. And also recommended that enforcing repayment through awareness creation and social acts (sanctions) among the borrowers' members is more incredible than taking as the solution of settlement of the defaulted loan through the guarantor (City Administration) due to the fact that credit settlement with loan guarantor affects the credit history of the institutions. There is a need of improvements in legal supports to the financial services provided by the lending institute in safeguarding the credit from suffering default risks.

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Appendix 1: Questionnaire for borrowers

Welkite University

Faculty of Business and Economics

Department of Economics

A research on determinant of loan repayment rate on Small Scale Enterprises the Cases of Welkite town in Gurage zone for the fulfillment of Postgraduate Program (MA) in Developmental Economics

Informed Consent

My name is Minewer Hayatu I am a postgraduate student at Welkite University. You are chosen to participate in this study and your response to this questionnaire will serve me as vital source of input to the research findings and help to develop important recommendation that enhances the services. The main objective of the study is to evaluate loan repayment rate and financing determinants on Small Scale Enterprises' performance. Any response that you provide here is strictly confidential and is expected to be used exclusively for the research purpose. Please, feel free to respond all the questions accordingly. Thank you for your cooperation in advance!

Part One Socio-demographic characteristics

1.1 Enterprise's Name (Cod)

1.2 Number of members belong to the enterprise

1.3 Geographical location of the study area

RegionZoneTown.....

Sub City.....Kebelle

1.4. Status of the study area 0 Urban..... 1 Rural.....

1.5. Sex of the respondent 0 Male 1 Female.....

1.6. Age of the respondent

1.7. Educational status

1. Can't read and write 2. Read and write only..... 3. Primary education
.....

4. Secondary education 5. Certificate 6. College diploma.....

7. First degree 8. Above 1st degree

1.8. Marital status

1. Married 2. Unmarried 3. Widowed 4.
Divorced.....

1.9 Family size

1.10. Religion

1. Protestant..... 2. Orthodox..... 3. Muslim..... 4. Catholic
.....

5 Specify if other.....

1.12. Occupation

1 House wife 2. Public servant.....3. Merchant..... 4.
Farmer.....

5. Daily worker..... 6. Specify if other.....

1.13. Average annual income (in ET birr).....

Part Two Knowledge about the loan

2.1. Do you think that loan has any importance in small scale enterprises?

1 Yes 0 No

2.1.1. If yes, what its purpose?

1 for working capital 0 for fixed investment

2.2. Do you believe that the loan has to be repaid?

1 Yes 0 No

2.2.1. If yes why is that?

2.2.2. If no, who is the primarily affected body.....

3.4 Did you get the loan at the right time?

1 yes..... 0 No.....

3.4.1. If no, what was the reason for delay?

- 1. The process of loan took long period
- 2. Failure of the promoter to provide the necessary documents timely
- 3. Failure of the entrepreneur to fulfill the preconditions on the loan contract
- 4. Delay in the settlement of the previous loan
- 5. Specify if other

Part four Loan repayment

4.1, Did the repayment period suitable for you?

1 Yes 0 No

4.1.1. If No, specify a suitable repayment period.....

4.2. What is the status of your loan repayment?

1 fully repaid 2 partially repaid 3 no at all

4.2.1. If in arrears, what is the balance remaining?

4.2.2. What was the reason that made you not to be fully repaid? Specify

.....

.....

.....

.....

.....

.....

4.3. Do you come across with any difficulties or challenges during the repayment process?

1 Yes 0 No

4.3.1. If yes, specify the existed problem(s).....

4.4. The most important reason that motivates you to repay your loan on time is.....

- 1. not to loss collateral
- 2. to keep social status

- 3. in expectation of getting another loan
- 4. knowing that paying loan is obligation
- 5.others (specify)

4.5. Have you completed your repayment on loan from the sources?

1 Yes 0 No

4.6. How many times and how much money did you repaid to the concerned body?

	Round1	Round2	Round3	Round4	Round5	Round6
Years						
Amount						

Part fives

General questions

5.1. If you have any idea, or comment in relation to the repayment rate and performance of the Small-Scale Enterprise please put them on the space provided below.

.....

Appendix 2: Result of VIF for continuous variable

Variable	VIF	1/VIF
-----+-----		
Income	3.02	0.330582
LOS	2.48	0.402816
EDU	1.75	0.571987
MB	1.61	0.621596
Age	1.21	0.826908
FSIZ	1.10	0.907035
RPP	1.05	0.953662
-----+-----		
Mean VIF	1.75	

Appendix 3: Multicollinearity test for discrete variable

	LOEP	SEX	POL	LOR	SOLR	LOD	TIML	SORP
LOEP	1.0000							
SEX	0.1525	1.0000						
POL	0.0546	0.1117	1.0000					
LOR	0.0023	0.0059	-0.0047	1.0000				
SOLR	-0.0390	0.0959	0.2073	-0.1153	1.0000			
LOD	0.0520	0.2101	0.4178	0.0927	0.4447	1.0000		
TIML	-0.1059	0.0138	0.1212	-0.0163	0.5209	0.3330	1.0000	
SORP	-0.1153	0.1222	0.1525	-0.0865	0.5139	0.4391	0.5865	1.0000

Appendix 4: Summary of mean comparison for defaulters and non-defaulter

Variable	Defaulters	Non defaulters
Members	5.263	6.189
Location enterprise	0.111	.014
Gender	0.256	.297
Age	29	33
Education	3.368	5.689
Family Size	3.973	3.794
Income	14,670	53,216
Purpose of loan	0.598	0.702
Loan released	1.24	1.28
Loan size	133,733	351,251
Sufficient of loan release	0.243	0.716
Loan diversion	0.5	0.918
Timeliness of loan	0.328	0.891
Suitable of loan repayment period	0.269	0.891
Loan repayment period	0.861	0.986

Source: survey data (2021)

Appendix 5: the maximum likelihood estimation of the binary probit model for determinants of Loan repayment

Loan Repayment	Coef.	Robust Std.erro	Z-value	P > z	Marginal effect Dy/dx
MOE	5.566	0.039	-0.21**	0.003	0.0081
LOE	0.079	0.153	0.24*	0.084	0.038
Gender	0.269	0.108	-1.49	0.318	-0.153
Age	30.300	0.014	-4.83***	0.000	0.058
Education	4.128	0.029	-1.80**	0.003	0.050
FS	3.942	0.041	-0.04	0.935	-0.001
Income	27,291.8	2.88	-0.73	0.151	-2.10
PUOL	0.632	0.119	1.20	0.047	0.136
LOR	1.274	0.101	0.85	0.467	0.083
LOSZ	204,956	8.39	-2.09**	0.015	-1.54
SFLIP	0.398	0.102	0.77	0.218	0.080
LOD	0.637	0.094	-1.81**	0.013	0.174
TMOLR	0.513	0.106	-1.43*	0.055	-0.148
SOLRP	0.473	0.101	-4.62***	0.000	0.485
LRP	0.907	0.122	-1.01	0.287	-0.169
CONS					

Source: survey result (2021)

No of observations = 226
 Prob> F = 0.000

F (15, 211) = 183.95
 Pseudo R2 = 0.6436

.....THE END.....